Appendix Y

Biological Assessment

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Biological Assessment
for the

Idaho/Southwestern Montana
Greater Sage-Grouse
Land Use Plan Amendment
and
Environmental Impact Statement

11 May 2015

Table of Contents

Table of Figures 4
INTRODUCTION 7
Background 7
Purpose and Need for GRSG LUPA 8
Description of Planning Area 8
DESCRIPTION OF THE PROPOSED ACTION 12
SPECIES CONSIDERED IN THE ANALYSIS 15
SPECIES INFORMATION AND CRITICAL HABITAT 39
A. Terrestrial Wildlife 39
Grizzly Bear (*Ursus arctos horribilis*) 39
Status of the Grizzly Bear in the Upper Snake Field Office and Associated Management Direction 46
Status of the Grizzly Bear in the Dillon Field Office and Associated Management Direction 50
Status of the Grizzly Bear on the Beaverhead-Deerlodge National Forest and Associated Management Direction 63
Status of the Grizzly Bear on the Caribou-Targhee National Forest and Associated Management Direction 69
B. Plants 89
Slickspot peppergrass (*Lepidium papilliferum*) 89
Slickspot Peppergrass Proposed Critical Habitat 95
Ute ladies'-tresses (*Spiranthes diluvialis*) 98
GENERAL DISCUSSION OF POTENTIAL IMPACTS AND MECHANISMS OF PROGRAM AREAS WITH RESPECT TO PLANTS 100
Actions Evaluated and General Effects 100
ANALYSIS OF EFFECTS OF THE PROPOSED ACTION BY SPECIES 103
A. Terrestrial Wildlife 103
Grizzly Bear 103
Direct and Indirect Effects by Program Area 103
B. Plants 111
Slickspot peppergrass (*Lepidium papilliferum*) 111
Slickspot Peppergrass Proposed Critical Habitat 134

Ute Ladies'-tresses (*Spiranthes diluvialis*) 136
DETERMINATIONS OF EFFECTS SUMMARY BY SPECIES 141
LITERATURE CITED 152
APPENDIX A: Additional Rationale for No Effect Determinations for Select Species or Groups of Species in Tables 2 and 3 156
Canada Lynx 156
Canada Lynx Designated Critical Habitat 156
Red Knot 158
Western Yellow-billed Cuckoo 158
Western Yellow-billed Cuckoo Proposed Critical Habitat 159
Bull trout 161
Bull Trout Designated Critical Habitat 161
Snake River Salmonids (Chinook salmon spring/summer run, sockeye salmon, steelhead) .. 165
Snake River Salmonids (Chinook salmon spring/summer run, sockeye salmon, steelhead) Critical Habitats 166
Middle Snake River Snails (Banbury Springs limpet, Bliss Rapids snail, Snake River Physa) 166
Bruneau Hot Springsnail 167
APPENDIX B: BLM Dillon Field Office RMP Grizzly Bear Analysis Screen Part 1 168
APPENDIX C: BLM Dillon Field Office RMP Grizzly Bear Analysis Screen Part 2 169
APPENDIX D: BLM Proposed Plan Amendment 172
APPENDIX E: Forest Service Proposed Plan Amendment 212
Appendix F – Required Design Features 235
Appendix G – Seasonal Timing Restriction 248
Appendix H - Application of Buffers 249

Table of Figures

Figure 1. Idaho and Southwestern Montana GRSG EIS Planning Area Boundaries 10
Figure 2. Idaho/SW Montana Greater Sage-Grouse Habitats 13
Figure 3. Idaho/SW Montana Greater Sage-Grouse Habitats and BLM/FS Boundaries 14
Figure 4. Yellowstone Grizzly Bear Ecosystem recovery zone (i.e., primary conservation area/PCA) 43
Figure 5. Grizzly bear occupied habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 48
Figure 6. Grizzly bear recovery zone with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 49
Figure 7. Centennial Mountains ACEC with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 62
Figure 8. Caribou-Targhee National Forest LRMP subsections with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 84
Figure 9. Caribou-Targhee National Forest LRMP grizzly bear-themed prescriptions with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 85
Figure 10. Slickspot peppergrass habitat categories and GRSG HMAs 94
Figure 11. Slickspot peppergrass proposed critical habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 97
Figure 12. Ute ladies'-tresses occurrences within the Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 99
Figure 13. Canada lynx designated and proposed critical habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 157
Figure 14. Yellow-billed cuckoo proposed critical habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 160
Figure 15. Bull trout designated critical habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area. 164

Acronyms

BA	biological assessment
BAER	Burned Area Emergency Restoration
BLM	Bureau of Land Management
BMP	best management practice
BMU	bear management unit
BDNF	Beaverhead-Deerlodge National Forest
CFR	Code of Federal Regulations
COA	condition of approval
DPS	distinct population segment
EIS	environmental impact statement
ESA	Endangered Species Act
ESR	emergency stabilization and rehabilitation
ESU	evolutionarily significant unit
FEIS	final environmental impact statement
FIAT	Fire and Invasive Assessment Team
FO	Field Office
Montana FWP	Montana Fish, Wildlife, and Parks
GHMA	general habitat management area
GRSG	Greater Sage-Grouse
HMA	habitat management area
IGBC	Interagency Grizzly Bear Committee
IHMA	important habitat management area
LRMP	Land and Resource Management Plan
LUP	land use plan
LUPA	land use plan amendment
MIST	minimum impact suppression tactics
NCDE	Northern Continental Divide Ecosystem
NEPA	National Environmental Policy Act
NSO	no surface occupancy
PCA	primary conservation area
PCE	primary constituent element
PHMA	priority habitat management area
RDF	required design feature

RMP	resource management plan
SFA	sagebrush focal area
T&E	threatened and endangered
USDI	United States Department of Interior
USFWS	United States Fish and Wildlife Service
WNAA	west and north analysis area
YGBE	Yellowstone Grizzly Bear Ecosystem

INTRODUCTION

Background

The Bureau of Land Management (BLM) and Forest Service have prepared amendments to their respective land use plans (LUPs). These documents provide direction for the conservation of Greater Sage-Grouse (*Centrocercus urophasianus*, GRSG) and analyze the environmental effects that could result from implementing the proposed plan. This land use plan amendment (LUPA) addresses GRSG habitat within Idaho, southwestern Montana, and the Sawtooth National Forest within Utah. The LUPA covers BLM-administered lands in the Bruneau Field Office, Burley Field Office, Challis Field Office, Four Rivers Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office, Shoshone Field Office, and Upper Snake Field Office in Idaho and the Butte Field Office[1] and Dillon Field Office in Montana. The LUPA covers National Forest System lands in the Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, and Curlew National Grassland in Idaho, the Beaverhead-Deerlodge National Forest (BDNF) in Montana, and the Sawtooth National Forest in Utah. The Proposed LUPA focuses on addressing public comments and comments from the States of Idaho and Montana, while continuing to meet the BLM's and Forest Service's legal and regulatory mandates.

The purpose of this biological assessment (BA) is to review the Proposed LUPA to determine the extent that implementing the LUPA may affect proposed, threatened, and endangered species and proposed or designated critical habitat in the planning area. Because the LUPA is a planning document, this BA focuses on the effects of management actions that will be implemented.

Under provisions of the Endangered Species Act (ESA) of 1973, as amended (16 [US Code] USC, Section 1531 et seq.), federal agencies are directed to conserve threatened and endangered (T&E) species and their habitats. Section 7(a)(1) states that all federal agencies should use "their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species…." Thus, the conservation and recovery of T&E species is not simply the responsibility of the US Fish and Wildlife Service (USFWS), but of all federal agencies. To meet this requirement, the BLM and Forest Service, through their LUPs, would implement management actions, standards and guidelines, protective stipulations, conditions of approval (COAs), conservation measures, required design features (RDFs), best management practices (BMPs), mitigation, habitat restoration, and protections.

Section 7(c) of the ESA requires the BLM to complete a BA to determine the effects of implementing a resource management plan (RMP) on listed species, based on compliance with Section 102 of the National Environmental Policy Act (NEPA). Federal agencies are required to consider, avoid, or prevent adverse impacts on fish and wildlife species. The agencies are also required to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of T&E species or their critical habitat. The ESA requires action agencies, such as the BLM and Forest Service, to not only consult or confer with the USFWS when there is discretionary federal involvement or control over the action, but to ensure that resources are afforded adequate consideration and protection. Formal consultation becomes necessary when the action agency requests consultation after determining that the proposed action is likely to adversely

[1] Butte Field Office-administered lands are not included as part of the analysis in this LUPA/EIS except as required in the GRSG cumulative effects analysis. For additional information, please see Chapter 1 of the FEIS.

affect listed species or critical habitat, or the aforementioned federal agencies do not concur with the action agency's finding (USFWS 1998).

This programmatic BA provides documentation and analysis for the proposed action to meet the federal requirements and agreements set forth among the federal agencies. It addresses proposed and federally listed T&E species and proposed or designated critical habitat. It has been prepared under the 1973 ESA Section 7 regulations, as amended, in accordance with the 1998 procedures set forth by USFWS and the National Marine Fisheries Service. The BLM and Forest Service, in coordination with the USFWS, conducted an analysis of the effects of the proposed LUPA on listed species.

Purpose and Need for GRSG LUPA

The BLM and Forest Service have prepared a LUPA with associated environmental impact statements (EISs) for LUPs containing GRSG habitat. This is in response to the need to inform the USFWS's March 2010 "warranted, but precluded" ESA listing decision. The inadequacy of regulatory mechanisms was identified as a significant threat in the USFWS finding on the petition to list the GRSG. The need is to ensure that the BLM and Forest Service have adequate regulatory mechanisms in the LUPs for consideration by USFWS a year in advance of its anticipated 2015 listing. The USFWS identified the principal regulatory mechanisms for the BLM and the Forest Service as conservation measures embedded in LUPs. Changes in management of GRSG habitats are necessary to avoid the continued decline of populations that are anticipated across the species' range. This LUPA will focus on areas affected by threats to GRSG habitat identified by the USFWS in the March 2010 listing decision.

The purpose of the LUPA is to identify and incorporate appropriate conservation measures in LUPs to conserve, enhance, or restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. Changes in the BLM and Forest Service management of GRSG habitats are anticipated to have a considerable beneficial impact on present and future GRSG populations and could reduce the need to list the species as threatened or endangered under the ESA. This is because the BLM and Forest Service administer a large portion of GRSG habitat in the affected states.

Description of Planning Area

The Idaho and Southwestern Montana Sub-region includes BLM-administered and National Forest System lands in Idaho and southwestern Montana, excluding the Idaho panhandle. The specific field offices and national forests included in the planning area are: Bruneau Field Office, Burley Field Office, Challis Field Office, Four Rivers Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office, Shoshone Field Office, Upper Snake Field Office, Boise National Forest, Caribou-Targhee National Forest, Curlew National Grassland, Salmon-Challis National Forest, and Sawtooth National Forest in Idaho; Butte Field Office, Dillon Field Office, and BDNF in southwestern Montana; and the portion of the Sawtooth National Forest within Box Elder County in Utah. A map of the planning area is provided as **Figure 1**, Idaho and Southwestern Montana Greater Sage-Grouse Land Use Amendment EIS Planning Area Boundaries.

There are approximately 77,800 acres of BLM-administered lands in Elko County, Nevada, north of the Humboldt-Toiyabe National Forest and south of the Idaho-Nevada state line adjacent to the Bruneau and Jarbidge Field Offices in Idaho. For purposes of the GRSG LUPAs in Idaho and in

Nevada, planning for these lands will occur through the Nevada and Northeastern California Greater Sage-Grouse LUPA, and the regulatory measures and decisions that are put in place for the GRSG through the Record of Decision (ROD) will be implemented and administered by the Jarbidge and Bruneau Field Offices in Idaho. Therefore, the decision and planning areas for the Idaho and Southwestern Montana GRSG LUPA end at the Idaho/Nevada state line and will not include lands in Nevada; however, maps will continue to include these Nevada lands as part of the Idaho and Southwestern Montana Sub-region based on the recognized administrative boundary.

Range-wide, approximately 52 percent of sagebrush habitat within GRSG management zones is on BLM-administered land, and approximately 8 percent is on National Forest System land; within the Idaho and Southwestern Montana Sub-region, approximately 51 percent of sagebrush habitat is on BLM-administered land and 10 percent is on National Forest System land. The planning area for the Idaho and Southwestern Montana GRSG LUPA/EIS is composed of land administered by the BLM, the Forest Service, and state and federal agencies, as well as private lands (Table 1).

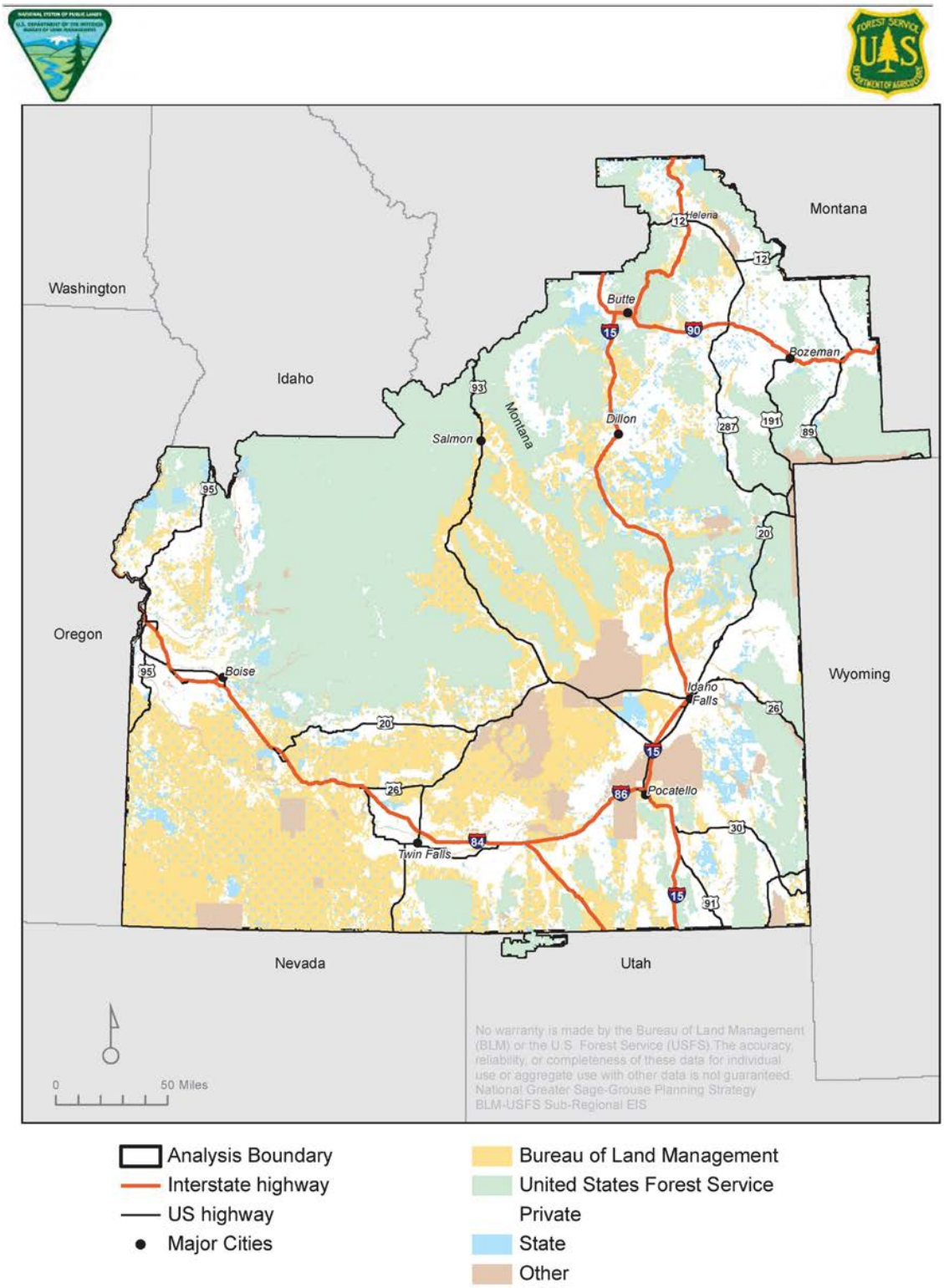

Figure 1. Idaho and Southwestern Montana Greater Sage-Grouse Land Use Amendment EIS Planning Area Boundaries

Table 1. Priority, important and general habitat management areas (acres) by administrative unit.

Surface Land Management	PHMA[1] (acres)	IHMA (acres)	GHMA (acres)	Total Area (acres)
BLM Total	4,627,161	2,737,637	2,205,311	9,570,109
BLM – Idaho	4,166,554	2,737,637	1,957,753	8,861,944
Bruneau Field Office	941,756	106,203	129,785	1,177,744
Burley Field Office	103,980	257,640	173,022	534,642
Challis Field Office	335,317	313,514	111,218	760,049
Four Rivers Field Office	0	86,146	392,318	478,464
Jarbidge Field Office	421,265	380,472	116,476	918,213
Owyhee Field Office	649,265	357,049	158,289	1,164,603
Pocatello Field Office	31,070	179,424	111,800	322,294
Salmon Field Office	94,393	207,800	34,052	336,245
Shoshone Field Office	776,376	257,277	583,529	1,617,182
Upper Snake Field Office	813,132	592,112	147,264	1,552,508
BLM – Montana	460,607	0	247,558	708,165
Butte Field Office[2]	0	0	25,608	25,608
Dillon Field Office	460,607	0	221,950	682,557
Forest Service Total	564,583	415,262	579,990	1,559,835
Forest Service - Idaho	330,302	415,262	345,987	1,091,551
Sawtooth National Forest	58,722	151,883	231,795	442,400
Boise National Forest	0	21,045	57,035	78,080
Caribou-Targhee National Forest	56,642	75,604	29,911	162,157
Salmon-Challis National Forest	214,938	166,730	27,246	408,914
Forest Service - Montana	162,366	0	234,003	396,369
Beaverhead-Deerlodge National Forest	162,366	0	234,003	396,369
Forest Service - Utah	71,915	0	0	71,915
Sawtooth National Forest	71,915	0	0	71,915
Other Agencies Total	2,351,717	1,536,213	3,424,696	7,312,626
US Fish and Wildlife Service	39,628	0	1,194	40,822
National Park Service	0	232	128	360
Department of Energy	108,119	329,615	120,976	558,710
Department of Defense	12	11,143	2,447	13,602
Bureau of Reclamation	3,023	820	2,094	5,937
Indian Tribe	189,037	145,278	9,297	343,612
Idaho State	363,287	259,532	428,238	1,051,057
Montana State	224,942	0	172,371	397,313
Private	1,331,180	762,487	2,391,503	4,485,170
Other	92,489	27,106	296,448	416,043
Total Acres:	**7,543,461**	**4,689,112**	**6,209,997**	**18,442,570**

[1] PHMA = priority habitat management area; IHMA = important habitat management areas; GHMA = general habitat management area
[2] Butte Field Office-administered lands are not included as part of the analysis in this LUPA/EIS except as required in the cumulative effects analysis.

Source: BLM 2015

DESCRIPTION OF THE PROPOSED ACTION

As a result of public comments, best available science, cooperating agency coordination, and internal review of the Draft LUPA/EIS, the BLM and Forest Service have developed the Proposed LUPAs/Final EISs (FEISs).

The proposed plans incorporate the following GRSG goals: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners. There are two selected actions, one for the BLM and one for the Forest Service. Largely, the two plans are the same. There are minor differences between the plans, primarily due to land management planning terminology. For the full details of each agency's proposed plan, please refer to Chapter 2 of the FEIS. (For purposes of USFWS review, the BLM and Forest Service plans are included as Appendices D and E, respectively.)

GRSG Habitat Management Area Definitions
GRSG habitat management areas are shown in Figures 2 and 3, and are defined as follows:

- **Priority Habitat Management Areas** (PHMAs, analogous to core habitat zones)–Areas identified by the BLM and Forest Service, in coordination with respective state wildlife agencies, as having the highest conservation value to maintaining sustainable GRSG populations. These areas include breeding, late brood-rearing and winter concentration areas.
- **Important Habitat Management Areas** (IHMAs, analogous to Preliminary Medial Management Areas, Preliminary Restoration Management Areas, and Important Habitat Zones) –High value habitat and populations that provide a management buffer for the priority and sagebrush focal management areas and connect patches of priority and sagebrush focal management areas. IHMA encompass areas of generally moderate to high conservation value habitat and/or populations. In some conservation areas, they may include areas beyond those identified by USFWS as necessary to maintain redundant, representative, and resilient populations. The areas are typically adjacent to priority and sagebrush focal management areas but generally reflect somewhat lower GRSG population status or reduced habitat value due to disturbance, habitat fragmentation, or other factors. No IHMA are designated within the southwestern Montana portion of the planning area.
- **General Habitat Management Areas** (GHMAs, analogous to general habitat zones) – Areas identified by the BLM and Forest Service, in coordination with respective state wildlife agencies, as those areas outside of priority and sagebrush focal management areas and occupied by GRSG seasonally or year-round.
- **Sagebrush Focal Areas** (SFAs) –a subset of PHMA, identified by the USFWS, that are considered most vital to the species' persistence and therefore require the strongest levels of protection.

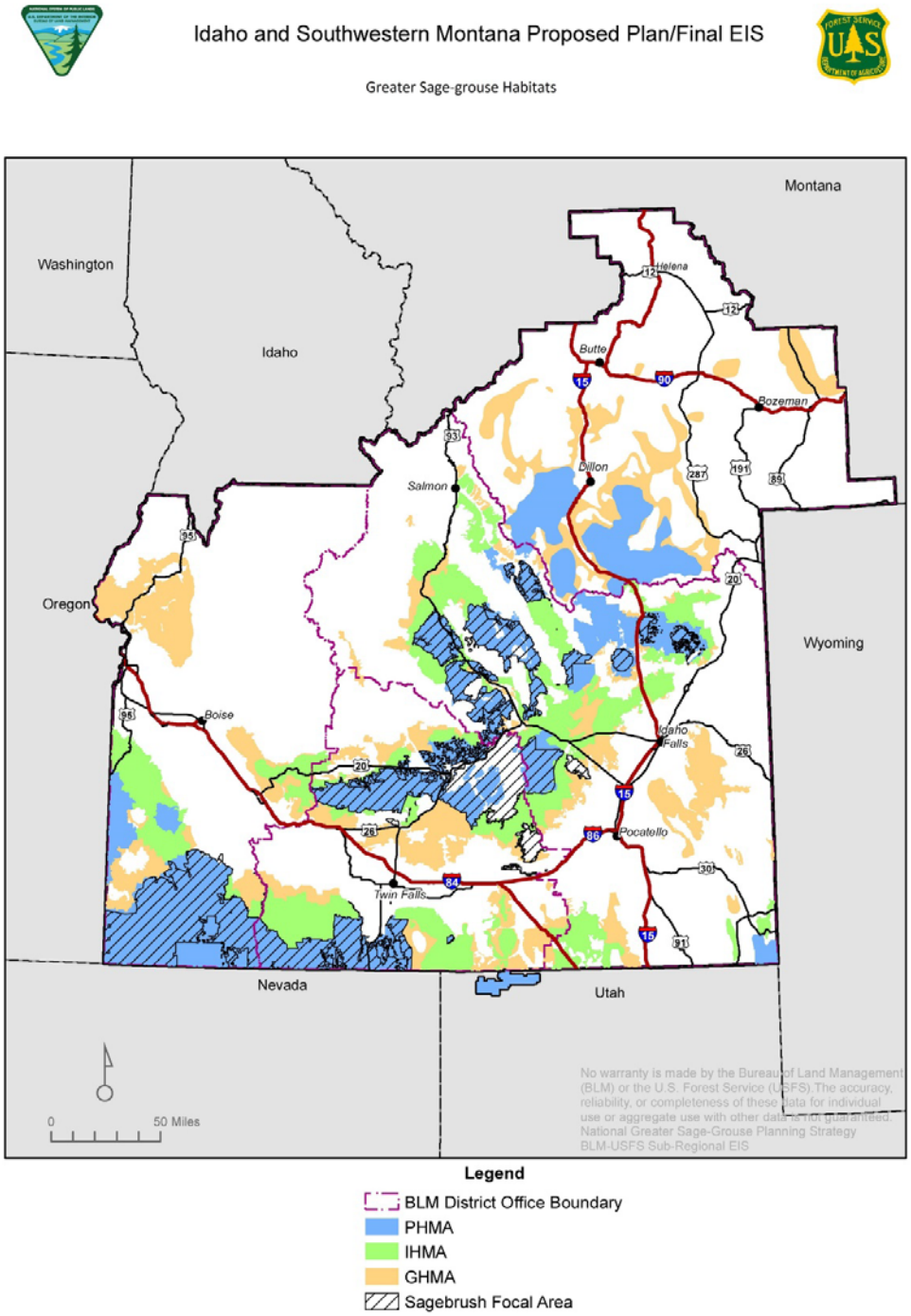

Figure 2. Idaho/Southwest Montana Greater Sage-Grouse Habitats

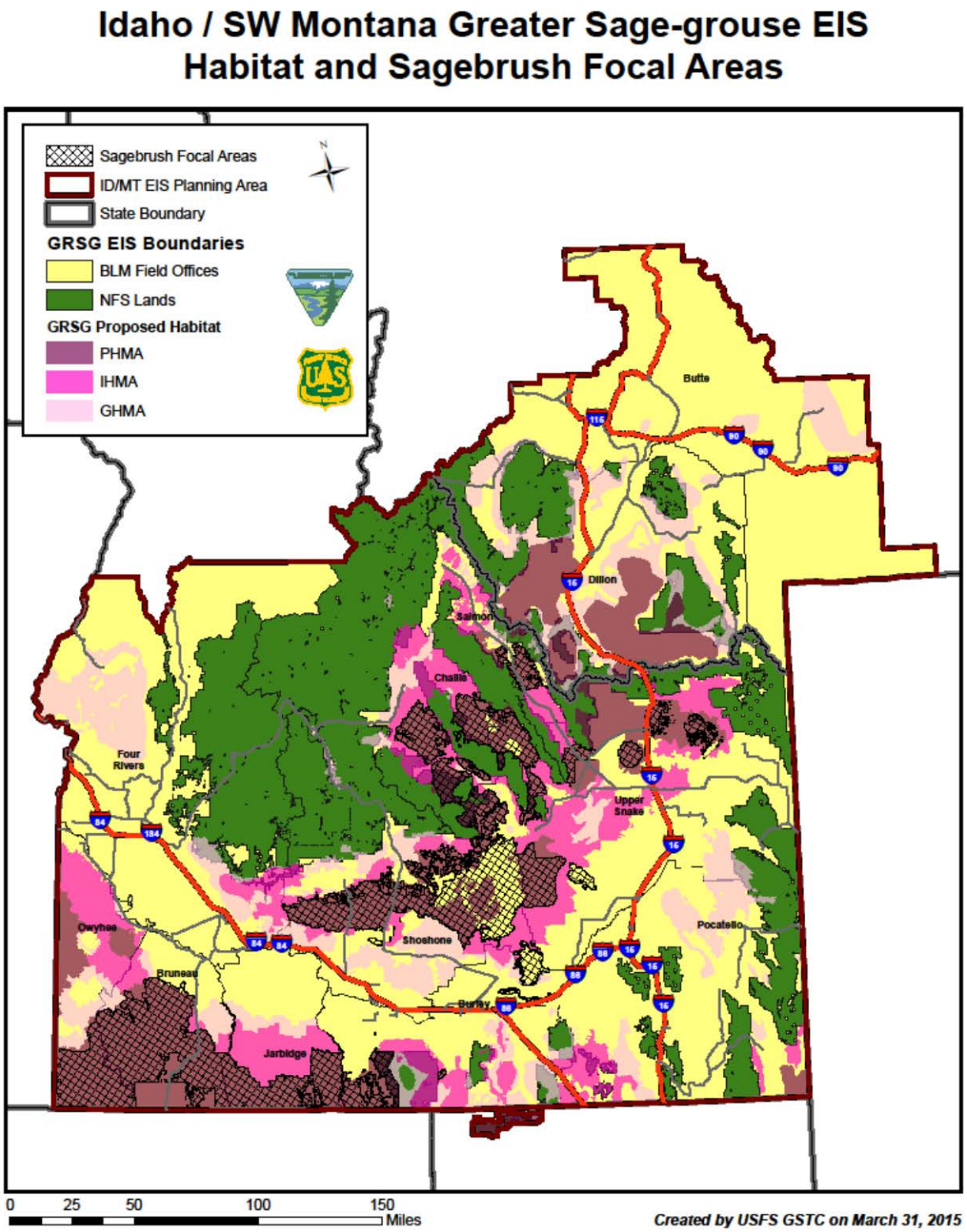

Figure 3. Idaho/Southwest Montana Greater Sage-Grouse Habitats and BLM/Forest Service Boundaries

The proposed plans seek to allocate resources among competing human interests and land uses and the conservation of natural resource values, including GRSG habitat. At the same time, they would sustain and enhance ecological integrity across the landscape, including plant, wildlife, and fish habitat. The plans incorporate adjustments made in response to public comments on the Draft LUPA, as well as cooperating agency input. Conservation measures are focused on PHMAs, IHMAs, and GHMAs as well as active leks (regardless of which type of habitat the active lek is in). Conservation measures are presented in categories of established program areas. The program areas are similar, but are not exactly the same, for each agency.

BLM program areas are:

- Special Status Species
- Vegetation
- Wildland Fire Management
- Livestock Grazing
- Wild Horses and Burros
- Lands and Realty
- Minerals
- Comprehensive Trails and Travel Management
- Recreation and Visitor Services

Forest Service program areas are:

- General Greater Sage-grouse
- Adaptive Management
- Lands and Realty
- Wind and Solar
- Greater Sage-grouse Habitat
- Livestock Grazing
- Fire Management
- Wild Horse and Burro
- Recreation
- Roads/Transportation
- Minerals

SPECIES CONSIDERED IN THE ANALYSIS

This BA provides detailed analyses of all federally listed (endangered or threatened) species, proposed species, and designated or proposed critical habitat that may be affected by the actions proposed in the Idaho-Southwestern Montana Greater Sage-Grouse RMP/LMP Amendments document. Development of this BA was guided by the regulations on Interagency Cooperation (Section 7 of the ESA) in 50 Code of Federal Regulations (CFR) Part 402 and BLM Manual 6840.

The USFWS list of threatened, endangered, and proposed species is composed of plants, birds, mammals, amphibians, fish, and invertebrates. We conducted a review of those species or critical

habitat that may occur in the action area[2] or be affected by activities associated with the Proposed Plan in the FEIS. Occurrence and habitat information was gathered from the July 2014 Idaho Natural Heritage Program data, slickspot peppergrass habitat data from Idaho BLM, consultation with local biologists, and various planning documents and previous BAs from each of the management units involved.

Tables 2 and 3 list USFWS threatened, endangered, and proposed species that may be present or are known to be present within the planning area and designated or proposed critical habitat for those species. The species and critical habitat in Tables 2 and 3 were considered in this analysis and compared to the five criteria listed below. The criteria were used to identify species or proposed or designated critical habitat that would experience "no effect" from the implementation of the Proposed Plan and could therefore be eliminated from detailed analysis. These numerical categories below are referred to as *Evaluation Criteria* in the tables:

1. Action area is outside species' range.
2. Potential habitat for the species does not exist within GRSG habitat (sagebrush-steppe) or is outside the elevation range of the GRSG.
3. The type or intensity of the activity in the proposed action is expected to have no impact/effect on these species or their habitat.
4. No overlap between critical habitat polygons and GRSG priority, important, or general habitat management areas (HMAs).
5. Critical habitat polygons may overlap with GRSG priority, important, or general HMAs, but primary constituent elements (PCEs) do not overlap; no "essential features" of critical habitat will be affected.

[2] Action area = BLM-administered and National Forest Service System lands within the Land Use Plan Amendment boundary.

Table 2. USFWS endangered, threatened, and proposed species and critical habitat that may be present on BLM-administered lands in the action area and that may be influenced by the proposed plan.

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Mammals														
Grizzly bear (T) *Ursus arctos horribilis*	Contiguous, relatively undisturbed mountainous habitat with considerable topographic and vegetative diversity. Range includes portions of Idaho, Montana, Washington, and Wyoming.									X		X	NA	See detailed analysis below
Canada lynx (T) *Lynx canadensis*	Montane and subalpine coniferous forests above 4,000 feet; lodgepole pine, subalpine fir, and Engelmann spruce.			X				X	X			X	3	No effect (See Appendix A)

[3] E = Endangered; P-E = Proposed Endangered; T = Threatened; P-T = Proposed Threatened

[4] Sources include September 24, 2013 letter from Jerry Foss (BLM) to Brian Kelly (USFWS Ecological Services); May 29, 2014 email from Barbara Schmidt (USFWS) to Brent Ralston (Idaho State Office, BLM); Final Draft, 2014 BLM – Idaho Special Status Species table provided to the Idaho-Southwest Montana BA Team, via email, by Scott Hoefer (BLM), July 24, 2014
FO = Field Office; NF = National Forest; X = Either Documented or Suspected; S = Species is suspected or potential habitat exists within the unit; D = Species or habitat documented within the unit; NA = Not applicable.

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Canada lynx (*Lynx canadensis*) Designated Critical Habitat	There is no overlap of critical habitat and PHMA, IHMA, and/or GHMA within the action area.												4	No effect
Northern Idaho ground squirrel (T) *Spermophilus brunneus brunneus*	Known to occur in dry meadows surrounded by ponderosa pine and Douglas fir forests in Adams and Valley Counties of western Idaho.										X		2	No effect
Birds														

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Red knot (P-T) *Calidris canutus rufa*	Migrant shorebird that breeds in Canadian Arctic and winters in South America. Within the action area, known only to occur as a migrant stopover in Madison County, Montana.											X	3	No effect (See Appendix A)
Western yellow-billed cuckoo (T)	Requires large blocks of riparian woodlands within low to moderate elevation arid to semiarid landscapes. Historic breeding range within western North America includes areas west of the crest of the Rocky Mountains in Canada and the United States, and portions of Mexico.	X	X	X	X	X	X	X	X	X	X		3	No effect (See Appendix A)

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Western yellow-billed cuckoo *Coccyzus americanus* Proposed Critical Habitat	PCEs include the following: 1) Riparian woodlands of mixed willow-cottonwood and/or mesquite-thorn patches > 325 ft. wide and 200 acres or > in extent; 2) Presence of a prey base consisting of large insect fauna and tree frogs in breeding areas during the nesting season and in post-breeding dispersal areas; 3) dynamic riverine processes that allow riparian habitat to regenerate regularly, resulting in multiple age classes. Approximately 405 acres of critical habitat overlap with PHMA on the Shoshone Field Office.								X				5	No effect (See Appendix A)
Fish														
Bull trout (T) *Salvelinus confluentus*	Cold-water fish of relatively pristine stream and lake habitats in western North America (Washington, Oregon, Idaho, Nevada, Montana and western Canada).	X		X	X			X		X	X		3	No effect (See Appendix A)

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Bull trout *Salvelinus confluentus* Critical Habitat	See Appendix A for PCEs of bull trout critical habitat. About 507 acres of lake and 432 miles of streams designated as critical habitat overlap PHMA, IHMA, and/or GHMA.	X		X	X			X		X			5	No effect (See Appendix A)
Chinook salmon (T) *Oncorhynchus tshawytscha* – Snake River spring/summer run	This evolutionarily significant unit (ESU), includes naturally spawned spring/summer-run Chinook salmon originating from the mainstem Snake River and the Tucannon River, Grande Ronde River, Imnaha River, and Salmon River subbasins. It also includes spring/ summer-run Chinook salmon from 11 artificial propagation programs.			X				X					3	No Effect (See Appendix A)
Chinook salmon (T) *Oncorhynchus tshawytscha* – Snake River spring/summer run Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors. There is no overlap between chinook snake river			X				X	X		X		5	No effect (See Appendix A)

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
	spring/summer run critical habitat watersheds and PHMA, IHMA, or GHMA..													
Sockeye salmon (E) *Oncorhynchus nerka* Snake River	This ESU includes naturally spawned anadromous and residual sockeye salmon originating from the Snake River basin, and also sockeye salmon from one artificial propagation program.			X				X					3	No effect (See Appendix A)
Sockeye salmon (E) Snake River Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors. Counties containing critical habitat within the planning area consist of Morrow, Umatilla, Wallowa, and Asotin.			X				X	X				5	No effect (See Appendix A)
Steelhead (T) *Oncorhynchus mykiss* Snake River Basin	Distinct population segment (DPS) includes naturally spawned anadromous steelhead originating below			X				X					3	No effect (See Appendix A)

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
	natural and manmade impassable barriers from the Snake River basin, and also steelhead from six artificial propagation programs.													
Steelhead Snake River Basin Critical Habitat	PCEs include: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, 4) and 5) estuarine and nearshore marine areas free of obstruction and excess predation, and 6) offshore marine areas supporting growth and maturation. There is no overlap of critical habitat and PHMA, IHMA, or GHMA..			X				X	X		X		5	No effect (See Appendix A)
Invertebrates														
Banbury Springs limpet (E) *Lanx* sp.	Only known to occur in four isolated springs in a small area along the Middle Snake River. Inhabits spring run habitats with well-oxygenated water on boulder or cobble substrates.								X				3	No effect (See Appendix A)

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Bliss Rapids Snail (T) Taylorconcha serpenticola	This snail occurs on stable cobble-boulder size substrate in flowing waters of unimpounded reaches of the mainstem Snake River and in a few spring habitats in the Hagerman Valley.	X	X		X				X		X		3	No effect (See Appendix A)
Bruneau hot springsnail (E) *Pyrgulopsis bruneauensis*	Found only in geothermal springs and seeps along an 8-kilometer length of the Bruneau River in Southwest Idaho. It prefers wetted rock faces of springs and flowing water, with large cobbles and boulders.	X			X								3	No Effect (See Appendix A)
Snake River Physa snail (E) *Physa natricina*	The species occurs on the undersides of gravel-to-boulder size substrate in swift current in the mainstem Snake River.	X	X		X	X			X		X		3	No effect (See Appendix A)
Plants														

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Slickspot peppergrass (P-E) *Lepidium papilliferum*	Slickspots occur within sagebrush-steppe, characterized by a near-surface distribution of soluble sodium salts, thin vesicular surface crusts, and shallow well-developed argillic horizons or layers that are impermeable when wet. The species' range is restricted to the volcanic plains of southwest Idaho, occurring primarily in the Snake River Plain and its adjacent northern foothills, with a single disjunct population on the Owyhee Plateau. This species is present in GRSG HMAs on Jarbidge and Four Rivers Field Offices.				D						D		NA	See detailed analysis below

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Slickspot peppergrass (P-E) *Lepidium papilliferum* Proposed Critical Habitat	PCEs include 1) ecologically functional "slickspots" with high sodium and clay content with a specific 3-layered horizonation, and sparse vegetation, 2) relatively intact, native Wyoming big sagebrush vegetation surrounding the slickspots, 3) a diversity of native plants appropriate for supporting slickspot peppergrass pollinators, and 4) sufficient pollinators for successful seed production, mainly wasps, flies, and bees. See the Species Information and Critical Habitat section for a more detailed PCE description. About half of the proposed critical habitat overlaps with GRSG HMAs on BLM lands, and most of the overlap is in the Jarbidge Field Office area.				D						D		NA	See detailed analysis below

Species (Status[3])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area or contain suitable or critical habitat in the action area[4]											Evaluation Criteria	Initial Biological Determination
		Bruneau FO	Burley FO	Challis FO	Jarbidge FO	Owyhee FO	Pocatello FO	Salmon FO	Shoshone FO	Upper Snake FO	Four Rivers FO	Dillon FO		
Ute ladies'-tresses (T) *Spiranthes diluvialis*	Occurs in Colorado, Idaho, Montana, Nebraska, Nevada, Utah, Washington, and Wyoming. Found in moist meadows associated with perennial stream terraces, floodplains, and oxbows; seasonally flooded river terraces; sub-irrigated or spring-fed abandoned stream channels and valleys; lakeshores; and human-modified wetlands (720-7,000 feet). There are no known occurrences overlapping GRSG HMAs on BLM or Forest Service lands, but there may be suitable habitat within these action areas. However, the riparian habitat where it may occur is not likely to be affected by the proposed LUP amendments.						D			D		D	NA	See detailed analysis below

Table 3. USFWS endangered, threatened and proposed species and critical habitat that may be present associated with Forest Service lands in the action area and that may be influenced by the proposed plan.

Species (Status[5])	Habitat Description and Range	Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]						Evaluation Criteria	Initial Biological Determination
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Mammals									
Grizzly bear (T) *Ursus arctos horribilis*	Contiguous, relatively undisturbed mountainous habitat with considerable topographic and vegetative diversity. Range includes portions of Idaho, Montana, Washington, and Wyoming.		D			D		NA	See detailed analysis below
Canada lynx (T) *Lynx canadensis*	Montane and subalpine coniferous forests above 4,000 feet; lodgepole pine, subalpine fir and Engelmann spruce.	D	D		D			3	No effect (See Appendix A)

[5] E = Endangered; P-E = Proposed Endangered; T = Threatened; P-T = Proposed Threatened
[6] Sources include September 24, 2013 letter from Jerry Foss (United States Department of the Interior [USDI] Bureau of Land Management) to Brian Kelly (USDI Fish and Wildlife Ecological Services); May 29, 2014 email from Barbara Schmidt (USDI Fish and Wildlife Service) to Brent Ralston (Idaho State Office, USDI Bureau of Land Management); Final Draft, 2014 BLM – Idaho Special Status Species table provided to the Idaho-Southwest Montana BA Team, via email, by Scott Hoefer (BLM), July
24, 2014
FO = Field Office; NF = National Forest; X = Either Documented or Suspected; S = Species is suspected or potential habitat exists within the unit; D = Species or habitat documented within the unit

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Canada lynx *Lynx canadensis* Proposed Critical Habitat	There is no overlap of critical habitat and Priority, Important and/or General HMAs within the action area.							4	No effect
Northern Idaho ground squirrel *Spermophilus brunneus brunneus*	Known to occur in dry meadows surrounded by ponderosa pine and Douglas-fir forests in Adams and Valley Counties of western Idaho.	D						2	No effect
Birds									

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Red knot (P-T) *Calidris canutus rufa*	Migrant shorebird that breeds in Canadian Arctic and winters in South America. Within the action area, known only to occur as a rare migrant stopover in Madison County, MT.							3	No effect (See Appendix A)
Western yellow-billed cuckoo (T) *Coccyzus americanus*	Requires large blocks of riparian woodlands within low to moderate elevation arid to semiarid landscapes. Historic breeding range within western North America includes areas west of the crest of the Rocky Mountains in Canada and the United States, and portions of Mexico.							3	No effect (See Appendix A)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Western yellow-billed cuckoo *Coccyzus americanus* Proposed Critical Habitat	PCEs include the following: 1) Riparian woodlands of mixed willow-cottonwood and/or mesquite-thorn patches > 325 ft. wide and 200 acres or > in extent; 2) Presence of a prey base consisting of large insect fauna and tree frogs in breeding areas during the nesting season and in post-breeding dispersal areas; 3) dynamic riverine processes that allow riparian habitat to regenerate regularly, resulting in multiple age classes. Approximately 405 acres of critical habitat overlap with PHMAs on the BLM Shoshone Field Office.							5	No effect (See Appendix A)
Fish									
Bull trout (T) *Salvelinus confluentus*	Inhabit cold, complex and relatively pristine stream and lake habitats.	D		D	D	D		3	No effect (See Appendix A)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Bull trout *Salvelinus confluentus* Critical Habitat	See Appendix A for PCEs of bull trout critical habitat. About 507 acres of lake and 432 miles of streams designated as critical habitat overlap Priority, Important and/or General HMAs.	X		X	X	X		5	No effect (See Appendix A)
Chinook salmon (T) *Oncorhynchus tshawytscha* Snake River spring/summer run	This ESU, includes naturally spawned spring/summer-run Chinook salmon originating from the mainstem Snake River and the Tucannon River, Grande Ronde River, Imnaha River, and Salmon River subbasins. It also includes spring/summer-run Chinook salmon from 11 artificial propagation programs.	D		D	D			3	No effect (See Appendix A)
Chinook salmon Snake River spring/summer run Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, 4) adult migration corridors. There is no overlap between chinook snake river spring/summer run CH watersheds and Priority, Important, or General HMAs.	X		X	X			5	No effect (See Appendix A)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Sockeye salmon (E) *Oncorhynchus nerka* Snake River	This ESU, includes naturally spawned anadromous and residual sockeye salmon originating from the Snake River basin, and also sockeye salmon from one artificial propagation program.			D	D			3	No effect (See Appendix A)
Sockeye salmon Snake River Critical Habitat	PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, 4) adult migration corridors. Counties containing critical habitat within the planning area consist of Morrow, Umatilla, Wallowa, and Asotin. There is no overlap between 8th-code watersheds containing critical habitat and sage-grouse Priority, Important, or General HMAs.			X	X			5	No effect (See Appendix A)
Steelhead (T) *Oncorhynchus mykiss* Snake River Basin	DPS includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Snake River basin, and also steelhead from six artificial	D		D	D			3	No effect (See Appendix A)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
	propagation programs.								
Steelhead Snake River Basin Critical Habitat	PCEs include: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, 4) and 5) estuarine and nearshore marine areas free of obstruction and excess predation, and 6) offshore marine areas supporting growth and maturation. There is no overlap of critical habitat and Priority, Important, or General HMAs.	X		X	X			5	No effect (See Appendix A)
Invertebrates									
Banbury Springs limpet (E) *Lanx* sp.	Only known to occur in four isolated springs in a small area along the Middle Snake River. Inhabits spring run habitats with well oxygenated water on boulder or cobble substrates.							3	No effect (See Appendix A)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Bliss Rapids Snail (T) *Taylorconcha serpenticola*	This snail occurs on stable cobble-boulder size substrate in flowing waters of unimpounded reaches of the mainstem Snake River and in a few spring habitats in the Hagerman Valley.							3	No effect (See Appendix A)
Bruneau Hot springsnail (E) *Pyrgulopsis bruneauensis*	Found only in geothermal springs and seeps along an 8-kilometer length of the Bruneau River in Southwest Idaho. It prefers wetted rock faces of springs and flowing water, with large cobbles and boulders.							3	No effect (See Appendix A)
Snake River Physa snail (E) *Physa natricina*	The species occurs on the undersides of gravel-to-boulder size substrate in swift current in the mainstem Snake River.							3	No effect (See Appendix A)
Plants									

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Slickspot peppergrass (P-E) *Lepidium papilliferum*	Slickspots within sagebrush-steppe, characterized by a near-surface distribution of soluble sodium salts, thin vesicular surface crusts, and shallow well-developed argillic horizons or layers that are impermeable when wet. The species' range is restricted to the volcanic plains of southwest Idaho, occurring primarily in the Snake River Plain and its adjacent northern foothills, with a single disjunct population on the Owyhee Plateau. This species is present in GRSG HMAs only on Jarbidge and Four Rivers Field Offices.							1	No Effect (for Forest Service Units)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Slickspot peppergrass (P-E) *Lepidium papilliferum* Proposed Critical Habitat	PCEs include 1) ecologically functional "slickspots" with high sodium and clay content with a specific 3 layered horizonation, and sparse vegetation, 2) relatively intact, native Wyoming big sagebrush vegetation surrounding the slickspots, 3) a diversity of native plants appropriate for supporting slickspot peppergrass pollinators, and 4) sufficient pollinators for successful seed production, mainly wasps, flies, and bees. See the Species Information and Critical Habitat section for a more detailed PCE description. Proposed critical habitat for slickspot peppergrass does not occur on National Forest lands.							4	No Effect (for Forest Service units)

Species (Status[5])	**Habitat Description and Range**	**Units in which the species is known or suspected to be present in the action area, and/or containing suitable or critical habitat in the action area[6]**						**Evaluation Criteria**	**Initial Biological Determination**
		Boise NF	Caribou-Targhee NF	Salmon-Challis NF	Sawtooth NF	Beaverhead-Deerlodge NF	Curlew NG		
Ute ladies'-tresses (T) *Spiranthes diluvialis*	Occurs in Colorado, Idaho, Montana, Nebraska, Nevada, Utah, Washington, and Wyoming. Found in moist meadows associated with perennial stream terraces, floodplains, and oxbows; seasonally flooded river terraces; sub-irrigated or spring-fed abandoned stream channels and valleys; lakeshores; and human-modified wetlands (720-7,000 feet). There are no known occurrences overlapping GRSG HMAs on BLM or FS lands, but there may be suitable habitat within these action areas. However, the riparian habitat where it may occur is not likely to be affected by the proposed LUP amendments.		D	S	S			NA	See detailed analysis below

SPECIES INFORMATION AND CRITICAL HABITAT

A. Terrestrial Wildlife

Grizzly Bear (*Ursus arctos horribilis*)

Habitat Description

> *The grizzly (or brown) bear was once found in a wide variety of habitats including open prairie, brushlands, riparian woodlands, and semidesert scrub. Most populations require vast areas of suitable habitat to prosper. They forage for wild fruits, nuts, bulbs, roots, insect larvae in logs, and carcasses of elk, deer and cattle. This species is common only in habitats where food is abundant and concentrated, including white-bark pine, berries, and salmon or cutthroat runs, and where conflicts with humans are minimal. Research indicates it is important to maintain areas where grizzly bears can forage for a 24 to 48 hour period secure from human disturbance.*
>
> *Winter dens are dug in north-facing slopes or more often at the base of large trees in areas away from humans in late fall or winter after snow has begun to fall.* (BLM 2004)

The grizzly has a broad range of habitat tolerance. Contiguous, relatively undisturbed mountainous habitat having a high level of topographic and vegetative diversity characterizes most areas where the species remains (USFWS 1993). Secure habitat consists of areas larger than 10 acres and more than 500 meters (1,650 feet) from a motorized access route or recurring helicopter flight line (Forest Service 2006).

Throughout the year, grizzly bears occupy a mosaic of dissimilar habitat types. Seasonal use of these types depends on availability of preferred foods, which are affected by weather, elevation, topography, precipitation, and temperature. The search for energy-rich food appears to be a driving force in grizzly bear behavior, habitat selection, and intra/inter-species interactions. Upon emergence from the den, they seek lower-elevation drainage bottoms, avalanche chutes, and ungulate winter ranges where their food requirements can be met. Throughout late spring and early summer, they follow plant maturity back to higher elevation. In late summer and fall, there is a transition to fruit and nut sources, as well as other plant materials. This is a generalized pattern, however, and it should be kept in mind that bears are individuals trying to survive and will go where they can best meet their food requirements. Specific to the Greater Yellowstone Area, four seasonal foods have been identified as being important to the population: ungulates (primarily elk and bison, but also deer and moose), spawning cutthroat trout, seeds of whitebark pine, and army cutworm moths (ICST 2007).

Status, Distribution, and Designated or Proposed Critical Habitat

On July 28, 1975, the grizzly bear (*Ursus arctos horribilis*) was designated as threatened throughout its range in lower 48 states.

On March 22, 2007, the USFWS announced that the Yellowstone DPS of grizzly bears were a recovered population no longer meeting the ESA definition of threatened or endangered.

On September 21, 2009, the Federal District Court in Missoula issued an order enjoining and vacating the delisting of the Yellowstone DPS grizzly bear population.

The grizzly bear is listed as threatened throughout its range in the lower 48 states. Populations in the Yellowstone DPS and the Northern Continental Divide Ecosystem (NCDE) are increasing in size and expanding in area (Forest Service 2012).

The historic range of the grizzly bear in the continental United States extended from the central Great Plains, west to California, and south to Texas and Mexico. Between 1800 and 1975, grizzly bear populations in the lower 48 states declined from over 50,000 to less than 1,000 animals. As Euro-American settlement expanded westward, the grizzly bear was extirpated from most of its historical range.

In the lower 48 states, there are seven ecosystems recognized as grizzly bear primary conservation areas (PCAs). Five of these ecosystems are known to currently support grizzly bears: Yellowstone (northwest Wyoming, eastern Idaho, and southwest Montana), Northern Continental Divide (north–central Montana), Selkirk Mountains (northern Idaho, northeast Washington, and southeast British Columbia), Cabinet–Yaak (northwest Montana, northern Idaho), and North Cascades (north–central Washington). The two remaining ecosystems, Bitterroot (east–central Idaho, western Montana) and San Juan Mountains (Colorado), currently do not contain grizzly bears. Critical habitat has not been designated or proposed for the grizzly bear. The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement action area overlaps with the Yellowstone Ecosystem.

Grizzly Bear General Management Direction

1993 Recovery Plan

In 1993, the Grizzly Bear Recovery Plan (USFWS 1993) outlined a strategy to recover grizzly bears built on the concept of recovery zones. Recovery zones were established to identify areas necessary for the recovery of the species and are defined as the area in each grizzly bear ecosystem within which the population and habitat criteria for recovery are measured. Areas within the recovery zones are to be managed to conserve grizzly bear habitat and managed primarily for grizzly bear habitat. The recovery zones are areas adequate for managing and promoting the recovery and survival of these grizzly bear populations (USFWS 1993). The recovery zones contain large portions of federal lands, including wilderness and national park lands, which are protected from the influence of many types of human uses occurring on lands elsewhere. All federal lands within recovery zones, including multiple use lands, are managed

with grizzly bear recovery as a primary factor, in accordance with the Interagency Grizzly Bear Guidelines (IGBC 1986). As anticipated in the recovery plan, the Yellowstone Grizzly Bear Ecosystem (YGBE) grizzly bear population has responded favorably to these conditions.

Grizzly bears outside the recovery zones probably experience a higher level of adverse impacts due to land management actions than do grizzly bears inside recovery zones. The recovery plan outlined that such areas would not be managed primarily to provide or conserve grizzly bear habitat. Thus, we expect grizzly bears will occur at lower densities outside the recovery zones than within the recovery zones as a result of suboptimal habitat conditions, including higher road densities, fewer areas secure from motorized access, and more human presence and activity. The recovery plan anticipated that grizzly bears can and will exist outside recovery zone lines in many areas, but that the grizzly bears residing within the recovery zone were crucial to recovery goals and hence delisting. While land management direction outside of recovery zones may have adverse effects on some of the individual grizzly bears using those areas area now and into the future, land management within the recovery zones will continue to favor the needs of grizzly bears.

In 2013, the Service proposed a draft revised supplement to the 1993 Grizzly Bear Recovery Plan (USFWS 2013a). The supplement would revise the demographic recovery criteria for the Yellowstone ecosystem. Included within this draft revised supplement, a monitoring area is designated, within which all demographic criteria would be assessed. The areas within which mortalities are counted against the mortality limits for independent females and males and dependent young would be revised to be the same area where population size is estimated. Grizzly bear mortalities would no longer count against sustainable mortality limits in areas outside of this monitoring area. Conversely, grizzly bears observed outside of this monitoring area would not count toward the estimates of population size. Mortalities outside of the monitoring area would continue to be recorded and reported. Also, grizzly bear occupancy would not be actively discouraged outside of the monitoring area, but management emphasis would be on conflict response.

2007 Conservation Strategy

In 2007, the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (ICST 2007) was released to guide management and monitoring of the YGBE grizzly bear population and its habitat upon recovery and delisting. The Yellowstone Conservation Strategy identified a PCA, which is the same area as the YGBE Recovery Zone identified in the 1993 Grizzly Bear Recovery Plan (USFWS 1993).

Within this strategy, management direction is described for both the PCA and adjacent areas within the Greater Yellowstone Area. The habitat standards identified in the Yellowstone Conservation Strategy, including Secure Habitat[7], Developed Sites[8], Food Storage Order, and Livestock Allotments, would be maintained at identified levels inside the PCA. In addition,

[7] Those areas more than 500 meters (550 yards) from a motorized access route during the non-denning period. They are especially important to the survival and reproductive success of grizzly bears, especially adult females.

several other habitat factors, including Major Foods, would be monitored and evaluated. Habitat standards and habitat criteria monitoring focus on areas within the PCA. The goal is to maintain or improve habitat conditions existing as of 1998, as measured within each subunit within the PCA.

Secure Habitat Standard: The percent of secure habitat within each bear management unit (BMU) must be maintained at or above levels that existed in 1998. Permanent changes to secure habitat may occur provided that replacement secure habitat of equivalent habitat quality is provided in the same grizzly subunit. Temporary reductions in secure habitat can occur if only one project is active per grizzly subunit at any one time, total acreage within a given BMU does not exceed 1 percent of the acreage of the largest subunit within the BMU, and secure habitat is restored within one year after completion of the project.

Developed Site Standard: The number and capacity of developed sites within the PCA will be maintained at or below the 1998 level with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline in the PCA will be analyzed, and potential detrimental and positive impacts will be documented through biological evaluation or assessment by the action agency.

Livestock Allotment Standard: Inside the PCA, no new active commercial livestock grazing allotments will be created, and there will be no increases in permitted sheep Animal Months from the 1998 baseline. Existing sheep allotments will be monitored, evaluated, and phased out as the opportunity arises with willing permittees.

The Yellowstone Conservation Strategy states that state grizzly bear management plans, forest plans, and other appropriate planning documents will provide specific management direction for the adjacent areas outside the PCA.

The documents listed above that have been developed since the 1993 Recovery Plan are draft or in various stages of implementation. However, at this time, the Service holds that the strategies described in these documents, as updated, reflect the best available science on grizzly bear recovery (USFWS 2013b).

[8] Sites on public land developed or improved for human use or resource development such as campgrounds, trailheads, lodges, administrative sites, service stations, summer homes, restaurants, visitor centers, and permitted resource development sites such as oil and gas exploratory wells, production wells, plans of operation for mining activities, work camps, etc.

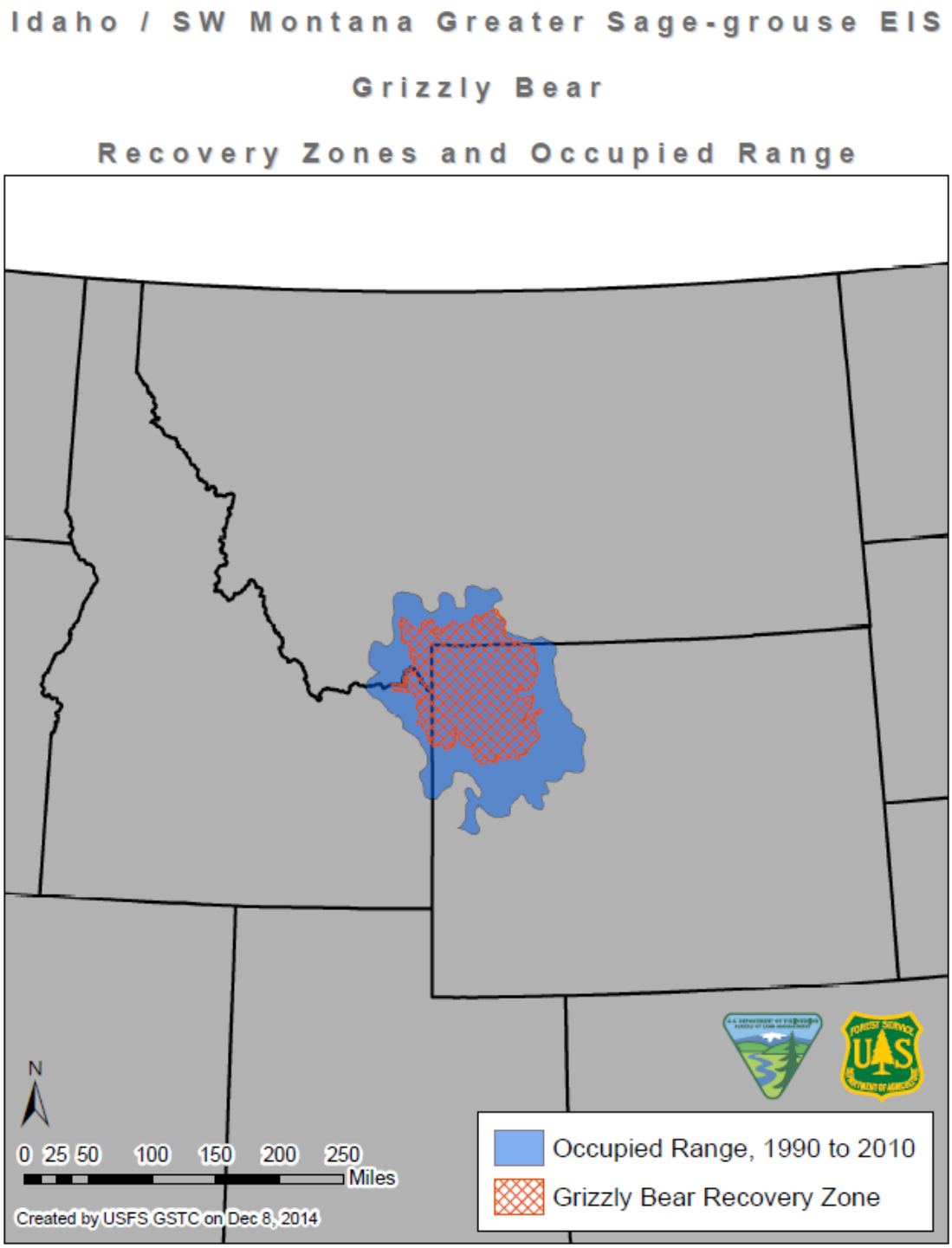

Figure 4. Yellowstone Grizzly Bear Ecosystem Recovery Zone (i.e., Primary Conservation Area/PCA)

Status of the Grizzly Bear in the YGBE[9]

The 9,209-square-mile YGBE recovery zone includes portions of Wyoming, Montana, and Idaho (Figure 4), portions of six National Forests (Beaverhead-Deerlodge, Bridger-Teton, Custer, Gallatin, Shoshone, and Targhee), Yellowstone and Grand Teton National Parks, John D. Rockefeller Memorial Parkway, portions of adjacent private and state lands, and lands managed by the BLM. Grizzly bears also frequently use areas outside the defined YGBE recovery zone.

Population recovery criteria are measured within the recovery zone and an adjacent 10-mile buffer. A large proportion of the Yellowstone grizzly bear population occurs within the recovery zone. A large proportion of the grizzly bears in the YGBE recovery zone occur on protected lands in Yellowstone National Park, but grizzly bears also inhabit large areas outside the park boundary. Yellowstone and Grand Teton National Parks make up 39.4 percent of the YGBE recovery zone. Private holdings and other ownership make up 2.1 percent of the recovery zone, and the remaining 58.5 percent occurs on National Forest System lands. National Park Service and National Forest System lands support roughly 89 percent of the currently known distribution of the grizzly bears in the YGBE recovery zone. Grizzly bears also frequently occur in and use areas adjacent to the recovery zone.

The YGBE recovery zone is subdivided into smaller units to facilitate both the assessment of projects and recovery objectives. Eighteen BMUs were formally delineated throughout the YGBE. BMUs were designed to:

- Assess the effects of existing and proposed activities on grizzly bear habitat without having the effects diluted by consideration of too large an area;
- Address unique habitat characteristics and grizzly bear activity and use patterns;
- Identify contiguous complexes of habitat which meet year-long needs of the grizzly bear; and
- Establish priorities for areas where land use management needs would require cumulative effects assessments.

Three demographic criteria that were formerly in the 1993 Grizzly Bear Recovery Plan (USFWS 1993) have been reevaluated and updated. The second criterion pertaining to the distribution of females with offspring remains unchanged, while the first and third criteria pertaining to the minimum allowable number of females with cubs of the year and sustainable mortality limits have been revised and updated to reflect current methods based on the best available science (USFWS 2007). The current demographic recovery criteria to be appended to the 1993 Recovery Plan include the following:

- Demographic Recovery Criterion 1 – Maintain a minimum of 48 females with cubs of the year in the Greater Yellowstone Area, as indicated by the model-averaged Chao2 estimate for that year. The number of females with cubs of the year cannot drop below 48 for any 2 consecutive years.

[9] Source: USFWS (2013a), unless otherwise noted

- Demographic Recovery Criterion 2 – Sixteen of 18 BMUs within the recovery zone must be occupied by females with young, with no two adjacent BMUs unoccupied, during a 6-year sum of observations. This criterion is important as it ensures that reproductive females occupy the majority of the recovery zone and are not concentrated in one portion of the ecosystem.
- Demographic Recovery Criterion 3 – For independent females (at least 2 years old), the current annual mortality limit not to be exceeded in 2 consecutive years and including all sources of mortality is 9 percent of the total number of independent females. For independent males (at least 2 years old), the current annual mortality limit not to be exceeded in 3 consecutive years and including all sources of mortality is 15 percent of the total number of independent males.
- For dependent young (less than 2 years old), the current annual mortality limit not to be exceeded in 3 consecutive years and including only known and probable human-caused mortalities is 9 percent of the total number of dependent young.

The first and third criteria were changed because the Service no longer considers the 1993 recovery plan criterion the best scientific method available. The Chao2 estimator is now used to calculate the total number of independent females from sightings and re-sightings of females with cubs. This allows calculation of total population size instead of the minimum population size used in the 1993 method. Also, we can now calculate unknown and unreported mortalities, which allows more conservative mortality management based on annually updated information rather than the estimate of unknown and unreported mortality used in the 1993 recovery plan. Data on the reproductive performance of Yellowstone grizzly bears, survival rates of cub and yearling Yellowstone grizzly bears, the trajectory of the Yellowstone grizzly bear population under alternate survival rates, and the impacts of spatial and environmental heterogeneity on the Yellowstone grizzly bear demographics has been improved and updated.

Based on verified sightings of females with cubs of the year during 2013 and using the Chao2 method, it was determined that the model-averaged number of females with cubs of the year was 59 (95% CI 49-72) and exceeded the demographic objective of 48 specified in the demographic criteria for the Greater Yellowstone Ecosystem (GYE). Using this number, the estimated Yellowstone grizzly bear population size for 2013 was 629 (95% CI = 566-693) based on previous demographic protocols and 741 (95% CI = 660-821) based on updated protocols. In addition to the Chao2 estimate, the number of females with cubs of the year was also estimated based on a mark-resight technique that does not include the underestimation bias of the Chao2 technique. The result of that estimate was 109, excluding observation at army cutworm moth aggregation sites; 14 additional females with cubs of the year were observed during moth site-only flights. The 3-year moving average (using 2011-2013 results) was 79 unique females with cubs of the year (95% interquartile range = 46-126) (Haroldson and Dickinson 2014).

Based upon the revised recovery criteria, independent females, males, and dependent young mortality limits were met in 2013 (IGBST 2014). Independent female and dependent young mortality limits were met in 2012, while independent male mortality limits were exceeded (IGBST 2013). The dependent young mortality limit was met in 2011, while independent female mortality was exceeded (IGBST 2012a). Independent male mortality was only fractionally

exceeded (less than one bear) in 2011. The criteria states that independent female mortality cannot be exceeded in 2 consecutive years and that independent male mortality cannot be exceeded in 3 consecutive years. Because the thresholds for dependent young has been met in each of the last three years and independent female mortality was not exceeded in 2012 or 2013, the revised demographic recovery criteria are met for dependent young and independent females. Since the thresholds for independent male mortality have been exceeded in only two of the three previous consecutive years (2011 and 2012), the revised demographic recovery criteria are also met for independent male grizzly bears. GYE grizzly bear demographic workshops have recently taken place to complete a demographic review of the GYE grizzly bear population. The objectives of the workshops were to revise current protocols for estimating population size of the GYE grizzly bear population; reevaluate current mortality limits as necessary based on a revised estimate of population size and updated demographic analyses; and discuss the possibility of zoning the ecosystem for mortality limits given the expanding population (IGBST 2012b).

Access management has long been an important tool for conserving grizzly bears and their habitat. The BMUs in the YGBE were further divided into smaller units, termed subunits. Subunits are approximately the size of an adult female grizzly bear home range and provide the basic scale for the analysis of impacts associated with access management and vegetation management projects.

Overall, conditions for grizzly bears related to access management in the YGBE are excellent (USFWS 2013b). The YGBE recovery zone, for example, contains large amounts of secure habitat and very low total and open road densities in the majority of the subunits (USFWS 2013b). In 2013, for the entire YGBE recovery zone, the mean secure habitat was 87.0 percent, the mean open motorized access route density was 9.9 percent in season one (March 1 - July 15) and 10.9 percent in season two (July 16 - November 30), and the mean total motorized access route density was 5.4 percent (USFWS 2013b).

The YGBE grizzly bear population has increased from estimates as low as 136 individuals when listed in 1975 to more than 580 animals as of 2004; this population had been increasing since the mid-1990s and was increasing at 4 to 7 percent per year. The population growth rate for the recent period is now stable to slightly increasing. The range of this population also has increased dramatically, as evidenced by the 48 percent increase in occupied habitat since the 1970s. Yellowstone grizzly bears continue to increase their range and distribution annually, and grizzly bears in the Yellowstone area now occupy habitats they have been absent from for decades. Roughly 90 percent of females with cubs occupy the PCA (i.e., recovery zone), and about 10 percent of females with cubs have expanded out beyond the PCA within the ecosystem.

The YGBE overlaps with portions of the GRSG action area on the Upper Snake and Dillon Field Offices and the Beaverhead-Deerlodge and Caribou-Targhee National Forests.

Status of the Grizzly Bear in the Upper Snake Field Office and Associated Management Direction

The Upper Snake Field Office (FO) manages approximately 2,460 acres of public land within the 5,894,400-acre Greater Yellowstone PCA that encompasses northwestern Wyoming, eastern Idaho, and south-central Montana. With an increasing grizzly bear population, the area used by

grizzly bears is expanding outside of the recovery zone. Within areas most likely to be used by grizzly bears in the future, the Upper Snake FO manages approximately 24,710 acres of public land, which consist of small, scattered parcels interspersed with other federal, private, and state lands.

Not all of the BLM-administered land within the PCA in the Upper Snake FO is suitable habitat for grizzly bears. It consists of small, isolated parcels with existing infrastructure that is not compatible with grizzly bear occupancy. None of the BLM-administered lands within the Upper Snake FO have been identified as providing ungulates, spawning cutthroat trout, seeds of whitebark pine, or army cutworm moths for grizzly bears.

The Upper Snake FO administers about 600 acres that have been identified as secure grizzly bear habitat within the recovery zone. Approximately 2,000 acres within the recovery zone were designated as the Henry's Lake ACEC in 1997. The intent of the ACEC was to recognize and conserve rare wetland vegetation communities, special status species and their habitats, including grizzly bears, and recreational values while maintaining multiple use activities on public lands administered by the BLM.

No grizzly bears have been killed by humans, nor have any humans been killed or injured by grizzly bears, on BLM-administered lands within the Upper Snake FO. One grizzly bear/livestock incident occurred in 2011 on BLM-administered lands in the Teton Basin area outside of the recovery zone. This involved a grizzly bear eating a domestic cow carcass. It was not determined whether the grizzly bear killed the cow, and no action was taken to capture or move the bear.

Within the GRSG action area, 4,637 acres of occupied grizzly bear habitat overlap with PHMA, and 116,166 acres overlap with IHMA in the Upper Snake FO. There is no overlap between occupied grizzly bear habitat and GHMA (Figure 5). In addition, 8 acres of the recovery zone overlap with IHMA on the Upper Snake FO, and 36 acres overlap with GHMA (Figure 6).

Management direction for the Upper Snake FO is contained in the Medicine Lodge Resource Management Plan (BLM 1985).

To the extent practicable, management actions within occupied grizzly bear habitat will be consistent with the goals and objectives in the Grizzly Bear Recovery Plan [USFWS 1993] and the guidelines developed through the Interagency Wildlife Monitoring Program for mineral exploration and development (BLM 1985, page 27).

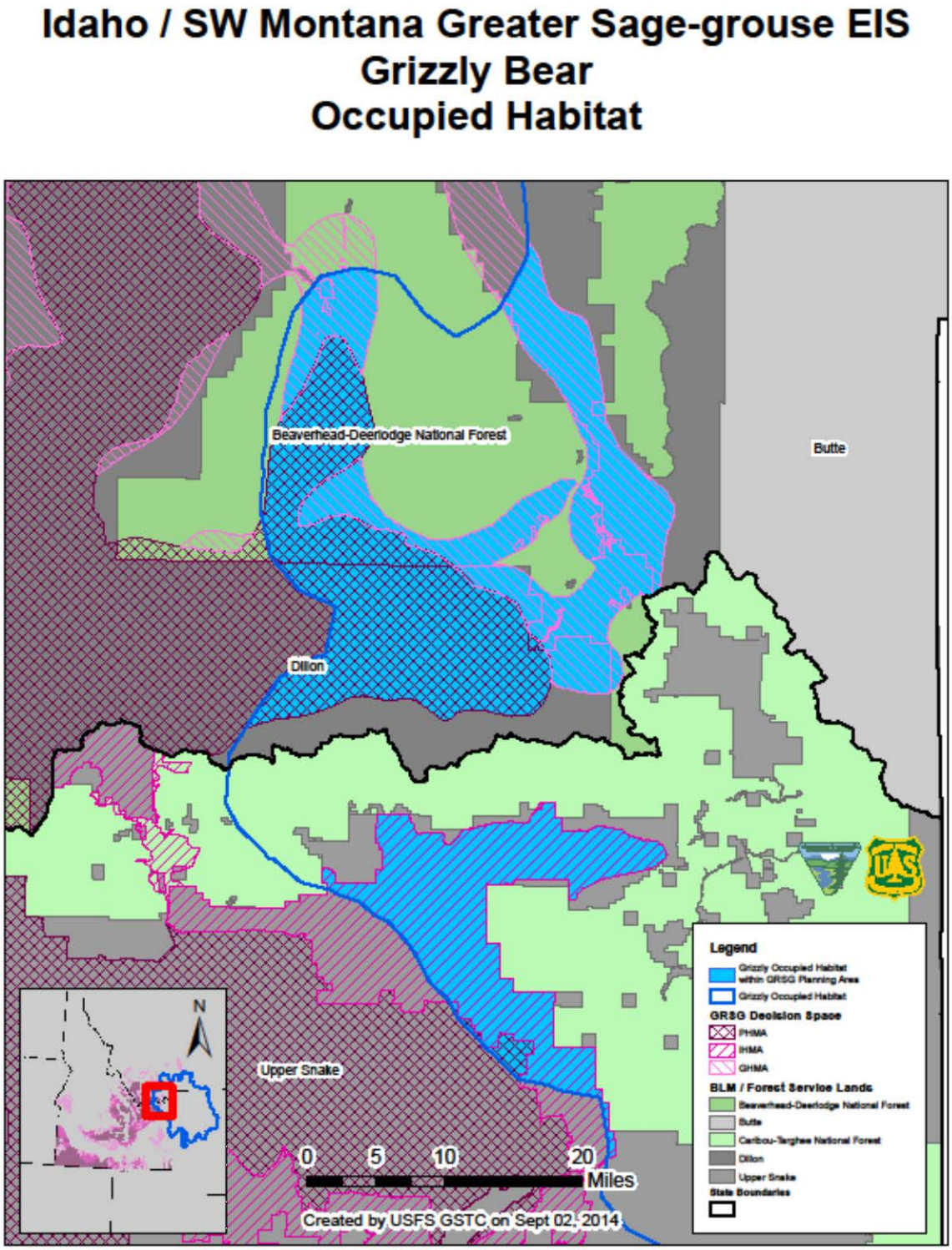

Figure 5. Grizzly bear occupied habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

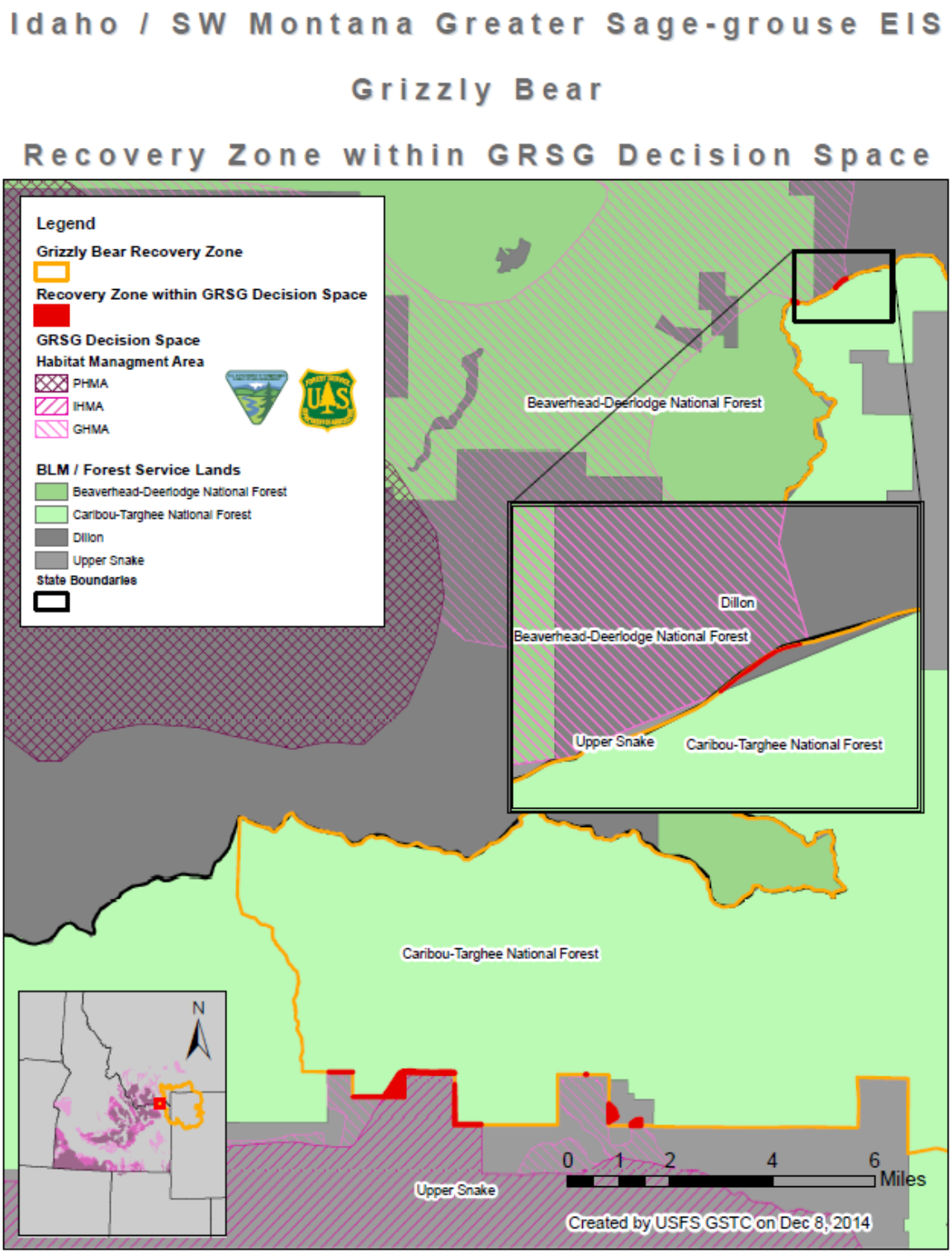

Figure 6. Grizzly bear recovery zone with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

Status of the Grizzly Bear in the Dillon Field Office and Associated Management Direction

> *Grizzly bear observations on public lands in the Dillon Field Office have been rare until the mid-1990s, and were confined to the Centennial Mountains and areas adjacent to the Gravelly Range. As the grizzly population in Yellowstone has increased, bears have expanded into adjoining habitat outside the Yellowstone recovery zone, or primary conservation area (PCA). The Centennial Valley and the area surrounding the Gravelly and Snowcrest Ranges are now considered as an area where grizzly bear are likely to occur as an extension of bear habitat in the Yellowstone ecosystem. Within this area, the most suitable habitat is available in BLM Wilderness Study Areas (WSAs) around Axolotl Lakes, E.F. Blacktail, and the Centennial Mountains. The Barton-Idaho area east of Ruby Reservoir provides potential habitat adjacent to occupied grizzly bear habitat on Beaverhead-Deerlodge NF lands in the Gravelly Range and Greenhorn Mountains. Other habitat along the Continental Divide, in the Tendoy Mountains including the Maiden Peak area, and the Big Hole Divide support occasional grizzly bear use. Most observations appear to be of individual animals that are simply wandering into potential habitat.*
>
> *Distribution information about grizzly bear has been derived from interagency monitoring and conservation strategy documents, and discussions with district biologists for adjoining BD NF lands. BLM has not conducted any inventories or monitoring specifically to identify grizzly bear occurrences or map suitable habitat on public lands.* (BLM 2004)

The Dillon Field Office does not contain land within the Yellowstone Grizzly Bear Recovery Zone (USFWS 2004a). Outside of the Yellowstone PCA, grizzly bears will be allowed to expand into biologically suitable and socially acceptable areas, but these areas are not considered as essential to recovery (USFWS 2004a). The objective is to maintain existing resource management and recreational uses and to allow agencies to respond to demonstrated problems with appropriate management actions.

Within the GRSG action area, 108,059 acres of occupied grizzly bear habitat overlap with PHMA, and 71,091 acres overlap with GHMA in the Dillon Field Office; there is no overlap between occupied grizzly bear habitat and IHMA (Figure 5).

Grizzly bear management direction for the Dillon Field Office (BLM 2006) is shown in the following table:

Table 1. Dillon Field Office Resource Management Plan Direction Specific to the Grizzly Bear and Potential for Effect

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
Apply the following special management in	Centennial	No: There is very little

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
the ACEC boundary to protect the habitat it contains for grizzly bear, lynx, and wolf, its use as a wildlife migration corridor, its outstanding scenic value, and the only known occurrence in Montana of Whipple's beardtongue (in the Taylor Mountain area). a. Incorporate landscape design principles into vegetation treatments to maintain scenic values. b. Do not authorize new permanent roads within the ACEC to maintain unfragmented habitat for wildlife migration. c. Evaluate proposed activities, including backcountry helicopter operations and winter recreational use, for their potential to affect important and relevant values in the area and do not permit any activities that interfere with protection of those values. d. Allow livestock use as currently authorized. Evaluate any proposed changes in grazing, including time and intensity of use, for impacts on relevant and important values and allow if relevant and important values in the ACEC are maintained or enhanced. e. Do not allow conversion of grazing permits from cattle to sheep to avoid potential conflicts with grizzly bear.	Mountains ACEC, page 21	overlap of GRSG management area with the Centennial Mountains ACEC (13,073 acres of PHMA). a. There is nothing proposed within the GRSG LUPA decision that will prevent the incorporation of landscape design principles into vegetation treatments. b. The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit roads or require co-location of new roads with existing infrastructure for special use authorization. c. GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines are not expected to negatively affect important and relevant values in the ACEC. Furthermore, grizzly habitat will be addressed at the site-specific level, and compatibility between ACEC direction, grizzly guidelines, and GRSG direction will be sought. d. Changes in grazing management through grazing authorization modifications may be implemented when livestock management practices are determined to not be compatible with meeting or making progress towards achievable GRSG habitat objectives.

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
		e. Potential modifications include, but are not limited to, changes in: season or timing of use; numbers of livestock; distribution of livestock use; duration and/or level of use; kind of livestock (e.g., cattle, sheep, horses, or goats); voluntary measures such as temporary non-use; and grazing schedules. See the effects analysis section below.
19: Authorize no new domestic sheep permits or conversion of cattle permits to sheep within areas depicted on Map 33 in the RMP that contain suitable grizzly bear and wolf habitat (also known as the wildlife dispersal/ migration corridors in the Centennial Mountains, Snowcrest Mountains, Gravelly Range, Greenhorn Mountains, Axolotl Lakes area, and along the Continental Divide from Monida to Lemhi Pass).	Livestock Grazing Action, page 43	Yes: Potential modifications include changes in kind of livestock. See the effects analysis section below.
20: Implement food storage strategies from the Southwest Montana State Grizzly Management Plan (MT FWP 2002) on BLM lands in the Grizzly Bear use areas outside of the Yellowstone Recovery Zone if grizzly bears are delisted. Until the grizzly bear is delisted, monitor the South Madison campground and undeveloped sites in the East Fork of the Blacktail and the Axolotl Lakes area for food storage problems related to grizzly bear use and the potential need for bear proof trash containers. Post major public land trailheads and access points in these areas and in the Centennial Mountains to advise recreationists about proper food storage to avoid back country conflict.	Recreation Action, page 54	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the implementation of food storage strategies.
3: Consider the following habitats priority wildlife habitats: • all listed and special status species habitats, with grizzly bear and lynx receiving the most	General Wildlife and Special Status Species	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
emphasis in coniferous forest habitats, and sage-grouse receiving the most emphasis in sagebrush steppe habitats • coniferous forest and sagebrush habitats that provide important big game winter habitat • sagebrush habitats that provide bighorn sheep year-long or seasonal habitats • sagebrush habitats that provide sage-grouse breeding, early brood rearing, or winter habitat • mountain mahogany and sagebrush steppe habitat associations in the Lima Sweetwater Breaks key raptor management area • all riparian and wetland habitats	Actions, page 69	the consideration of priority wildlife habitats, and it is consistent with grizzly bear and lynx receiving the most emphasis in coniferous forest habitats, and GRSG receiving the most emphasis in sagebrush steppe habitats.
4: Consider the following species priority wildlife species: • all listed and special status species, with grizzly bear, lynx, and sage-grouse receiving the most emphasis • bighorn sheep • migratory birds listed on the USFWS Region 10 Birds of Conservation Concern list and in Montana Bird Conservation Plan (see Appendix R of the RMP).	General Wildlife and Special Status Species Actions, page 69	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the consideration of priority wildlife species.
32: Consult with the USFWS when impacts are anticipated to threatened or endangered species or designated habitat. a. Use the interagency analysis screens for T&E species to facilitate consistent consultation and streamline consultation on actions that have insignificant or discountable effects (see Appendix S). b. Use the analysis screens for bald eagle, gray wolf, and grizzly bear in Appendices S, T, and U in conjunction with the joint BLM-FS evaluation form to evaluate proposed actions and projects to determine effects and the need for additional consultation with the USFWS. Analysis Screen Part 1 (Appendix V, page 188). (1) The area must be in compliance with	General Wildlife and Special Status Species Actions, page 71	Yes: Analysis screen for the grizzly bear will be used in the analysis: Analysis Screen Part 1 (Appendix B): Grizzly bears and their habitat will be addressed, as necessary, at the site-specific level and, at this time, there is no reason to believe that GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines utilized for individual projects will preclude compliance with appropriate access management, food storage

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
the appropriate access management direction. (2) Human foods, livestock feed, garbage, and other attractants must be managed by the application of an adequate "food storage rule" similar to the NCDE or Yellowstone food storage orders. If no specific rule exists for the area, use of either the Yellowstone or NCDE order will be considered adequate. (3) Projects that involve seeding or planting of grasses, forbs, or shrubs must do so in a manner that will tend not to attract bears into areas where increased mortality risk or interaction between bears and people is likely. Analysis Screen Part 2 (Appendix V, pages 189-191). The Screening Criteria Table displays activities and criteria that, when met, will allow the project to meet "screening elements." If the project does not meet the identified criteria, the project should proceed through the established consultation process.		order, and avoidance of human/bear interaction direction. Analysis Screen Part 2 (Appendix C): Based on the types of actions applicable to the GRSG LUPA decision (prescribed fire, range, roads and road maintenance, and weed control), at this time, it appears that the GRSG LUPA decision meets the screening criteria leading to a "Not Likely to Adversely Affect (NLAA) determination for the grizzly bear. Please refer to the effects analysis section below for additional discussion.
34: Implement the following nondiscretionary terms and conditions to ensure that actions conducted under the plan do not result in unexpected consequences that affect more grizzly bears or impart additional effects to grizzly bears than anticipated in the USFWS biological opinion of October 29, 2004 (incidental take of no more than two bears over the life of the plan as a result of habituation and/or food conditioning of grizzly bears or conflicts with livestock, an unquantifiable level of take from displacement effects of road densities and activity in project areas, and no more than one bear over the life of the plan as a result of conflicts with sheep used for BLM weed control projects): • If more than ten miles of road construction is planned or completed annually, BLM Dillon Field Office will consult with the USFWS.	General Wildlife and Special Status Species Actions, pages 71-72	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the implementation of the nondiscretionary terms and conditions.

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
• Temporary roads will be closed and reclaimed within two years following the end of road use or project completion. • The BLM will maintain an up-to-date record of grizzly bear management actions that take place on BLM lands or as a result of activities authorized by BLM Dillon Field Office. • If an incident of depredation or use of improperly stored food items results in removal of a grizzly bear, BLM shall follow the Interagency Grizzly Bear Committee (IGBC) guidelines in reporting the incident to the USFWS. • BLM shall report any depredation or food storage incidences to the USFWS Montana Ecological Services Sub-office in Billings, or Montana Ecological Services Field Office in Helena in addition to the reporting required in the IGBC guidelines. • To monitor changes in road densities and potential effects on grizzly bear or their habitat, BLM will provide an annual report to the USFWS documenting: a. the number of miles of new road constructed b. the number of miles of road closed to public use and reclaimed c. the number of miles of temporary road on the landscape, and length of time since construction of the temporary road d. how open road densities may have changed relative to target densities of one mile per square mile within the analysis area for projects. (USFWS recommends the use of 6th code hydrologic units for an unbiased and consistent analysis of open road density, using the unit containing the project and the adjoining 3-6 units with similar habitat).		
35: Require the following measures for any projects located in areas where grizzly bear use is known or likely to occur (see Map 34) where domestic sheep are used to control	General Wildlife and Special Status Species	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines do not specifically

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
noxious weeds: • Domestic sheep grazing to control noxious weeds will not be used where previous livestock depredations have occurred from grizzly bears or wolves. • Domestic sheep will be removed from a project area if depredation or encounters occur from grizzly bears or wolves. • Any contracts or agreements to use domestic sheep grazing to control noxious weeds will specify that no control actions against grizzly bears or wolves will be requested by the contractor if depredations or encounters occur as part of the weed grazing action. Any encounters with wolves or grizzly bears will be reported to Montana Fish, Wildlife, and Parks (Montana FWP) and the Unites States Department of Agriculture Wildlife Services. • Domestic sheep will be herded, and will be attended by guard dogs at all times. • Temporary, predator-proof electric fencing will be used to protect night bedding areas where potential for predation by wolves and grizzly bears exists.	Actions, page 72	propose to utilize domestic sheep to control invasive species, and there are currently no site-specific proposals. In addition, grizzly habitat will be addressed at the site-specific level, and compatibility between grizzly bear actions and GRSG direction will be sought.
36: Implement the following conservation actions recommended by USFWS as discretionary actions to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information: • Participate in ongoing interagency efforts to identify, map, and manage linkage habitats essential to grizzly bear movement between ecosystems. (Contact the USFWS grizzly bear recovery coordinator office at (406) 243-4903 for more information). • Continue to manage road access on BLM lands to achieve lower road densities where possible. • Manage garbage food and livestock feed storage to prevent access to bears to benefit grizzly bears as well as black bears and other	General Wildlife and Special Status Species Actions, page 72	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude the implementation of the conservation actions recommended by USFWS as discretionary actions to minimize or avoid adverse effects of a proposed action on grizzly bears. In addition, grizzly habitat will be addressed at the site-specific level, and compatibility between grizzly bear actions and GRSG direction will be sought.

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
carnivores. Reduction in human/carnivore interactions will also increase public safety. • Where grizzly bear use is known or likely to occur and where practicable, delay disturbance activities during the spring in spring habitats to minimize displacement of grizzlies. • Include security cover needs for grizzly bears in timber and vegetation management activity plans to increase the utility of habitat for grizzly bears across the Dillon planning area. Specifically, adjust the size and shape of cutting and harvest units to reduce the distance to cover, adjust edges, and leave patches of trees and understory within cutting units to reduce line-of-sight distances.		
37: Reinitiate consultation with USFWS if: • The amount or extent of incidental take is exceeded. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation. • New information reveals an agency action may affect listed species or critical habitat in a manner or to an extent not considered in this opinion • An agency action is subsequently modified in a manner that causes an effect on the listed species or critical habitat that was not considered in the USFWS Biological Opinion on the Dillon RMP • A new species is listed or critical habitat designated that may be affected	General Wildlife and Special Status Species Actions, page 72	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude reinitiation of consultation with USFWS if the amount or extent of grizzly bear incidental take is exceeded or an agency action is subsequently modified in a manner that causes an effect on grizzly bears that was not considered in the USFWS Biological Opinion on the Dillon RMP. GRSG conservation measures are not expected to result in incidental take or an effect on grizzly bears beyond what was specified in the 2004 RMP BO. However, site-specific analysis will be conducted and a decision will be made at that time. Critical habitat has not been designated for the grizzly bear.

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
Management and Monitoring of Grizzly Bear/Human Conflicts: Outside the PCA, state management plans will direct the management of nuisance bears. Management of nuisance bears usually falls into one or more of the following categories: • Removing or securing the attractant • Deterring the bear from the site through the use of aversive conditioning techniques • Capturing and relocating the nuisance bear • Removing the bear from the wild, including lethal control The focus and intent of nuisance grizzly bear management inside and outside the PCA will be predicated on strategies and actions to prevent grizzly bear/human conflicts. It is recognized that active management aimed at individual nuisance bears will be required in both areas. Management actions outside the PCA will be implemented according to state management plans. These actions will be compatible with grizzly bear population management objectives for each state for the areas outside the PCA. In circumstances that result in a nuisance bear situation outside the PCA, more consideration will be given to existing human uses. Site-specific conflict areas within and outside the PCA will be documented and prioritized to focus proactive management actions to minimize grizzly bear/human conflicts and address existing and potential human activities that may cause future conflicts. Past conflict management has demonstrated that grizzly bears can coexist with most human activities. Management of all nuisance bear situations will emphasize resolving the human	Conservation Actions for Grizzly Bears (CAGB)[10]	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude management and monitoring of grizzly bear/human conflicts or the use of state management plans to manage nuisance bears outside the PCA. In addition, proposed GRSG direction is not expected to result in circumstances that result in a nuisance bear situation outside the PCA.

[10] CAGB = Conservation actions for grizzly bears. The following excerpts from the Yellowstone Conservation Strategy and Grizzly Bear Management Plan for Southwestern Montana are pertinent to grizzly bear management in the Dillon Field Office (USDI Bureau of Land Management 2006, Appendix V).

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
cause of the conflict. Relocation and removal of grizzly bears may occur if other management actions are not successful. Before any removal, except in cases of human safety, management authorities will consult with each other prior to judging the adequacy of the reason for removal. Captured grizzly bears identified for removal may be given to public research institutions or public zoological parks for appropriate non-release educational or scientific purposes as per regulations of states and national parks. Grizzly bears not suitable for release, research, or educational purposes will be removed as described in appropriate state management plans or in compliance with national park management plans. All grizzly bear relocations and removals will be documented and reported annually in the Interagency Grizzly Bear Study Team Annual Report.		
Montana FWP will seek to maintain road densities of one mile or less per square mile of habitat as the preferred approach. This is the goal of the statewide elk management plan (including the southwestern Montana areas covered by this plan). The goal seeks to meet the needs of a variety of wildlife while maintaining reasonable public access. If additional management is needed based on knowledge gained as bears reoccupy areas, it should be developed and implemented by local groups as suggested in this plan.	CAGB	Yes: The GRSG LUPA decision will not authorize new roads in GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.
1. Identify and evaluate, for each project proposal, the cumulative effects of all activities, including existing uses and other planned projects. Potential site-specific effects of the project being analyzed are a part of the cumulative effects evaluation which will apply to all lands within a designated "biological unit". A biological unit is an area	CAGB	No: A cumulative effects analysis is being completed at this GRSG LUPA decision planning level and will be completed for each project occurring at the site-specific level.

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
of land which is ecologically similar and includes all of the year-long habitat requirements for a sub-population of one or more selected wildlife species.		
2. Avoid human activities, or combinations of activities, on seasonally important wildlife habitats that may result in an adverse impact on the species or reduce long-term habitat effectiveness.	CAGB	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines within sagebrush habits are not expected to negatively affect habitats seasonally important to grizzly bears.
3. Base road construction proposals on a completed transportation plan which considers important wildlife habitat components and seasonal use areas in relation to road location, construction period, road standards, seasons of heavy vehicle use, road management requirements, and more.	CAGB	Yes: The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.
4. Use minimum road and site construction specifications based on projected transportation needs. Schedule construction times to avoid seasonal-use periods for wildlife as designated in species-specific guidelines.	CAGB	Yes: GRSG LUPA decision RDFs for road construction occurring within the analysis area will complement this direction which could benefit grizzly bears. See the effects analysis section below.
5. Locate roads, drill sites, landing zones, etc., to avoid important wildlife habitat components based on site-specific evaluation.	CAGB	No: GRSG LUPA decision RDFs will complement this direction.
6. Roads that are not compatible with area management objectives, and are no longer needed for the purpose for which they were built, will be closed and reclaimed. Native plant species will be used whenever possible to provide proper watershed protection on disturbed areas. Wildlife forage and/or cover species will be used in rehabilitation projects where appropriate.	CAGB	Yes: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will complement this direction, which could benefit grizzly bears. See the effects analysis section below.
7. Impose seasonal closures and/or vehicle restrictions based on wildlife, or other	CAGB	No: GRSG LUPA decision goals, objectives, desired

Dillon Field Office RMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
resource needs, on roads that remain open and enforce and prosecute illegal use by off-road vehicles if given authority. Montana FWP will actively work to secure authority through the appropriate process and identify funding to support enforcement efforts.		conditions, standards, guidelines, and RDFs will complement this direction.
8. Montana FWP supports the U.S. Forest Service and BLM restrictions banning all off-road/trail use.	CAGB	NA: This is a Montana FWP position statement.
9. Efforts will be directed towards improving the quality of habitat in site-specific areas of habitually high human-caused bear mortality. Increased sanitation measures, seasonal road closures, etc., could be applied.	CAGB	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude this direction.

In addition, it contains a grizzly bear screening process (BLM 2006, Appendix V, and Appendices B and C in this document) intended to facilitate ESA processing of project consultation requirements for minor projects, when a “no effect” or “not likely to adversely affect” determination is “clearly” the appropriate conclusion. Projects not meeting or included in the criteria presented must follow standard processes for conducting project analysis, BA development, and consultation. The GRSG LUPA decision has been screened (see table above) using these criteria to estimate its potential for effects on grizzly bears.

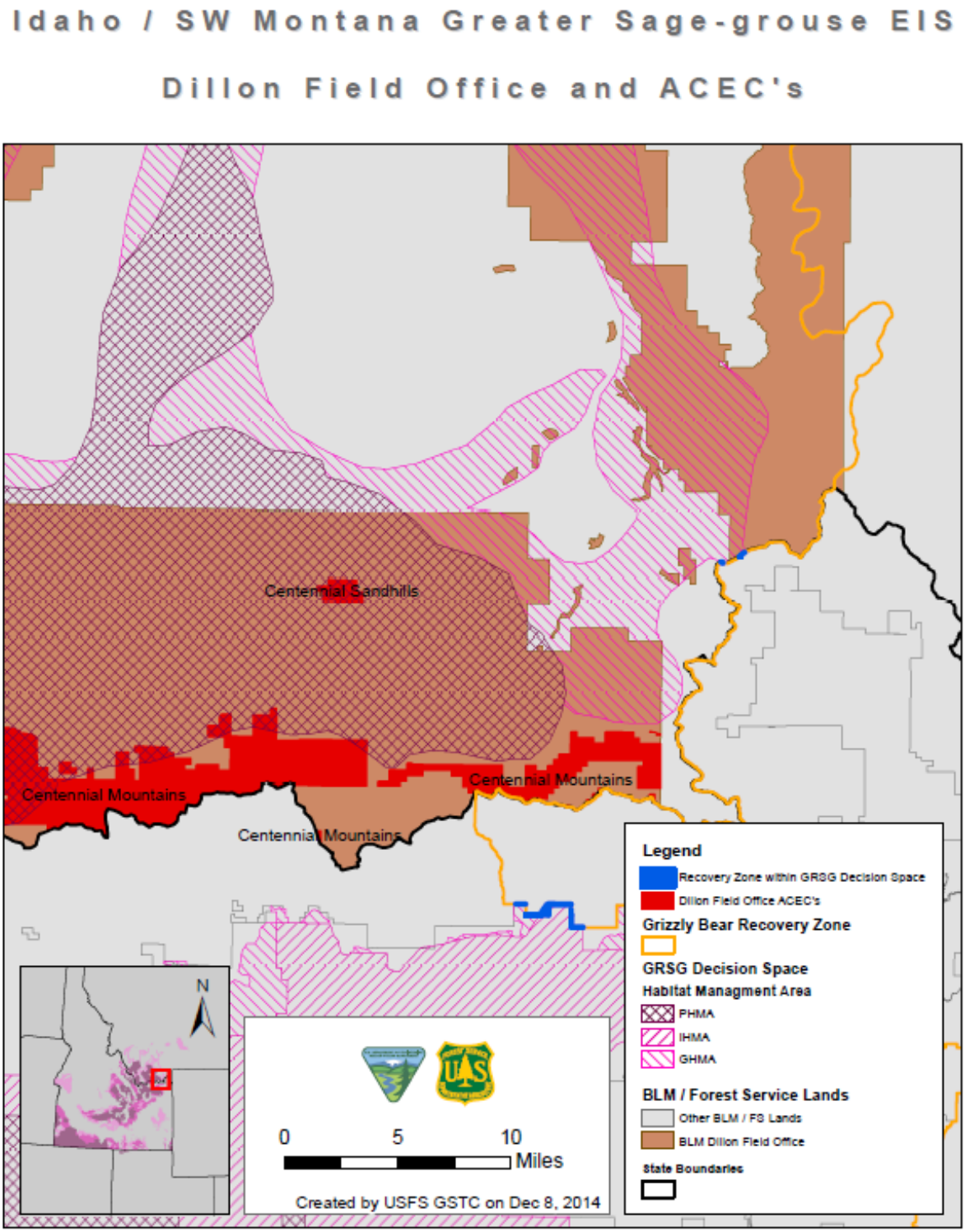

Figure 7. Centennial Mountains ACEC with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

Status of the Grizzly Bear on the Beaverhead-Deerlodge National Forest and Associated Management Direction

The Forest Plan revision process occurred over an 8-year period from 2002 to 2010, with the first Record of Decision signed in January 2009, and a second Record of Decision signed in February 2010. The BDNF entered into early consultation with the Montana Field Office of the USFWS on the forest plan revision process in 2003. Consultation on the 2009 Revised Forest Plan for the Yellowstone DPS of grizzly bears was completed in August 2010.

The BDNF 2009 Revised Forest Plan incorporated the 2006 Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (Forest Service 2006). The 2006 Forest Plan Amendment adopted the habitat standards and other relevant provisions of the March 2003 Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem (2003 Conservation Strategy). The 2006 Forest Plan Amendment encompasses the former Beaverhead National Forest, though the primary focus of the 2006 Forest Plan Amendment is on the conditions and actions that occur within the PCA of the YGBE. With the reclassification of the grizzly bear as threatened in 2009, the BDNF retained the direction of the 2006 Forest Plan Amendment and 2003 Conservation Strategy in the 2009 Revised Forest Plan. The 2006 Forest Plan Amendment and 2003 Final Conservation Strategy apply only to the area of the former Beaverhead National Forest.

Within the GRSG action area, 60,727 acres of occupied grizzly bear habitat overlap with PHMA, and 81,664 acres overlap with GHMA in the BDNF (Figure 5); there is no overlap between occupied grizzly bear habitat and IHMA on the BDNF. There is no overlap between the Grizzly Bear Recovery Zone and GRSG habitat occurring on the BDNF (Figure 6).

Table 2. Beaverhead-Deerlodge National Forest Land and Resource Management Plan (LRMP) Grizzly Bear Habitat Conservation Goals, Standards, and Guidelines and Potential for Effect

Beaverhead-Deerlodge LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
Manage grizzly bear habitat within the Primary Conservation Area to sustain the recovered Yellowstone grizzly bear population. Outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, accommodate grizzly bear populations to the extent that accommodation is compatible with the goals and objectives of other uses.	Goal, Appendix G, Page 5	No: There is no overlap between the PCA (i.e., Grizzly Bear Recovery Zone) and the GRSG LUPA decision action area on the BDNF (Figure 6). In addition, GRSG LUPA goals, objectives, desired conditions, standards, or guidelines will not preclude accommodation of grizzly bear populations outside of the PCA, to the extent that accommodation is compatible with the goals and

Beaverhead-Deerlodge LRMP Direction	**Type/Location**	**Need for Additional Analysis (Yes/No) and Rationale**
		objectives of other uses.
Inside the Primary Conservation Area, maintain the percent of secure habitat in BMU subunits at or above 1998 levels. Projects that change secure habitat must follow the Application Rules.	Standard 1, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Inside the Primary Conservation Area, maintain the number and capacity of developed sites at or below 1998 levels, with the following exceptions: any proposed increase, expansion, or change of use of developed sites from the 1998 baseline in the Primary Conservation Area is analyzed and potential detrimental and positive impacts on grizzly bears are documented through a biological evaluation or assessment. Projects that change the number or capacity of developed sites must follow the Application Rules.	Standard 2 – Developed Sites, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Inside the Primary Conservation Area, do not create new active commercial livestock grazing allotments, do not increase permitted sheep animal months from the identified 1998 baseline, and phase out existing sheep allotments as opportunities arise with willing permittees.	Standard 3 – Livestock Grazing, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Coordinate with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.	Standard 5 – Nuisance Bears, Appendix G, page 5	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude coordination with state wildlife management agencies to apply Conservation Strategy nuisance bear standards.
Inside the Primary Conservation Area, minimize grizzly bear/human conflicts using food storage, information and education, and other management tools.	Standard 6 – Food Storage, Appendix G, page 5	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.
Inside the Primary Conservation Area, use localized area restrictions to address conflicts with winter use activities, where conflicts	Guideline 1 – Winter Motorized	No: There is no overlap between the PCA and the GRSG LUPA decision action

Beaverhead-Deerlodge LRMP Direction	**Type/Location**	**Need for Additional Analysis (Yes/No) and Rationale**
occur during denning or after bear emergence in the spring.	Access, Appendix G, Page 5	area on the BDNF.
Inside the Primary Conservation Area, cattle allotments or portions of cattle allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees. Outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, livestock allotments or portions of allotments with recurring conflicts that cannot be resolved through modification of grazing practices may be retired as opportunities arise with willing permittees.	Guideline 2 – Livestock Grazing Access, Appendix G, Page 6	Inside the PCA: No. There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF. Outside of the PCA: Yes. GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude retiring livestock allotments or portions of allotments outside the PCA with recurring conflicts that cannot be resolved through modification of grazing practices. In addition, GRSG LUPA decision direction that modifies livestock management practices to benefit GRSG or their habitat, including voluntary retirement of vacant allotments, could complement protection of grizzly bears and their habitat. See the effects analysis section below.
Outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy, emphasize proper sanitation techniques, including food storage orders, and information and education, while working with local governments and other agencies.	Guideline 3 – Food Storage, Appendix G, Page 6	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude emphasis of proper sanitation techniques, including food storage orders, and information and education.
Inside and outside the Primary Conservation Area in areas identified in state management plans as biologically suitable and socially acceptable for grizzly bear occupancy,	Guideline 4 – Food Sources, Appendix G, Page 6	No: There is no overlap between the PCA and the GRSG LUPA decision action area on the BDNF.

Beaverhead-Deerlodge LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
maintain the productivity, to the extent feasible, of the four key grizzly bear food sources as identified in the Conservation Strategy. Emphasize maintaining and restoring whitebark pine stands inside and outside the Primary Conservation Area.		The GRSG LUPA decision action area is unlikely to contain whitebark pine stands. GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude maintenance of the productivity, to the extent feasible, of ungulates, cutthroat trout, army cutworm moths, or whitebark pine seeds.

Likewise, the 2010 Biological Assessment and corresponding Biological Opinion for Effects of the Revised Land and Resource Management Plan (USFWS 2010a) for the BDNF on Grizzly Bears only applies to a portion of the BDNF. The 2010 Biological Opinion only applies to the area of the Yellowstone DPS, which encompasses the Madison, Gravelly, and Tobacco Root landscapes in their entirety and a small portion of the Jefferson River and Upper Clark Fork landscapes. The small portion of the Jefferson River and Upper Clark Fork landscapes in the Yellowstone DPS is National Forest System lands in the Highland Mountains south of and bounded by Interstate highways 15 and 90.

An additional BA was prepared in 2012 to supplement the BA prepared for the 2010 consultation on the Yellowstone DPS; new information demonstrated that grizzly bears from the NCDE and other grizzly bear ecosystems are advancing on to the northern tier of the BDNF, and the BDNF reinitiated consultation based on the new information. For purposes of reinitiation of consultation, the USFWS referred to two analysis areas on the BDNF: the Yellowstone analysis area (the area used for analysis in 2010 consultation) and the west and north analysis area (WNAA), which includes the areas of the BDNF west and north of the Yellowstone analysis area.

Grizzly bears currently occupy the southeast and northwest portions of the BDNF. The Yellowstone DPS is in the southeast portion of the BDNF, and the Madison and Gravelly mountain ranges are currently occupied by grizzly bears. To our knowledge, the Tobacco Root and Highland Mountains (also within the Yellowstone DPS) are not occupied by grizzly bears at this time (Forest Service 2012).

Grizzly bears are gradually moving south onto the BDNF from the NCDE and other grizzly bear ecosystems. At this time, it appears that grizzly bears are using the northern portions of the BDNF in the Boulder River, Clark Fork-Flints, and Upper Rock Creek landscapes (Forest Service 2012).

The Biological Opinion (USFWS 2013b) specifies the amount or extent of take anticipated for the Yellowstone Analysis Area and WNAA of the Forest Plan:

First surrogate measures of incidental take - access management:
If permanent increases in linear road density depart from conditions described in the BO (pages 79-80) over the life of the Revised Forest Plan (15 years), then the level of incidental take anticipated in the first surrogate measure of take would be exceeded, and therefore the level of take exempted would be exceeded.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

Second surrogate measure of incidental take – temporary roads
The Forest has estimated that 70 miles of temporary roads may be constructed across the Forest over the life of the Revised Forest Plan. If the Forest constructs more than 70 miles of temporary motorized routes over the life of the Revised Forest Plan, then the level of incidental take anticipated by the USFWS in their second surrogate measure of take would be exceeded, and the level of take exempted would be exceeded.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

Third surrogate measure of incidental take – access management/winter motorized use
The timeframe between the third week in March and the winter use season ending date of May 15 is the timeframe where the potential exists for interactions between snowmobiles and recently emerged female grizzly bears with cubs. This timeframe represents the third surrogate measure of incidental take anticipated as a result of the Revised Forest Plan.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

Fourth surrogate measure of incidental take – acres of denning habitat open to snowmobiling during the life of the Revised Forest Plan
In the Yellowstone analysis area, approximately 55,026 acres of denning habitat will be open to snowmobiling during the life of the Revised Forest Plan. In the WNAA, approximately 228,356 acres of denning habitat will be open to snowmobiling during the life of the Revised Forest Plan. These acres represent our fourth surrogate measure of the incidental take that the USFWS anticipates as a result of the Revised Forest Plan.

GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take. The decision will not authorize new roads or trails within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

Fifth surrogate measure of incidental take - harm
The USFWS anticipates that the fifth surrogate measures of incidental take resulting from the Revised Forest Plan in the form of harm is proportional to the number of grizzly bears that are removed or killed within the each of the analysis areas for defense of human life or property, as a result of obtaining anthropogenic food or other attractants due to inadequate storage.

GRSG LUPA decision conservation measures are not expected to result in incidental take. LUPA decision goals, objectives, desired conditions, standards, or guidelines utilized for individual projects will not preclude compliance with existing food storage order and avoidance of human/bear interaction direction.

West and North Analysis Area (WNAA)
Should more than one grizzly bear be killed or removed from either analysis area of the Forest at any time during for the life of the Revised Forest Plan because it has become habituated in relation to food and attractant storage, incidental take will be exceeded and the Forest must reinitiate consultation with the USFWS. Additionally, should the level of incidental take associated with food and attractant storage reach, but not exceed, the anticipated incidental take level for either area, the Forest should informally consult with the USFWS regarding the adequacy of existing mechanisms to minimize potential take.

GRSG LUPA decision conservation measures are not expected to result in incidental take. LUPA decision goals, objectives, desired conditions, standards, or guidelines used for individual projects will not preclude compliance with existing food storage order and avoidance of human/bear interaction direction.

Sixth surrogate measure of incidental take - the number of grizzly bears that are killed within the action area as a result of livestock grazing
The USFWS anticipates take in the form of harm to grizzly bears as a consequence of livestock grazing and the associated livestock management operation in habitats commonly used by grizzly bears. The habitat modification of adding a significant, anthropogenic food source that results in the death or injury of bears can itself be considered “take” in the form of harm. The likely depredation of some of the permitted livestock represents an impairment of natural feeding behavior that will in some cases ultimately lead to management removal or death of grizzly bears.

Should more than two grizzly bears in the Yellowstone analysis area or one grizzly bear within the WNAA be killed or removed as a result of management action related to livestock grazing within the action area during the life of the Revised Forest Plan, incidental take will be exceeded and the Forest must reinitiate consultation with the USFWS. Additionally, should the level of

incidental take associated with the Revised Forest Plan reach, but not exceed, the anticipated incidental take level, the Forest should informally consult with the USFWS regarding the adequacy of existing mechanisms to minimize potential take.

Although GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to result in incidental take, changes in grazing management through grazing authorization modifications may be implemented when livestock management practices are determined to not be compatible with meeting or making progress towards achievable GRSG habitat objectives. Potential modifications include, but are not limited to, changes in: season or timing of use; numbers of livestock; distribution of livestock use; duration and/or level of use; kind of livestock (e.g., cattle, sheep, horses, or goats); voluntary measures such as temporary non-use; and grazing schedules. See the effects analysis section below.

Status of the Grizzly Bear on the Caribou-Targhee National Forest and Associated Management Direction

Within the GRSG action area, 150 acres of occupied grizzly bear habitat overlap with IHMA on the Caribou-Targhee National Forest; there is no overlap between occupied grizzly bear habitat and PHMA or GHMA on the Caribou-Targhee National Forest (Figure 5). In addition, 92 acres of the Grizzly Recovery Zone overlap with IHMA on the Caribou-Targhee National Forest, and 2 acres of the Grizzly Recovery Zone overlap with GHMA (Figure 6).

Although portions of the Forest are within three BMUs (Henry’s Lake BMU, which is divided into 2 subunits; Plateau BMU, which is divided into 2 subunits; and Bechler-Teton BMU, which is not divided into subunits), all overlap between the Caribou-Targhee National Forest, GRSG action area, and Grizzly Recovery Zone falls within the Henry’s Lake BMU and Henry’s Lake 1 Subunit (Figure 6).

Targhee National Forest LRMP Direction Specific to Grizzly Bears and Potential for Effect

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
Relevant Forestwide Standards and Guidelines - Wildlife		
Problem grizzly bears will be addressed according to the IGBC nuisance bear guidelines (IGBC 1994)	General Habitat Standard, Page III-16	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not preclude or conflict with implementation of this standard.
Habitat conditions will be sufficient to sustain a recovered population of grizzly bears	Goals – Grizzly Bear Habitat, Page III-17	Yes: There is a total of 158 acres of overlap of occupied grizzly habitat with GRSG management areas (149 acres IHMA, 9 acres GHMA) on the CTNF.
Allow for unhindered movement of bears (continuity with Yellowstone National Park and adjacent BMUs)	Goals – Grizzly Bear Habitat, Page III-17	No: There is little expected disturbance expected on the small area of overlap.
Meet recovery criteria in the current Grizzly Bear Recovery Plan	Objectives - Grizzly Bear Habitat, Page III-17	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with meeting this objective.
Implement guidelines developed by the IGBC	Objectives - Grizzly Bear Habitat, Page III-17	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to conflict with implementation of the IGBC guidelines. Furthermore, grizzly bear habitat will be addressed at the site-specific level, and compatibility between grizzly bear guidelines and GRSG direction will be sought.
Provide safe, secure sites for nuisance bears as defined by Interagency Grizzly Bear Guidelines	Objectives - Grizzly Bear Habitat, Page III-17	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with meeting this objective.
Achieve the road density standards in the BMUs within three years of the	Objectives - Grizzly Bear Habitat, Page III-	No: GRSG LUPA decisions will not approve new roads

Targhee National Forest LRMP Direction	**Type/Location**	**Need for Additional Analysis (Yes/No) and Rationale**
implementation of the ROD in coordination with USFWS and State Wildlife agencies	18	within GRSG habitat. Rather, it will generally limit them.
Develop fire management plans for each of the BMUs to address wildfires and prescribed fires	Objectives - Grizzly Bear Habitat, Page III-18	Yes: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with meeting this objective and will likely complement it by maintaining, improving, or restoring sagebrush habitat. Please see the effects analysis section below.
The grizzly bear education program will focus on residents in residential and summer home areas, developed recreation site users, wilderness users, hunters, outfitters and guides, and permittees (Guideline)	Grizzly Bear Habitat Standards and Guidelines, Page III-18	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with implementation of this guideline.
Those areas shown as Management Situation 3 (MS3) habitat on Map #5 of the 1985 Forest Plan will continue to be managed as MS3 habitat (Standard)	Grizzly Bear Habitat Standards and Guidelines, Page III-18	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with implementation of this standard.
Relevant Forestwide Standards and Guidelines – Forest Use and Occupation		
The Forest road and trail system is cost effective and integrates human needs with those of other resource values, particularly grizzly bear, elk, and native cutthroat trout	Forest Use and Occupation – Access Goals, Page III-23	No: The GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them.
Elk vulnerability is decreased and grizzly bear security is increased	Forest Use and Occupation – Access Goals, Page III-23	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas, including juniper.
2. Administrative Use on Restricted Roads and Trails and in Restricted Areas A. The Open Road and Open Motorized Trail Route Density	Forest Use and Occupation – Access Standards and Guidelines, Page III-23	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with implementation of these standards.

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
Standards prescribed for each prescription area do not restrict responses to emergency events to protect human life, property values and structures, and forest resources. Responses to emergency events include law enforcement, search and rescue, and fire suppression (S) B. Prudent cross-country motorized access is allowed to implement projects consistent with prescription objectives, in all prescription areas except for grizzly bear core areas and designated wilderness. Administrative uses, including, but not limited to, planned project work such as firewood harvest, timber sales, tree planting, prescribed burns, wildland survey, or fish and wildlife habitat improvements on restricted roads, trails or areas will only be allowed under the following conditions: 1) Any motorized vehicle access on a restricted road or trail or in a restricted area will be for official administrative business only and must be approved by the District Ranger 2) When motorized vehicle access on a restricted road or trail or area is necessary, a sign will be posted while project work is being accomplished 3) Motorized vehicle access on a restricted road or trail or area will be allowed by permit under the following conditions when approved by the Forest Supervisor or District Ranger: a. Project work is one mile or 30 minutes' walk or greater b. Equipment is being used that is unreasonable to carry to the project		

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
work site c. Contract inspectors working with contractors who have motorized equipment and vehicles which are necessary for the contract work This direction (in Item 2B, above) supersedes direction in access tables for individual prescriptions (S) C. Needs for motorized cross-country administrative access will be presented and considered in analysis documents for proposals, including, but not limited to, prescribed burning, fish and wildlife habitat improvement, timber sales, and personal use firewood harvest. The proposal will limit access to that reasonably needed to conduct the project. Prudent cross-country access to implement these projects may be allowed consistent with project-level NEPA decisions and prescription objectives in all prescription areas except for grizzly bear core areas and designated wilderness. This direction supersedes direction in access tables for individual prescriptions (S)		
Figures appearing in the access tables for individual prescriptions represent direction for those prescription areas. If no figure appears, refer to the following direction (S): Total Motorized Access Route Density[11] for Henry's Lake BMU Subunit 1: 1.0 mi/mi^2	Forest Use and Occupation – Access Standards and Guidelines, Page III-24	Yes: The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit them. This may benefit grizzly bears where habitat overlaps. See the effects analysis section below.

[11] Includes all open and restricted roads and motorized trails. Density may be displayed as follows: 1) Density (miles/square mile) for an analysis area (such as a watershed or a management prescription area); or 2) Density is displayed as a percentage of the analysts area in a defined density category (example. 20% ~2.0 miles per square mile).

Targhee National Forest LRMP Direction	**Type/Location**	**Need for Additional Analysis (Yes/No) and Rationale**
Open Road and Open Motorized Trail Route Density[12] for Henry's Lake BMU Subunit 1: 0.6 mi/mi^2		
Relevant Forestwide Standards and Guidelines – Production of Commodity Resources		
C.3. Do not convert from a cattle allotment to a sheep allotment within bighorn sheep habitat or in grizzly bear management prescriptions (S)	Allotment Management Planning Standards and Guidelines, Page III-30	Yes: Will likely apply to MA 5.3.5 and potential modifications to allotments, including "kind of livestock"
Relevant Subsections: There is overlap between the GRSG action area and the Following Subsections: Lemhi-Medicine Lodge (19,279 acres of overlap with IHMA and 57,367 acres of overlap with PHMA); Centennial Mountains (745 acres of overlap with GHMA; 9,606 acres of overlap with IHMA; 84 acres of overlap with PHMA); Island Park (1 acre of overlap with GHMA; 3,039 acres of overlap with IHMA); and Caribou Range Mountains (17,664 acres of overlap with GHMA)		
Lemhi/Medicine Lodge Subsection	N/A	No: No subsection management direction specific to grizzly bear
Any activities will need to address concerns associated with grizzly bear.	Centennial Mountains Subsection Desired Future Condition, Page III-42	No: The purpose of this analysis is to assess the potential effects of GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines on grizzly bears. Furthermore, grizzly bears and their habitat will be addressed at the site-specific level, and compatibility between grizzly bear management direction and GRSG management direction will be sought at that time.
To better manage grizzly bear habitat, all sheep allotments on the Island Park Ranger District will be phased out on an opportunity basis. Domestic sheep grazing within the grizzly bear recovery area will be managed	Island Park Subsection Standard, Page III-44.	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines for range management/livestock grazing will not conflict with

[12] Includes all open roads and open motorized trails. Density may be displayed as follows: 1) Density (miles/square mile) for an analysis area (such as a watershed or a management prescription area); or 2) Density is displayed as a percentage of the analysis area in a defined density category (example. 20% > 2.0 miles per square mile).

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
according to Management Situation 2 guidelines and will be phased out on an opportunity basis. When all sheep allotments in the portion of the subsection within the grizzly bear recovery area have been vacated, all of the allotments will be closed in that portion of the subsection. The intent of not closing these individual allotments as they are vacated is to provide an opportunity to minimize conflicts between grizzly bears and domestic sheep in the event of an encounter with grizzlies on sheep allotments. (S) A. Opportunities to vacate an allotment include such events as nonuse violations, term permit waivers where the permit is waived back to the government, resource protection, or permit actions resulting in cancellation of the permit. If opportunities do not arise, then efforts will be made to relocate or accommodate sheep to other areas B. Vacated allotments in these areas will be made available as needed to resolve grizzly bear/sheep conflicts in other sheep allotments in Situation 2 habitat.		implementation of these standards.
Important Forestwide objectives in this subsection focus on grizzly bear habitat management and elk. Road closures and vegetation treatments aimed at improving cover and maintaining forest health are opportunities to achieve these objectives.	Island Park Subsection Desired Future Condition, Page III-48.	No: GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them. The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas, including juniper.
Caribou Range Subsection	N/A	No: No subsection management direction specific to grizzly bear.

Targhee National Forest LRMP Direction	**Type/Location**	**Need for Additional Analysis (Yes/No) and Rationale**
Grizzly Bear-Themed Management Areas		
Management Area 2.6.1 (a) Grizzly Bear Habitat (No ASQ, No Cross-Country, No Sheep)	Grizzly Bear Habitat Forest Use and Occupation (Access) Standard and Production of Commodity Resources (Range and Timber) Standards, Page III-98	No: No overlap between this management area and GRSG LUPA decision action area (Figure 9)
Management Area 2.6.2 Grizzly Bear Core Area	Grizzly Bear Core Area Goals, Objectives, and Standards and Guidelines, Pages III-98 through III-100	No: No overlap between this management area and GRSG LUPA decision action area (Figure 9)
Management Area 2.6.5 Grizzly Bear Security Area	Grizzly Bear Security Area Goals and Standards and Guidelines, Pages III-101 through III-103	No: No overlap between this management area and GRSG LUPA decision action area (Figure 9)
Management Area 5.3.5[13] Grizzly Bear Habitat (NIC for ASQ, No Cross Country, Phase out Sheep)		
1 Make nonfederal lands within this area a high priority for acquisition	MA 5.3.5 Goal, Page III-147	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to conflict with implementation of this goal.
2. Maintain grizzly bear security through a low density of open, motorized roads and trails.	MA 5.3.5 Goal, Page III-147	No: GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them.
3. Manage recreation to minimize grizzly conflicts with humans	MA 5.3.5 Goal, Page III-147	No: GRSG LUPA decision recreation goals, objectives, desired conditions, standards, and guidelines that manage existing recreation uses to minimize adverse effects on GRSG or their habitat, or

[13] The Interagency Grizzly Bear Guidelines for Management Situation 1 habitat apply to this management prescription, except that livestock grazing in existing Management Situation 2 habitat will continue to be managed under Management Situation 2 guidelines.

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
		prevent construction of new recreation facilities in PHMA and IHMA, will not conflict with managing recreation to minimize grizzly bear conflicts with humans.
Wildlife habitat improvement projects will maintain or improve grizzly bear habitat. Vegetation manipulation to improve grizzly bear habitat includes treatment to maintain long-term ecosystem vegetation patterns.	MA 5.3.5 Goal, Page III-147	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas that are primary grizzly bear habitat. In addition, GRSG LUPA decision vegetation and fuels management goals, objectives, desired conditions, standards, and guidelines that conserve, enhance, and restore GRSG habitat will not conflict with this goal. They may, if anything, benefit grizzly secondary habitat.
Effects of proposals will be analyzed at multiple scales. Analysis areas will follow ecological boundaries, watersheds, and topographic breaks. Cumulative effects will be analyzed on no less than a BMU subunit scale.	MA 5.3.5 Ecological Processes and Patterns Guideline, Page III-147	No: Site-specific proposals will be analyzed according to LRMP MA direction.
Insects and disease are allowed to play their natural role in ecosystem development, unless this conflicts with the maintenance of grizzly bear habitat.	MA 5.3.5 Ecological Processes and Patterns – Insects and Disease Guideline, Page III-147	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this guideline.
Prescribed fire is allowed to maintain or improve grizzly habitat	MA 5.3.5 Ecological Processes and Patterns – Fire/Fuels Guideline, Page III-147	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas that are primary grizzly bear habitat. In addition, GRSG vegetation and fuels management goals, objectives, desired conditions, standards, and guidelines that conserve, enhance and restore GRSG

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
		habitat will not conflict with this goal. And, if anything, might complement this guideline within grizzly bear secondary habitat.
All operating plans and special use permits will specify measures to meet grizzly bear management goals and objectives for grizzly bear habitat. The following will be required: 1. Temporary cessation or modification of permitted activities will occur to resolve grizzly bear conflicts. 2. Human food, refuse, and prepared livestock/pet foods associated with the permitted activity will be made unavailable to grizzlies through proper storage, handling, and disposal. Proper storage includes a) inside a bearproof container, b) suspended horizontally from adjacent posts or trees, c) stored in a hard-sided vehicle or trailer, or d) other methods approved by the District Ranger. The exception is when the food is being eaten or prepared for eating, or when food and similar organic matter is being transported. Unburned human foods, garbage or other refuse will be carried off the forest as often as practical. 3. Any observation of grizzly bear or grizzly bear sign will be reported to the District Ranger as soon as practical. 4. Access roads that are not open on the travel plan will be low standard roads and gated to allow access only to the operators. Nonwinter motorized use behind locked gates is authorized only for permitted	MA 5.3.5 Ecological Processes and Patterns - Physical Elements (Minerals/Geology) Standard, Page III-148	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this standard because it will not authorize operating plans or special use permits.

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
activities.		
Maintain snag habitat at greater than 60 percent of the biological potential for woodpeckers.	MA 5.3.5 Ecological Processes and Patterns – Biological Elements (Wildlife) Guideline, Page III-148	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include forested areas that are primary grizzly bear habitat.
Environmental analysis areas (for NEPA purposes) will be at least 7,000 acres in size.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	No: The GRSG LUPA decision analysis area is roughly 49 million acres in size.
Long-term activities[14] must be concentrated in activity areas on an annual basis between April 1 and September 15. Each activity area shall not exceed 7,000 acres in size	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Standard, Page III-148	No: Only eighty-seven acres of important GRSG habitat and two acres of general habitat overlap with MA 5.3.5. In addition, GRSG LUPA decision timing restrictions are limited to the lekking season (March 15 – May 15), which will only slightly overlap with this direction.
Long-term activities should be concentrated in space and be of as short a duration as is practical.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	
Long-term activity areas should generally follow ecological boundaries, watersheds, and topographic breaks. Activity areas should be distributed such that no less than 7,000 acres lie between them.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	
Inventory, monitoring, and short-term activities[15] should be concentrated in time and space.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-148	
Short-term management activities	MA 5.3.5 Ecological	

[14] Long-term activities, for purposes of this prescription, are those activities which may last more than one field season, or may be expected to recur in different areas year after year. They may occur over a larger geographic area than short-term activities. These include timber sales, firewood harvesting, prescribed burns, road reclaiming, tree thinning, and trail construction.

[15] Short-term activities, for purposes of this prescription, are those activities that are typically accomplished within one field season and will not necessarily recur on an annual basis. These activities generally occur over a more limited spatial extent than long-term activities. These include tree planting, trail maintenance, spraying weeds, and range maintenance activities.

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
should be planned to be concentrated in one consecutive 30-day period. Exceptions should be implemented over as short a duration as is practical.	Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-149	
Management activities may take place during winter (December 15 to April 1) and shall be addressed on a case-by-case basis. The primary concern during the winter will be the changes the activity may have on habitat quality and quantity.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Guideline, Page III-149	
Administrative Responsibilities - emergency cessation or modification of activities will occur when those activities are in conflict with grizzly bear management objectives. Scheduled activities will not occur during the season of bear use in areas where foraging opportunities are limited in their availability, in area, or time.	MA 5.3.5 Ecological Processes and Patterns - Biological Elements (Wildlife) Standard, Page III-149	No: Only 87 acres of IHMA and 2 acres of GHMA overlap with MA 5.3.5. Therefore, it is unlikely that GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will conflict with grizzly bear management objectives. However, LRMP consistency will be determined and addressed for site-specific proposals.
Please refer to Table in LRMP stating season, type of access (pedestrian; horse/pack stock; mountain bike; motorized, by type), cross-country travel (yes/no/n/a), and road and trail travel (yes/no).	MA 5.3.5 Forest Use and Occupation - Access Standard. Page III-149	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not authorize new types of access or change existing access.
New or relocated roads should meet the following guidelines: 1. Avoid high quality (such as whitebark pine habitat) grizzly bear habitat 2. Minimize sight lines on temporary roads and skid trails 3. Revegetate temporary roads following use 4. Follow minimum required construction standards	MA 5.3.5 Forest Use and Occupation – Roads Guideline. Page III-149	No: The GRSG LUPA decision will not approve new roads within GRSG habitat. Rather, it will generally limit them. In addition, the portion of the GRSG action area overlapping the Targhee NF does not include forested areas.
Motorized administrative use on restricted roads and restricted	MA 5.3.5 Forest Use and Occupation -	No: GRSG LUPA decision goals, objectives, desired

Targhee National Forest LRMP Direction	**Type/Location**	**Need for Additional Analysis (Yes/No) and Rationale**
motorized trails by personnel of resource management agencies is acceptable at low-intensity levels as defined in existing cumulative effects analysis models. This includes contractors and permittees in addition to agency employees (See Roads and Trails in the LRMP Glossary for definitions).	Roads Standard. Page III-149	conditions, standards, or guidelines are not expected to result in motorized administrative use on restricted roads and motorized trails beyond what is acceptable at low-intensity levels.
Special Use Activities which adversely affect grizzly bear populations or their habitat will not be permitted.	MA 5.3.5 Forest Use and Occupation – Recreation (Special Uses) Standard. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, and standards and guidelines will not conflict with this standard.
New or relocated trails will avoid high-quality grizzly bear habitat	MA 5.3.5 Forest Use and Occupation – Recreation (Trails) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not authorize new trails. However, travel management goals and objectives that address travel management planning and design to minimize negative effects to wildlife or their habitats will complement this guideline.
New or relocated trails will be located so as to minimize the risk of human/bear interactions (for example, do not place trails along roaring streams where bears cannot hear humans approaching)	MA 5.3.5 Forest Use and Occupation – Recreation (Trails) Guideline. Page III-150	
ROS - Primitive to semi-primitive motorized.	MA 5.3.5 Forest Use and Occupation – Recreation (ROS) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with the current ROS guideline for MA 5.3.5.
VOQ - Retention to partial retention.	MA 5.3.5 Forest Use and Occupation – Recreation (VOQ) Guideline. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with the current VOQ guideline for MA 5.3.5.
No new interpretation/enhancement of cultural sites	MA 5.3.5 Forest Use and Occupation – Heritage Standard. Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines will not conflict with this heritage resource

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
		standard.
Forestwide standards and guidelines apply for the management of domestic sheep grazing in Management Situation 2, grizzly bear habitat.	MA 5.3.5 Production of Commodity Resources – Range Guideline, Page III-150	Please see Relevant Forestwide Standards and Guidelines – Production of Commodity Resources section above.
Cattle grazing is allowed. Allotment Management Plans will specify measures to meet agency grizzly goals and objectives.	MA 5.3.5 Production of Commodity Resources – Range Standard, Page III-150	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this standard; the GRSG LUPA decision will not authorize livestock grazing.
Permittee's full compliance in meeting grizzly bear management goals and objectives for grizzly bear habitat will be a condition of the permit. In addition, the following will be required: 1. Temporary cessation or modification of permitted livestock grazing activities will occur to resolve grizzly bear conflicts with humans or livestock. 2. Livestock carcasses will be disposed of or rendered unattractive to bear within 24 hours after they are discovered. Disposal may include removing the carcass from the area, burning, using an acceptable chemical repellent, or other methods approved by the District Ranger. Disposal shall be in accordance with other governing agencies such as the Wyoming Game and Fish Department in order to determine cause of death for reimbursement purposes. 3. Human food, refuse, and prepared livestock/pet foods associated with the livestock operation will be made unavailable to grizzlies through proper storage, handling, and disposal. Proper storage includes a)	MA 5.3.5 Production of Commodity Resources – Range Standard, Pages III-150 through III-151	No: GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines will not conflict with this standard; the GRSG LUPA decision will not authorize livestock grazing.

Targhee National Forest LRMP Direction	Type/Location	Need for Additional Analysis (Yes/No) and Rationale
inside a bearproof container, b) suspended horizontally from adjacent posts or trees, c) stored in a hard sided vehicle or trailer, or d) other methods approved by the District Ranger. The exception is when the food is being eaten or prepared for eating, or when food and similar organic matter is being transported. Unburned human foods, garbage, or other refuse will be carried off the Forest as often as practical. 4. High quality food production areas for grizzlies (wet alpine and subalpine meadows, stream bottoms, aspen groves, and other riparian areas) will receive special grazing direction such as light, once-over grazing, special utilization standards, or complete closure. These sites and their corresponding direction will be identified in the Annual Operating Plan. 5. Livestock depredation believed to be associated with bears will be reported within 24 hours after they are discovered to the District Ranger and the proper State agencies. 6. Any observation of grizzly bear or grizzly bear sign will be reported to the District Ranger as soon as practical. 7. Any action taken by the permittee or their agents which violates the ESA will be grounds for cancellation of their grazing permit.		
Please refer to LRMP, Pages III-150 through III-151	MA 5.3.5 Production of Commodity Resources – Timber Standards and Guidelines, Pages III-150 through III-151	No: The portion of the GRSG LUPA decision action area overlapping the Targhee NF does not include timber (i.e., juniper).

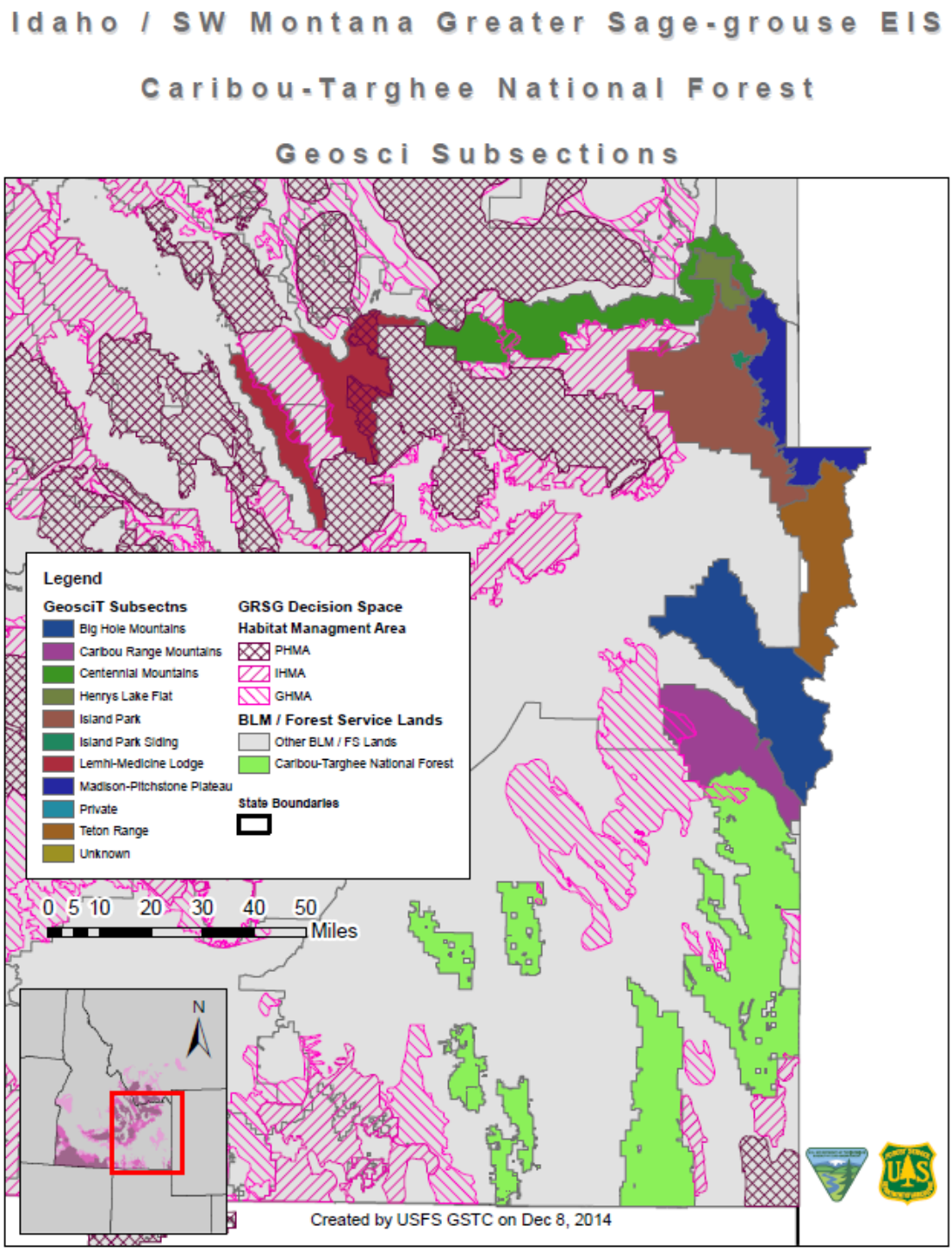

Figure 8. Caribou-Targhee National Forest LRMP subsections with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

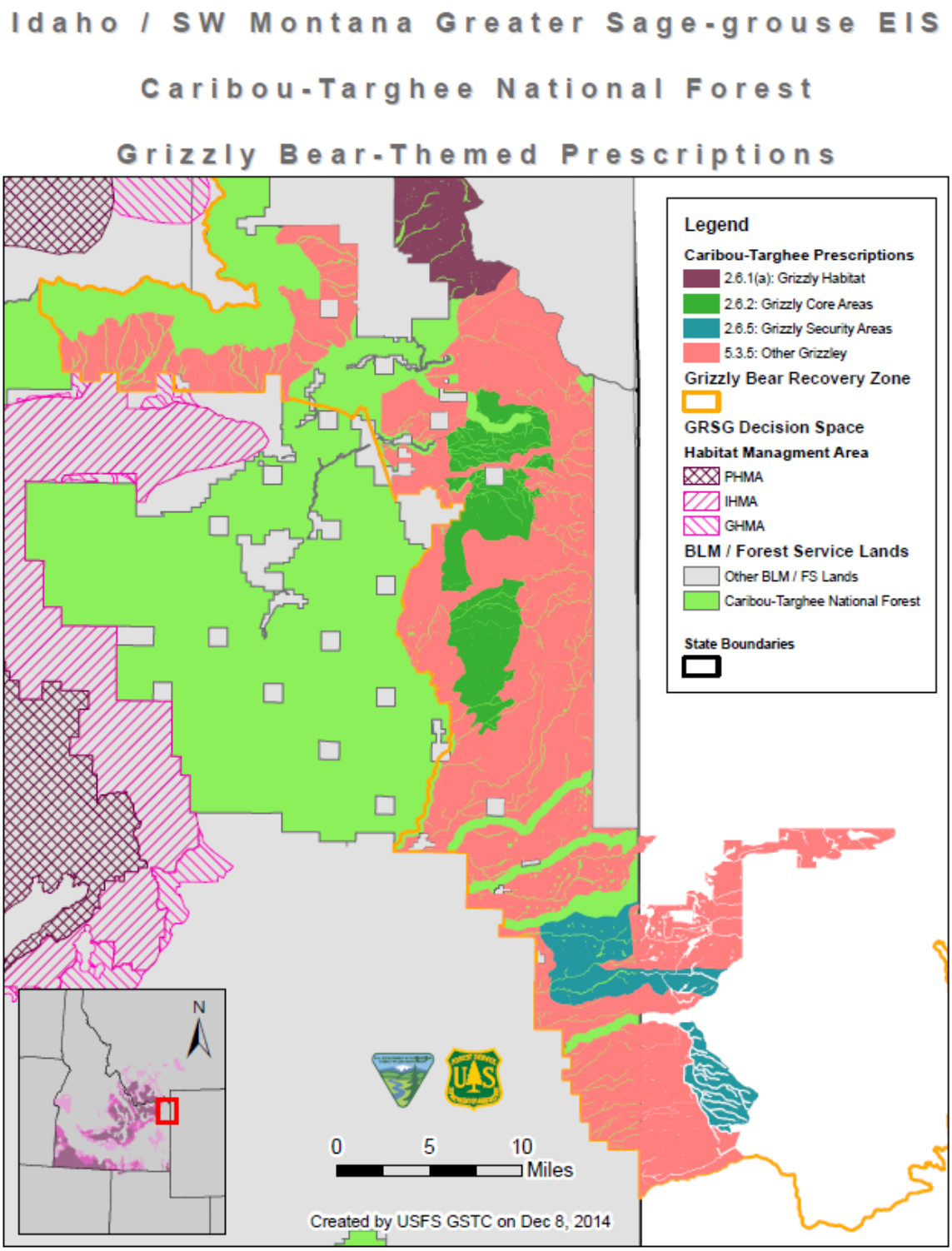

Figure 9. Caribou-Targhee National Forest LRMP grizzly bear-themed prescriptions with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

2007 Conservation Strategy Direction
The following direction only applies to the portions of the action area within the PCA.

Secure Habitat Standard
The percent of secure habitat within each bear management subunit must be maintained at or above levels that existed in 1998. Application rules, criteria, and definitions are provided in the Conservation Strategy on pages 39-42 and will not be repeated here. According to the application rules for secure habitat, activities that do not require road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation do not detract from secure habitat. Examples of such activities include thinning, tree planting, prescribed fire, trail maintenance, and administrative studies/monitoring. Activities should be concentrated in time and space to the extent feasible to minimize disturbance. There is no road construction, reconstruction, opening a permanently restricted road, or recurring helicopter flight lines at low elevation associated with this project. Therefore, this project meets all of the direction for maintaining secure habitat.

The Conservation Strategy provides the following information with regard to access conditions and secure habitat in several BMUs on the Forest: "Several other subunits were listed as needing improvement in the 2000 Draft Conservation Strategy (Plateau #1, Plateau #2, and Henry's Lake #1). The draft stated that upon full implementation of the access management changes in the revised Targhee Forest Plan, those subunits will be acceptable for mean open motorized access route density, total motorized access route density, and secure habitat. Those access management changes have been fully implemented and those subunits are no longer identified as having potential for improvement. This is due to road decommissioning that was completed following the signing of the 1997 revised Targhee Forest Plan and the 1999 FEIS for the Targhee Travel Plan (Open Road and Open Motorized Trail Analysis (motorized road and trail travel plan)."

Developed Site Standard
The number and capacity of developed sites within the PCA will be maintained at or below the 1998 level with some following exceptions. The GRSG LUPA decision will not authorize construction of developed sites although it will place limitations on construction of new sites. Please see the effects analysis section below.

Food Storage Order Standard
GRSG LUPA decision goals, objectives, desired conditions, standards, or guidelines are not expected to preclude compliance with the food storage order; therefore, no additional analysis is necessary at this time.

Livestock Allotment Standard
Inside the PCA, no new active commercial livestock grazing allotments will be created, and there will be no increases in permitted sheep Animal Months (AMs) from the identified 1998 baseline.

The GRSG LUPA decision will not authorize livestock grazing. However, changes in grazing management through grazing authorization modifications may be implemented when livestock management practices are determined to not be compatible with meeting or making progress towards achievable GRSG habitat objectives. Potential modifications include, but are not limited to, changes in season or timing of use; numbers of livestock; distribution of livestock use; duration and/or level of use; kind of livestock (e.g., cattle, sheep, horses, or goats); voluntary measures such as temporary non-use; and grazing schedules. Therefore, additional analysis is necessary and provided below.

Four Key Food Sources
Four seasonal foods have been identified as being important to the grizzly bear population: winter killed ungulates, spawning cutthroat trout, seeds of whitebark pine, and alpine moth aggregation sites. The action area has none of these four seasonal foods. Therefore, the project will have no effect on these four seasonal foods, and project activities will not prevent grizzly bears from having access to these four seasonal foods that exist in other areas of the ecosystem.

Life History

Grizzly bears are in the family *Ursidea*. Grizzly bears are generally larger than black bears and can be distinguished by having longer front foot claws (2 to 4 inches), a distinctive shoulder hump, rounded ears that are proportionately smaller than the black bear, and a dished-in profile between the eyes and end of the snout. Pelage coloration is highly variable, ranging from light brown to nearly black. Guard hairs are often paled at the tips and give the bear a grizzled appearance. Spring shedding, new growth, nutrition, and climate all influence coloration.

Grizzly bears are generally larger than black bears, with longer, curved claws, distinctive humped shoulders, and a concave face. Pelage coloration is variable. In the continental US, male grizzly bears average 400 to 600 pounds and females average 250 to 300 pounds. An occasional male may attain 800 to 1,000 pounds. Adults stand 3.5 to 4.5 feet at the hump and rear up to more than 8 feet on their hind legs.

In the continental US, the average adult male grizzly bear weighs between 400 to 600 pounds, and the average female weighs between 250 to 350 pounds. Grizzly bears are long-lived, and many individuals live over 20 years. Adult bears are individualistic in behavior and normally are solitary wanderers. Females with cubs and bears defending food supplies are common causes of confrontation between humans and bears.

Home ranges of adult bears may overlap. The home ranges of adult male grizzly bears are generally two to four times larger than those of adult females. The home ranges of females are smaller while they have cubs but increase when the cubs become yearlings. Home ranges vary in

relation to food availability, weather conditions, and interactions with other bears. Home ranges are larger in the GYE compared to the more productive habitats in the northern ecosystems.

The age of first reproduction and litter size varies and may be related to the nutritional state of the female bear. The age at first reproduction averages 5.5 years and ranges from about 3.5 to 8.5 years. Reproductive intervals for females average 3 years, and litter size averages 2 cubs (1 to 4 cubs per litter). The limited reproductive capacity of grizzly bears precludes rapid increases in population. Grizzly bears have one of the lowest reproductive rates among terrestrial mammals. During a female's lifetime, if she has litters of two cubs with a 50:50 sex ratio, and a 50 percent survivorship of young to age 5.5 years, at best a breeding female can replace herself with one other breeding age female in the first decade of her life.

Adult bears are normally solitary except for breeding and while the female cares for cubs. The young will stay with the female for approximately two years. Siblings may stay together for several years after being weaned.

Grizzly bears excavate dens as early as September or prior to entry in November. Dens are usually dug on steep slopes where wind and topography cause an accumulation of deep snow and where snow is unlikely to melt during warm periods. Dens are generally found at high elevations well away from human activity and development.

Grizzly bears are opportunistic feeders and will prey or scavenge on almost any available food. Plants with high crude protein content and animal matter are the most important food items. The search for food has a prime influence on grizzly bear movements. Upon emergence from the den grizzlies move to lower elevations, drainage bottoms, avalanche chutes, and ungulate winter ranges where their food requirements can be met. Throughout spring and early summer grizzly bears follow plant phenology back to higher elevations. In late summer and fall, there is a transition to fruit and nut sources, as well as herbaceous materials. This is a generalized pattern, and it should be noted that bears will go where they can best meet their food requirements.

The grizzly bear has a broad range of habitat tolerance. Occupied habitat is generally characterized as contiguous, relatively undisturbed mountainous habitat with considerable topographic and vegetative diversity. Historical declines are related to habitat loss and human-caused mortality.

The management of human use levels through access route management is one of the most powerful tools available to balance the needs of grizzly bears with the activities of humans. Secure habitat for grizzly bears is accomplished through managing access routes at low levels.

Threats

Historical declines are related to habitat loss and direct and indirect human-caused mortality (USFWS 1993). Human-caused mortality can be classified into six major categories: 1) direct human/bear confrontations (hikers, backpackers, photographers, hunters, etc.); 2) attraction of grizzly bears to improperly stored food and garbage associated with towns, subdivisions, farms, hunter camps, campers, etc.; 3) careless livestock husbandry, including the failure to dispose of dead livestock in a manner that minimizes grizzly interactions; 4) protection of livestock; 5) loss of grizzly bear habitat for economic values; and 6) lawful and illegal hunting. The first five reduce space and increase the potential for human/bear conflicts (USFWS 1993). Reducing grizzly bear/human conflicts and grizzly bear/livestock conflicts have been important management goals in the Yellowstone recovery area.

B. Plants

Slickspot peppergrass (*Lepidium papilliferum*)

Habitat Description

Slickspot peppergrass occurs in close association with slickspots. These are visually distinctive openings characterized by natric soils and distinct clay layers. They tend to be highly reflective and relatively light in color, making them easy to detect on the landscape. Slickspots are distinguished from the surrounding sagebrush matrix as having the following characteristics: microsites where water pools when rain falls; sparse native vegetation, distinct soil layers with a columnar or prismatic structure, higher alkalinity and clay content, and natric properties; and reduced levels of organic matter and nutrients due to lower biomass production (Fisher et al. 2006). Slickspots have a smooth, pan-like surface that is structureless and slowly permeable when wet but moderately hard and cracked when dry (Fisher et al. 2006). Most slickspots are between 10 and 20 square feet in size. Slickspot peppergrass has infrequently been documented outside of slickspots on disturbed soils, such as along graded roadsides and badger mounds. These are rare observations, and the vast majority of plants are found within slickspots.

The native, semiarid sagebrush-steppe habitat of southwestern Idaho where slickspot peppergrass is found can be divided into two plant associations: Wyoming big sagebrush-Thurber's needlegrass and Wyoming big sagebrush-bluebunch wheatgrass habitat types (Moseley 1994). Menke and Kaye (2006) describe high-quality matrix habitat conditions for slickspot peppergrass as sagebrush-steppe habitat in late seral condition, and Fisher et al. (1996) note that "habitat with vigorous slickspot peppergrass populations has not been recently burned, is not heavily grazed, has an understory of native bunchgrasses, and a well-developed microbiotic soil crust." Moseley (1994) suggests that slickspot peppergrass serves as an indicator species for the health of the sagebrush-steppe ecosystem in the western Snake River Plain.

A well-developed microbiotic soil crust (also known as a biological soil crust) is one component of quality habitat for slickspot peppergrass. Such crusts are commonly found in semiarid and arid ecosystems and are formed by living organisms, primarily bryophytes, lichens, algae, and

cyanobacteria, that bind surface soil particles together (Moseley 1994). Biological soil crusts play an important role in stabilizing the soil and preventing erosion, increasing the availability of nitrogen and other nutrients, and regulating water infiltration and evaporation levels. In addition, an intact biological soil crust appears to aid in preventing the establishment of invasive plants (Brooks and Pyke 2001). These crusts are sensitive to disturbance that disrupt crust integrity, such as compression due to livestock trampling or off highway vehicle use, and are subject to damage by fire.

Status and Distribution

Slickspot peppergrass was listed as a threatened species under the ESA of 1973, as amended, in October 2009 (USFWS 2009a). On August 8, 2012, the United States District Court for the District of Idaho ordered that the final rule listing slickspot peppergrass as a threatened species be vacated and remanded for further consideration consistent with the court's decision. On February 12, 2014, the USFWS published a Federal Register notice that addressed the Court's request that a specific definition of foreseeable future for slickspot peppergrass be provided. In addition, the USFWS proposed that threatened status be reinstated for slickspot peppergrass under the ESA. A final decision on the USFWS's proposal to reinstate slickspot peppergrass as threatened under the ESA is anticipated in 2015.

Slickspot peppergrass is restricted to small slickspot microsites on the Boise Foothills, Snake River Plains, and Owyhee Plateau physiographic regions, from southern Payette County, northwest of Caldwell, to near Glenn's Ferry, and southward to a disjunct population around Juniper Butte in southwestern Owyhee County. It occurs on the Four Rivers and Jarbidge Field Offices, and is not suspected to occur on any other BLM field offices or on national forests.

Habitat category definitions and mapped distribution

Six slickspot peppergrass habitats are defined in the 2014 slickspot peppergrass Conservation Agreement (BLM 2014). Four of those habitat categories are used in this analysis to estimate the proportions of slickspot peppergrass and its habitats that would be affected by the proposed LUPA. The habitat category definitions are:

- Element occurrences: Areas where slickspot peppergrass exists and has been documented or identified as an element occurrence. Element occurrences are defined by grouping occupied slickspots that occur within 1 kilometer of each other; all occupied slickspots within a 1-kilometer distance of another occupied slickspot are aggregated into a single element occurrence.
- Occupied habitat: Occurrences plus the area generally within a 0.5-mile buffer around the occurrences that is important to maintain or improve habitat integrity and pollinator populations necessary for species conservation. As currently mapped, these areas may or may not contain additional slickspots, slickspot peppergrass plants, or non-habitat beyond the included occurrence areas. Further refinement of occupied habitat may be accomplished through field surveys considering existing resource conditions as well as specific habitat quality and integrity.
- Potential habitat: Areas within the known range of slickspot peppergrass that have certain general soil and elevation characteristics that indicate the potential for the area to support

slickspot peppergrass, although the presence of suitable slickspots or the plant is unknown. These currently mapped areas meet the following criteria:

  - Natric and natric-like soils forming "slickspots" and associated soil series, or phases thereof, which support Loamy 7- to 10-inch and 10- to 13-inch Wyoming big sagebrush ecological sites (Major Land Resource Areas 11-Snake River Plains, and 25-Owyhee High Plateau) and have a aridic bordering on xeric soil moisture regime; and
  - 2,200 to 5,400 feet elevation.

- Slickspot peppergrass habitat: Potential habitat areas with Wyoming big sagebrush ecological sites that through Stage 1 surveys have documented slickspot microsites (natric and natric-like soil types) within 2,200 feet and 5,400 feet elevation in southwest Idaho. Slickspot peppergrass habitat includes areas with slickspots of unknown occupancy and in some cases may be dominated by nonnative vegetation such as annual grasses or crested wheatgrass. In addition, to maintain ecological continuity, if there is less than 0.5 mile between areas defined as slickspot peppergrass habitat, then the entire area is considered slickspot peppergrass habitat. Surveyed potential habitat not meeting these criteria will no longer be considered habitat for slickspot peppergrass.

Initial slickspot peppergrass habitat mapping of the above categories has been done. Results of Stage 1 field surveys of modeled potential habitat in 2012 have indicated that no suitable slickspots occur on the Bruneau Field Office because the slickspots observed there have different clay layers, more rock armoring, and a flatter shape than slickspots occupied by slickspot peppergrass (BLM 2012). Slickspot peppergrass habitat has been initially evaluated in Stage 1 surveys for the Four Rivers Field Office, resulting in some areas of previously mapped slickspot peppergrass potential habitat being determined to be slickspot peppergrass habitat. There is no available information at this time on the extent of slickspot peppergrass habitat on the Jarbidge Field Office, so its potential habitat areas remain classified as slickspot peppergrass potential habitat.

Overlap between the currently known habitat categories and GRSG habitats (PHMA, IHMA, and GHMA) has been identified. Within GRSG HMAs influenced by the currently proposed LUPA (lands on which BLM or Forest Service have decision authority), there are no occurrences, critical habitat, occupied habitat, or potential habitat on Forest Service lands. Where BLM has decision authority on lands overlapping GRSG HMAs, 646 acres of element occurrences are on the Four Rivers Field Office and 614 acres of element occurrences are on the Jarbidge Field Office, but 10,428 acres (89 percent) do not overlap GRSG HMAs at all. For slickspot peppergrass occupied habitat within GRSG HMAs on BLM-administered lands, 5,568 acres are on the Four Rivers Field Office and 55,301 acres are on the Jarbidge Field Office, leaving 64,196 acres (51 percent) outside GRSG HMAs. Slickspot peppergrass potential habitat on BLM-administered lands within GRSG HMAs occurs on 250 acres on the Four Rivers Field Office and 283,717 acres on the Jarbidge Field Office, leaving 405,661 acres (59 percent) outside GRSG HMAs. Finally, the areas identified as slickspot peppergrass habitat on BLM-administered lands are all on the Four Rivers Field Office, with 40,823 acres in GRSG HMAs, leaving the remaining 190,375 acres (82 percent) outside GRSG HMAs.

Lands administered by the BLM with slickspot peppergrass habitats are summarized in the following tables.

Table 3. BLM-administered slickspot peppergrass element occurrences.

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
Four Rivers Field Office	**GHMA**	**646**
Jarbidge Field Office	**PHMA**	**6**
Jarbidge Field Office	**IHMA**	**608**
All Field Offices	**No HMA overlap**	**10,428**
	TOTAL	**11,688**

Table 4. BLM-administered slickspot peppergrass occupied habitat (includes element occurrences plus 0.5-mile buffer).

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
Four Rivers Field Office	**IHMA**	**102**
Four Rivers Field Office	**GHMA**	**5,466**
Jarbidge Field Office	**PHMA**	**1,710**
Jarbidge Field Office	**IHMA**	**53,591**
All Field Offices	**No HMA overlap**	**64,196**
	TOTAL	**125,065**

Table 5. BLM-administered slickspot peppergrass potential habitat.

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
Four Rivers Field Office	**IHMA**	**10**
Four Rivers Field Office	**GHMA**	**240**
Jarbidge Field Office	**PHMA**	**53,643**
Jarbidge Field Office	**IHMA**	**164,201**
Jarbidge Field Office	**General HMA**	**66,025**
All Field Offices	**No HMA overlap**	**290,626**
	TOTAL	**574,745**

Table 6. BLM-administered slickspot peppergrass habitat (confirmed).

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
Four Rivers Field Office	**IHMA**	**5,918**
Four Rivers Field Office	**GHMA**	**34,905**
All Field Offices	**No HMA overlap**	**190,375**
	TOTAL	**231,198**

Life History

Slickspot peppergrass is a tap-rooted annual or biennial plant, averaging 2 to 8 inches, but occasionally reaching 16 inches high. The species flowers once and then dies. The annual form of the plant flowers, sets seed, and dies in one growing season. The biennial form initiates growth in the first year as a vegetative rosette but does not flower until the second growing season. Biennial rosettes must survive generally dry summer conditions, and consequently many die before flowering and producing seed. Although annual forms generally outnumber biennials (Moseley 1994), they produce fewer seeds than the biennials (Meyer et al. 2005). The proportion of annuals versus biennials in a population can vary greatly from year to year, as can the presence of any plants at all. Although the low permeability of slickspots appears to help hold moisture (Moseley 1994), once the thin crust dries out, slickspot peppergrass seedling survival depends on their ability to extend taproots into the argillic horizon (soil layer with high clay content) to extract moisture from the deeper natric zone.

Although slickspot peppergrass is able to self-pollinate, it is primarily an outcrossing species requiring pollen from separate plants for more successful seed production. Known slickspot peppergrass pollinators include several families of bees, beetles, flies, and other insects (Robertson and Klemash 2003).

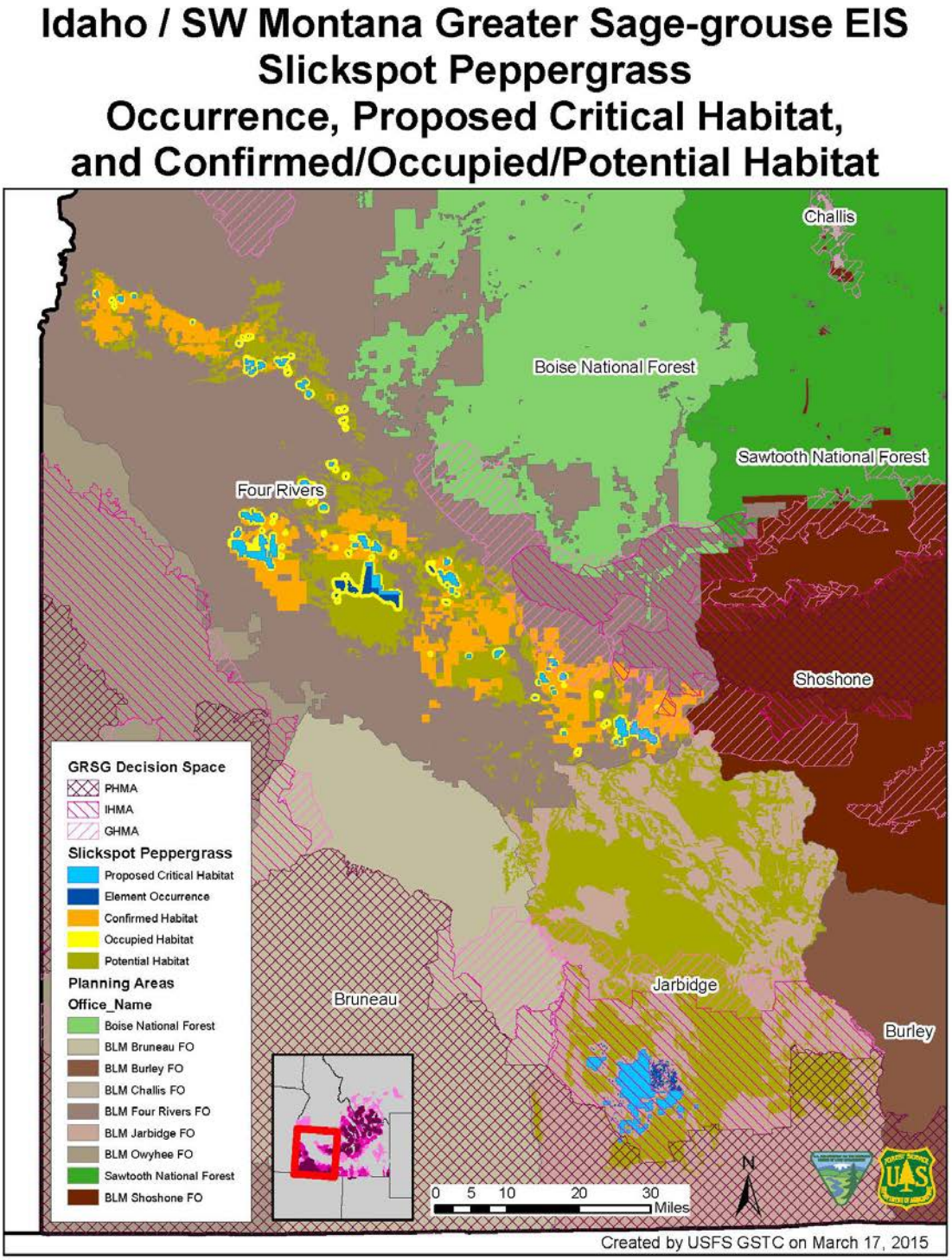

Figure 10. Slickspot peppergrass habitat categories and GRSG HMAs

Threats

The primary threat to slickspot peppergrass is the present or threatened destruction, modification, or curtailment of its habitat and range due to the increased frequency and extent of wildfires under a fire regime modified and exacerbated by the spread of invasive plants, particularly nonnative annual grasses such as cheatgrass. Other threats include human development, potential seed predation by harvester ants, and habitat fragmentation and isolation of small populations (USFWS 2009a). The threats of urban and rural development, agriculture, and infrastructure development are more substantial in the Boise Foothills and Snake River Plains regions, while very little of this development has happened in the Owyhee Plateau region (where most of the overlap with GRSG habitat occurs). Additional impacts on slickspot peppergrass habitat can result from livestock grazing, off-highway vehicle use, and infestation of habitats by nonnative invasive species and potentially invasive plants such as intermediate wheatgrass and forage kochia, which are sometimes proposed for use in vegetated fuel breaks.

Slickspot Peppergrass Proposed Critical Habitat

Critical habitat was proposed for the slickspot peppergrass on May 10, 2011, and the specific areas were revised in February 2014 (USFWS 2014a). The PCEs for slickspot peppergrass (USFWS 2011) include the following:

1. Ecologically functional microsites or “slickspots” that are characterized by:
    a. A high sodium and clay content and a three-layer soil horizonation sequence, which allows for successful seed germination, seedling growth, and maintenance of the seed bank. The surface horizon consists of a thin, silty, vesicular, pored (small cavity) layer that forms a physical crust (the silt layer). The subsoil horizon is a restrictive clay layer with an abrupt boundary with the surface layer that is natric or natric-like in properties (a type of argillic (clay-based) horizon with distinct structural and chemical features) (the restrictive layer). The second argillic subsoil layer (that is less distinct than the upper argillic horizon) retains moisture through part of the year (the moist clay layer); and
    b. Sparse vegetation with low to moderate introduced invasive, nonnative plant species cover.
2. Relatively intact, native *Artemisia tridentata* ssp. *wyomingensis* (Wyoming big sagebrush) vegetation assemblages, represented by native bunchgrasses, shrubs, and forbs, within 250 meters of *Lepidium papilliferum* element occurrences to protect slickspots and *Lepidium papilliferum* from disturbance from wildfire, slow the invasion of slickspots by nonnative species and native harvester ants, and provide the habitats needed by *L. papilliferum’s* pollinators.
3. A diversity of native plants whose blooming times overlap to provide pollinator species with sufficient flowers for foraging throughout the seasons and to provide nesting and egg-laying sites; appropriate nesting materials; and sheltered, undisturbed places for hibernation and overwintering of pollinator species. In order for genetic exchange of *Lepidium papilliferum* to occur, pollinators must be able to move freely between slickspots. Alternative pollen and nectar sources (other plant species within the surrounding sagebrush vegetation) are needed to support pollinators during times when

Lepidium papilliferum is not flowering, when distances between slickspots are large, and in years when *L. papilliferum* is not a prolific flowerer.

4. Sufficient pollinators for successful fruit and seed production, particularly pollinator species of the sphecid and vespid wasp families, species of the bombyliid and tachinid fly families, honeybees, and halictid bee species, most of which are solitary insects that nest outside of slickspots in the surrounding sagebrush-steppe vegetation, both in the ground and within the vegetation.

The distribution of land ownership in the full extent of slickspot peppergrass proposed critical habitat is presented in the table below, and the extent of slickspot peppergrass proposed critical habitat in relation to GRSG habitats (priority, important, and general HMAs) is represented in Figure 11. About 50 percent of the proposed critical habitat (30,625 of 61,311 acres) is within GRSG habitats on BLM-administered lands. The majority of this overlap (27,523 acres IHMA and 194 acres PHMA) occurs in the Jarbidge Field Office near Juniper Butte, and the remainder of the overlap (2,908 acres GHMA) occurs in the Four Rivers Field Office between Mountain Home and Glenn's Ferry.

Table 7. Slickspot peppergrass proposed critical habitat land ownerships

Ownership	Acres
Bureau of Land Management	52,533
Bureau of Reclamation	366
Private	3,771
State of Idaho	4,641
TOTAL	**61,311**

The table below displays the acreage of slickspot peppergrass proposed critical habitat in relation to GRSG HMAs.

Table 8. BLM-administered slickspot peppergrass proposed critical habitat.

BLM Field Office	GRSG Habitat Management Area (HMA)	Acres
Four Rivers Field Office	**GHMA**	**2,908**
Jarbidge Field Office	**PHMA**	**194**
Jarbidge Field Office	**IHMA**	**27,523**
All Field Offices	**No HMA overlap**	**21,908**
	TOTAL	**52,533**

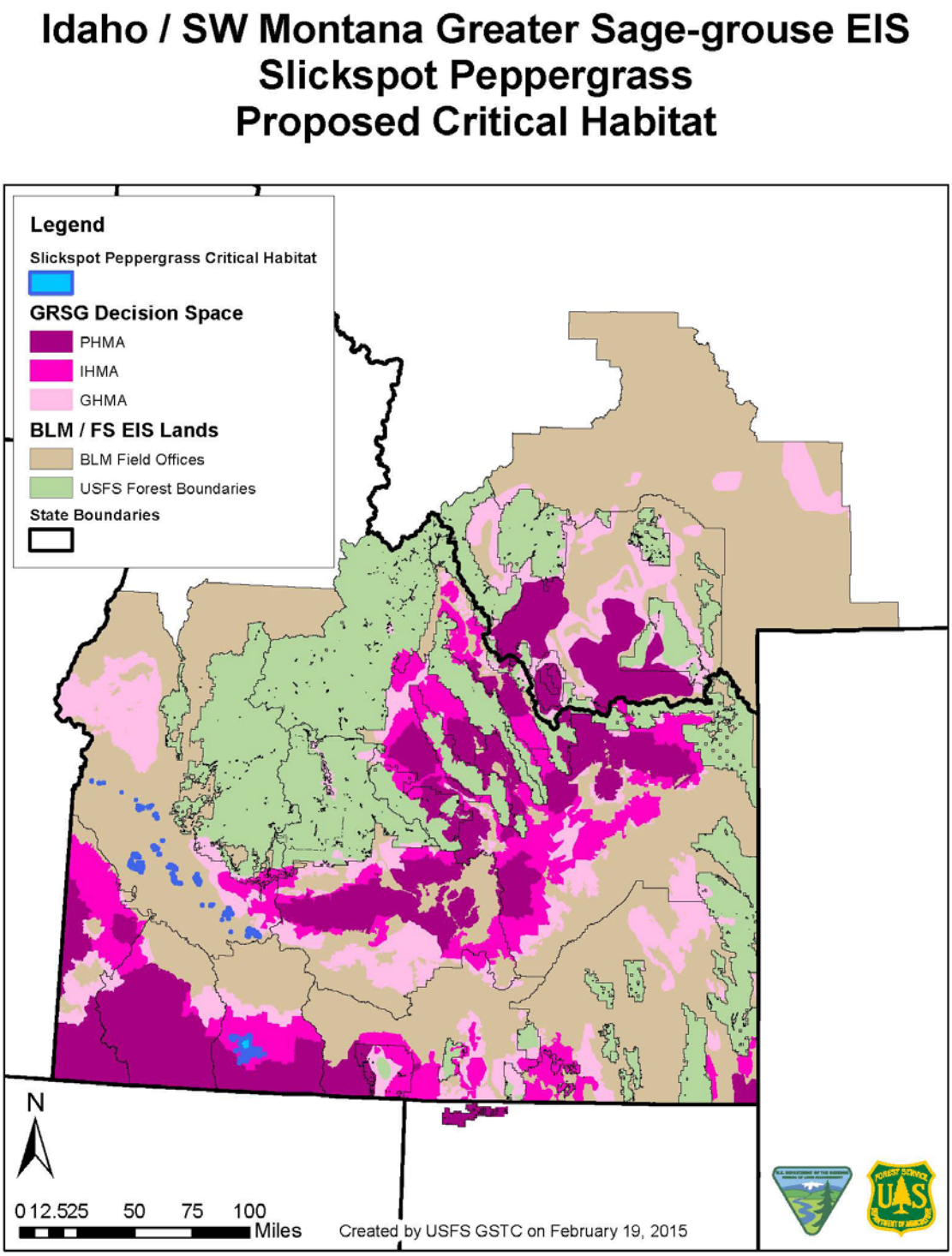

Figure 11. Slickspot peppergrass proposed critical habitat with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

Ute ladies'-tresses (*Spiranthes diluvialis*)

Habitat Description

When Ute ladies'-tresses was listed in 1992, it was known primarily from moist meadows associated with perennial stream terraces, floodplains, and oxbows at elevations between 4,300 and 6,850 feet (USFWS 1992). Surveys since 1992 have expanded the number of vegetation and hydrology types occupied by Ute ladies'-tresses to include seasonally flooded river terraces, subirrigated or spring-fed abandoned stream channels and valleys, and lakeshores (USFWS 2014d). This species was originally thought to be limited to undisturbed riparian habitats but is now known to occur in agricultural lands and managed riparian systems where frequent human-influenced disturbance events such as mowing, prescribed fire, and livestock grazing can simulate natural early to mid-seral conditions (Fertig et al. 2005). Additional populations have been discovered along irrigation canals, berms, levees, irrigated meadows, excavated gravel pits, roadside barrow pits, reservoirs, and other human-modified wetlands. Currently, the known elevation range of the species is from 720 to 7,000 feet (USFWS 2014d).

Status and Distribution

Ute ladies'-tresses was listed as threatened in 1992. In 2004, the USFWS issued a petition to delist the species and initiate a 5-year review (USFWS 2004b). The associated status review is ongoing. When first listed, the species was known only from Colorado, Nevada, and Utah, but additional populations have since been discovered in Idaho, Montana, Nebraska, Washington, and Wyoming.

Populations and Habitat within the Analysis Area

Figure 12 shows the known populations of Ute ladies'-tresses in the analysis area. In Montana, Ute ladies'-tresses grows along major river drainages on private and state lands in Beaverhead, Broadwater, Gallatin, Jefferson, and Madison Counties. The nearest occurrence to GRSG HMAs in Montana is over 2 miles from the GHMA, in Madison County.

In Idaho, this species is found along major river drainages in the eastern portion of the state (Bingham, Bonneville, Fremont, Jefferson, and Madison Counties). Some populations are found on BLM and Forest Service lands (Dillon, Pocatello, and Upper Snake Field Offices, and Caribou-Targhee National Forest), but none are within GRSG HMAs. The closest known location is over 0.6 mile from the IHMA, in Fremont County.

Although the extent and specific locations are not known, it is likely that some areas of suitable habitat for Ute ladies'-tresses do exist within GRSG HMAs because some wetland habitats are included. The areas most likely to support populations (riparian areas along major river drainages) have mostly been excluded from GRSG HMAs.

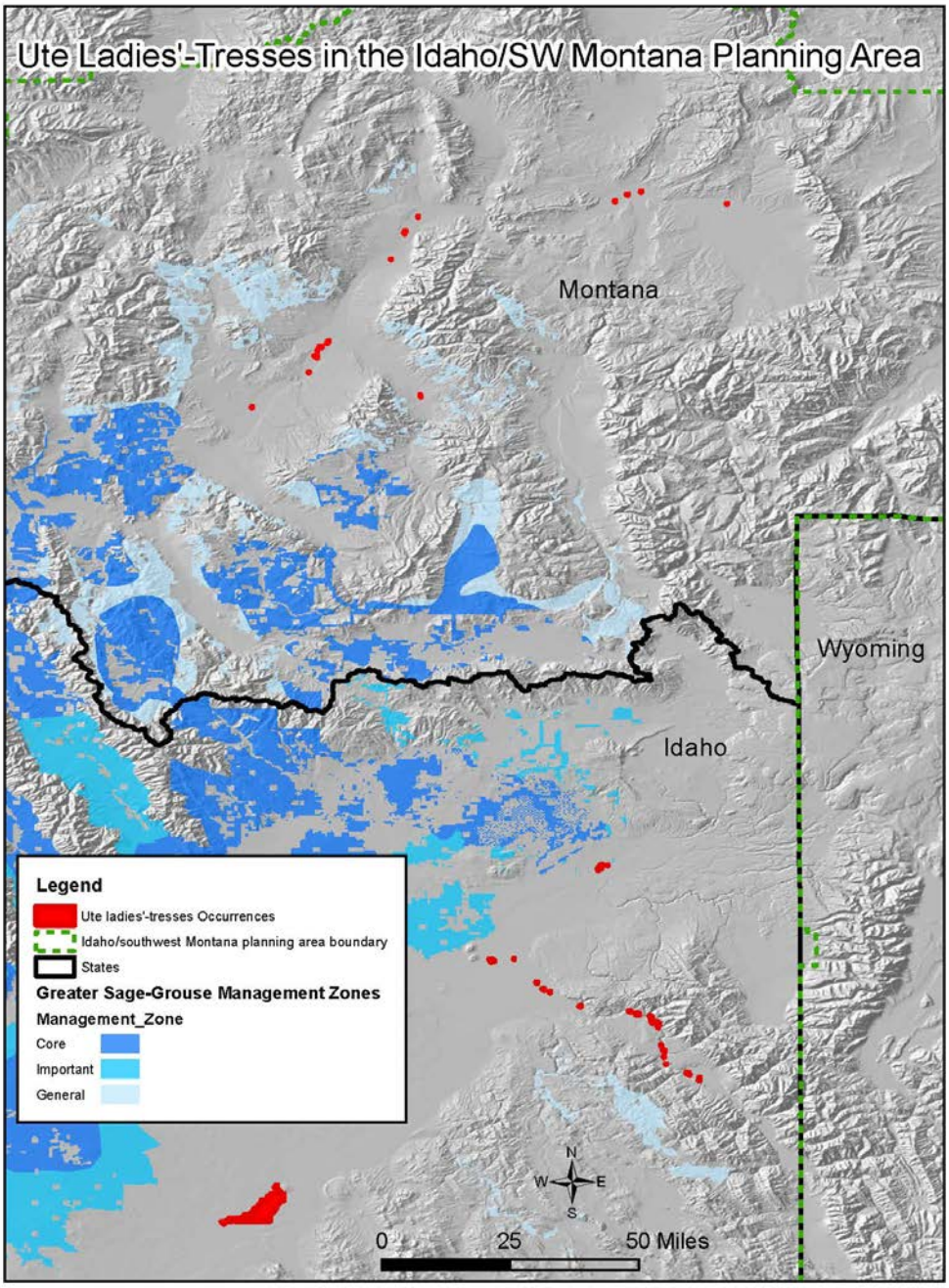

Figure 12. Ute ladies'-tresses occurrences within the Idaho-Southwestern Montana GRSG LUPA and EIS action area.

Life History

Ute ladies'-tresses is a long-lived perennial forb that probably reproduces exclusively by seed (USFWS 2014d). As with other orchid species, Ute ladies'-tresses seeds are microscopic, dust-like, and readily dispersed by wind or water. It is hypothesized that germinated seedlings must quickly establish a symbiotic relationship with mycorrhizal soil fungi in order to survive. The absence or rarity of appropriate fungal symbionts in the soil may be a major factor limiting the establishment of new Ute ladies'- tresses populations. New vegetative shoots are produced in October and persist through the winter as small rosettes. These resume growth in the spring and develop into short-stemmed, leafy, photosynthetic plants. Depending on site productivity and conditions, vegetative shoots may remain in this state all summer or develop inflorescences. Vegetative individuals die back in the winter to subterranean roots or persist as winter rosettes. Across its range, Ute ladies'-tresses blooms from early July to late October. Flowering typically occurs earlier in sites that have an open canopy and later in well-shaded sites. Bees are the primary pollinators of Ute ladies'-tresses, particularly solitary bees in the genus *Anthophora*, bumblebees (genus *Bombus*), and occasionally nonnative honeybees (*Apis mellifera*) (Sipes and Tepedino 1995). Of these species, *Anthophora terminalis* is apparently the most effective pollinator.

Threats

Threats to Ute ladies'-tresses include competition from invasive species, vegetation succession, construction, hydrologic changes, grazing, recreation, urbanization, flooding, haying/mowing, natural herbivory, loss of pollinators, and drought (Fertig et al. 2005). General threats present in 1992 (habitat loss and modification, overcollection, competition from exotic weeds, and herbicides) continue to exist, but competition from invasive plants, vegetative succession, changes in hydrology (through flood control and dewatering), habitat disturbance associated with road construction, and impacts from recreation (mostly from camping and foot traffic) are now the most widespread potential threats (Fertig et al. 2005). Off-road vehicles are identified as a threat to several occurrences along the Snake River in Idaho (Fertig et al. 2005).

GENERAL DISCUSSION OF POTENTIAL IMPACTS AND MECHANISMS OF PROGRAM AREAS WITH RESPECT TO PLANTS

Actions Evaluated and General Effects

Because the proposed LUPAs do not propose any specific ground-disturbing actions, there would be no direct effects to any threatened, endangered, or proposed species (listed species). The environmental baseline is set by the existing conditions, including the current authorized activities and programs already analyzed and for which there has been consultation within the jurisdiction of each LUP. Various activities, including grazing, mining, recreation, travel management, invasive species control, and others, are already analyzed at the LUP level. Each activity may also have been assessed for environmental impacts through project-level, site-specific NEPA analysis. Examples of these are Allotment Management Plans, Noxious Weed Control Plans, or Travel Management Plans. All of the associated conservation measures concerning listed species would still be valid. Because existing LUP programs have already gone through Section 7 consultations, only the additional effects associated with the GRSG LUPAs are addressed in this analysis.

Programmatic plans are considered permissive in that they allow but do not authorize or approve any site-specific projects or actions. They are much like zoning ordinances under which future

decisions are made. Decisions at the LUP level establish goals and objectives, identify the types of activities that are allowed or prohibited in specific areas, may specify management standards and minimum habitat condition goals either unit wide or for specific areas, and may establish a monitoring and evaluation program. This BA does not analyze site-specific actions. Effects determinations made in this document should not be assumed to relate to site-specific projects. In the future, during project-level environmental planning and analysis, site-specific actions will continue to be analyzed to identify possible effects on listed species. Site-specific analysis of such actions may identify potential effects on listed species even when this programmatic assessment determines no effect. As part of any future project-level environmental analysis, specific conservation measures and strategies to alleviate any potential adverse effects may be developed as the details of the future proposed actions become available.

The proposed actions were evaluated for possible indirect effects on listed plants. Many of the amendment actions are restrictive of anthropogenic disturbances for the benefit of GRSG, reducing the potential impacts from various activities on GRSG and its habitat. Some examples of restrictive actions are to not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) within PHMA and IHMA unless the development would have a net conservation gain to GRSG habitat (BLM REC-2 and FS GRSG-R-GL-002-Guideline), to not approve new site authorizations for salable minerals in PHMA (BLM SAL-1), to not exceed a 3 percent disturbance cap within the biologically significant unit (BLM AD-1 and FS GRSG-GEN-ST-001-Standard), and all of the energy and minerals conservation measures. No adverse effects on listed plants are expected from these types of actions because these restrictive measures would only reduce potential impacts on GRSG habitats, and these same measures may also benefit listed plants by reducing the likelihood of potential impacts in those areas. However, these possible beneficial effects would occur in the future as individual projects are proposed or leases and permits are reissued, and so the effects would not be contemporaneous with the LUPAs, and are not considered in this analysis.

Many other proposed management actions for GRSG establish guidance for resource management planning and establish priority and emphasis for sound GRSG habitat management. One example is stated in BLM WFS-6: *Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.* This is an action that prioritizes the implementation of an existing program. T&E species already have a priority for protection in wildfire suppression below firefighter and public safety and property protection. This measure says to include GRSG (currently a candidate species) at the same priority level as T&E species.

Some proposed management actions for GRSG are more directive in nature, presenting somewhat specific actions to benefit GRSG. One such action, to *"work with ROW holders to retrofit existing towers and structures consistent with required design features (RDFs)"* (BLM LR-12) has potential to impact listed plants from personnel and vehicles accessing the towers, if the plants are present in the ROW corridors where retrofit activities are needed. This action is reasonably certain to occur, and disturbances to vegetation would be from vehicle access along

the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. If present in these areas, listed plants may be damaged by the crushing action of vehicle tires and foot traffic. This is the one action identified as possibly having negative effects on listed plants from this programmatic decision. However, the effects from this action are discountable based on the extremely small likelihood that effects on listed plants would occur.

Restrictions for off-road vehicle use may provide a beneficial effect on listed plant species by reducing impacts from this activity. BLM TM-1 states: *Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.* Where travel management planning has not been completed or is in progress, and listed plant habitats are present, there may be a reduction of impacts from off-road vehicle use. Restricting motorized travel as described above would occur soon after the decision to amend LUPs, and so this possible benefit would be contemporaneous with the decision action. This is the only action identified as possibly having a contemporaneous beneficial effect on listed plants.

These actions have potential to benefit listed plants and their habitats in the future by reducing impacts from livestock grazing and invasive plants. Changes in livestock grazing may or may not occur, depending on whether current management is meeting or making progress toward GRSG habitat objectives. Both of the above measures would be implemented in the future, probably a considerable time after the decision to amend LUPs, and so any beneficial effects on listed plants would not be contemporaneous with the decision.

There is also potential for further specific actions to be proposed when implementing GRSG conservations measures. At this programmatic planning level, we are unable to effectively analyze effects from future actions not specifically identified in this programmatic decision, because the actions are unknown or too speculative to allow any meaningful analysis of their effects. Many actions are simply too vague to analyze their effects at this time. For example, BLM WFP-9 states to *implement activities identified within the FIAT [Fire and Invasive Assessment Team] Assessments*, BLM VEG-1 states to *implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical, and seeding treatments*, and BLM INV-4 says to *require project proponent to ensure that noxious weed and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project*. BLM RM-1 (and a similar measure, FS GRSG-LG-GL-001-Guideline) states that "e*xisting active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary*

adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations. Changes in livestock grazing may or may not occur, depending on whether current management is meeting or making progress toward GRSG habitat objectives. It is not known whether such actions would take place, and if so, it is not known when, where, or how the possible actions might occur. Beneficial effects, such as reduced impacts from grazing and invasive species, are possible from these actions, but the extent of benefit and likelihood of occurrence are too speculative to quantify. Although there is also potential for some negative effects on listed species from additional proposed actions, significant effects would be highly unlikely due to avoidance or other mitigations based on current laws, agency regulations, and other conservation measures in place to protect them. Any possible effects from future proposed actions would be addressed in site-specific analysis at the project level when reasonably certain, explicit actions are identified and proposed.

Sagebrush focal areas (SFA) are considered to be a subset of PHMA, and would be managed the same as PHMA with the exception of a few additional restrictions. Because the management of SFA would be the same or more restrictive than PHMA, the same effects on plant species are expected, and SFA is not evaluated separately from PHMA in the effects analysis for plants.

ANALYSIS OF EFFECTS OF THE PROPOSED ACTION BY SPECIES

A. Terrestrial Wildlife

Grizzly Bear

Direct and Indirect Effects by Program Area

1. Recreation/Travel

Existing recreation uses and sites will be managed to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers, and seasonal restrictions. The GRSG LUPA decision will not authorize new recreation facilities; however, it will place limitations upon them. New recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) will not be constructed within PHMA and IHMA unless the development would have a neutral effect or be beneficial to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.); or the new construction replaces existing facilities and reduces impacts from the existing facilities, or unless the development is required for visitor safety or resource protection. It is too speculative at this time to determine whether or not prohibiting construction of new recreation facilities within PHMAs and IHMAs would push the construction of developed sites into preferred grizzly habitat. However, site-specific analysis will occur for applicable projects, and a determination for grizzly bear will be made at that time.

The GRSG LUPA decision will not authorize new roads. Rather, it will limit new road construction and existing road use. Conservation measures specific to travel management would limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a LUP decision or

areas that are under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge, and Upper Snake Field Offices. Upon completion of travel management plans, the designation would change to limited to designated roads, primitive roads, and trails. In general, actions that limit roads or place restrictions on motorized travel have the potential to benefit grizzly bears by increasing the amount of available secure habitat.

2. Lands and Realty/Infrastructure

With respect to lands and realty and infrastructure management, conservation measures that apply to developed sites or road construction would be those with potential to affect grizzly bears. The GRSG LUPA decision will not authorize new roads within GRSG habitat. Rather, it will generally limit the existing amount of roads or require colocation of new roads with existing infrastructure for special use authorization. This may benefit grizzly bears by increasing the amount of secure habitat where grizzly bear habitat overlaps with GRSG habitat. PHMA will be designated and managed as ROW avoidance areas and exclusion areas for utility-scale wind and solar testing and development and for nuclear and hydropower energy development. Developing commercial service airports and facilities or new or expanded landfills will not be allowed in PHMA. IHMA will be designated and managed as ROW, wind and solar testing and development, nuclear and hydropower development, commercial service airports and facilities, and new or expanded landfills avoidance areas. GHMA will be designated and managed as open (avoidance in Montana) to ROW development, wind and solar testing and development (avoidance in Montana), nuclear and hydropower development, commercial service airports and facilities, and new or expanded landfills with proposals subject to RDFs, buffers, and seasonal timing restrictions. In PHMA, IHMA, and GHMA and SFAs, new infrastructure will be collocated with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts on GRSG or its habitat.

It is too speculative at this time to determine whether or not exclusion or avoidance of new infrastructure (i.e., developed sites) within PHMA and IHMA would push the construction of developed sites into preferred grizzly habitat. However, site-specific analysis will occur for applicable projects, and a determination for grizzly bear will be made at that time.

3. Range

In general, range management and livestock grazing conservation measures will be neutral to beneficial to grizzly bears because they will either maintain existing conditions or reduce the amount of livestock grazing. Generally speaking, existing areas designated as available or unavailable for livestock grazing will be maintained. Existing active AUMs for livestock grazing within the planning area will not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations. Range management/livestock grazing conservation measures include conducting land health assessments and establishing forage reserves to facilitate restoration and rehabilitation efforts in GRSG habitats. When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives,

changes in grazing management may be made through grazing authorization modifications or allotment management plan implementation. Potential modifications include, but are not limited to, changes in: 1) Season or timing of use; 2) Numbers of livestock; 3) Distribution of livestock use; 4) Duration and/or level of use; 5) Kind of livestock (e.g., cattle, sheep, horses, or goats); 6) Voluntary measures such as temporary non-use; and 7) Grazing schedules (including rest or deferment).

When an allotment in either PHMA or IHMA becomes vacant or grazing preference is relinquished, the BLM will consider retiring the allotment or grazing preference in whole or in part or converting the area to a forage reserve/buffer when doing so would maintain or enhance GRSG habitat. When an allotment in GHMA becomes vacant or grazing preference is relinquished, the BLM will consider converting the allotment to a forage reserve/buffer to use during fire rehabilitation or restoration efforts when such actions will result in a net benefit to GRSG habitat and other priority resources. In particular, permit modifications resulting in reductions of numbers of livestock or retirement/conversion of allotments could benefit grizzly bears by reducing the potential for grizzly bear/livestock conflicts. However, without site-specific projects identified at this time, it is too speculative to determine the potential extent of this benefit. Although grazing authorization modifications could include proposals for changes in kind of livestock that could negatively impact grizzly bears by increasing the potential for livestock/grizzly conflicts (i.e., sheep), it is too speculative to determine whether or not these types of proposals will actually occur or where they will occur. Site-specific analysis will be conducted at the project level, and a determination of effect will be made at that time.

4. *Energy and Minerals*

In general, energy and minerals conservation measures are expected to be neutral to beneficial on grizzly bears because they will either maintain existing conditions or improve GRSG sagebrush habitats. Following is a summary of GRSG LUPA energy and minerals direction. In Idaho, areas within PHMA and IHMA will be open to fluid mineral leasing and development and geophysical exploration subject to no surface occupancy (NSO) with a limited exception: A lease waiver, exception, or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-GRSG habitat, the area is not used by GRSG, or the proposed lease would have no direct, indirect, or cumulative effects on GRSG or its habitat. Idaho GHMA would be open to mineral leasing and development and geophysical exploration subject to buffers, seasonal timing restrictions, and standard stipulations. In Montana, areas within PHMA will be open to leasing subject to NSO. No waivers, exceptions, or modifications would be allowed unless approved by the State Director. GHMA would be open to leasing subject to buffers, seasonal timing restrictions, and standard stipulations.

Lands will remain open (except SFA) to locatable mineral entry in all management areas. Reasonable and appropriate RDFs and BMPs will be applied as COAs to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or Forest Service approval.

For salable minerals, no new site authorizations will be approved in PHMA. New site authorizations could be considered in IHMA, provided the Anthropogenic Disturbance Development Criteria can be met and subject to RDFs, buffers, and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA will be subject to seasonal timing restrictions. GHMA will be open to new site authorizations subject to RDFs, buffers, and seasonal timing restrictions. Existing sites will be open to new sales subject to seasonal timing restrictions. Salable mineral pits no longer in use will be restored to meet GRSG habitat management objectives. Reclamation bonding will require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA.

For mineral split estates in which the BLM owns the mineral estate and there is a non-federal surface owner, stipulations, BLM will apply conservation measures and design features consistent with those applied to BLM- and Forest Service-administered lands in coordination with the surface owner. For mineral split estates in which the BLM owns the surface and there is a non-federal mineral estate owner, the BLM will recommend timing restrictions, COAs, and buffers around occupied leks to the state regulatory entity and mineral estate owner when concurring with the approval of authorizations for mineral-related surface disturbance on lands within GRSG habitat.

Without identified site-specific projects, it is too speculative at this time to determine the potential for or extent of any benefits on grizzly bears. However, site-specific analysis will be conducted, and a determination of effects for the grizzly bear will be made at that time.

5. *Fire/Fuels Management*

Fire and fuels conservation measures with potential to impact grizzly bears include prescribed fire, coordination with federal, state, and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions, and fuels treatments. Prescribed fire will be restricted in GRSG wintering or breeding and nesting habitat unless it reduces the potential for wildfire. In PHMA, SFA, and GHMA, prescribed fire will only be used if it is necessary to facilitate site preparation for restoration of GRSG habitat consistent with desired condition. The associated NEPA analysis must identify how GRSG desired conditions would be met, why alternative techniques were not selected, and how potential threats to GRSG habitat would be minimized.

In PHMA, IHMA, GHMA, and SFA, fuels treatments will be designed and implemented to reduce the potential for start, spread, and intensity of wildfire in high-risk areas (i.e., areas of increased potential for ignition and in areas where there is a potential for wildfire that would be difficult for suppression resources to contain and control). Fuel treatments will be designed though an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat. This process will consider a full range of cost-effective fuel reduction techniques, including chemical, biological (including grazing and targeted grazing), mechanical, and prescribed fire treatments.

Fuel breaks would incorporate existing vegetation treatments (seedings), or they would be located adjacent to existing linear disturbance areas, where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and foster suppression options to protect existing intact habitat.

Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of unwanted wildfires may be implemented within existing grazing authorizations if feasible. Such authorizations include temporary nonrenewable authorizations or contracts, agreements, or other appropriate means separate from existing grazing authorizations and permits. Targeted grazing to achieve fuels management objectives should conform to the following criteria:

- Targeted grazing should be implemented strategically on the landscape and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.
- Allow conformance to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale.
- Where feasible and applicable, coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations.

Using native seeds for fuels management treatment will be prioritized based on availability, adaptation (site potential), and probability of success. Nonnative seeds could be used to meet GRSG habitat objectives to trend toward restoring the fire regime where probability of success or native seed availability is low or not economical. Fire-resistant native and nonnative species will be used when reseeding, as appropriate, to provide for fuel breaks.

The effectiveness of fuels projects, including fuel breaks, will be maintained to ensure long-term success, including persistence of seeded species or other treatment components, while maintaining the integrity of adjacent vegetation.

Generally speaking, fuels treatments will maintain, improve, or restore sagebrush habitat, benefitting all species that use sagebrush habitat, including grizzly bears. Targeted grazing fuels treatments will be implemented within existing grazing authorizations, when feasible. It is too speculative to know whether or not this would be proposed within occupied grizzly bear habitat and whether or not it would lead to an increase in livestock grazing that could negatively impact grizzly bears. Similarly, it is too speculative to know where fuels management treatments would occur or the types of species that would be proposed for seeding and whether or not they would be palatable forage species that could have the potential to negatively impact grizzly bears. In all instances, site-specific analysis will be conducted, and a determination of effects for the grizzly bear will be made at that time.

Coordinating with federal, state, and local jurisdictions on fire and litter prevention programs to reduce human-caused ignitions would complement existing grizzly bear food storage orders designed to prevent human/bear interactions and conflicts, thereby having the potential to benefit grizzly bears. However, because no site-specific projects have been identified, it is too speculative to determine the potential extent of this benefit.

6. Habitat Restoration and Vegetation Management

Like fire and fuels treatments, habitat restoration and vegetation management treatments will generally maintain, improve, or restore sagebrush habitat. This will benefit species that utilize sagebrush habitat, including grizzly bears. Adequate rest from livestock grazing will be provided to allow natural recovery of existing vegetation and successful establishment of seeded species. Livestock management on adjacent unburned areas will be adjusted, as appropriate, to mitigate the effect of the burn on local GRSG populations. Habitat rehabilitation or restoration projects will be implemented in areas that have the potential to improve GRSG habitat. These projects will use a full array of treatment activities, as appropriate, including chemical, mechanical, and seeding treatments. Vegetation rehabilitation or manipulation projects will be implemented to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat. Prescribed fire may need to be used as a site preparation technique to remove annual grass residual growth prior to applying herbicides in the restoration of certain lower-elevation sites (e.g., Wyoming big sagebrush). Such efforts will be carefully planned and coordinated to minimize impacts on GRSG seasonal habitats.

Native seeds will be required for restoration based on availability, adaptation (ecological site potential), and probability of success. Nonnative seeds may be used as long as they support GRSG habitat objectives. Nonnative seeds may be used to increase probability of success, when adapted seed availability is low, or to compete with invasive species, especially on harsher sites.

Management changes in restoration and rehabilitation areas will be implemented, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat, and ensure long-term

persistence of improved GRSG habitat. Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way.

During land health assessments, the compatibility of existing nonnative seedings for GRSG habitat will be evaluated. This evaluation will determine whether to keep nonnative seedings as a component of a grazing system, to develop a forage reserve, or to be used as a fuelbreak or during restoration development. If nonnative seedings do not contribute to a grazing system, are not suitable for a forage reserve, and are not suitable fuelbreaks, the nonnative seedings in and adjacent to PHMA will be evaluated to determine if they should be diversified or converted to native grasses, forbs, and shrubs, including sagebrush.

Using prescribed fire in GRSG habitat will be avoided unless evaluation of site-specific conditions demonstrates that there would be a net benefit for GRSG. If prescribed fire is used in GRSG habitat, the NEPA document will include an analysis that indicates how GRSG goals and objectives will be addressed and met by its use, why alternative techniques were not selected, and a risk assessment to address how potential threats to GRSG habitat would be minimized.

It is too speculative to know where habitat restoration or vegetation management treatments would occur, the types of species that would be proposed for seeding, and whether the seedings would be palatable forage species that could have the potential to negatively impact grizzly bears. In all instances, site-specific analysis will be conducted, and a determination of effects for the grizzly bear will be made at that time.

Cumulative Effects

To evaluate cumulative effects, future state, tribal, local, or private actions that are reasonably certain to occur within the action area are identified, and their effects are added to the anticipated effects of the current proposal. The GRSG LUPA action area includes GRSG habitats within BLM-administered and National Forest System lands. The only state or private projects that would occur on these lands would have some type of federal nexus and would require separate Section 7 consultation. Therefore, no cumulative effects are expected as part of this project.

Summary and Determination of Effects on Grizzly Bear

GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears, including secure habitat, developed sites, food storage, livestock grazing, and four key food sources, are expected to be neutral, result in beneficial effects, or are too speculative in the absence of site-specific proposals to analyze at this time.

With respect to recreation and travel management and lands and realty and infrastructure management, the GRSG LUPA decision will not authorize new roads. Rather, it will limit new road construction and existing road use, which could benefit grizzly bears by increasing the available amount of secure habitat. It is too speculative to determine whether or not prohibiting construction of new recreation facilities or infrastructure within PHMA and IHMA would push the construction of developed sites into preferred grizzly habitat.

In general, range management and livestock grazing conservation measures will be neutral to beneficial to grizzly bears, because they will either maintain existing conditions or reduce the amount of livestock grazing permit modifications. This will reduce the number of livestock or retire or convert allotments, which could benefit grizzly bears by reducing the potential for grizzly bear/livestock conflicts. Without site-specific projects identified at this time, it is too speculative to determine the potential extent of this benefit. Although grazing authorization modifications could include proposals for changes in the kind of livestock and thus could negatively impact grizzly bears by increasing the potential for livestock/grizzly conflicts (i.e., sheep), it is too speculative to determine whether or not these types of proposals will actually occur or where they would occur.

In general, energy and minerals conservation measures are expected to be neutral to beneficial on grizzly bears, because they will either maintain existing conditions or improve GRSG sagebrush habitats. Without identified site-specific projects, it is too speculative to determine the potential for or extent of any benefits on grizzly bears.

Generally speaking, fuels treatments will maintain, improve, or restore sagebrush habitat, benefitting all species that use sagebrush habitat, including grizzly bears. Targeted grazing fuels treatments will be implemented within existing grazing authorizations, when feasible. It is too speculative to know whether or not this would be proposed within occupied grizzly bear habitat and whether or not it would lead to an increase in livestock grazing that could negatively impact grizzly bears. Similarly, it is too speculative to know where fuels management treatments would occur, the types of species that would be proposed for seeding, and whether or not they would be palatable forage species that could have the potential to negatively impact grizzly bears. Coordinating with federal, state, and local jurisdictions on fire and litter prevention programs to reduce human-caused ignitions would complement existing grizzly bear food storage orders that are designed to prevent human/bear interactions and conflicts, thereby having the potential to benefit grizzly bears. However, without site-specific projects identified, it is too speculative to determine the potential extent of this benefit.

Like fire and fuels treatments, habitat restoration and vegetation management treatments will generally maintain, improve, or restore sagebrush habitat, benefitting species that utilize sagebrush habitat, including grizzly bears. However, it is too speculative to know where habitat restoration or vegetation management treatments would occur, the types of species that would be proposed for seeding, and whether or not they would be palatable forage species that could have the potential to negatively impact grizzly bears.

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision, and associated actions occurring on the Upper Snake or Dillon Field Offices or the Beaverhead-Deerlodge or Caribou-Targhee National Forests, may affect, but are not likely to adversely affect, the grizzly bear or its habitat. GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears, including secure habitat, developed sites, food storage, livestock grazing, and four key food sources, are expected to be neutral, result in beneficial effects, or are too speculative in the absence of site-specific proposals to analyze at this time. Furthermore, adverse effects would likely be avoided because site-specific analysis and mitigation would occur at the project level.

B. Plants

Slickspot peppergrass (*Lepidium papilliferum*)

Land Use Plan Consultation History

On January 24, 2004, the USFWS published its decision to withdraw the proposal to list slickspot peppergrass as endangered in the Federal Register. The species was subsequently dropped from inclusion in BLM's efforts to consult on existing LUPs.

On August 19, 2005, the US District Court for the District of Idaho reversed the decision to withdraw the proposed rule to list slickspot peppergrass as endangered, with directions that the case be remanded to the Secretary of the Department of the Interior for reconsideration of whether a proposed rule listing the slickspot peppergrass as either threatened or endangered should be adopted.

On August 15, 2006, the BLM and USFWS entered into a consultation agreement to provide for effective and efficient Section 7 consultation for slickspot peppergrass on existing Idaho BLM LUPs, pursuant to a National Agreement regarding plan- and program-level consultations.

On August 22, 2006, the BLM and USFWS entered into a conservation agreement to implement conservation measures for slickspot peppergrass through implementation of LUPs.

On January 12, 2007, the USFWS published its decision to withdraw the proposal to list slickspot peppergrass under the ESA in the Federal Register, and efforts to complete Section 7 consultation on existing LUPs and ongoing actions for slickspot peppergrass ceased.

On June 4, 2008, the US District Court for the District of Idaho reversed the decision to withdraw the proposed rule, with directions that the case be remanded to the USFWS for further consideration consistent with the court's opinion.

On August 27, 2009, the BLM and USFWS entered into an updated Conservation Agreement to implement conservation measures for slickspot peppergrass through implementation of LUPs.

On October 8, 2009, the USFWS published its decision to list slickspot peppergrass as threatened under the ESA in the Federal Register.

On November 30, 2009, the USFWS completed formal consultation for the Jarbidge RMP, the Kuna Management Framework Plan, the Cascade RMP, and the Snake River Birds of Prey National Conservation Area RMP on the effects of LUP programs on slickspot peppergrass. The USFWS concurred with the BLM determination that these LUP programs may affect, and are likely to adversely affect, the species. The USFWS Biological Opinion concluded that continued implementation of the existing LUP programs with conservation measures will not jeopardize the survival and recovery of slickspot peppergrass (USFWS 2009b).

On August 8, 2012, the US District Court for the District of Idaho ordered that the final rule listing slickspot peppergrass as a threatened species be vacated and remanded for further consideration consistent with the court's decision.

On February 12, 2014, the USFWS published a Federal Register notice that addressed the US District Court for the District of Idaho's request that a specific definition of foreseeable future for slickspot peppergrass be provided. In addition, the USFWS proposed that threatened status be reinstated for slickspot peppergrass under the ESA. A final decision on the USFWS's proposal to reinstate slickspot peppergrass as threatened under the ESA is anticipated in 2015.

On September 14, 2014, a conservation agreement was signed between the Bureau of Land Management, Idaho State Office, and the USFWS, Idaho Fish and Wildlife Office, to provide for the conservation of slickspot peppergrass related to existing Idaho BLM LUPs and a subset of ongoing actions (BLM 2014).

2014 Slickspot Peppergrass Conservation Agreement

Included in the Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendments and Environmental Impact Statement are RDFs. One of the RDFs mandates that the conservation agreement for slickspot peppergrass and its specific conservation measures and implementation actions be included in its entirety with the decision for the Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendments. In addition, any future updates or revisions to the slickspot peppergrass conservation agreement would also be adopted as binding management direction. Particularly relevant conservation measures from the agreement pertaining to each program area are presented below within each program area heading.

On September 14, 2014, a conservation agreement was signed between the Bureau of Land Management, Idaho State Office, and the USFWS, Idaho Fish and Wildlife Office, to provide for

the conservation of slickspot peppergrass related to existing Idaho BLM LUPs and a subset of ongoing actions (BLM 2014). The conservation agreement and associated conservation measures guide the BLM management actions and serve as a basis for consultation or conference on these LUPs between the BLM and the USFWS regarding slickspot peppergrass, a species proposed for listing under the ESA, as amended.

There are three LUPs that are addressed under the scope of the conservation agreement—the 1983 Kuna Management Framework Plan, the 1987 Jarbidge RMP, and the 1988 Cascade RMP. At the time these LUPs were prepared, there was no requirement to consult with the USFWS on slickspot peppergrass. LUP revisions are in progress for the Jarbidge Field Office and the Four Rivers Field Office that will update and replace these three LUPs. The BLM and the USFWS will consult on these revised LUPs when they are at the appropriate state of development and depending on the outcome of the proposed reinstatement of slickspot peppergrass as a threatened species under the ESA. The conservation agreement also addresses ongoing actions authorized by the BLM, including livestock grazing, rights-of-way activities, and military training.

The conservation measures describe desired recovery and conservation objectives, with corresponding implementation actions. The conservation measures replace or create guidance within the LUPs regarding programmatic management direction for slickspot peppergrass. It is the intent of the BLM and the USFWS that specific conservation measures will be fully implemented, and that the conservation agreement will remain in effect and binding on both parties until such time as new LUPs or amendments are prepared, Section 7 compliance is completed, as appropriate, and Records of Decision are signed. At that time, programmatic management direction for slickspot peppergrass will be included in the new or revised LUP or amendment, and the conservation agreement, or portions thereof in the case of programmatic amendments, will no longer apply to the planning area. Programmatic planning conservation measures include those that are needed for consultation at all planning levels, including future LUPs, ongoing activities, and proposed projects. For example, the conservation agreement is not applicable to the Snake River Birds of Prey planning area, because Section 7 consultation has been completed on the 2008 Snake River Birds of Prey RMP, which contains management direction for slickspot peppergrass similar to what is found within Appendix A of the 2006 version of the conservation agreement. Additionally, the conservation measures associated with the agreement may be modified based on current USFWS analysis of new information and assessment of threats being conducted as part of the listing determination process. Any additional information that becomes available prior to completing the LUPs that may enhance conservation of the species may trigger an update of conservation measures within the agreement. Such new information may be provided when the species is listed, critical habitat is designated, and a recovery plan is completed.

While a high priority for the BLM, both the BLM and the USFWS recognize that funding constraints may affect the ability to implement specific conservation measures as planned. BLM will work to leverage stakeholder partnerships to allow for flexible cost recovery associated with conservation actions. Where funding is lacking, the BLM and the USFWS will cooperate to set priorities and adjust dates for accomplishment. In addition, minor modifications to conservation measures may be necessary as the conference process progresses. Any modification must be

agreed to by the BLM and the USFWS and shall not materially alter the meaning or intent of a conservation measure as stated at the time of signature of this agreement.

Conservation measures were developed for each LUP program and sub-program covered by the conservation agreement. Responsibilities for implementing the actions are indicated, along with time frames for implementation. Most of the conservation measures will be implemented as standard operating actions conducted during day-to-day management activities. In addition, LUP conservation measure guidance and direction will be applied to ongoing actions. However, as site-specific information will be available for the ongoing actions, additional conservation measures may be considered.

In the conservation agreement, measures common to all program areas are specified for Special Status Animal and Plant Management. These measures are summarized below:

1. BLM will cooperate with others to:
    a. Develop and use survey protocols consistent with the USFWS Rare Plant Survey Guidelines to conduct Stage 1, 2, and 3 surveys.
    b. Refine slickspot peppergrass habitat and potential habitat maps, and identify and map slickspot peppergrass occurrences.
    c. Regularly monitor slickspot peppergrass population trends and land health conditions on BLM lands, and follow current monitoring protocols. Land health conditions include forb diversity to support pollinators and habitat for slickspot peppergrass.
    d. Participate in research essential to conservation of the species.
    e. Continue to support seed banks in a long-term seed storage facility.
    f. Support the establishment and maintenance of new populations in habitat categories for slickspot peppergrass.
2. BLM will ensure that <u>ongoing</u> federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass. This includes surveying, reviewing activities, and modifying activities as necessary to avoid or minimize negative impacts and, where feasible, promote species conservation. Section 7 compliance will be completed for activities that may affect slickspot peppergrass and its habitat. Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.
3. BLM will ensure that <u>new</u> federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass. This includes surveying as needed, modifying activities to avoid or minimize negative impacts, and, where feasible, promote species conservation. Section 7 compliance will be completed for activities that may affect slickspot peppergrass and its habitat. Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.

Direct and Indirect Effects by Program Area

The effects of current LUP programs on slickspot peppergrass have already been addressed at the LUP level in previous Section 7 consultation for the Jarbidge RMP, the Kuna Management Framework Plan, the Cascade RMP, and the Snake River Birds of Prey National Conservation

Area RMP, and it was determined that the existing LUP programs may affect, and are likely to adversely affect, slickspot peppergrass. The USFWS Biological Opinion concluded that continued implementation of the existing LUP programs with conservation measures will not jeopardize the survival and recovery of slickspot peppergrass (USFWS 2009b). The current programs are not being reevaluated with this analysis. Only the effects of the proposed LUP amendments are addressed here.

1. Recreation/Travel

Off-road vehicle use is the main threat to slickspot peppergrass in this program area, as such use may directly impact individuals through mechanical damage or deep burying of a portion of the seed bank and may cause degradation of habitat by damaging the soil characteristics and biological soil crust. In addition, vehicle use on and off roads and trails is a major contributor to the spread of nonnative invasive plants, one of two primary threats identified by the USFWS to slickspot peppergrass.

Off-road vehicle impacts are mainly known to occur on the Four Rivers Field Office. Off-road vehicles are not a concern on the Jarbidge Field Office, where the majority of slickspot peppergrass populations and habitat overlap with the action area; however, off-road vehicle uses could become a concern in the future.

With this proposed action, no additional travel or vehicle uses are proposed. BLM TM-1 states: *Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.* Where travel management planning has not been completed or is in progress, and slickspot peppergrass habitat categories are present, there may be a reduction of impacts from off-road vehicle use. If any areas of slickspot peppergrass habitat categories within GRSG HMAs are currently open to off-road vehicle use, restrictions would be placed on vehicles to use only existing routes, becoming effective at the time of this decision. This would provide a small and contemporaneous beneficial effect on slickspot peppergrass and its habitat by reducing the likelihood of damage from off-road vehicles.

Additional beneficial effects may occur in the future as a result of restrictive or guidance conservation measures; however, the actions and resulting benefits would take place in the future, probably a considerable time after the decision to amend LUPs, and so these possible beneficial effects would not be contemporaneous with the decision. Furthermore, most actions that may result from implementing the proposed LUP amendments are highly speculative. The type of activity, locations, timing, and methods of implementation are not known, nor is whether the actions would even be needed. Examples of these speculative actions in the Recreation/Travel program area include: BLM REC-1, *manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions*; BLM REC-2, *limit construction of new recreation facilities*; BLM

TM-2, *consider temporary travel closures or restrictions*; and BLM TM-4, *plan and design travel systems to minimize adverse effects on GRSG (including a statement to give special attention to protect endangered or threatened species and their habitats).*

There is the potential for indirect effects (effects caused by the action, but later in time) from future site-specific ground-disturbing actions relating to the recreation and travel program. However, at this programmatic planning level, these future project actions are unknown and are not reasonably certain to occur; therefore; any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level.

The 2014 slickspot peppergrass conservation agreement, which is included in this decision as an RDF, would be followed for any proposed activities in slickspot peppergrass habitat categories. It contains additional direction to avoid or minimize impacts from developed and dispersed recreation use areas through public education or closures as needed to protect the species and its habitat. With implementation of the conservation agreement, new development of recreation facilities or expansion of existing facilities in habitat categories of slickspot peppergrass would be avoided if negative impacts are expected. Commercial and noncommercial recreation permits would also be subject to restrictions or denial of authorizations for activities if negative impacts are anticipated. Travel management activities would also be subject to restrictions to reduce ground disturbance if negative impacts on habitat categories are occurring or anticipated. In addition, compliance checks would be performed on OHV closures to protect occupied habitat.

Recreation/Travel Summary

One conservation measure for GRSG is specific and would likely be implemented soon after the decision (BLM TM-1, restricting motorized vehicle travel to existing roads and trails). This measure would provide a contemporaneous beneficial effect on slickspot peppergrass and its habitats within affected areas of GRSG HMAs by reducing the likelihood of impacts from off-road vehicle use in areas where new vehicle restrictions overlap slickspot peppergrass habitat categories. Possible effects from the proposed conservation measures concerning other potential activities in the recreation and travel program area are not considered in this analysis and determination of effects, because specific activities are unknown and too speculative to be meaningfully addressed.

2. Lands and Realty

The lands and realty program area has potential to impact slickspot peppergrass by authorizing changes in land use (possibly resulting in infrastructure and facility development and associated loss of habitat and/or damage to individuals), by changing land ownership (possibly resulting in decreased protection of listed species), and by administering the use of rights-of-way.

The proposed conservation measures for GRSG in the Lands and Realty program area state that existing ROWs, developing new or amended ROWs, utility-scale (20 MW) wind and solar

testing and development, nuclear and hydropower energy development, developing commercial service airports and facilities, and developing new landfills would all be subject to RDFs, which includes the slickspot peppergrass conservation agreement. Retaining or acquiring federal ownership of priority or important HMAs may benefit slickspot peppergrass in the future by reducing the likelihood of its habitat being converted to agriculture, urbanization, or other uses. All but one of the actions related to the lands and realty program area are unknown or too speculative at this time to be meaningfully addressed in this programmatic analysis. Any possible effects from future proposed actions would be addressed in site-specific analyses when explicit actions are identified and proposed for implementation.

The one conservation action in the lands and realty program area that may affect slickspot peppergrass is BLM LR-12, which states to "*work with ROW holders to retrofit existing towers and structures consistent with RDFs*." This action is reasonably certain to occur. Implementing this action would involve transporting personnel and supplies to each tower or structure needing to be retrofitted. The minimal disturbance to vegetation would be from vehicle access along the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. There have been extremely rare instances where slickspot peppergrass plants have been found outside slickspots. Specifically, only a few individuals were documented on graded roadsides and badger mounds. These instances do not represent viable, long-term occurrences due to the lack of appropriate habitat components that would support a persistent population. If they are present along right-of-way roads or near towers, slickspot peppergrass individuals may be damaged by the crushing action of vehicle tires and foot traffic. Because of the extremely rare occurrence of slickspot peppergrass outside slickspots, it is highly unlikely that individuals would be present on or directly adjacent to right-of-way roads or near existing towers. Thus, the likelihood of damage to the plants is extremely small, and is therefore discountable. In addition, the unlikely, but possible impacts on slickspot peppergrass individuals due to this action would not significantly impact any local populations, because the adjacent core habitats would be unaffected.

The slickspot peppergrass conservation measures in the conservation agreement state that private lands containing slickspot peppergrass habitat categories would be acquired where feasible, and that occupied slickspot peppergrass habitat in federal ownership would be retained unless such a transfer would result in a net benefit to the species.

Lands and Realty Summary

One proposed conservation measure for GRSG (BLM LR-12, retrofitting existing towers and structures) is reasonably certain to occur and may impact slickspot peppergrass plants that might occur on roadsides or near towers. It is highly unlikely that plants would occur in areas affected by vehicles accessing the sites or foot trampling near the towers; thus, the possible adverse effects are discountable. Possible negative effects from other future actions within the lands and realty program area are not considered in this analysis and determination of effects, because specific actions are undecided and too speculative to be meaningfully addressed.

3. Range

Livestock grazing is currently authorized in many areas affected by the proposed LUP amendments. Livestock grazing and trampling can cause degradation or loss of habitat, impact the seedbank, crush plants, introduce nonnative plant competitors, degrade the integrity of slickspots, and redistribute organic matter through deposition of feces.

Active AUMs for livestock grazing would remain the same, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations (BLM RM-1). BLM RM-6 states, *When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperating and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation*. The habitat assessment framework, or other BLM or Forest Service approved methodology, would be used to determine whether vegetation structure, condition, and composition are meeting GRSG habitat objectives, including riparian and lentic areas (BLM RM-4). BLM RM-5 states, *When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior*. When GRSG habitat objectives are not being met or progress toward them is not being made, potential modifications may include changes in season or timing of use, numbers or distribution of livestock, duration and/or level of use, kind of livestock, and possible periods of rest or deferment. These possible changes may reduce the likelihood of negative impacts on slickspot peppergrass and its habitat due to potential reductions in livestock use. Possible changes in timing of use could either increase or decrease the likelihood of negative impacts on soils or slickspot peppergrass individuals. However, because potential changes to current livestock grazing are undecided and speculative at this time, the type and extent of effects on slickspot peppergrass cannot be meaningfully evaluated. Effects from these possible changes would be evaluated when the details of such actions become available. With implementation of conservation measures in the slickspot peppergrass conservation agreement as an RDF, further evaluation of effects on slickspot peppergrass would occur with the continued livestock grazing.

In addition to the slickspot peppergrass conservation measures in the conservation agreement that are common to all program areas, specific measures for livestock grazing direct the BLM to manage livestock grazing and trailing to conserve suitable habitat conditions for slickspot peppergrass while implementing rangeland health standards and guidelines, and to apply the included direction in *Implementation of Annual Grazing Adaptive Management* (an appendix to the conservation agreement) when modifying livestock grazing. Surveys in slickspot peppergrass habitat categories would be conducted as needed. More specific measures include the following actions:

- As part of range readiness assessments, delay livestock turnout when saturated soils are a negative factor in slickspot peppergrass species conservation.
- Minimize gathering livestock in element occurrences.
- Avoid impacts on element occurrences from herd movement through rested and deferred pastures.

- Trailing permits will not be authorized through element occurrences unless conducted on existing roads. In the Jarbidge Field Office of the Twin Falls District, no livestock trailing will be authorized through element occurrences, proposed critical habitat, or occupied habitat. In the Four Rivers Field Office of the Boise District, livestock trailing permits will not be authorized through element occurrences, proposed critical habitat, or occupied habitat unless conducted on existing roads or historic routes described within the Four Rivers Field Office 2012 livestock trailing consultation with USFWS.
- Sheep grazing permits will be modified to restrict bedding, trailing, or watering herds within 1/2 mile of element occurrences.
- Supplements will be placed at least 1/2 mile from element occurrences. Supplements will be placed so that livestock are drawn away from the element occurrences and avoid trailing through the element occurrences en route to the supplement or a water source.
- No new domestic horse AUMs will be authorized in pastures containing element occurrences to avoid trampling impacts.
- As part of adaptive management, the BLM will conduct scheduled compliance inspections in pastures with occupied habitat.

There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the range program area, such as adjusting locations of salt placements, fences, and water developments. However, at this programmatic planning level, these future project actions are unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and implementation of the slickspot peppergrass conservation measures.

Range Summary

Possible changes to livestock grazing may reduce or increase the likelihood of negative impacts on slickspot peppergrass and its habitat due to potential reductions or changing the timing of livestock use. There is also potential for positive or negative effects from changes to locations of salt placements, fences, and water developments. However, because potential changes to current livestock grazing are undecided and speculative at this time, the type, location, timing, and extent of effects on slickspot peppergrass cannot be meaningfully evaluated at this planning level. Therefore, these potential effects are not considered in the determination of effects for this programmatic decision.

4. Energy and Minerals

The energy and minerals program may cause degradation or loss of habitat, impacts on the seedbank, crushing of slickspot peppergrass plants, and introduction of nonnative plants due to ground disturbance from mining activities, including road construction and pipelines.

Changes in current management of mineral leases would include only restrictions to these uses, and implementing all RDFs are often specified. Any unchanged management would be a continuation of current management; thus, the proposed LUP amendments would not be

authorizing an increase of these uses. Conservation measures proposed for GRSG include the following:

- BLM AD-1 limits anthropogenic disturbance to 3 percent as calculated within the biologically significant unit.
- BLM Fluid Minerals FLM-1: Idaho: Areas within PHMA and IHMA would be open to mineral leasing and development and geophysical exploration subject to NSO with a limited exception (FLM-3). GHMA would be open to mineral leasing and development and geophysical exploration subject to CSU, which includes buffers, seasonal timing restrictions, and standard stipulations.
- BLM Salable Minerals SAL-1: In PHMA, no new site authorizations would be approved. In IHMA and GHMA, new site authorizations could be considered provided the Anthropogenic Disturbance Development Criteria (AD-4) can be met, and subject to RDFs, buffers, and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. GHMA would be open to new site authorizations subject to RDFs, buffers, and seasonal timing restrictions.
- BLM Non-Energy Leasables (NEL)-1: PHMA would be closed to leasing. In IHMA and GHMA, areas within Known Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA outside of KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers, and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. In GHMA, lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily), and standard stipulations.

Since the current RDFs include implementation of the 2014 slickspot peppergrass conservation agreement, the following specific measures in that agreement would be required:

- Approve plans of operations or allow notice-level operations (for locatable minerals, saleable minerals, and leasable minerals) so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
    - To the extent allowed by law, modify [existing] plans of operation or notice-level operations (for locatable minerals) that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts.
    - To the extent allowed by law, avoid approving plans of operation or notice-level operations (for locatable minerals) that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in or adjacent to habitat categories for slickspot peppergrass, apply stipulations to support or to not preclude species conservation.

- Modify existing mineral leases (for salable and leasable minerals) if negative impacts are occurring.
- Avoid development of saleable or leasable minerals in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. If a minerals lease or sale is to be issued in or adjacent to habitat, apply stipulations to support or to not preclude species conservation.

There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the energy and minerals program area, such as development of extraction facilities and access roads. However, at this programmatic planning level, these future projects actions are currently unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and implementation of the slickspot peppergrass conservation measures.

With implementation of the proposed conservation measures, the slickspot peppergrass conservation measures, and RDFs, impacts from new and currently authorized mining activities may be reduced or prevented. However, these possible reductions or avoidance of potential impacts are unidentified at this time and would occur at some unknown time in the future; any beneficial effects would not be contemporaneous with this decision. Potential beneficial effects from the action with respect to energy and mineral development are therefore not considered for the determinations in this programmatic-level analysis but will be addressed in subsequent site-specific analyses.

5. Fire/Fuels Management

Fire is one of the two primary threats to slickspot peppergrass because it can alter soil characteristics, promote establishment and spread of invasive nonnative plants such as cheatgrass and medusahead, and negatively affect its pollinators' habitats, as well as destroy the current season's seed production. Fire suppression activities include creating fire breaks, fire camps, and staging areas, potentially causing degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants. The use of fire retardant may add nutrients to slickspot peppergrass habitat and may improve conditions for plant competitors. Fuels management activities such as prescribed fire and creating vegetated fuel breaks may also cause degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants such as forage kochia and intermediate wheatgrass as well as invasive species. In addition, wildfire restoration/rehabilitation (including Emergency Stabilization and Rehabilitation [ESR]) activities may cause degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, and introduction of nonnative plants. Because all of these potential fire and fuels management activities are unknown at this time, their type, location, and timing is too speculative to allow a meaningful analysis at this programmatic planning level. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and implementation of the slickspot peppergrass conservation measures.

Wildfire Management

The proposed wildfire preparedness/prevention measures do not specify any actions that would predictably affect management of slickspot peppergrass. BLM WFP-9 states to "*implement activities identified within the FIAT Assessments*," but the potential activities are unknown at this time. Proposed wildfire suppression measures include completing FIAT Assessments to identify priority areas and establish strategies for fuels management, suppression, and restoration activities, with an analysis of response times and water capacity for suppression purposes (BLM WFS-1, WFS-2, WFS-3). During high fire danger, measures specify staging initial attack and securing additional resources closer to priority areas identified in the Wildfire and Invasive Species Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern, and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat (BLM WFS-4). At some unknown time in the future, the large area of disjunct occurrences of slickspot peppergrass near Juniper Butte could benefit from additional fire suppression resources providing quicker response times in the Southern Conservation Area by reducing fire impacts on occurrences and habitat categories in these areas.

The 2014 slickspot peppergrass conservation agreement contains the following applicable measures:

- Fire suppression efforts will be conducted, as possible, to protect habitat categories for slickspot peppergrass. Place a high priority on protecting habitat categories for slickspot peppergrass.
    - Fire Management Plans will include Standard Operating Procedures (SOPs) that address conservation of slickspot peppergrass.
    - BLM will provide adequate fire suppression coverage at all stations to meet management objectives with the intent to suppress 90 percent of fires to the acreages specified in the fire management plans for slickspot peppergrass. As funding allows, BLM will maintain existing remote fire guard stations easily accessible to occupied habitat (for example, Juniper Butte fire guard station) and explore opportunities to establish additional stations to provide better initial attack and reduced response times for wildfires in slickspot peppergrass habitat.
    - Apply minimum impact suppression tactics (MIST) in habitat categories for slickspot peppergrass, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts.
    - Although MIST are preferred, aggressive fire suppression tactics (e.g., blade lines, back fires, etc. in habitat) may be applied if element occurrences are threatened.
    - Do not locate fire base camps, staging areas, and fueling areas within occupied habitat.
- As needed, coordinate with appropriate agency personnel regarding fire suppression activities in or adjacent to habitat categories for slickspot peppergrass.
    - BLM and cooperators will expand on and continue to provide special status plant and habitat awareness training to fire resource advisors, Incident Commanders, Engine Operators, and Fire Operations Supervisors.

    - BLM and cooperators will distribute maps and inform fire crews on locations of the element occurrences to maximize fire protection and to avoid or minimize impacts from fire suppression activities.
- When developing wildland fire use plans, do not allow wildland fire use in habitat categories for slickspot peppergrass.

Along with implementation of the 2014 slickspot peppergrass conservation agreement, the proposed management actions under the wildfire management program area could reduce negative impacts from wildfire damage and suppression activities and may benefit slickspot peppergrass and its habitats at some unknown time in the future. Because slickspot peppergrass habitat categories overlap with GRSG habitats, measures that manage wildfires and suppression activities to protect GRSG habitats may also generally benefit slickspot peppergrass habitats in these areas of overlap. However, because the potential benefits would occur at some unknown time in the future, the beneficial effect would not be contemporaneous with this decision.

Fuels Management

For fuels management activities, the proposed LUP amendments include conservation measures that emphasize maintenance, protection, and expansion of sagebrush ecosystems, as well as reduction of wildfire threats (BLM FM-1). Fuels management strategies would be developed as part of FIAT Assessments, and fuel treatments would be designed through an interdisciplinary process to benefit GRSG habitats, including considering a full range of methods such as grazing, targeted grazing, prescribed fire, chemical, biological, and mechanical techniques (BLM FM-6). Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (BLM FM-7). Fuel breaks would incorporate existing vegetation treatments (seedings) or would be located adjacent to existing linear disturbance areas where appropriate (BLM FM-8). The use of native seeds would be prioritized for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, fire-resistant native and nonnative species would be used, as appropriate, to provide for fuel breaks (BLM FM-13).

The 2014 slickspot peppergrass conservation agreement contains the following applicable measures:

- Prescribed fire in habitat categories for slickspot peppergrass will only be used as a tool for assisting with species conservation (for example, a burn in preparation to decrease cheatgrass litter before herbicide application, or to clear fencelines of accumulated windblown weeds).
- Avoid fuels management projects in occupied and critical habitat, unless such projects would enhance species conservation or are necessary for hazardous fuels reduction near the urban interface. Implement protection measures to avoid or minimize negative impacts on the species. In critical and occupied habitat categories for slickspot peppergrass, design native seed mixes that emphasize locally adapted plant material that will promote species conservation. When appropriate, use native plant materials and seed

during project activities, and select species that benefit slickspot peppergrass insect pollinators.

- Because of potential negative impacts on habitat categories for slickspot peppergrass from linear fuel breaks, which can act as weed dispersal corridors, the following measures will be applied in habitat categories for slickspot peppergrass:
    - BLM will monitor the effectiveness of existing fuel breaks (location, dry fuel load, and weed composition) in protecting habitat categories for slickspot peppergrass.
    - BLM may create and maintain fuel breaks where frequent fires can threaten habitat categories for slickspot peppergrass. New fuel breaks in habitat categories for slickspot peppergrass will be designed to conserve and/or enhance species habitat. Where appropriate and where objectives will be met, native vegetation should be emphasized in the creation of new fuel breaks. Other fuel break methods may include mowing or brown strips. If native vegetation or seed will not meet objectives, or site disturbance or site conditions preclude their use, fuel breaks may include nonnative, noninvasive species that will not invade slickspots.
    - Potentially invasive nonnative species such as intermediate wheatgrass and forage kochia will not be used within 1.5 miles of element occurrences. When used in fuel break projects, control measures for potentially invasive nonnative species such as intermediate wheatgrass and forage kochia will be incorporated into project design features.
    - Consider actions to repair or restore fuel breaks so they function as desired.
    - In addition to the reduction in fuels associated with appropriately managed livestock grazing, BLM may create fuel breaks using techniques such as mowing or targeted grazing to strategically reduce fuel loads where frequent fires can threaten habitat categories for slickspot peppergrass if the benefit of these actions can be demonstrated to outweigh the risks to slickspot peppergrass and its habitat.

With implementation of the 2014 slickspot peppergrass conservation agreement, the proposed management actions under the fuels management program area may reduce negative impacts from fuels management activities, mainly by limiting the negative effects from potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, and by preventing or reducing the likelihood of wildfires damaging slickspot peppergrass occurrences and habitat categories.

Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation

The proposed LUP amendments include the following conservation measures for post-wildfire activities:

- Use the findings and restoration/rehabilitation strategy developed as part of the FIAT Assessment process to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct ESR (BLM) or Burned Area Emergency Restoration (BAER) (Forest Service) actions after fire (BLM ESR-1).
- Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the restoration/rehabilitation strategy (BLM ESR-2).

- Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species within burned/ESR areas. All new seedings of grasses and forbs should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems, which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ESR objectives (BLM ESR-3).
- Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations (BLM ESR-4).

The 2014 slickspot peppergrass conservation agreement contains the following applicable measures:

- Implement ESR activities to consider slickspot peppergrass in and adjacent to slickspot peppergrass habitat rehabilitation.
    - Wildfires within habitat categories for slickspot peppergrass will be evaluated for ESR treatments, regardless of size, with an emphasis on retaining native plant resiliency, including early seral native grasses, forbs, and biological soil crusts.
    - As needed, protect disturbed and recovering areas using temporary closures or other measures. BLM will continue to rest areas from land use activities to meet ESR objectives as defined through ESR plans.
    - BLM ESR efforts for slickspot peppergrass, subject to funding availability, should enhance shrub establishment and forb diversity. BLM will implement the following measures during fire ESR efforts:
        - BLM will use seeding techniques that minimize soil disturbance; such techniques may include minimum-till drills and rangeland drills equipped with depth bands when ESR projects have the potential to impact occupied or proposed critical habitat categories for slickspot peppergrass.
        - BLM will use native plant materials and seed during ESR activities. BLM will include native forbs in seed mixtures that will benefit slickspot peppergrass insect pollinators commensurate with ESR program policy.
        - If native plant materials and seed are not available, or where site capability precludes the use of natives due to past disturbances, noninvasive, nonnative species may be used for stabilization activities in habitat categories for slickspot peppergrass.
        - In slickspot peppergrass habitat and potential habitat, nonnative species are acceptable for stabilization activities where site disturbances exceed the capability for extant native vegetation to regenerate. Potentially invasive nonnative species such as intermediate wheatgrass and forage kochia will not be used within 1.5 miles of element occurrences. Within slickspot peppergrass habitat and potential habitat, potentially invasive nonnative species such as intermediate wheatgrass and forage kochia may be used for stabilization activities that are specifically designed as greenstrip fuel break projects, if an environmental analysis determines that the benefits of their use outweigh the risk of invasion to slickspot

peppergrass and its habitat relative to other alternative fuel break methods. For these projects, environmental analyses will use the best available scientific and biological information, current BLM and USFWS guidance, and will incorporate a comprehensive monitoring strategy.

With implementation of the 2014 slickspot peppergrass conservation agreement, the proposed management actions under the wildfire restoration/rehabilitation – ESR program area could potentially reduce negative impacts from ESR activities, and therefore may reduce the risks to slickspot peppergrass. The main contributors to the potential reduction of negative effects would be to limit the use of potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, to use seeding techniques that minimize ground disturbance, and to protect disturbed and recovering areas using temporary closures or other measures. Closures may include resting burned and adjacent areas from livestock grazing, or limiting public access. As compared with the current management direction, the proposed conservation measures for GRSG, including implementing the 2014 slickspot peppergrass conservation agreement, would provide a benefit to slickspot peppergrass and its habitat categories by reducing threats from post-wildfire management activities.

Fire/Fuels Management Summary

In the fire/fuels management program area, no ground-disturbing activities would be authorized by the proposed LUP amendments. These program activities may cause degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants. However, the type, location, and timing of potential activities are unknown and speculative at this time, preventing a meaningful analysis of effects at this programmatic planning level. Therefore, these potential impacts are not considered in the determination of effects. Any future project proposals, including actions involving ground disturbance, vegetation management, and seedings, would be subject to site-specific environmental analysis at the project level and Section 7 consultation as necessary. They would also be subject to the applicable conservation measures in the 2014 slickspot peppergrass conservation agreement.

Potentially beneficial effects may result from the fire/fuels management program area; however, because the potential benefits would occur at some unknown time in the future, the beneficial effects would not be contemporaneous with this decision. Proposed management actions under the wildfire management program area could reduce negative impacts from wildfire damage and suppression activities, which may benefit slickspot peppergrass and its habitats. Conservation measures for the fuels management program area may reduce negative impacts from fuels management activities, mainly by limiting the negative effects from potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, and by preventing or reducing the likelihood of wildfires damaging slickspot peppergrass occurrences and habitat categories. Conservation measures for the wildfire restoration/rehabilitation – ESR program area could potentially reduce negative impacts from ESR activities by limiting the use of potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, using seeding techniques that minimize ground disturbance, and protecting disturbed and recovering areas using temporary closures or other measures.

6. *Habitat Restoration and Vegetation Management*

The proposed LUP amendments contain several conservation measures for GRSG concerning habitat restoration and vegetation management. Habitat restoration and vegetation management projects for GRSG could involve a variety of methods, including chemical, mechanical, and seeding treatments. Such activities may include herbicide application, prescribed fire, cutting of encroaching juniper, and managing native seed resources. Potential negative effects from these activities include possible damage from herbicides, degradation or loss of slickspot peppergrass habitat, impacts on the seedbank, crushing of plants, reduced slickspot integrity, and introduction of nonnative plants. Possible beneficial effects may result from general enhancement of sagebrush habitats, including possible enhancement of forb species important for slickspot peppergrass pollinators and possible reductions of invasive plant species. It is important to keep in mind that although some of the following measures may appear to be proposing specific activities, no site-specific actions are being proposed. The type, location, and timing of future habitat restoration and vegetation management activities are unknown and too speculative to allow a meaningful analysis of effects at this programmatic planning level. Further analysis of any future projects will include Section 7 consultation if necessary, and site-specific environmental analysis and determination of effects will occur when the details of such proposals become available. In addition, the 2014 slickspot peppergrass conservation agreement would be implemented, as it is included in the current proposal as an RDF.

The following conservation measures for GRSG are proposed for any future habitat restoration and vegetation management activities:

- Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical, and seeding treatments (BLM VEG-1).
- Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site-specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e., is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower-elevation sites (e.g., Wyoming big sagebrush), but such efforts will be carefully planned and coordinated to minimize impacts on GRSG seasonal habitats (BLM VEG-2).
- Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Nonnative seeds may be used as long as they support GRSG habitat objectives to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites (BLM VEG-3).
- Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat, and to ensure long-term persistence of improved GRSG habitat. Management changes could be considered

during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of rights-of-way (BLM VEG-4).

- Consider establishing seed harvest areas that are managed for seed production to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities (BLM VEG-5).
- Allocate use of native seed to GRSG or ESA-listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of PHMA or IHMA to those inside it. Reestablishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts (BLM VEG-6).
- During land health assessments evaluate the compatibility of existing nonnative seedings for GRSG habitat to keep as a component of a grazing system, development of a forage reserve, or to be used as a fuelbreak or during restoration/diversification for GRSG habitat improvement. Where appropriate and feasible, diversify seedings, or restore to native vegetation when potential benefits on GRSG habitat outweigh the other potential uses of the nonnative seeding, with emphasis on PHMA and IHMA. Allow recolonization of seedings by sagebrush and other native vegetation (BLM VEG-7).

These conservation measures are generally compatible with management of slickspot peppergrass habitat categories, in that they would promote healthy sagebrush communities that are important for conservation of slickspot peppergrass. Additional conservation measures in the 2014 slickspot peppergrass conservation agreement address concerns from upland vegetation management activities:

- Although non-chemical methods will be the preferred approach in occupied habitat, when appropriate, projects involving the application of pesticides (including herbicides, fungicides, and other related chemicals) in habitat categories for slickspot peppergrass that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and minimize risks of exposure. Site-specific stipulations will be developed locally using these criteria:
    - Evaluate the benefits and risks of vegetation treatment, including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, biocontrols, hand pulling).
    - Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals.
    - Explore opportunities to eradicate competing nonnative invasive plants in habitat categories for slickspot peppergrass where slickspots are being invaded by such plants.
    - Implement appropriate revegetation and weed control measures to reduce the risks of nonnative invasive plant infestations following ground/soil-disturbing actions in habitat categories for slickspot peppergrass.
    - BLM will provide Unites States Department of Agriculture APHIS with the location of habitat categories of slickspot peppergrass. Mormon cricket,

grasshopper, or other insect control in habitat categories for slickspot peppergrass will only include those methods that minimize impacts on the plant's pollinators.

- Where needed and feasible, coordinate with adjacent land owners and local governments regarding control of noxious weeds in upland areas through cooperative weed management programs. [BLM will] take advantage of coordination opportunities as they arise.
- BLM will promote diversity, richness, and health of native plant communities to support pollinators and habitat for slickspot peppergrass. BLM will focus slickspot peppergrass habitat conservation and restoration efforts in habitat categories for slickspot peppergrass to encourage connectivity among populations through the following measures:
    - Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.
    - BLM will select and implement specific projects to restore habitat categories for slickspot peppergrass in degraded areas as funding allows, such as planting shrubs and forbs and controlling weeds, within and adjacent to occupied habitat.
    - Vegetation treatment projects undertaken in habitat categories for slickspot peppergrass will be compatible with species habitat restoration objectives.
    - When conducting vegetation treatment projects in habitat categories for slickspot peppergrass, BLM will use seeding techniques that minimize soil disturbance such as minimum-till drills and rangeland drills equipped with depth bands, use native plant materials and seed during restoration activities, and select native forbs that benefit slickspot peppergrass insect pollinators.
- (From Wildlife and Wildlife Habitat Management program area) Any restoration efforts for wildlife within habitat categories for slickspot peppergrass will be compatible with the species' habitat requirements.

There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the habitat restoration and vegetation management program area, such as prescribed fire, mechanical vegetation treatments, herbicide application, and associated vehicle access. At this programmatic planning level, these future project actions are unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and by implementing the slickspot peppergrass conservation measures.

Some negative impacts on slickspot peppergrass habitat categories may potentially occur with future project implementation, most likely from mechanical ground disturbance, herbicide application, use of ground-disturbing seeding or planting techniques, and competition from invasive or potentially invasive, nonnative plant species. The 2014 slickspot peppergrass conservation agreement provides direction to evaluate and weigh the benefits of these activities against the potential negative effects, and to explore less damaging methods such as biocontrol and hand-pulling. Appropriate spatial or temporal buffers would also be implemented during chemical applications to avoid or minimize exposure of slickspot peppergrass plants or seeds.

Although some localized negative effects on slickspot peppergrass and its pollinators may potentially occur from implementing habitat restoration and vegetation management projects, significant negative effects are highly unlikely. Any habitat-disturbing activities would be subject to site-specific, project-level environmental analysis (including Section 7 consultation as needed), and appropriate mitigation measures would be applied in accordance with the 2014 slickspot peppergrass conservation agreement (or updated version, as applicable). In addition, there may be long-term benefits from these activities because they would promote healthier, more resilient sagebrush communities by maintaining healthy sagebrush communities with fewer nonnative, invasive species.

Invasive Species

Although there are many references to invasive species management in several other program areas, there are also a few conservation measures in the proposed LUP amendments specific to the invasive species topic. They include the following:

- Incorporate results of the FIAT Assessments into projects and activities addressing invasive species (BLM INV-1).
- Implement noxious weed and invasive species control using integrated weed management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners (BLM INV-2).
- Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques, including chemical, mechanical, and other appropriate means (BLM INV-3).
- Require project proponent to ensure that treatments of noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project (BLM INV-4).

Most of the above measures are already integrated into the existing invasive species program activities. The requirement to treat noxious weeds and invasive species for at least 3 years after project disturbances further specifies a minimum time period to conduct control treatments, and thus may result in improved conditions of slickspot peppergrass habitat categories after any authorized disturbances.

Additional conservation measures in the 2014 slickspot peppergrass conservation agreement that address concerns from invasive species include measures already presented under the various program areas above. The proposed LUP amendments, in concert with the 2014 slickspot peppergrass conservation agreement as an RDF, may result in reduced impacts from invasive plant species. One particular concern, already discussed in the wildfire management, fuels management and wildfire restoration/rehabilitation - ESR program areas above, is for the intentional use of potentially invasive species such as intermediate wheatgrass and forage kochia to provide greenstrip fuel breaks. In order for potentially invasive nonnative species to be used, an environmental analysis must determine that the benefits of their use outweighs the risk of invasion to slickspot peppergrass and its habitat relative to other alternative fuel break methods.

If used, a comprehensive monitoring strategy would be implemented, and control measures for the potentially invasive species would be incorporated into project design features. Potentially invasive nonnative species would not be used within 1.5 miles of slickspot peppergrass element occurrences.

The dominance of cheatgrass in an area may also be positively related to the density of Owyhee harvester ants (*Pogonomyrmex salinus*), which represent an emerging threat to slickspot peppergrass. The replacement of sagebrush by annual grasses such as cheatgrass apparently creates conditions favorable to nesting of the native harvester ant, leading to expanded range and density of this potentially important seed predator of slickspot peppergrass (USFWS 2009a). There are potential negative consequences for plant reproduction and maintenance of the slickspot peppergrass seed bank due to Owyhee harvester ants removing mature, seed-bearing fruits from the plants or removing seeds already dropped to the ground and returning them to their nests outside the slickspot habitats.

Habitat Restoration and Vegetation Management Summary

With this decision, no specific habitat restoration and vegetation management activities are proposed. At this programmatic planning level, future habitat restoration and vegetation management actions are unknown and not reasonably certain to occur. Any possible effects are too speculative to meaningfully evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation.

Even though the type, location, timing, and extent of effects are not possible to analyze at this time, it is possible that some negative impacts on slickspot peppergrass habitat categories may potentially occur with future project implementation, most likely from mechanical ground disturbance, herbicide application, use of ground-disturbing seeding or planting techniques, and competition from invasive or potentially invasive, nonnative plant species. Although invasive and potentially invasive nonnative species will likely remain on the landscape and continue to impact slickspot peppergrass populations and habitat categories, their effects may possibly be reduced by the proposed increase of emphasis on invasive species control and the particular conservation measures required by the 2014 slickspot peppergrass conservation agreement. Because specific future projects are unknown, these potential effects are not considered in the determination of effects for this proposed action.

Cumulative Effects

To evaluate cumulative effects, the future state, tribal, local, or private actions that are reasonably certain to occur within the action area are identified, and their effects are added to the anticipated effects of the current proposal. The action area for the current proposal is limited to PHMA, IHMA, and GHMA occurring on BLM- and Forest Service-administered lands. No state, tribal, local, or private lands exist within the action area, and no state, tribal, local, or private actions are planned or expected to occur in the action area. Only federal actions are expected to occur in the action area; therefore, no cumulative effects are expected.

Summary and Determination of Effects on Slickspot Peppergrass

The decision to adopt the proposed LUP amendments does not propose any ground-disturbing actions. Some site-specific activities in support of GRSG habitat management may be proposed that have some future potentially negative impacts on slickspot peppergrass habitat categories (e.g., establishing vegetated fuel breaks with potentially invasive plant species, using mechanical methods or chemical applications for habitat restoration and vegetation management projects, or relocating salt placements and water developments relating to livestock grazing). However, the type, location, timing, and extent of such activities are unknown at this time and are too speculative to allow a meaningful analysis of their effects. Because specific future projects are unknown, these potential effects are not considered in the determination of effects for this proposed action. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on slickspot peppergrass would be avoided, minimized, or mitigated through site-specific analysis at the project level and by implementing the slickspot peppergrass conservation measures.

The 2014 slickspot peppergrass conservation agreement is included in this decision as an RDF and would be followed for any proposed activities in slickspot peppergrass habitat categories. The slickspot peppergrass conservation agreement measures common to all program areas state that surveys would be conducted, habitat categories would be mapped, and population trends would be monitored. In addition, ongoing federal actions would be reviewed and modified as necessary to avoid or minimize negative impacts, and Section 7 compliance would be completed for activities that may affect slickspot peppergrass and its habitat.

One conservation measure for GRSG is specific and would likely be implemented soon after the decision (BLM TM-1, restricting motorized vehicle travel to existing roads and trails). This measure would provide a contemporaneous beneficial effect on slickspot peppergrass and its habitats within affected areas of GRSG HMAs by reducing the likelihood of impacts from off-road vehicle use in areas where new vehicle restrictions overlap slickspot peppergrass habitat categories.

Another proposed conservation measure for GRSG (BLM LR-12, retrofitting existing towers and structures) is somewhat specific and reasonably certain to occur. This measure may impact slickspot peppergrass plants that might occur on roadsides or near towers, but it is highly unlikely that plants would occur in areas affected by vehicles accessing the sites or foot trampling near the towers. Thus, the possible adverse effects are discountable.

The remaining proposed conservation measures for GRSG that have potential to negatively affect slickspot peppergrass are not known at this time and are too speculative to allow a meaningful analysis of effects. Therefore, the following summary of such potential program area effects are described at a very general level and are not considered in the determination of effects:

- Examples of speculative actions in the recreation/travel program area include: REC-1, manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers, and seasonal restrictions; REC-2, limit

construction of new recreation facilities; TM-2, consider temporary travel closures or restrictions; and TM-4, plan and design travel systems to minimize adverse effects on GRSG (including a statement to give special attention to protect endangered or threatened species and their habitats). These restrictive actions could reduce the likelihood of negative impacts on slickspot peppergrass.

- Retaining or acquiring federal ownership of PHMA or IHMA lands may benefit slickspot peppergrass by reducing the likelihood of its habitat being converted to agriculture, urbanization, or other uses. Specific measures in the slickspot peppergrass conservation agreement state that private lands containing slickspot peppergrass habitat categories would be acquired where feasible and that occupied slickspot peppergrass habitat in federal ownership would be retained.
- Possible changes to livestock grazing may reduce or increase the likelihood of negative impacts on slickspot peppergrass and its habitat due to potential reductions or changing the timing of livestock use. There is also potential for positive or negative effects from the possibility of changes to locations of salt placements, fences, and water developments.
- With implementation of the proposed conservation measures for GRSG regarding the energy and minerals program area, plus the slickspot peppergrass conservation measures and other RDFs, impacts from new and currently authorized mining activities may be reduced or prevented because the measures are restrictive in nature.
- Proposed management actions under the wildfire management program area could reduce negative impacts from wildfire damage and suppression activities and may benefit slickspot peppergrass and its habitats. Conservation measures for the fuels management program area may reduce negative impacts from fuels management activities, mainly by limiting the negative effects from potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, and by preventing or reducing the likelihood of wildfires damaging slickspot peppergrass occurrences and habitat categories. Conservation measures for the wildfire restoration/rehabilitation – ESR program area could potentially reduce negative impacts from ESR activities by limiting the use of potentially invasive nonnative species such as intermediate wheatgrass and forage kochia, using seeding techniques that minimize ground disturbance, and protecting disturbed and recovering areas using temporary closures or other measures.
- There is the potential for indirect effects from future site-specific ground-disturbing actions relating to the habitat restoration and vegetation management program area, such as prescribed fire, mechanical vegetation treatments, herbicide application, and associated vehicle access. Negative impacts on slickspot peppergrass habitat categories may potentially occur with future projects in the habitat restoration and vegetation management program area, most likely from mechanical ground disturbance, herbicide application, use of ground-disturbing seeding or planting techniques, and competition from invasive or potentially invasive, nonnative plant species. The effects from invasive and potentially invasive nonnative species may possibly be reduced by the proposed increase of emphasis on invasive species control and the relevant conservation measures required by the 2014 slickspot peppergrass conservation agreement.

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to jeopardize the continued existence of slickspot peppergrass. The estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided. Site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level.

Because no suitable habitats for slickspot peppergrass are suspected to occur within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices or the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass in these areas.

Slickspot Peppergrass Proposed Critical Habitat

The PCEs of slickspot peppergrass proposed critical habitat include four elements:

1. Ecologically functional microsites or “slickspots” that are characterized by:
    a. A high sodium and clay content and a three-layer soil horizonation sequence, which allows for successful seed germination, seedling growth, and maintenance of the seed bank. The surface horizon consists of a thin, silty, vesicular, pored (small cavity) layer that forms a physical crust (the silt layer). The subsoil horizon is a restrictive clay layer with an abrupt boundary with the surface layer that is natric or natric-like in properties (a type of argillic (clay-based) horizon with distinct structural and chemical features) (the restrictive layer). The second argillic subsoil layer (that is less distinct than the upper argillic horizon) retains moisture through part of the year (the moist clay layer); and
    b. Sparse vegetation with low to moderate introduced, invasive, nonnative plant species cover.
2. Relatively intact, native *Artemisia tridentata* ssp. *wyomingensis* (Wyoming big sagebrush) vegetation assemblages, represented by native bunchgrasses, shrubs, and forbs, within 250 meters of *Lepidium papilliferum* element occurrences to protect slickspots and *Lepidium papilliferum* from disturbance from wildfire, slow the invasion of slickspots by nonnative species and native harvester ants, and provide the habitats needed by *L. papilliferum’s* pollinators.
3. A diversity of native plants whose blooming times overlap to provide pollinator species with sufficient flowers for foraging throughout the seasons and to provide nesting and egg-laying sites; appropriate nesting materials; and sheltered, undisturbed places for hibernation and overwintering of pollinator species. In order for genetic exchange of *Lepidium papilliferum* to occur, pollinators must be able to move freely between slickspots. Alternative pollen and nectar sources (other plant species within the surrounding sagebrush vegetation) are needed to support pollinators during times when

Lepidium papilliferum is not flowering, when distances between slickspots are large, and in years when *L. papilliferum* is not a prolific flowerer.

4. Sufficient pollinators for successful fruit and seed production, particularly pollinator species of the sphecid and vespid wasp families, species of the bombyliid and tachinid fly families, honeybees, and halictid bee species, most of which are solitary insects that nest outside of slickspots in the surrounding sagebrush-steppe vegetation, both in the ground and within the vegetation.

Direct and Indirect Effects by Program Area

1. Recreation/Travel

Off-road vehicle use can disturb important soil horizonation in slickspots, damage individuals or nests of pollinators, and contribute to the spread of nonnative invasive plants. One conservation measure for GRSG that is specific and would likely be implemented soon after the decision (BLM TM-1, restricting motorized vehicle travel to existing roads and trails) may provide a contemporaneous beneficial effect on slickspot peppergrass proposed critical habitat within affected areas of GRSG HMAs by reducing the likelihood of impacts from off-road vehicle use in areas where new vehicle restrictions overlap slickspot peppergrass proposed critical habitat. Possible effects as a result of the proposed conservation measures concerning other potential activities in the recreation and travel program area are not considered in this analysis and determination of effects, because specific activities are unknown and too speculative to be meaningfully addressed.

2. Lands and Realty

The lands and realty program area has potential to affect slickspot peppergrass proposed critical habitat by authorizing changes in land use (possibly resulting in infrastructure and facility development and associated loss of habitat and/or damage to individuals), by changing land ownership (possibly resulting in decreased protection of listed species), and by administering the use of rights-of-way.

All but one of the actions related to the lands and realty program area are unknown or too speculative at this time to be meaningfully addressed in this programmatic analysis. The one conservation action in the lands and realty program area that may affect slickspot peppergrass is BLM LR-12, which states to "*work with ROW holders to retrofit existing towers and structures consistent with RDFs*." This action is reasonably certain to occur. Implementing this action would involve transporting personnel and supplies to each tower or structure needing to be retrofitted. The minimal disturbance to vegetation would be from vehicle access along the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. Ecologically functional slickspots are not likely to be present in the areas that may be impacted by this activity (access roads and areas directly adjacent to existing towers and structures) due to the previous disturbance involved with installation of the structures and access roads. Thus, there is an extremely low likelihood of impacts on ecologically functional slickspots from tower retrofit activities, and the effect is discountable. Furthermore, the same impacts may occur from maintenance activities that are already analyzed and consultation completed in previous environment analysis. The retrofit activity would not constitute an increase in the currently authorized use of these rights-of-way.

Because the expected retrofit activities involve very little, if any, disturbance to vegetation or soils, it is also highly unlikely that the other three PCEs (relatively-intact Wyoming big sagebrush vegetation, diversity of plants for pollinators, and presence of pollinators) would be impacted.

3. Range, Energy and Minerals, Fire/Fuels Management, and Habitat Restoration and Vegetation Management

Specific activities in these remaining program areas are not identified at this time. The type, location, timing, and extent of future activities are unknown and too speculative to allow a meaningful analysis of effects at this programmatic planning level. Further analysis of any future projects will include Section 7 consultation if necessary, and site-specific environmental analysis and determination of effects will occur when the details of such proposals become available. In addition, the 2014 slickspot peppergrass conservation agreement would be implemented, as it is included in the current proposal as an RDF.

Summary and Determination of Effects on Slickspot Peppergrass Proposed Critical Habitat

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to result in destruction or adverse modification of slickspot peppergrass proposed critical habitat. The estimated effects on proposed critical habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles, and indirect negative effects may result (but are extremely unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on slickspot peppergrass proposed critical habitat from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided, because site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level.

Because no slickspot peppergrass proposed critical habitat exists within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices or the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass proposed critical habitat in these areas.

Ute Ladies'-tresses (*Spiranthes diluvialis*)

Ute ladies'-tresses is known to occur on the Dillon, Pocatello, and Upper Snake Field Offices and the Caribou-Targhee National Forest. None of the known populations are within PHMA, IHMA, or GHMA. The closest known location is over 0.6 mile from IMHA, in Fremont County, Idaho. It is also suspected to occur on the Salmon-Challis and Sawtooth National Forests. Although the extent and specific locations are not known, it is likely that some areas of suitable habitat for Ute ladies'-tresses do exist within GRSG HMAs because some wetland habitats are included. The areas most likely to support populations (riparian areas along major river drainages) have mostly been excluded from GRSG HMAs.

Threats to Ute ladies'-tresses include off-road vehicle use, competition with aggressive nonnative plants, alteration of hydrologic regimes through stream management, urbanization (conversion of potential habitat and increasing demands for water), drought, trampling from livestock, wild horses, and burros, and recreational use (Fertig, et. al 2005, USFWS 1995). Of these threats, effects from off-road vehicle use, competition with nonnative plants, and trampling could potentially occur from proposed actions.

Direct and Indirect Effects by Program Area

1. Recreation/Travel

Off-road vehicle use is a threat to Ute ladies'-tresses because direct contact can damage or kill individuals. Soil disturbance as a result of off-road vehicle use can also increase erosion. In addition, recreation and vehicle uses can contribute to the spread of nonnative invasive plants. Off-road vehicle use and recreation impacts do not typically occur in Ute ladies'-tresses habitats, except for the occasional campers with such vehicles, trampling from fishing access, and possibly vehicle use associated with right-of-way maintenance.

With this action, no additional travel or vehicle uses are proposed. BLM TM-1 states: *Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open and currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge, and Upper Snake Field Offices. Upon completion of travel management plans, the designation would change to limited to designated roads, primitive roads, and trails.* Where travel management planning has not been completed or is in progress, and Ute ladies'-tresses habitat is present, there may be a reduction of impacts from off-road vehicle use. Thus, if any areas of occupied or suitable habitat for Ute ladies'-tresses within GRSG HMAs are currently open to off-road vehicle use, restrictions would be placed on vehicles to use only existing routes. This would provide a small and contemporaneous beneficial effect on Ute ladies'-tresses by reducing the likelihood of damage from off-road vehicles.

2. Lands and Realty

Only one conservation measure in the lands and realty program area may affect Ute ladies'-tresses. BLM LR-12 states to "*work with ROW holders to retrofit existing towers and structures consistent with RDFs*." This action is reasonably certain to occur and because the level of disturbance would be minimal, it is not expected to be analyzed in future environmental analysis. Implementing this action would involve transporting personnel and supplies to each tower needing to be retrofitted. The minimal disturbance to vegetation would be from vehicle access along the right-of-way roads, possibly including parking the vehicles off the roads near each tower, and from foot traffic near the towers during retrofit activities. If present in these areas, Ute ladies'-tresses individuals may be damaged by the crushing action of vehicle tires and foot traffic. Because towers, structures, and access roads generally avoid riparian habitats, Ute ladies'-tresses is not likely to be present on or directly adjacent to right-of-way roads or near existing towers. Thus, the likelihood of damage to the plants is very small and, furthermore, the

expected magnitude of impact would be so small as to be insignificant. If any plants are affected, they would likely have survived much greater disturbances or would have become established within previously disturbed areas along the right-of-way. If individual plants are impacted by vehicles or foot traffic, aboveground portions of the plants may be damaged, but the perennial tuberous-thickened roots would not be damaged and the plants would not be killed. Seed production for the affected individuals may be lost for that growing season. In addition, the unlikely but possible impacts on Ute ladies'-tresses individuals due to this action would not significantly impact the local populations because the adjacent core habitat would be unaffected.

3. Range

Livestock grazing is authorized in many areas affected by the proposed LUP amendments. Active stocking rates for livestock grazing would remain the same, though the stocking on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, allotment management plan development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers and season of use in accordance with applicable regulations. Certain levels and timing of grazing are compatible maintenance of Ute ladies'-tresses habitats. For instance, winter grazing has been shown to be beneficial to Ute ladies'-tresses populations in Colorado by reducing competing vegetation and escape cover for voles (Fertig, et. al 2005). However, decreased flower and fruit production have been observed at sites that are grazed or trampled in summer (Fertig, et. al 2005).

With the proposed LUP amendments, when GRSG habitat objectives are not being met or progress toward them is not being made, potential modifications may include changes in season or timing of use, numbers or distribution of livestock, duration and/or level of use, kind of livestock, and possible periods of rest or deferment (BLM RM-6 and FS GRSG-LG-GL-001-Guideline). Changes in livestock grazing may or may not be considered as a result of the LUP amendments, and the location, timing, and type of possible change is not known at this time. This programmatic decision would not authorize changes to current range management. Because changes in livestock grazing are speculative, the effects on Ute ladies'-tresses cannot be reasonably foreseen at this time. Due to the considerable uncertainty of changes to current grazing, these effects are not addressed in this analysis. Possible beneficial effects would not be concurrent with this programmatic decision, and possible negative effects would be too speculative to allow a meaningful analysis. If changes are proposed in the future, the effects on Ute ladies'-tresses and other resources would be evaluated and analyzed through the NEPA process and ESA Section 7 consultation as needed when the site-specific actions are considered.

4. Energy and Minerals

Energy and mineral development is not currently a threat identified by the USFWS for Ute ladies'-tresses. This may be due to widespread general restrictions on these activities in riparian habitats. Regardless of whether they are identified threats, the proposed action only places restrictions on these activities, which could have potential for beneficial effects. No new energy and mineral activities are proposed. Several conservation measures in the proposed action may

prevent or reduce general impacts from energy and mineral activities, but these measures would become effective in the future as the activities are proposed or parcels are leased. Therefore, any potential beneficial effects on Ute ladies'-tresses from reduced impacts of energy and mineral development would be analyzed in the future at the site-specific level and would not be contemporaneous with this decision. Potential beneficial effects from the action with respect to energy and mineral development are therefore not considered in this programmatic level analysis but will be addressed in subsequent site-specific analyses.

5. Fire/Fuels Management

The conservation measures in the fire and fuels management program area have little relevance to Ute ladies'-tresses, because generally no fire and fuels management activities are conducted in riparian habitats, and fire is not considered a threat to this species. No direct negative effects are expected because no new fire and fuels management activities are proposed. Restrictive measures in this program area may benefit this species by reducing the likelihood of impacts from the fire and fuels management program activities, but the measures would become effective in the future as specific activities are proposed. Therefore, any potential beneficial effects on Ute ladies'-tresses would not be concurrent with this decision. Furthermore, any potential effects from future activities will be addressed in subsequent site-specific analyses.

6. *Habitat Restoration and Vegetation Management*

Ute ladies'-tresses would not be negatively affected by conservation measures in the proposed LUP amendments for the habitat restoration and vegetation management program areas because no new activities are proposed. Vegetation management activities in riparian habitats can alter Ute ladies'-tresses habitat components (such as maintaining earlier successional conditions, or allowing successional changes to proceed), but no specific activities are proposed.

Noxious weed and invasive species treatments would be required on disturbed project construction areas for at least 3 years (BLM INV-4). This conservation measure has potential to benefit Ute ladies'-tresses by reducing the threat of increased competition from invasive species. If treatments were to occur within occupied habitats, there is a possibility of negative effects from exposure to herbicides. However, noxious weed and invasive species treatments would occur with implementation of future projects that are unknown at this time and are thus speculative and uncertain to occur. All potential effects from future activities will be addressed in subsequent site-specific analyses.

Cumulative Effects

To evaluate cumulative effects, the future state, tribal, local, or private actions that are reasonably certain to occur within the action area are identified, and their effects are added to the anticipated effects of the current proposal. The action area for the current proposal is limited to PHMA, IHMA, and GHMA occurring on BLM- and Forest Service-administered lands. No state, tribal, local, or private lands exist within the action area, and no state, tribal, local, or private actions are planned or expected to occur in the action area. Only federal actions are expected to occur in the action area; therefore, no cumulative effects are expected.

Summary and Determination of Effects on Ute ladies'-tresses

Because the proposed LUP amendments do not propose any specific ground-disturbing actions, there would be no direct effects on Ute ladies'-tresses from this programmatic decision.

A potential beneficial effect on Ute ladies'-tresses may result in PHMA and GHMA from the action of restricting vehicle use to existing roads and trails (BLM TM-1, where travel planning has not previously been completed). A slight chance of damage to individuals may result from retrofitting existing towers with perch deterrents (BLM LR-12), but the likelihood of damage is very small and the expected magnitude of impact would be so small as to be insignificant.

There is potential for beneficial effects from reduced impacts from energy and minerals, fire/fuels management, habitat restoration, and vegetation management activities. Although these threats may be reduced by the proposed LUP amendments, any benefit due to restricted or prohibited actions would occur in future years, and thus the benefit would not be contemporaneous and is not considered in this analysis. All potential effects will be considered during future site-specific analyses.

There is also potential for additional indirect effects (effects caused by the action, but are later in time) from future site-specific ground-disturbing actions in many program areas. At this programmatic planning level, these future projects are unknown and not reasonably certain to occur, and any possible effects are too speculative to evaluate at this time. All future site-specific projects will include an environmental analysis through the NEPA process and ESA Section 7 consultation. Potential negative effects on Ute ladies'-tresses would be avoided, minimized, or mitigated through site-specific analysis at the project level.

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement may affect, but will not likely adversely affect, Ute ladies'-tresses. The estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Dillon, Pocatello, and Upper Snake Field Offices and the Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided because site-specific analysis and mitigation would occur at the project level.

Because no suitable habitats for Ute ladies'-tresses are suspected to occur within the Bruneau, Burley, Challis, Four Rivers, Jarbidge, Owyhee, Salmon, or Shoshone Field Offices, or the Boise or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland, there would be no effects on Ute ladies'-tresses in these areas.

DETERMINATIONS OF EFFECTS SUMMARY BY SPECIES

Species	Status[16]	Determination[17]	Rationale
Grizzly bear *Ursus arctos horribilis*	T	NLAA	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee Pocatello, Salmon, Shoshone, Four Rivers Field Offices, the Boise, Salmon-Challis, or Sawtooth National Forests, and the Curlew National Grassland will not affect grizzly bears because these field offices and national forests/grassland do not contain occupied habitat for grizzly bears. Similar actions occurring within the Upper Snake or Dillon Field Offices or the Beaverhead-Deerlodge or Caribou-Targhee National Forests may affect, but are not likely to adversely affect, the grizzly bear or its habitat. GRSG LUPA decision goals, objectives, desired conditions, standards, and guidelines that could have any bearing on the major threats to grizzly bears—secure habitat, developed sites, food storage, livestock grazing, and four key food sources—are expected to be neutral, result in beneficial effects, or are too speculative in the absence of site-specific proposals to analyze at this time. Furthermore, adverse effects would likely be avoided, because site-specific analysis and mitigation would occur at the project level.
Canada lynx *Lynx canadensis*	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, Four Rivers, or Dillon Field

[16] E = Endangered; P = Proposed Endangered; T = Threatened; P-T = Proposed Threatened
[17] NE = No Effect (Will not affect the species); NLJ = Not likely to jeopardize the continued existence of the species; NLAA = May affect, but is not likely to adversely affect; NLDAM = Not likely to result in destruction or adverse modification of proposed critical habitat

Species	Status[16]	Determination[17]	Rationale
			Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Canada lynx because these field offices and national forests/grassland do not contain suitable habitat for Canada lynx.
Canada lynx critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Canada lynx designated critical habitat because these units do not contain Canada lynx designated critical habitat.
Northern Idaho ground squirrel *Spermophilus brunneus*	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, or Dillon Field Offices, the Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect northern Idaho ground squirrel because these field offices and national forests/grassland do not contain suitable habitat for northern Idaho ground squirrel. Similar actions occurring within the Four Rivers Field Office or Boise National Forest will not affect the northern ground squirrel or its habitat because potential habitat for northern ground squirrel within these units does not exist within sagebrush-steppe GRSG habitat.
Red knot *Calidris canutus rufa*	P-T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect red knot because these field offices and national forests/grassland do

Species	Status[16]	Determination[17]	Rationale
			not contain suitable habitat for the red knot. Similar actions occurring within the Dillon Field Office will not affect the red knot or its habitat because there are no actions within this LUPA decision that would impact aquatic conditions that may serve as migratory stopover habitat for red knot. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the red knot will be made at that time (See Appendix A).
Western yellow-billed cuckoo *Coccyzus americanus*	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement and associated actions occurring on the Dillon Field Office, Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, Sawtooth National Forest, BDNF, or Curlew National Grassland will not affect the western yellow-billed cuckoo or its habitat because this field office and these national forests/grassland are either outside of the range of or are not known to contain suitable habitat for the western yellow-billed cuckoo. Similar actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Shoshone, Upper Snake, or Four Rivers Field Offices will not affect the western yellow-billed cuckoo or its habitat because it is unlikely that western yellow-billed cuckoos are breeding within the action area and the LUPA and EIS contain no actions that would adversely impact riparian areas. Site-specific analysis will be conducted at the project level, and a determination of effects for the yellow-billed cuckoo will be made at that time.
Western yellow-billed cuckoo critical habitat	Proposed	NLDAM	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Dillon, Jarbidge, Owyhee, Pocatello, Salmon, Upper Snake, or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect western yellow-billed cuckoo proposed critical habitat because these units do not contain yellow-billed cuckoo proposed critical habitat. Similar

Species	Status[16]	Determination[17]	Rationale
			actions occurring on the Shoshone Field Office are not likely to lead to the destruction or adverse modification of western yellow-billed cuckoo proposed critical habitat because the LUPA and EIS contain no actions that would adversely impact proposed critical habitat PCEs, and site-specific analysis will be conducted at the project level and a determination of effects for yellow-billed cuckoo proposed critical habitat will be made at that time.
Bull trout *Salvelinus confluentus*	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Burley Field Office, Owyhee Field Office, Pocatello Field Office Shoshone Field Office, Dillon Field Office, the Caribou-Targhee National Forest, or the Curlew National Grassland will not affect bull trout because these field offices and national forests/ grassland do not contain suitable habitat for bull trout. Similar actions occurring within the Bruneau, Challis, Jarbidge, Salmon, Upper Snake, or Four Rivers Field Offices, or the Boise, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests will not affect bull trout or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in lakes, rivers, or streams occupied by bull trout (See Appendix A).
Bull trout Critical Habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Burley, Owyhee, Pocatello, Shoshone, or Dillon Field Offices, the Caribou-Targhee National Forest, or the Curlew National Grassland will not affect bull trout critical habitat because these field offices and national forests/grassland do not contain suitable habitat for bull trout. Similar actions occurring within the Bruneau, Challis, Jarbidge, Salmon, or Upper Snake Field Offices or the Boise, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests will not affect bull trout critical habitat because there are no actions within this LUPA decision that would impact PCE of bull trout critical habitat by altering

Species	Status[16]	Determination[17]	Rationale
			water quality or quantity or natural conditions. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for bull trout critical habitat will be made at that time.
Chinook salmon *Oncorhynchus tshawytscha* Snake River spring/summer run	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Chinook salmon because these field offices and national forests/grassland do not contain suitable habitat for Chinook salmon. Similar actions occurring on the Challis and Salmon Field Offices, or the Boise, Salmon-Challis, or Sawtooth National Forests will not affect Chinook salmon or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions to the Snake River or its tributaries (See Appendix A).
Chinook salmon Snake River critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Upper Snake, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Spring/Summer Run Chinook salmon designated critical habitat because Chinook salmon critical habitat does not occur on these units. Similar actions occurring on the Challis, Salmon, Shoshone, and Four Rivers Field Offices, and the Boise, Salmon-Challis, and Sawtooth National Forests will not affect Chinook Salmon critical habitat because there is no overlap between Chinook salmon critical habitat on these units and GRSG PHMA, GHMA, or IHMA.
Sockeye salmon *Oncorhynchus nerka* Snake River	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Boise,

Species	Status[16]	Determination[17]	Rationale
			Caribou-Targhee, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect sockeye salmon because these field offices and national forests/grassland do not contain suitable habitat for sockeye salmon. Similar actions occurring on the Challis and Salmon Field Offices or the Salmon-Challis or Sawtooth National Forests will not affect sockeye salmon or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions to the Snake River or its tributaries (See Appendix A).
Sockeye salmon Snake River critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Upper Snake, Four Rivers, or Dillon Field Offices, the Boise, Caribou-Targhee, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River sockeye salmon designated critical habitat because Snake River sockeye salmon critical habitat does not occur on these units. Similar actions occurring on the Challis, Salmon, and Shoshone Field Offices and the Salmon-Challis and Sawtooth National Forests will not affect Snake River sockeye salmon critical habitat because there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.
Steelhead *Oncorhynchus mykiss* Snake River Basin	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Shoshone, Upper Snake, Four Rivers, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Basin steelhead because these field offices and national forests/grassland do not contain suitable habitat for Snake River Basin steelhead. Similar actions occurring on the Challis and Salmon Field Offices or the Boise, Salmon-Challis, or Sawtooth National Forests will not affect Snake River Basin steelhead or its habitat because there are no actions within this LUPA decision that

Species	Status[16]	Determination[17]	Rationale
			would impact aquatic habitat or cause water depletions to the Snake River or its tributaries (See Appendix A).
Steelhead Snake River Basin critical habitat	Designated	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Pocatello, Upper Snake, or Dillon Field Offices, the Caribou-Targhee or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Basin steelhead designated critical habitat because Snake River Basin steelhead critical habitat does not occur on these units. Similar actions occurring on the Challis, Salmon, Shoshone, and Four Rivers Field Offices and the Boise, Salmon-Challis, and Sawtooth National Forests will not affect Snake River Basin steelhead critical habitat because there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.
Banbury Springs limpet *Lanx sp.*	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Bruneau, Burley, Challis, Jarbidge, Owyhee, Pocatello, Salmon, Upper Snake, Dillon or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Banbury Springs limpet because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring within the Shoshone Field Office will not affect the Banbury Springs limpet or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in Banbury Springs limpet habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the Banbury Springs limpet will be made at that time (See Appendix A).
Bliss Rapids Snail *Taylorconcha*	T	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated

Species	Status[16]	Determination[17]	Rationale
serpenticola			actions occurring on the Challis, Owyhee, Pocatello, Salmon, Upper Snake, or Dillon Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Bliss Rapids snail because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring on the Bruneau, Burley, Jarbidge, Shoshone, and Four Rivers Field Offices will not affect the Bliss Rapids snail or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in Bliss Rapids snail habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the Bliss Rapids snail will be made at that time (See Appendix A).
Bruneau Hot springsnail *Pyrgulopsis bruneauensis*	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Burley, Challis, Owyhee, Pocatello, Shoshone, Salmon, Upper Snake, Dillon or Four Rivers Field Offices, the Boise, Caribou-Targhee, Salmon-Challis, Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Bruneau hot springsnail because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring on the Bruneau or Shoshone Field Offices will not affect the Bruneau hot springsnail or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause groundwater withdrawals in Bruneau hot springsnail habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the Bruneau hot springsnail will be made at that time (See Appendix A).
Snake River Physa snail *Physa natricina*	E	NE	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision and associated actions occurring on the Challis, Pocatello, Salmon, Upper Snake, or Dillon Field Offices, the Boise, Caribou-Targhee, Salmon-Challis,

Species	Status[16]	Determination[17]	Rationale
			Sawtooth, or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland will not affect Snake River Physa because these field offices and national forests/grassland do not contain suitable habitat for the species. Similar actions occurring on the Bruneau, Burley, Jarbidge, Owyhee, Shoshone, and Four Rivers Field Offices will not affect Snake River Physa or its habitat because there are no actions within this LUPA decision that would impact aquatic habitat or cause water depletions in Snake River Physa habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for Snake River Physa will be made at that time (See Appendix A).
Slickspot peppergrass *Lepidium papilliferum*	P-E	NLJ	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to jeopardize the continued existence of slickspot peppergrass because the estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided because site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level. Because no suitable habitats for slickspot peppergrass are suspected to occur within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices, the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass in these areas.
Slickspot peppergrass critical habitat	Proposed	NLDAM	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement is not likely to result in

Species	Status[16]	Determination[17]	Rationale
			destruction or adverse modification of slickspot peppergrass proposed critical habitat because the estimated effects on proposed critical habitat that exist in PHMA, IHMA, and GHMA in the Four Rivers and Jarbidge Field Offices would be beneficial due to the reduced impacts from off-road vehicles. Indirect negative effects may result (but are extremely unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on slickspot peppergrass proposed critical habitat from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided because site-specific analysis, possible mitigation, and a further determination of effects would occur at the project level. Because no slickspot peppergrass proposed critical habitat exists within the Bruneau, Burley, Challis, Dillon, Owyhee, Pocatello, Salmon, Shoshone, or Upper Snake Field Offices, the Boise, Beaverhead-Deerlodge, Caribou-Targhee, Salmon-Challis, or Sawtooth National Forests, or the Curlew National Grassland, there would be no effects on slickspot peppergrass proposed critical habitat in these areas.
Ute ladies'-tresses *Spiranthes diluvialis*	T	NLAA	The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement may affect, but will not likely adversely affect, Ute ladies'-tresses because the estimated effects on occurrences and suitable habitat that exist in PHMA, IHMA, and GHMA in the Dillon, Pocatello, and Upper Snake Field Offices and the Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests would be beneficial due to the reduced impacts from off-road vehicles, and only slight indirect negative effects may result (but are highly unlikely) from existing tower retrofit activities. Further, there are no potential direct negative effects on this species from this action. In addition, any possible negative effects from future ground-disturbing actions would likely be avoided, because site-specific analysis and mitigation would occur at the project level.

Species	Status[16]	Determination[17]	Rationale
			Because no suitable habitats for Ute ladies'-tresses are suspected to occur within the Bruneau, Burley, Challis, Four Rivers, Jarbidge, Owyhee, Salmon, or Shoshone Field Offices, the Boise or Beaverhead-Deerlodge National Forests, or the Curlew National Grassland, there would be no effects on Ute ladies'-tresses in these areas.

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APPENDIX A: Additional Rationale for No Effect Determinations for Select Species or Groups of Species in Tables 2 and 3

Canada Lynx

Environmental Baseline, Critical Habitat, and Threats to the Species

Canada lynx and its habitat will not be affected by this project. In Table 2, the BLM Field Offices: Challis, Salmon, Shoshone, and Dillon indicate that Canada lynx have either been documented or suspected to occur within those units. Table 3 indicates that Canada lynx have been documented on the Boise, Caribou-Targhee, and Sawtooth National Forests. The Caribou, Beaverhead-Deerlodge, and Salmon-Challis National Forests are mapped as secondary, unoccupied habitat, while most of the Targhee National Forest is secondary habitat but is considered occupied habitat. Sagebrush habitat is not considered a primary or secondary habitat for Canada lynx in Idaho or Southwestern Montana. Therefore, there are no actions within this LUPA decision that will affect habitat quality or availability. Potential beneficial effects are possible from improved conditions of connective habitat as well as reducing or co-locating anthropogenic disturbances for Canada lynx. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for Canada lynx will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect Canada lynx or its habitat.

Discussion and Determination

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect the Canada lynx or its habitat. No suitable habitat occurs within the action area. The reported sightings within the action area are located outside of PHMA, GHMA, or IHMA. There are no actions within this LUPA decision that will affect Canada lynx suitable habitat quality or availability. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for Canada lynx will be made at that time.

Canada Lynx Designated Critical Habitat

Environmental Baseline

No overlap occurs between designated critical habitat and PHMA, GHMA, or IHMA. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect designated critical habitat for Canada lynx.

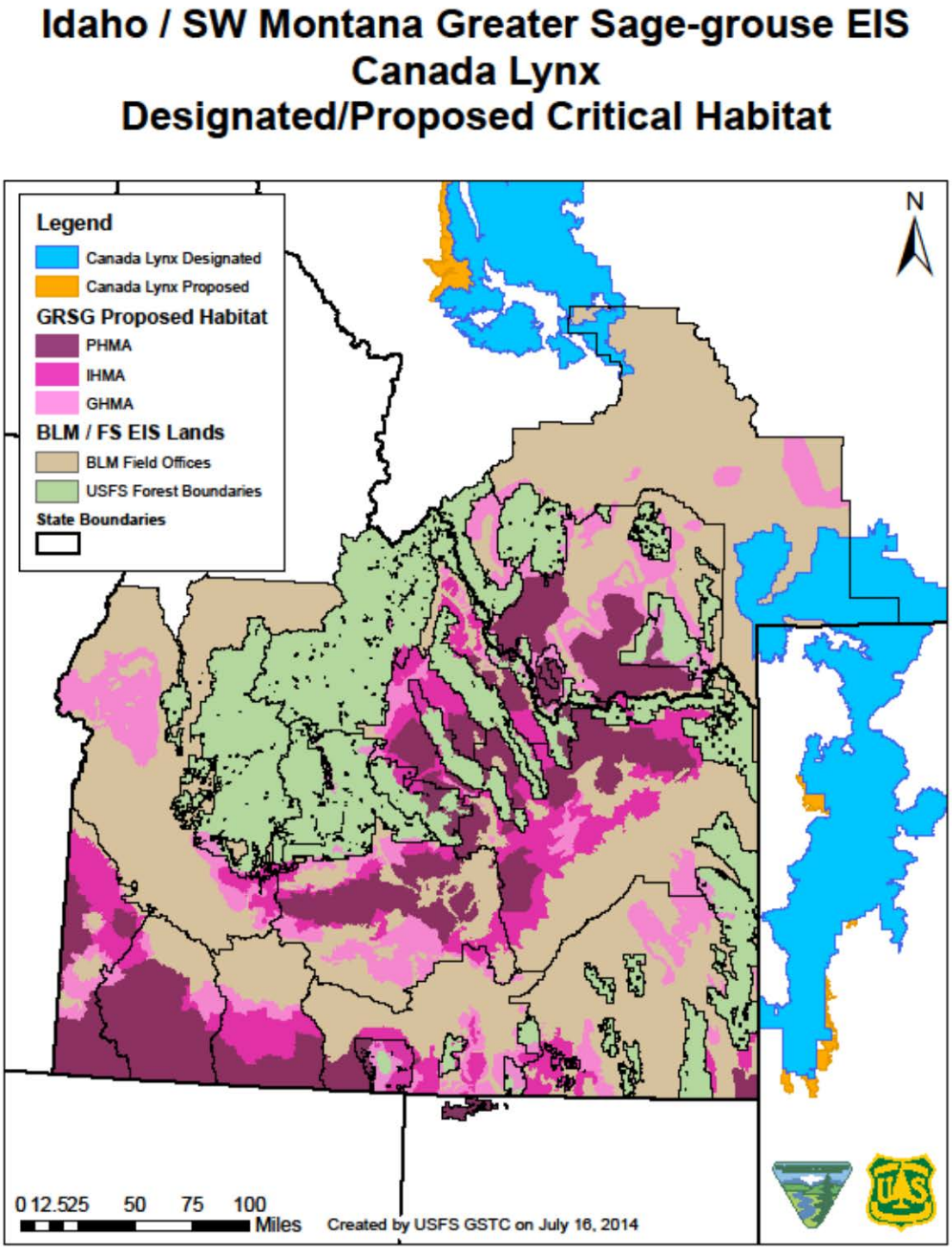


Figure 13. Canada lynx designated and proposed critical habitat with respect to Idaho-Southwestern Montana Greater Sage-Grouse LUPA and EIS action area.

Discussion and Determination

Canada lynx critical habitat will not be affected by this project. No overlap occurs between designated critical habitat and PHMA, GHMA, or IHMA. Therefore, the actions within this LUPA decision will not impact PCE of Canada lynx critical habitat by altering natural conditions. The Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect Canada lynx critical habitat.

Red Knot

Environmental Baseline, Critical Habitat, and Threats to the Species

The red knot is a migrant shorebird that breeds in the Canadian Arctic and winters in South America. Within the action area, it is known only to occur as a rare migrant stopover in Madison County, Montana. Only one sighting has been reported within the Montana portion of the action area (Dillon Field Office), presumably during migration; the reported site location does not coincide with mapped GRSG PHMA, GHMA, or IHMA. Neither the red knot nor suitable habitat for the red knot is known or suspected to be present in the remaining units occurring within the action area: Bruneau Field Office, Burley Field Office, Challis Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office Shoshone Field Office, Upper Snake Field Office, Four Rivers Field Office, Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, Sawtooth National Forest, or BDNF. Critical habitat has not been proposed or designated for the red knot.

Discussion and Determination

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect the red knot or its habitat. No breeding or wintering habitat occurs within the action area. The only reported sighting within the action area was outside of PHMA, GHMA, or IHMA. There are no actions within this LUPA decision that will affect aquatic habitat quality or availability. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for red knot will be made at that time.

Western Yellow-billed Cuckoo

Environmental Baseline, Critical Habitat, and Threats to the Species

The western DPS of the yellow-billed cuckoo (*Coccyzus americanus*) was federally listed as threatened by the USFWS on October 3, 2014; the ruling became effective November 3, 2014 (USFWS 2014c). The western yellow-billed cuckoo is not known or suspected to be present on the following units within the action area: Dillon Field Office, Boise National Forest, Caribou-Targhee National Forest, Salmon-Challis National Forest, Sawtooth National Forest, or BDNF. The following units either contain suitable habitat and/or documented sightings for the yellow-billed cuckoo: Bruneau Field Office, Burley Field Office, Challis Field Office, Jarbidge Field Office, Owyhee Field Office, Pocatello Field Office, Salmon Field Office Shoshone Field Office, Upper Snake Field Office, and Four Rivers Field Office. The western yellow-billed cuckoo requires large blocks of riparian woodlands within low to moderate elevation in arid to semiarid landscapes.

Discussion and Determination

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect the yellow-billed cuckoo or its habitat; the LUPA and EIS contain no actions that will adversely impact riparian areas and, if anything, conservation measures that maintain or improve riparian habitat, such as maintaining proper functioning condition, will inadvertently benefit yellow-billed cuckoo and its habitat. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for the yellow-billed cuckoo will be made at that time.

Western Yellow-billed Cuckoo Proposed Critical Habitat

Environmental Baseline and Threats

Critical habitat for the western DPS of the yellow-billed cuckoo was proposed on August 15, 2014 (USFWS 2014b). The Shoshone Field Office is the only unit within the Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision action area that contains proposed critical habitat for the western yellow-billed cuckoo; 405 acres of proposed western yellow-billed cuckoo critical habitat overlap with GRSG PHMA (Figure 14).

PCEs include the following: 1) Riparian woodlands of mixed willow-cottonwood and/or mesquite-thorn patches greater than 325 feet wide and 200 acres or greater in extent; 2) Presence of a prey base consisting of large insect fauna and tree frogs in breeding areas during the nesting season and in post-breeding dispersal areas; and 3) dynamic riverine processes that allow riparian habitat to regenerate regularly, resulting in multiple age classes.

The primary threats to the yellow-billed cuckoo result from habitat destruction, modification, and degradation from dam construction and operations; water diversions; river flow management; stream channelization and stabilization; conversion to agricultural uses; urban and transportation infrastructure; and increased incidence of wildfire (USFWS 2013c).

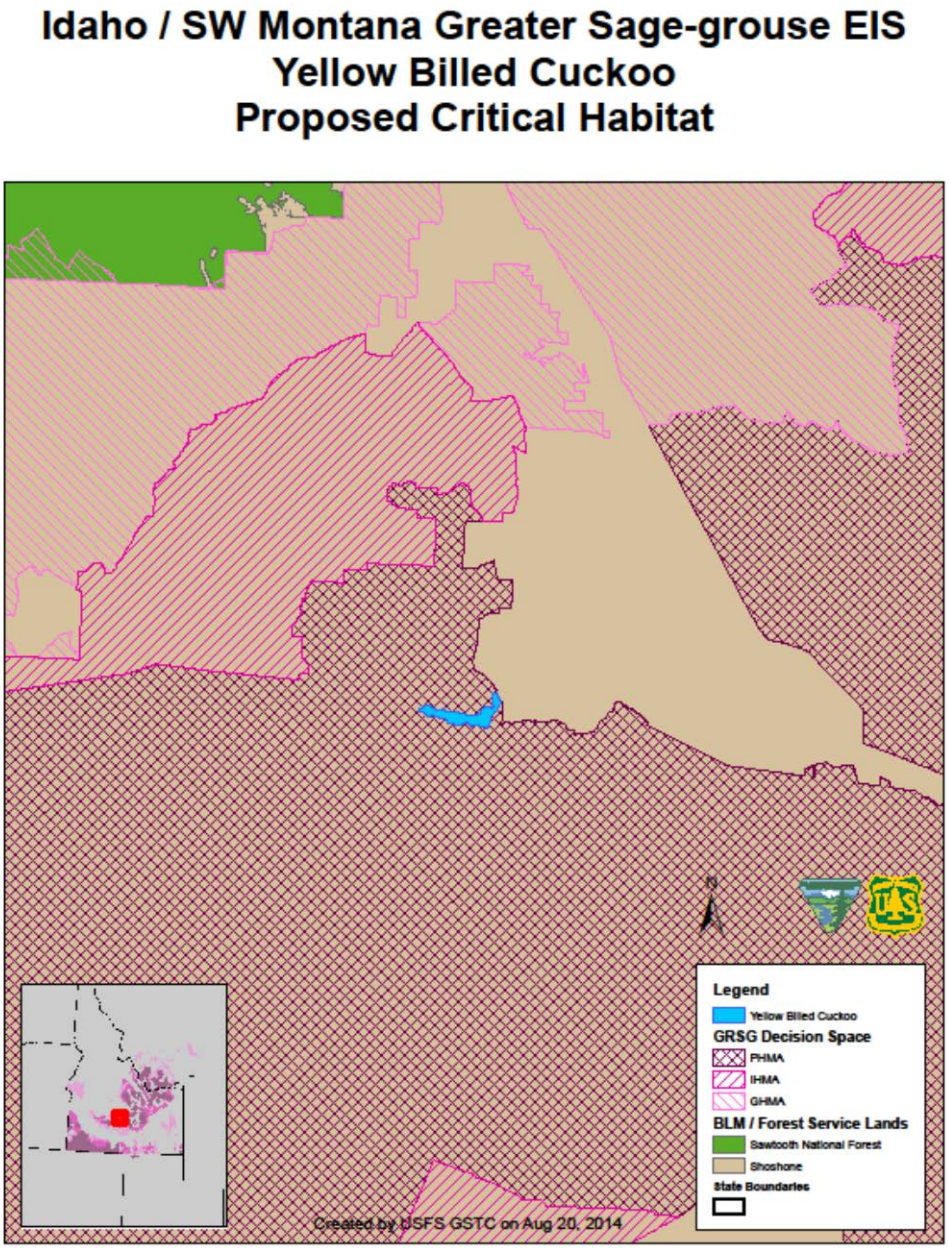


Figure 14. Yellow-billed cuckoo proposed critical habitat with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

Discussion and Determination

The Idaho-Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement decision will not affect yellow-billed cuckoo proposed critical habitat; the LUPA and EIS contain no actions that will adversely impact proposed critical habitat PCEs and, if anything, conservation measures that maintain or improve riparian habitat, such as maintaining proper functioning condition, will inadvertently benefit western yellow-billed cuckoo proposed critical habitat. In addition, site-specific analysis will be conducted at the

project level, and a determination of effects for yellow-billed cuckoo proposed critical habitat will be made at that time.

Bull trout

Environmental Baseline, Critical Habitat, and Threats to the Species

Bull trout have been documented and bull trout critical habitat is present within the following units in the action area: Bruneau Field Office, Challis Field Office, Jarbidge Field Office, Salmon Field Office, Upper Snake Field Office, Four Rivers Field Office, Boise National Forest, Salmon-Challis National Forest, Sawtooth National Forest, and BDNF. Neither bull trout nor bull trout habitat is known to be present on the Burley Field Office, Owyhee Field Office, Pocatello Field Office, Shoshone Field Office, Dillon Field Office, or Caribou-Targhee National Forest. Declines in bull trout distribution and abundance are the results of combined effects of the following: habitat degradation and fragmentation, the blockage of migratory corridors, poor water quality, angler harvest and poaching, entrainment (process by which aquatic organisms are pulled through a diversion structure or other device) into diversion channels and dams, and introduced nonnative species. Land and water management activities that continue to depress bull trout populations and degrade habitat include dams and other diversion structures, forest management practices, livestock grazing, agriculture, road construction and maintenance, mining, and urban and rural development.

Discussion and Determination

Bull trout and bull trout habitat will not be affected by this project. There are no actions within this LUPA decision that will degrade or fragment bull trout habitat, block migratory corridors, decrease water quality or availability, affect vulnerability to angler harvest or poaching, alter the distribution of nonnative fish species, or authorize livestock grazing, habitat-altering forest management practices, road construction and maintenance, mining, or development. In addition, site-specific analyses will be conducted at the project level, and a determination of effects for bull trout will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect bull trout or its habitat.

Bull Trout Designated Critical Habitat

Environmental Baseline and Threats

Bull trout critical habitat is present within the following units in the action area: Bruneau Field Office, Challis Field Office, Jarbidge Field Office, Salmon Field Office, Upper Snake Field Office, Four Rivers Field Office, Boise National Forest, Salmon-Challis National Forest, Sawtooth National Forest, and BDNF. On the Boise National Forest, 4 miles of bull trout critical habitat overlap with GRSG GHMA and 2 miles of critical habitat overlap with GRSG IHMA. On the Bruneau Field Office, only 1 mile of critical habitat overlaps with IHMA. On the Challis National Forest, bull trout critical habitat overlaps with GRSG PHMA (33 miles), GHMA (105 miles), and IHMA (115 miles). On the Jarbidge Field Office, bull trout critical habitat overlaps with GRSG habitat by the following amounts: 31 miles (PHMA), 5 miles (GHMA), and 16 miles (IHMA). On the Salmon Field Office, bull trout critical habitat overlaps with GRSG PHMA (21 miles), GHMA (7 miles), and IHMA (6 miles). Bull trout critical habitat overlaps with GRSG

habitat on the Salmon-Challis National Forest: PHMA (11 miles), GHMA (2 miles), and IHMA (25 miles). Bull trout critical habitat overlaps with 30 miles of GHMA on the Sawtooth National Forest, 8 miles of GHMA on the Shoshone Field Office, and 10 miles of PHMA on the Upper Snake Field Office (Figure 15).

PCEs of bull trout habitat (USFWS 2010b) include:

> *(1) Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia. (2) Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers. (3) An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish. (4) Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure. (5) Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures that exceed the upper end of this range. Specific temperatures within this range will depend on bull trout life-history stage and form; geography; elevation; diurnal and seasonal variation; shading, such as that provided by riparian habitat; streamflow; and local groundwater influence. (6) In spawning and rearing areas, substrate of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. A minimal amount of fine sediment, generally ranging in size from silt to coarse sand, embedded in larger substrates, is characteristic of these conditions. The size and amounts of fine sediment suitable to bull trout will likely vary from system to system. (7) A natural hydrograph, including peak, high, low, and base flows within historic and seasonal ranges or, if flows are controlled, minimal flow departure from a natural hydrograph. (8) Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited. (9) Sufficiently low levels of occurrence of nonnnative predatory (e.g., lake trout, walleye, northern pike, smallmouth bass); interbreeding (e.g., brook trout); or competing (e.g., brown trout) species that, if present, are adequately temporally and spatially isolated from bull trout.*

Threats to bull trout critical habitat include threats to water quality, water diversion, and reservoir development, and alterations to natural habitat conditions that increase nonnative species. Suspended sediment and environmental contaminants can increase turbidity and impact salmonids and their prey, affect swimming, feeding, or gill function by reducing visibility and ability to pursue prey, and by interrupting proper physiological gill function. Water diversion and reservoir development can reduce stream flow, reduce the amount of water available in a stream channel, change water quality, and alter groundwater regimes. These changes may collectively impact habitat and passage for bull trout, and can cause increases in water temperatures. Alterations to natural habitat conditions may also increase nonnative species predation and competition, which can significantly affect bull trout populations. Depending on local conditions,

bull trout recovery may be either reduced or precluded by the presence of nonnative and competitive species.

Discussion and Determination

Bull trout critical habitat will not be affected by this project. There are no actions within this LUPA decision that will impact PCEs of bull trout critical habitat by altering water quality or quantity or natural conditions. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for bull trout critical habitat will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect bull trout critical habitat.

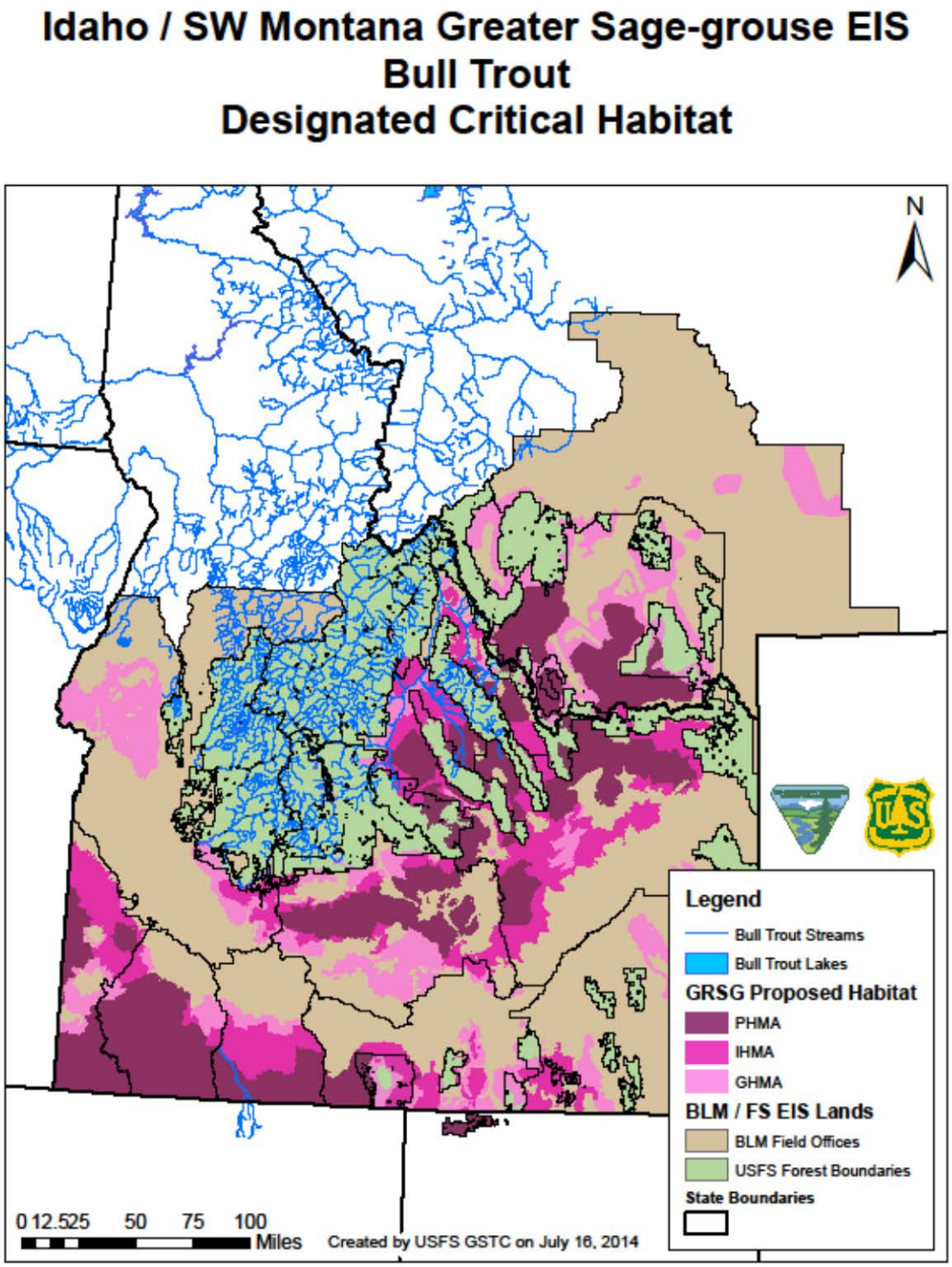


Figure 15. Bull trout designated critical habitat with respect to Idaho-Southwestern Montana GRSG LUPA and EIS action area.

Snake River Salmonids (Chinook salmon spring/summer run, sockeye salmon, steelhead)

Environmental Baseline, Critical Habitat, and Threats to the Species

Snake River Spring/Summer Run Chinook salmon are known or suspected to be present on the Challis and Salmon Field Offices; they are documented to occur on the Boise, Salmon-Challis, and Sawtooth National Forests. This ESU, includes naturally spawned spring/summer-run Chinook salmon originating from the mainstem Snake River and the Tucannon River, Grande Ronde River, Imnaha River, and Salmon River subbasins. It also includes spring/summer-run Chinook salmon from 11 artificial propagation programs. Although critical habitat has been designated for this species, there is no overlap of critical habitat with the action area (see below). Critical habitat PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors.

Snake River sockeye salmon are known or suspected to be present on the Challis and Salmon Field Offices; they are documented to occur on the Salmon-Challis and Sawtooth National Forests. This ESU, includes naturally spawned anadromous and residual sockeye salmon originating from the Snake River Basin, and also sockeye salmon from one artificial propagation program. Critical habitat PCEs include: 1) spawning and juvenile rearing areas, 2) juvenile migration corridors, 3) areas for growth and development to adulthood, and 4) adult migration corridors.

Snake River Basin steelhead are known or suspected to be present on the Challis and Salmon Field Offices; they are documented to occur on the Boise, Salmon-Challis, and Sawtooth National Forests. DPS, includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Snake River Basin, and also steelhead from six artificial propagation programs. Critical habitat PCEs include: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, 4) and 5) estuarine and nearshore marine areas free of obstruction and excess predation, and 6) offshore marine areas supporting growth and maturation.

There is no single factor solely responsible for the decline of Salmonid species on the West Coast of the United States. Factors include reduction or elimination of habitat by water storage, withdrawal, conveyance, and diversions for agriculture, flood control, domestic, and hydropower purposes; modification of natural flow regimes that have increased water temperatures, changed fish community structures, depleted flows necessary for migration, spawning, rearing, flushing of sediments from spawning gravels, gravel recruitment, and transport of large woody debris; natural resource use and extraction leading to habitat modification; recreational and commercial fishing; introduction of nonnative species and modification of habitat that increase predator populations and salmonid predation in river and estuarine systems; natural environmental conditions such as flooding and persistent drought conditions that have reduced already limited spawning, rearing, and migration habitat; climatic shifts over a decadal time scale that appear to have resulted in decreased ocean productivity; and competition, genetic introgression, and disease transmission resulting from hatchery introductions (NOAA Fisheries 2014).

Discussion and Determination

Snake River endangered and threatened fish species will not be affected by this project. There are no actions within this LUPA decision that will impact aquatic habitat or cause water depletions. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for federally listed Snake River salmonids will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect Snake River Spring/Summer Run Chinook salmon, Snake River sockeye salmon, Snake River Basin steelhead, or their habitats.

Snake River Salmonids (Chinook salmon spring/summer run, sockeye salmon, steelhead) Critical Habitats

Environmental Baseline and Threats

Although Snake River Spring/Summer Run Chinook salmon designated critical habitat occurs on the Challis, Salmon, Shoshone, and Four Rivers Field Offices and the Boise, Salmon-Challis, and Sawtooth National Forests, there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.

Although Snake River sockeye salmon designated critical habitat occurs on the Challis, Salmon, and Shoshone Field Offices and the Salmon-Challis and Sawtooth National Forests, there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.

Although Snake River Basin steelhead critical habitat occurs on the Challis, Salmon, Shoshone, and Four Rivers Field Offices and the Boise, Salmon-Challis, and Sawtooth National Forests, there is no overlap between critical habitat on these units and GRSG PHMA, GHMA, or IHMA.

Discussion and Determination

Critical habitat for Snake River Spring/Summer Run Chinook Salmon, Snake River Sockeye Salmon, and Snake River Basin Steelhead will not be affected by this project because the Idaho-Southwestern Montana LUPA decision action area does not overlap critical habitats for these species.

Middle Snake River Snails (Banbury Springs limpet, Bliss Rapids snail, Snake River Physa)

Environmental Baseline, Critical Habitat, and Threats to the Species

The Banbury Springs limpet is only known to occur in four isolated springs in a small area along the Middle Snake River. It inhabits spring run habitats with well oxygenated water on boulder or cobble substrates. Within the action area, it only occurs on the Shoshone Field Office.

The Bliss Rapids snail occurs on stable cobble-boulder size substrate in flowing waters of unimpounded reaches of the mainstem Snake River and in a few spring habitats in the Hagerman Valley. Within the action area, it occurs on the Bruneau Field Office, Burley Field Office, Jarbidge Field Office, Shoshone Field Office, and Four Rivers Field Office.

The Snake River Physa occurs on the undersides of gravel-to-boulder size substrate in swift current in the mainstem Snake River. Within the action area, it occurs in the following field offices: Bruneau, Burley, Jarbidge, Owyhee, Shoshone, and Four Rivers.

Critical habit has not been proposed or designated for the Banbury Springs limpet, Bliss Rapids Snail, or Snake River Physa. Water depletions, water level fluctuations, and effects on water quality in the Middle Snake River and its tributaries are the major threats to these species.

Discussion and Determination

Snake River endangered and threatened snails will not be affected by this project. There are no actions within this LUPA decision that will impact aquatic habitat or cause water depletions in these drainages. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for federally listed snails in the Middle Snake River will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect the Banbury Springs limpet, Bliss Rapids snail, Snake River Physa, or their habitats.

Bruneau Hot Springsnail

Environmental Baseline, Critical Habitat, and Threats to the Species

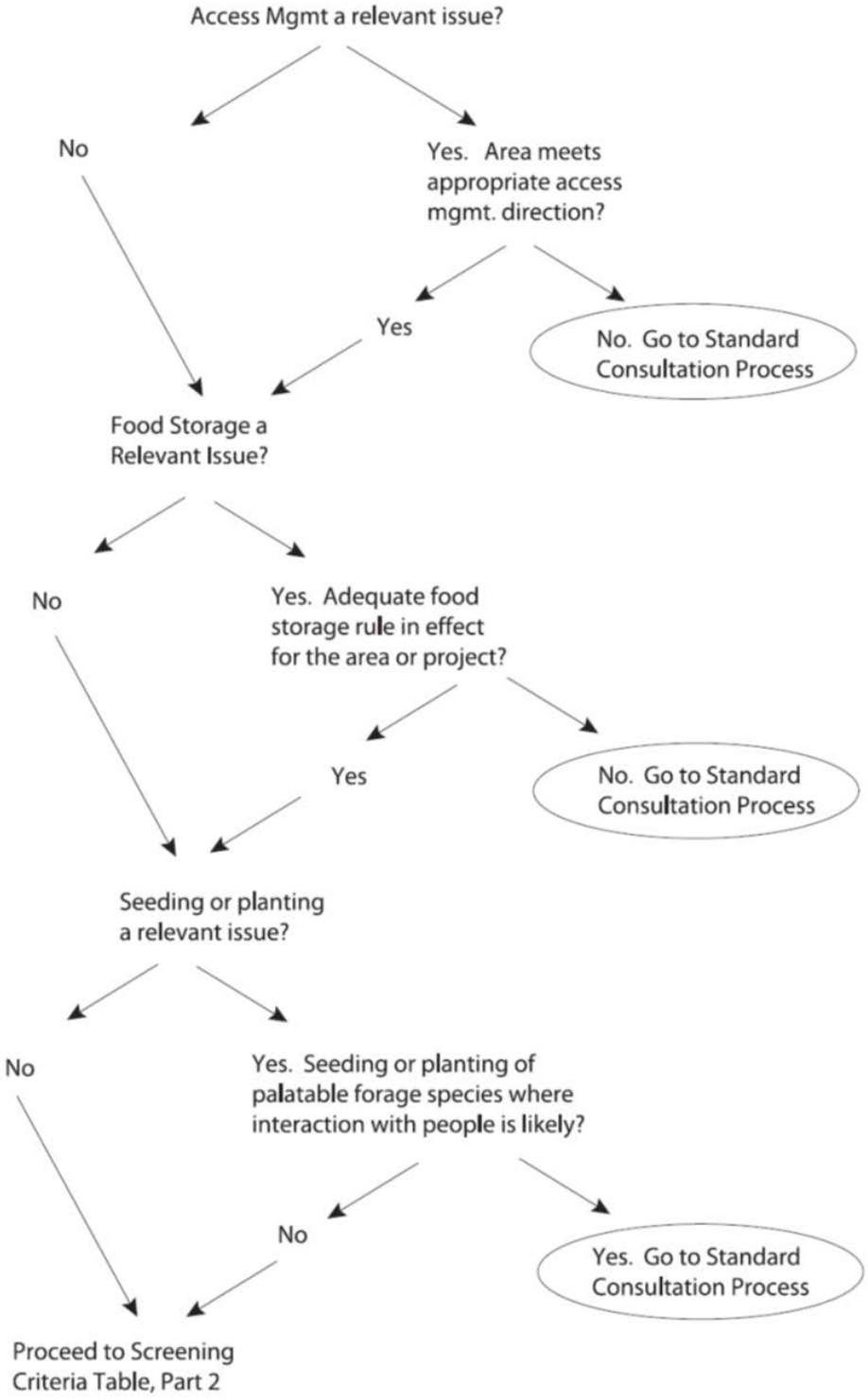
The Bruneau hot springsnail is found only in geothermal springs and seeps along an 8-kilometer length of the Bruneau River in Southwest Idaho. It prefers wetted rock faces of springs and flowing water, with large cobbles and boulders. Within the action area, the Bruneau hot springsnail only occurs on the Bruneau and Jarbidge Field Offices.

Critical habitat has not been proposed or designated for the Bruneau hot springsnail. The principal threat to this species is the reduction and/or elimination of its geothermal habitats as a result of groundwater withdrawal.

Discussion and Determination

Bruneau hot springsnail will not be affected by this project. There are no actions within this LUPA decision that will impact aquatic habitat or cause groundwater withdrawals. In addition, site-specific analysis will be conducted at the project level, and a determination of effects for Bruneau hot springsnail will be made at that time. Therefore, the Idaho and Southwestern Montana Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement will not affect the Bruneau hot springsnail or its habitats.

APPENDIX B: BLM Dillon Field Office RMP Grizzly Bear Analysis Screen Part 1



APPENDIX C: BLM Dillon Field Office RMP Grizzly Bear Analysis Screen Part 2

Part 2: The following Screening Criteria Table displays activities and criteria, that when met, will allow the project to meet "screening elements". If the project does not meet the identified criteria, the project should proceed through the established consultation process.

#	*Activity Type*	*Activity Component*	*Crew Level and Duration of Use*	*Screening Criteria*	*Determination*
1	Forest Products	Personal use firewood collection, berry picking, low/incidental mushroom picking, and collection of "other forest products" (such as bear grass greens, medicinal herbs, pachistima, etc)	Day and overnight use	Does not include off road mechanical skidding. Include "bear aware" education message	NLAA
		Commercial firewood collection, berry picking, and "other forest products" (such as bear grass greens, medicinal herbs, pachistima, etc), but does not include mushrooms.	Day use only or camping of ≤20 individuals and ≤5 days total/analysis area	Does not include off road mechanical skidding. Enforce sanitation standards, and Include "bear aware" education message.	NLAA
2	Mechanical	Off road heavy equip operation, such as site prep, fuel piling, log yarding, etc	NA	NA	Potential LAA, go to Standard Consultation process
		Helicopter use for monitoring, prescribed fire ignition, wildlife relocations, etc	Use includes few trips and ≤2 activities/year and ≤2 days/activity/ analysis area	NA	NLAA
3	Habitat Restoration	See timber harvest, mechanical treatments, roads, weed control, and prescribed fire. Also includes monitoring, exclosure develop-ment, fish barrier development, fish spp removal/trapping, rotenone treatment, interpretation/ Con Ed, meadow restoration, riparian planting and restoration, snag creation, and water source development.	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Project occurs between July 1 through March 31 or completed in ≤1 day in riparian areas. Project does not result in an increase in public use or user type.	NLAA
4	Prescribed Fire	General support, ignition, mop-up	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Does not include riparian areas	NLAA
		Fire line construction	Same as support	Fire line does not/will not function as a travel way	NLAA
		Defensible space treatments (within 100m of structure)	Same as support	Planting and/or seeding does not include palatable forage spp.	NLAA
5	Range	Infrastructure development	NA	NA	NLAA
		Grazing		Maintains or reduces existing livestock grazing or changes livestock class to a less vulnerable spp, and no history of depredation or control actions	NLAA

#	Activity Type	Activity Component	Crew Level and Duration of Use	Screening Criteria	Determination
		Grazing		Increases livestock grazing, introduces new grazing into areas where depredation more likely, or history of livestock depreda-tion	Potential LAA, go to Standard Consultation process
6	Recreation	Trail maintenance or reconstruc-tion	NA	Results in increased use or change of user type	Potential LAA, go to Standard Consultation process
		Trail maintenance or reconstruc-tion		Does not result in increase in use or change in user type	NLAA
		New Trail construction			Potential LAA, go to Standard Consultation process
		Facility operations, including developed and dispersed camping		Educate public campers and enforce sanitation standards. Does not increase use or change user type.	NLAA
		Facility operations, including developed and dispersed camping		Sanitation standards are not enforced or use is increased or user type is changed.	Potential LAA, go to Standard Consultation process
7	Roads & Road Maintenance	Opening closed road			Potential LAA, go to Standard Consultation process
		Reclaiming road outside of riparian/spring habitat		Meets administrative use levels	NLAA
		Reclaiming road in riparian/ spring hab		Project occurs between July 1 through March 31 or completed in ≤1 day, and meets administrative use levels	NLAA
		Reclaiming road		Does not meet administrative use levels, or occurs in riparian/spring habitat and active during 4/1-6/30	Potential LAA, go to Standard Consultation process
		Road Maint: blading, culvert cleaning, brushing, etc		Road is open, or use meets administrative use criteria	NLAA
		New road construction			Potential LAA, go to Standard Consultation process

#	*Activity Type*	*Activity Component*	*Crew Level and Duration of Use*	*Screening Criteria*	*Determination*
		Bridge or stream culvert replacement		Project occurs between July 1 through March 31 or completed in ≤1 day	NLAA
8	Silviculture Activities	Reforestation hand planting	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Does not include snow plowing for access	NLAA
		Reforestation mechanical treatments	NA	NA	Potential LAA, go to Standard Consultation process
		Insect suppression Aerial chemical application	NA	Chemicals do not effect cutworm moth or habitat	NLAA
		Insect suppression Aerial chemical application	NA	Chemicals affect cutworm moth or habitat, and in moth habitat	Potential LAA, go to Standard Consultation process
		Insect suppression ground chemical application	NA	NA	NLAA
		Insect suppression survey, fertilization, manual treatment, individual tree fire treatment, or pheromone treatment	NA	NA	NLAA
		Precommercial thinning			Potential LAA, go to Standard Consultation process
9	Timber harvest	Harvest, skidding, and/or hauling of timber products	NA	NA	Potential LAA, go to Standard Consultation process
10	Watershed restoration	Includes erosion control structures, sediment control, monitoring. Also, see reforestation, timber harvest, mechanical treatments, etc.	Day use only or camping of ≤20 individuals and ≤5 days/analysis area	Project occurs between July 1 through March 31 or completed in ≤1 day	NLAA
11	Weed control	Chemical, aerial or ground application	NA	NA	NLAA
		Sheep or goat grazing	NA	NA	Potential LAA, go to Standard Consultation process

APPENDIX D: BLM Proposed Plan Amendment

The Proposed Plan represents a management strategy to address GRSG, their habitat and associated threats within the Idaho and Southwestern Montana Sub-region. The Plan has been developed through a coordinated partnership of BLM, Forest Service, the States of Idaho and Montana and the USFWS.

The Plan incorporates appropriate conservation measures to conserve, enhance, and restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. The Plan is also consistent with the objectives described in the USFWS Conservation Objectives Team Report (USFWS 2013) to: 'Conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future…' through 'Maintaining viable, connected, and well-distributed populations and habitats across [the range of GRSG], through threat amelioration, conservation of key habitats, and restoration activities'.

To achieve these objectives the Plan includes a combination of: goals and objectives including vegetation/habitat management objectives to be applied during project development and implementation (FEIS Table); land allocation decisions (FEIS Table); delineation of five Conservation Areas (FEIS Figure) to support evaluation of the adaptive management strategy and 3 percent anthropogenic disturbance cap; delineation of PHMA, IHMA, and GHMA (FEIS Figure) with associated program management direction; a mitigation framework and strategy; development of Wildfire and Invasive Species Assessments; and associated monitoring to support these decisions.

The decisions described in this Plan apply to BLM lands in both Montana and Idaho unless identified differently. Several notable differences include the Adaptive Management Strategy and the Disturbance Density evaluation. In both cases Idaho and Southwestern Montana have separate approaches which are described in the applicable sections. Southwestern Montana's approach in both cases is the same as the approaches being applied in the rest of Montana, this supports a consistent approach within the entire state that can be implemented in coordination with State and Federal partners.

The proposed plan incorporates the following GRSG goals:

GOAL-1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.

GOAL-2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with the agencies' direction for multiple use and sustained yield as described in FLPMA and the NFMA.

GOAL-3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.

Table 2-9
Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary[1]

PHMA	IHMA	GHMA
Solar/Wind/Nuclear/Hydropower		
Exclusion (LR-2)	Avoidance (LR-2)	Idaho: Open (LR-2) Montana: Avoidance
Commercial Service Airports		
Exclusion (LR-3)	Avoidance (LR-1)	Open (LR-1)
Landfills		
Exclusion (LR-4)	Avoidance (LR-1)	Open (LR-1)
Utility Corridors		
Existing designated corridors which are land use plan designations (and include Section 368 Corridors), will remain "open" (subject to the ongoing settlement agreement) and can provide an opportunity to be modified with mitigation. Any new disturbance within these corridors would count towards the disturbance cap. All new, modified, or deleted corridors will require a land use plan amendment. (LR-7)	Same as PHMA (LR-7)	Same as PHMA (LR-7)
ROWs and Land Use Authorizations/Permits – High Voltage Transmission Lines and Large Pipelines		
Avoidance (LR-1)	Avoidance (LR-1)	Idaho: Open (LR-1) Montana: Avoidance
ROWs and Land Use Authorizations/Permits – Minor ROWs		
Avoidance (LR-1)	Avoidance (LR-1)	Open (LR-1)
Land Tenure Adjustments		
Retention with exceptions for exchange; available for exchange with no net loss of GRSG Key habitat within PHMA and IHMA. Not available for disposal. (LR-14)	Same as PHMA (LR-14)	Available for exchange only
Fluid Mineral Resource Allocation (Includes Geothermal)		
Idaho and Montana: Open subject to No Surface Occupancy (NSO) without waiver, or	Idaho: Open subject to NSO with a limited exception. Montana: Not Applicable (FLM-1)	Idaho and Montana: Open subject to Controlled Surface Use and Timing Limitations (FLM-1)

Table 2-9
Idaho and Southwestern Montana GRSG EIS – Land Allocation Decisions Summary[1]

PHMA	IHMA	GHMA
modification. (FLM-1)		
Locatable Minerals		
Areas not previously withdrawn are open.	Same as PHMA.	Same as PHMA.
Non-Energy Leasables		
Closed to leasing. (NEL-1) There are no Known Phosphate Leasing Areas (KPLAs) in PHMA.	KPLAs are Open subject to standard leasing stipulations. Areas outside KPLAs are Open subject to standard and GRSG stipulations (required design features, seasonal timing restrictions). (NEL-1)	Open to leasing with standard and GRSG stipulations (required design features and seasonal timing restrictions) (NEL-1)
Mineral Materials (Salable Minerals)		
Closed to new site authorizations. Existing sites Open to new sales subject to RDFs, buffers and seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to Anthropogenic Disturbance Criteria (AD-4). Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)	Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites Open to new sales subject to seasonal timing restrictions. (SAL-1)
Travel Management		
BLM Idaho: Limited to Existing (TM-1) BLM Montana: Limited to Designated (Decisions described in Dillon RMP)	BLM: Limited to Existing (TM-1)	BLM: Limited to Existing (TM-1) BLM Montana: Limited to Designated (Decisions described in Dillon RMP)

GOAL-4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM and Forest Service management actions.

GOAL-5: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners.

Special Status Species

Objectives

MA-OBJ-1 (Management Area – Objective): Maintain a resilient population of GRSG in Idaho and Southwestern Montana.

MA-OBJ-2: Designate GRSG management areas and associated management to maintain a resilient population and to designate strategically located adjacent areas to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.

MA-OBJ-3: Identify and strategically protect larger intact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.

HM-OBJ-1 (Habitat Management): Maintain or make progress toward at least 70 percent of lands within PHMAs and IHMAs capable of producing sagebrush at 10 to 30 percent canopy cover and conifers absent to uncommon within 1.86 miles of occupied leks.

HM-OBJ-2: Incorporate GRSG Seasonal Habitat Objectives (Table 2-3) into the design of projects or activities, as appropriate, based on site conditions and ecological potential, unless achievement of fuels management objectives require additional reduction in sagebrush cover to meet strategic protection of GRSG habitat and conserve habitat quality for the species or at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:

- A specific objective is not applicable to the site-specific conditions of the project or activity;
- An alternative objective is determined to provide equal or better protection for GRSG or its habitat (based on appropriate scientific findings); or
- Analysis concludes that following a specific objective would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.

Table 2-10
Seasonal Habitat Desired Conditions for GRSG

Attribute	Indicator	Desired Condition	Reference
BREEDING HABITAT (LEK AND NESTING/EARLY BROOD REARING)			
Breeding and Nesting (Seasonal Use Period March 1 – June 15)			

Table 2-10
Seasonal Habitat Desired Conditions for GRSG

Attribute	Indicator	Desired Condition	Reference
Lek Security	Proximity of trees	Trees (i.e., in Idaho mainly juniper, conifers, and does not include old-growth juniper, pinyon pine and mountain mahogany; in Montana mainly Douglas-fir) absent or uncommon on shrub/grassland ecological sites within 1.86 miles (3 km) of occupied leks.	Baruch-Mordo et al. 2013[7] Stiver et al. *in press*[13]
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover within 328 ft (100 m) of an occupied lek	Stiver et al. *in press*[13]
NESTING/EARLY BROOD REARING[5,10,12,13,14]			
Cover and Food	Seasonal habitat extent (Percent 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 et al. 2000[8]
	Sagebrush cover [2] (Canopy Cover)	15-25%	Connelly et al. 2000[8] Connelly et al. 2003[9] Hagen et al. 2007[11]
	Sagebrush height Arid sites[3] Mesic sites[4]	 12-31 inches (30-80cm) 16-31 inches (40-80cm)	Connelly et al. 2000[8]
	Predominant sagebrush shape	Predominantly spreading shape[5]	Stiver et al. *in press*[13]
	Perennial grass cover [2] Arid sites[3] Mesic sites[4]	 ≥10% ≥15%	Connelly et al. 2000[8] Stiver et al. *in press*[13]
	Perennial grass (and forb) height	≥ 7 inches	Connelly et al. 2000[8] Connelly et al. 2003[9] Hagen et al. 2007[11] Stiver et al. *in press*[13]
	Perennial forb (canopy) cover [2] Arid sites[3] Mesic sites[4]	 ≥5% ≥10%	Connelly et al. 2000[8]
	Perennial forb availability	Preferred forbs are common with several species present[6]	Stiver et al. *in press*[13]
LATE BROOD-REARING/SUMMER[1,15] **(July-October)**[1] **Late brood-rearing areas, such as riparian, meadows, springs, higher elevation mesic uplands, etc. may occur within other mapped seasonal habitat areas. Apply late brood rearing/summer habitat desired conditions locally as appropriate.**			
Cover and Food	Seasonal habitat extent (Percent of Seasonal Habitat Meeting Desired Condition)	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to	Connelly et al. 2000[8]

Table 2-10
Seasonal Habitat Desired Conditions for GRSG

Attribute	Indicator	Desired Condition	Reference
		ecological site potential, etc.)	
	Sagebrush (canopy) cover[2]	Uplands 10-25% Riparian/Meadow: Sagebrush cover within 100 m	Connelly et al. 2000[8]
	Sagebrush height	16 to 32 inches (40-80cm)	Connelly et al. 2000[8]
	Perennial grass and forb cover [2]	>15%	
	Upland and riparian perennial forb availability [2]	Preferred forbs are common with appropriate numbers of species present[6]	Stiver et al. *in press*[13]
	Riparian and/or meadow habitat condition	Proper Functioning Condition	Stiver et al. *in press*[13]
WINTER[1] November-March[1] (Apply to areas of known or likely winter-use)			
Cover and Food	Seasonal habitat extent (Percent of Seasonal Habitat Meeting Desired Condition)	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).	Connelly et al. 2000[8]
	Sagebrush cover and height above snow[5]	Sagebrush is at least 10 inches (25 cm) above snow and ≥10% cover[16]	Connelly et al. 2000[8] Stiver et al. *in press*[13]

NOTES AND REFERENCES

[1] Seasonal dates can be adjusted by local unit according to geographic region.
[2] Since plant species and/or life forms may overlap, total vegetative cover, inclusive of shrubs, forbs and grasses may exceed 100%.
[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] Preferred forbs are listed in Stiver et al. *In press* . Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.
[7]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. Saving sage-grouse from trees. Biological Conservation 167:233-241.
[8] Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. Wildlife Society Bulletin

Table 2-10
Seasonal Habitat Desired Conditions for GRSG

Attribute	Indicator	Desired Condition	Reference

28:967-985.
[9] Connelly, J. W., K. P. Reese, and M. A. Schroeder. 2003. Monitoring of Greater sage-grouse habitats and populations. University of Idaho College of Natural Resources Experiment Station Bulletin 80. University of Idaho, Moscow, ID.
[10]Doherty, K. 2008. Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts. Ph.D. Dissertation. University of Montana, Missoula, MT.
[11] Hagen, C. A., J. W. Connelly, and M. A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. Wildlife Biology 13 (Supplement 1):42-50.
[12]Holloran, M. J., and S. H. Anderson. 2005. Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. Condor 107:742-752.
[13]Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl. *In Press*. Sage-Grouse Habitat Assessment Framework: A Multi-scale Habitat Assessment Tool. Bureau of Land Management and Western Association of Fish and Wildlife Agencies Technical Reference 6710-1. U.S. Bureau of Land Management, Denver, Colorado.
[14] Connelly, J.W., A. Moser, and D. Kemner. 2013. Greater Sage-Grouse breeding habitats: Landscape-based comparisons. Grouse News 45. Research Reports.
[15] Some late brood habitat occurs at higher elevations outside of mapped nesting habitat and some is embedded within nesting landscapes especially areas such as wet meadows, riparian areas, springs and seeps.
[16]Winter habitat metrics are a guideline but snow depths and habitat availability may vary widely depending on winter severity, topography and elevation.

Coordination

CC-1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts could include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups, public lands permit holders and non-governmental organizations.

CC-2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU would identify responsibilities, role and interaction of the BLM, Forest Service and State of Idaho. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordination and implementation of BLM's final decision and Montana's Executive Order No. 10-2014.

CC-3: The BLM and Forest Service would consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.

CC-4: Idaho: The BLM would coordinate with the State of Idaho and the Idaho Sage-Grouse Implementation Task Force regarding proposed management

changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management, anthropogenic disturbance and livestock grazing (FEIS Appendix).

CC-5: Montana: The BLM would coordinate with the State of Montana and the Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and anthropogenic disturbance (FEIS Appendix).

CC-5: Upon completion of the Record of Decision the BLM will develop an initial Implementation Guide for BLM District and Field Offices within a year of issuance of the Record of Decision. This Guide would define and describe consistent application of the allocations, management actions, required design features, and etc. that are contained within the final plan and would be updated and expanded as needed to respond to issues and concerns.

CC-6: At the state level, BLM and Forest Service would coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends and make appropriate regional recommendations for GRSG conservation at broader scales.

CC-7: At the state level, BLM and Forest Service would coordinate with the appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.

CC-8: All prescribed burning would be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM and Forest Service activities.

Greater Sage-Grouse Management Areas

MA-1 (Management Area): Designate five GRSG Conservation Areas within the sub-region to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in FEIS Figure. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas.

Conservation Area Description:

Mountain Valleys Conservation Area – generally located north of the Snake River Plain, including GRSG habitat in the Salmon and Challis areas, and habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan

Karaus Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary.

Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry's Fork form the eastern boundary.

West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River.

Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County.

Southwestern Montana – located in southwestern Montana - encompassing the Dillon Butte BLM Field Office and Beaverhead-Deerlodge National Forest boundaries (the Butte RMP is not being amended and since there are limited GRSG federal GHMAs, management actions do not apply in the Butte Field Office).

In general, GRSG habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to more complex topography, and elevational differences and/or effects from wildfires, agriculture, urbanization or other factors.

MA-2: Within each Conservation Area designate GRSG Habitat Management Areas: Priority, Important and General Habitat Management Areas (FEIS Figure). Priority Habitat Management Areas (PHMAs) focus on conserving the two key meta-populations in the sub-region. These meta-populations consist of a large aggregation of interconnected breeding subpopulations of GRSG that have the highest likelihood of long-term persistence. Specifically, these include a meta-population north of the Snake River, inclusive of the North Magic Valley, Big Desert and Basin and Range areas and another south of the Snake River comprised of south central Idaho, the upper Bruneau-Jarbidge Plateau, and the Owyhee Uplands. PHMA encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. PHMAs include adequate area to accommodate continuation of existing land uses and landowner activities. **Important Habitat Management Areas (IHMAs)** contain additional habitat and populations that provide a management buffer for the PHMA and to connect patches of PHMA. IHMA encompasses areas of generally moderate to high conservation value habitat and/or populations and in some Conservation Areas includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations (Priority Areas for Conservation (PACs)). IHMAs are typically adjacent to PHMAs but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors.

There are no IHMAs designated within the Southwestern Montana Conservation Area. **General Habitat Management Areas (GHMAs)** encompass habitat that is outside of PHMAs or IHMAs. GHMAs contain approximately 10 percent of the occupied leks that are also of relatively low male attendance compared to leks in PHMA or IHMA. GHMAs are generally characterized by lower quality disturbed or patchy habitat of low lek connectivity.

MA-3: In Idaho, Designate PHMA and IHMA to encompass 90 percent of the breeding males in Idaho. In Montana, designate PHMA to encompass Montana Fish, Wildlife, and Parks 2009 Greater Sage Grouse Core Area designations.

MA-4: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.

MA-5: Prioritize activities and mitigation to protect, enhance and restore GRSG habitats (i.e., fire suppression activities, fuels management activities, vegetation treatments, invasive species treatments etc.) first by Conservation Area, if appropriate (Conservation Area under adaptive management or at risk of engaging adaptive management), followed by PHMAs, then IHMAs then GHMAs within the Conservation Areas. Local priority areas within these areas will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in FEIS Appendix. This could include projects outside GRSG habitat when those projects would provide a benefit to GRSG habitat.

MA-6: The management area map and Biologically Significant Unit (BSU) baseline map would be re-evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation could indicate the need to adjust PHMA, IHMA or GHMA or the habitat baseline. These adjustments could occur upon completion of the appropriate analysis (plan amendment) to review the allocation decisions based on the map. Results from the Wildfire and Invasive Species Assessments, such as identified focal or emphasis areas would also be used to help inform mapping adjustments during this evaluation.

MA-7: GRSG habitat within the project area would be assessed during project-level NEPA analysis within the management area designations (PHMA, IHMA, GHMA). Project proposals and their effects would be evaluated based on the habitat and values affected.

MA-8: Idaho BLM will annually update the Key Habitat map as described in FEIS Appendix, in order to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. Updates to the map will also occur if it is determined that mapping errors or omissions have occurred, or that radio-telemetry studies

indicate that GRSG are consistently utilizing an area. Updates are also intended to capture recommendations by the field offices, GRSG Local Working Groups, or agency partners in GRSG conservation. Project-level evaluations of GRSG habitat during the NEPA process may also be used to inform the annual update.

MA-9: Areas of habitat outside of delineated management areas identified during the Key habitat update process would be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix F), seasonal timing restrictions (Appendix G) and buffers (Appendix H) would be included as part of project design. These areas would be further evaluated during plan evaluation and the 5-year update to the management areas, to determine whether they should be included as PHMAs, IHMAs, or GHMAs.

MA-10: Designate Sagebrush Focal Areas (SFA) as shown in FEIS Figure. SFAs will be managed as PHMA, with the following additional management:

Recommended for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights.

Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing.

Prioritized for management and conservation actions in these areas, including, but not limited to review of livestock grazing permits/leases (see livestock grazing section for additional actions).

Adaptive Management

AM-1 (Adaptive Management): Idaho: Use hard and soft population and habitat triggers, evaluated within a Conservation Area, to determine an appropriate management response.

AM-2: Utilize monitoring information collected through the Monitoring Framework (FEIS Appendix) to determine when adaptive regulatory triggers have been met.

AM-3: Idaho: BLM and Forest Service would maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which would be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the Forest Service and IDFG, using the process described in FEIS Appendix.

AM-4: Idaho: BLM would coordinate with the IDFG regarding population information collected and maintained by the IDFG to track and identify population changes to assess the population trigger in the adaptive management approach.

AM-5: Idaho: Twice each year the applicable monitoring information would be reviewed to determine if any adaptive management triggers have been met.

AM-6: Idaho: Adaptive habitat regulatory triggers would be individually calculated across all ownerships within the BSUs (FEIS Appendix). The BSU is defined as the IDFG modeled nesting and wintering habitat (IDFG 2013, unpublished data) within PHMAs and IHMAs within a Conservation Area. The sagebrush component of the BSU is represented by the Key habitat within the BSU present during the 2011 baseline and as mapped during subsequent annual Key habitat map updates. Key habitat is defined as areas of generally intact sagebrush that provide GRSG habitat during some portion of the year (ISAC 2006).

AM-7: Adaptive Regulatory Criteria for Hard Habitat Triggers are defined as:

A 20 percent loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline, inclusive of all land ownerships or

A 20 percent loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.

AM-8: Adaptive Regulatory Criteria for Soft Habitat Triggers are defined as:

A 10 percent loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline; or

A 10 percent loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.

AM-9: Adaptive Regulatory Criteria for Hard Population Triggers are defined as:

A 20 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) significantly below 1.0 within PHMA within a Conservation Area over the same 3-year period; or

A 20 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) significantly below 1.0 within IHMA within a Conservation Area over the same 3-year period.

Significance is defined by the 90 percent confidence interval around the current 3-year finite rate of change. If the 90 percent confidence interval is less than, and does not include 1.0, then the finite rate of change is considered significant. The finite rate of change and variance will be calculated following Garton et al. (2011).

AM-10: Adaptive Regulatory Criteria for Soft Population Triggers are defined as:

A 10 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) below 1.0 within PHMA within a Conservation Area over the same 3-year period; or

A 10 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) below 1.0 within IHMA within a Conservation Area over the same 3-year period.

AM-11: When any of the Adaptive Regulatory Criteria for Soft Triggers have been met the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities (FEIS Appendix).

AM-12: When any of the Adaptive Regulatory Criteria for Hard Triggers have been met then PHMA management actions would be applied to the IHMA within that Conservation Area and the Implementation Team would evaluate causal factors and recommend additional potential implementation level activities.

AM-13: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments would follow the Adaptive Grazing Management Response described in FEIS Appendix.

AM-14: Remove any adaptive management response when the habitat or population information shows a return to or an exceedance of the 2011 baseline values within the associated Conservation Area in accordance with the Adaptive Management Strategy.

AM-15: Montana: Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and USFWS experts.

AM-16: Idaho and Montana: When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project-level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response.

Anthropogenic Disturbance

AD-1 (Anthropogenic Disturbance): If the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA (or IHMA in Idaho) Habitat Management Areas in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within GRSG PHMAs and IHMAs in any given BSU until the disturbance has been reduced to less than the cap. As measured according to the Monitoring Framework (FEIS Appendix) for the intermediate scale.

If the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area (FEIS Appendix) in a

PHMA (or IHMA in Idaho), then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.).

Montana will use a 3 percent disturbance cap until the state of Montana strategy, similar to WY's Core Area Strategy that uses a 5 percent disturbance cap for all lands and all disturbances, is fully implemented. If the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5 percent within a project analysis area, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within a project analysis area until the disturbance has been reduced to less than the cap.

For Idaho the BSU (FEIS Figure) is defined as the currently mapped nesting and wintering habitat within PHMA and IHMA within a Conservation Area, inclusive of all ownerships for evaluation. For Montana the BSU is defined as the PHMA in Montana. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management activities and includes activities described in FEIS Table. For Idaho this disturbance is measured by direct footprint or by ROW width for linear features (powerlines, pipelines and roads). For Montana disturbance is measured similar to the Wyoming Disturbance Density Calculation Tool process described in FEIS Appendix.

AD-2: New anthropogenic disturbances within PHMA or IHMA within a Conservation Area where the disturbance cap is already exceeded from any source or where the proposed development would result in the cap being exceeded would not be allowed in within that Conservation Area until enough habitat has been restored within that Conservation Area to maintain the area under this cap (subject to valid existing rights).

AD-3: PHMA (Idaho only): Anthropogenic Disturbance Exception Criteria. In order to avoid surface-disturbing activities in PHMA, priority will be given to development (including ROWs, fluid minerals and other mineral resources subject to applicable stipulations) outside of PHMA. When authorizing development in PHMA, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. In addition to the PHMA and IHMA Anthropogenic Disturbance Development Criteria (AD-4), the following criteria must all be met in the project screening and assessment process:

a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations;

renewals and amendments of existing authorizations would not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments would be substantially the same as the existing development);

b. The development with associated mitigation would not result in a net loss of GRSG Key habitat and mitigation would provide a net conservation benefit to the respective PHMA;

c. The project and associated impacts would not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area (the project would be outside Key habitat in areas not meeting desired habitat conditions or the project would provide a benefit to habitat areas that are functioning in a limited way as habitat);

d. Cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to a valid existing authorization; or 2) is co-located within the footprint of existing infrastructure (proposed actions would not increase the 2011 authorized footprint and associated impacts more than 50 percent, depending on industry practice.

e. Development could be implemented adhering to the required design features (RDF) described in Appendix F;

f. The project would not exceed the disturbance cap (AD-1).

g. The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.

AD-4: The following Anthropogenic Disturbance Development Criteria must be met in the screening and assessment process for proposals in PHMA and IHMA to discourage additional disturbance in PHMAs and IHMAs (as described in LR-1 and LR-2; applies to Idaho only):

a. Through coordination with the USFWS and State of Idaho (as described in CC-1), it is determined that the project cannot be achieved, technically or economically, outside of this management area; and

b. The project siting and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include co-location within the footprint for existing infrastructure, to the extent practicable; and

c. The project does not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area; and

d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and

e. Development could be implemented adhering to the RDFs described in Appendix F.

f. The project would not exceed the disturbance cap (AD-1).

AD-5: In Montana, the BLM would apply the project/action screen and mitigation process (FEIS Appendix).

AD-5: Co-locating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management area. Colocation for various activities is defined as:

Communication Sites – The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan.

Electrical Lines – Installation of new ROWs adjacent to current ROWs boundaries, not necessarily placed on the same power poles.

Other Rights-of-Way – The installation of new ROWs within the existing footprint of an approved ROW boundary or adjacent to an approved ROW boundary.

Designated Corridors – The installation of new rights-of-way within the existing corridor or adjacent to the existing corridor.

AD-6: Incorporate RDFs as described in Appendix F in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities, as conditions of approval (COAs) into any post-lease activities and as best management practices for locatable minerals activities, to the extent allowable by law, unless at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project:

a. A specific RDF is not applicable to the site-specific conditions of the project or activity;

b. A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat; or

c. Analysis concludes that following a specific RDF would provide no more protection to GRSG or its habitat than not following it, for the project being proposed.

AD-7: Conduct implementation and project activities, including construction and short-term anthropogenic disturbances consistent with seasonal habitat restrictions described in Appendix G.

AD-8: RDFs and seasonal habitat restrictions would not be required for emergency or short-term activities necessary to protect and preserve human life or property.

AD-9: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix H.

AD-10: Incorporate appropriate conservation measures for slickspot peppergrass (*Lepidium papilliferum*) as described in the 2014 Conservation Agreement (as updated, amended or reauthorized) into implementation and project design within slickspot peppergrass habitat in the Jarbidge and Four Rivers Field Offices to avoid and minimize impacts to slickspot peppergrass. The 2014 Conservation Agreement is included in FEIS Appendix.

Table 2-11
Anthropogenic Disturbances and Areas of Impact

Datasets as Described in the Monitoring Framework[1]
Oil and Gas Wells and Development Facilities
Coal Mines
Wind Towers
Solar Fields
Geothermal Development Facilities
Mining (Active Locatable, Leasable and Saleable Developments)
Roads
Railroads
Powerlines
Communication Towers
Other Vertical Structures
Additional Local Datasets
Coalbed Methane Ponds
Meteorological Towers (e.g., wind energy testing)
Nuclear Energy Facilities
Airport Facilities and Infrastructure
Military Range Facilities and Infrastructure
Hydroelectric Plants
Recreation Areas Facilities and infrastructure

Note:
Taken from Table 6 – GRSG Monitoring Framework.

Mitigation

MIT-1 (Mitigation): BLM would establish an inter-agency State GRSG Conservation Team at the state level (both Idaho and Montana) to help guide conservation of GRSG through compensatory mitigation, within 90 days of the issuance of the Record of Decision.

MIT-2: The BLM and Forest Service, in coordination with the GRSG Conservation Team would develop a Mitigation Strategy within one year of the issuance of the Record of Decision. In Idaho this strategy would be consistent with the Idaho Mitigation Framework (FEIS Appendix).

MIT-3: In all GRSG habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation (FEIS Appendix), 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. A net conservation benefit to GRSG would be achieved by implementing restoration conservation actions, applying a no net unmitigated loss standard for authorized uses in all GRSG habitat with PHMA, IHMA and GHMA; and strategically siting compensatory mitigation actions, consistent with the WAFWA Management Zone Regional Mitigation Strategy as part of a mitigation program in order to achieve cumulative benefits (as outlined in FEIS Appendix).

MIT-4: Mitigate anthropogenic development (FEIS Appendix) impacts to a no net loss of Key habitat standard (FEIS Appendix) through application of appropriate mitigation in accordance with the Mitigation Framework (FEIS Appendix), referred to as no unmitigated loss. No net unmitigated loss means that impacts from implementation level actions would be fully offset to benefit the species. This would be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.

MIT-5: Mitigate anthropogenic development (FEIS Appendix) impacts to GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (FEIS Appendix).

MIT-6: Consistent with regulations for minerals activities, require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs to fully rehabilitate lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work. Areas are considered fully rehabilitated when they meet the conditions described in FEIS Table.

Monitoring

MON-1 (Monitoring): Once FIAT Assessments are complete annually complete a review of FIAT Assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.

MON-2: Monitor the effectiveness of projects (e.g., fuel breaks. fuels treatments) until objectives have been met or until it is determined that objectives cannot be met, according to the monitoring schedule identified for project implementation.

MON-3: Monitor invasive vegetation post vegetation management treatment

MON-4: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.

MON-5: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.

MON-6: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in FEIS Appendix.

MON-7: Monitor GRSG habitat as described in the monitoring framework plan (FEIS Appendix) in coordination with IDFG and MT FWP.

Vegetation

Objectives

VEG-OBJ-1 (Vegetation): Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.

VEG-OBJ-2: Increase the amount and functionality of seasonal habitats by:

a. Increasing or enhancing canopy cover and average patch size of sagebrush.
b. Increasing the amount, condition and connectivity of seasonal habitats.
c. Protecting or improving GRSG migration/movement corridors.
d. Reducing conifer encroachment within GRSG seasonal habitats.
e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
f. Reducing the extent of annual grasslands within and adjacent to PHMA and IHMA.

Decadal treatment objectives by population area are identified in **Table 2-5**.

VEG-OBJ-3: In all SFAs and PHMAs, the desired condition is to maintain a minimum of 70 percent of lands capable of producing sagebrush with 10 to 30 percent sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).

Table 2-12
Estimated Acres of Treatment Needed within a 10-Year Period to Achieve Vegetation Objectives[1]

Population Area	Mechanical[2]	Prescribed Fire (FM-15) [3]	Grass Restoration (VEG-2) [4]
Bear Lake Plateau	1,000	0	0
East Idaho Uplands	6,000	9,000	1,000

Table 2-12
Estimated Acres of Treatment Needed within a 10-Year Period to Achieve Vegetation Objectives[1]

Population Area	Mechanical[2]	Prescribed Fire (FM-15) [3]	Grass Restoration (VEG-2) [4]
S Central Idaho/N Snake River and Mountain Valleys	18,000	11,000	162,000
Weiser	0	0	13,000
SW Idaho	52,000	10,000	444,000
SW Montana	0	0	0

Note:
[1]These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of ten years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the ten-year simulation using stochastic, not predictive, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.
[2]Removal of conifers that have invaded sagebrush including phase one juniper that is 10 percent or less and reducing sagebrush cover in areas over 30 percent canopy cover
[3]Acres are those that are greater than 30 percent sagebrush canopy cover and/or invaded by 10 percent or greater conifer.
[4]Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.

Vegetation Management

VEG-1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.

VEG-2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts to GRSG seasonal habitats.

VEG-3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.

VEG-4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes could be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of ROWs.

VEG-5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.

VEG-6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or BAER (Forest Service) projects outside of PHMA or IHMA to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.

VEG-7: During land health assessments, evaluate the relative value of existing nonnative seeding within GRSG habitat as: 1) a component of a grazing system allowing improvement of adjacent native vegetation, 2) development of a forage reserve, 3) incorporation into a fuel break system (Davies et al. 2011) or 4) restoration/diversification for GRSG habitat improvement. Where appropriate and feasible, diversify seedings, or restore to native vegetation when potential benefits to GRSG habitat outweigh the other potential uses of the non-native seeding, with emphasis on PHMA and IHMA. Allow recolonization of seedings by sagebrush and other native vegetation.

VEG-8: Remove conifers encroaching into sagebrush habitats. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like VDDT and the FIAT report (Chambers et. al., 2014) will help refine the location for specific areas to be treated.

Invasive Species

INV-1 (Invasive Species): Incorporate results of the FIAT Assessments into projects and activities addressing invasive species.

INV-2: Implement noxious weed and invasive species control using integrated vegetation management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.

INV-3: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.

INV-4: Require project proponent (projects described in **Table 2-4** and which are included in the anthropogenic disturbance cap evaluation) to ensure that noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project.

Wildland Fire Management

Objectives

FUEL-OBJ-1: Design fuel treatments to restore, enhance, or maintain GRSG habitat.

Wildfire Preparedness/Prevention

WFP-1 (Wildfire Preparedness): Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.

WFP-2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).

WFP-3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments (FIAT Assessments) described in FEIS Appendix, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.

WFP-4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.

WFP-5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and FIAT Assessments.

WFP-6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.

WFP-7: As part of the FIAT Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the PHMA or IHMA. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.

WFP-8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.

WFP-9: Implement activities identified within the FIAT Assessments.

Wildfire Suppression

WFS-1: Complete Wildland Fire and Invasive Species Assessments (FIAT Assessments) as described within FEIS Appendix and incorporate results into appropriate Fire Management Plans as they are completed. FIAT Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of focal and emphasis habitats/treatment opportunities for fuels management, fire management, and restoration. These FIAT Assessments identify focal and emphasis habitats and describe strategies for fuels management, suppression and restoration activities. Focal and Emphasis Habitats identified through the FIAT Assessment to further refine priority areas for treatments to reduce the threats posed by wildfire, invasive annual grass and conifer expansion.

WFS-2: As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within PHMA and IHMA or on those fires that have the potential to impact PHMA and IHMA. Incorporate findings into Unit Initial Attack program

WFS-3: As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Provide water availability to respond to fire in or threatening PHMA and IHMA during initial attack.

WFS-4: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the FIAT Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat after considerations and placement of resources to protect human life and property.

WFS-5: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This could include suppressing fires in intact sagebrush habitats; limiting fire growth in GHMA when suppression resources are

available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.

WFS-6: Suppression priorities: Firefighter and public safety followed by property are the highest priority for protection during suppression activities. Maintaining GRSG habitat will be prioritized immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.

WFS-7: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.

Fuels Management

FM-1: Design and implement fuels treatments that would reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.

FM-2: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.

FM-3: Apply appropriate seasonal restrictions for implementing vegetation and fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and would protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they would assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into PHMA or WUI.

FM-4: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the FIAT Assessments completed as described in FEIS Appendix.

FM-5: When developing the fuels management strategy as part of the FIAT Assessment described in FEIS Appendix consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to 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.

FM-6: Fuel treatments will be designed though an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeted grazing), mechanical and prescribed fire treatments.

FM-7: Existing and proposed linear ROWs could be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design then it would be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).

FM-8: Fuel breaks would incorporate existing vegetation treatments (seedings), rocky areas or other appropriate topography or features or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.

FM-9: Strategically pre-treat areas to reduce fine fuels consistent with areas and results identified within the Wildfire and Invasive Species Assessments.

FM-10: Protect vegetation restoration and rehabilitation efforts/projects from subsequent fire events.

FM-11: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.

FM-12: Targeted grazing to achieve fuels management objectives should conform to the following criteria:

a. Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives.

b. Conform to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale (pasture/watershed).

c. Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations

FM-13: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.

FM-14: Maintain effectiveness of fuels projects, including fuel breaks, to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.

FM-15: 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 would be met by its use;

how the COT Report objectives would be addressed and met;

a risk assessment to address how potential threats to GRSG habitat would be minimized.

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

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

Wildfire Restoration/Rehabilitation – Emergency Stabilization and Rehabilitation

ESR-1: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the FIAT Assessment process described in FEIS Appendix to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) or Burned Area Emergency Restoration (BAER) (Forest Service) actions after fire.

ESR-2: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the FIAT Assessments.

ESR-3: Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species within burned/ESR areas. All new seedings of grasses and forbs should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ESR objectives.

ESR-4: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.

ESR-5: Following seedling establishment, modify grazing management practices if needed to achieve long-term vegetation and habitat objectives.

Livestock Grazing

RM-1 (Range Management): Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area would not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.

RM-2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management area prioritization (MA-4), unless other higher priority considerations exist such as threatened, endangered and proposed species habitat that livestock grazing could affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.

RM-3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.

RM-4: PHMA & IHMA: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2014 as amended/replaced) or other BLM or Forest Service approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat

objectives including riparian and lentic areas (HM-OBJ-2; Table 2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.

RM-5: When modifying grazing management, analyze indirect effects to habitat, including changes in fuel loading and wildfire behavior.

RM-6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperating and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in:

1) Season or timing of use;
2) Numbers of livestock;
3) Distribution of livestock use;
4) Duration and/or level of use;
5) Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011); and
6) Grazing schedules (including rest or deferment).

RM-7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in GRSG habitat areas. A forage reserve is an area that is set aside for use as needed by various permittees who might be displaced by wildfire, ESR, restoration efforts, etc. rather than having a term permit issued for grazing like a regular allotment.

RM-8: PHMA, IHMA & GHMA - When an allotment, or portion thereof, becomes vacant or grazing preference is relinquished, consider retirement of the allotment or grazing preference, or portion thereof, or converting the area to a forage reserve (a.k.a. reserve common allotment; forage reserves are areas that are set aside for use)/buffer when doing so would maintain or enhance GRSG habitat as described in subsequent site specific NEPA analysis.

RM-9: PHMA & IHMA - Where practical, design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.

RM-10: Evaluate the locations where salt/supplements are placed, coordinate salt/supplements placement to reduce impacts to GRSG habitat (e.g., existing disturbed areas).

RM-11: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM- and Forest Service -administered lands in the spring. Work with permittees in locating

over-nighting, watering and bedding locations to minimize impacts to seasonal habitats.

RM-12: Design any new structural range improvements, following appropriate cooperation, consultation and coordination, to minimize and/or mitigate effects to GRSG habitat. Any new structural range improvements should be placed along existing disturbance corridors or in unsuitable habitat, to the extent practical, and are subject to RDFs (Appendix F). Structural range improvement in this context, include, but are not limited to: fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.

RM-13: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.

RM-14: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following appropriate cooperation, consultation and coordination to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).

RM-15: In response to weather conditions (i.e. drought) adjust grazing management (i.e., delay turnout, adjust pasture rotations, adjust the amount and/or duration of grazing) as appropriate to provide for adequate food and cover for GRSG.

RM-16: 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 Sagebrush Focal Areas (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 (ex., fire) and legal obligations.

RM-17: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFAs and PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) and defined responses that will allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.

RM-18: 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 could include monitoring for actual use, utilization, and use supervision.

RM-19: 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.

Wild Horses and Burros

WHB-1: Manage herd management areas (HMAs) in GRSG habitat within established AML ranges to achieve and maintain GRSG habitat objectives (**Table 2-3**).

WHB- 2: Complete rangeland health assessments for HMAs containing GRSG habitat using an interdisciplinary team of specialists (e.g. range, wildlife, and riparian). The priorities for conducting assessments are: 1) HMAs Containing SFA; 2) HMAs containing PHMA; 3) HMAs containing IHMA; 4) HMAs containing GHMA; 5) HMAs containing sagebrush habitat outside of PHMA, IHMA. and GHMA mapped habitat; 6) HMAs without GRSG Habitat.

WHB-3: Prioritize gathers and population growth suppression techniques in HMAs in GRSG habitat, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Place higher priority on Herd Areas not allocated as HMAs and occupied by wild horses and burros in SFAs followed by PHMA.

WHB-4: In SFAs and PHMA outside of SFA, assess and adjust AMLs through the NEPA process within HMAs when wild horses or burros are identified as a significant causal factor in not meeting land health standards, even if current AML is not being exceeded.

WHB-5: In SFAs and PHMA outside of SFA, monitor the effects of wild horse and burro use in relation to GRSG seasonal habitat objectives on an annual basis to help determine future management actions.

WHB-6: Develop or amend herd management area plans (HMAPs) to incorporate GRSG habitat objectives and management considerations for all HMAs within GRSG habitat, with emphasis placed on SFAs and other PHMAs.

WHB-7: Consider removals or exclusion of wild horse and burros during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives where HMAs overlap with GRSG habitat.

WHB-8: When conducting NEPA analysis for wild horse and burro management activities, water developments, or other rangeland improvements for wild

horses, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.

WHB-9: Coordinate with professionals from other federal and state agencies, researchers at universities, and others to utilize and evaluate new management tools (e.g., population growth suppression, inventory techniques, and telemetry) for implementing the wild horse and burro program.

Lands and Realty

LR-1 (Lands and Realty): PHMA: Designate and manage PHMA as ROW avoidance areas, consistent with AD-3 and subject to RDFs, buffers and seasonal timing restrictions (Appendices F, G, and H). IHMA: Designate and manage IHMA as ROW avoidance areas, consistent with AD-4 and subject to RDFs, buffers and seasonal timing restrictions. GHMA (Idaho and Montana): Designate and manage GHMA as open with proposals subject to RDFs, buffers and seasonal timing restrictions.

LR-2: PHMA: Designate and manage PHMA as exclusion areas for utility scale (20 MW) wind and solar testing and development, nuclear and hydropower energy development. IHMA: Designate and manage IHMA as avoidance areas for wind and solar testing and development, nuclear and hydropower development. GHMA (Idaho): Designate and manage GHMA as open for wind and solar testing and development and nuclear and hydropower development subject to RDFs, buffers and seasonal timing restrictions. GHMA (Montana): Designate and manage GHMA as avoidance for wind and solar testing and development and nuclear and hydropower development.

LR-3: PHMA: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) would not be allowed within PHMA. IHMA and GHMA are Avoidance and Open respectively for these types of ROW applications as described in LR-1.

LR-4: PHMA: Development of new or expansion of existing landfills would not be allowed within PHMA. IHMA and GHMA are Avoidance and Open respectively for these types of ROW applications as described in LR-1.

LR-5: Consistent with LR-2, LR-3 and LR-4, Rights-of-way for development of new or amended ROWs and land use authorizations (including permits and leases) in PHMA would only be considered when consistent with the Anthropogenic Disturbance Exception Criteria (AD-3); Rights-of-way for development of new or amended ROWs and land use authorizations (including permits and leases) in IHMA could be considered consistent with

the IHMA Anthropogenic Disturbance Development Criteria (AD-4). GHMA: New ROW and land use authorizations could be considered.

LR-6: In PHMA, if a higher voltage transmission line is required adjacent to an existing line (i.e. the project is an incremental upgrade/capacity increase of existing development (i.e. powerline capacity upgrade):

- the existing transmission line must be removed and area rehabilitated within a specified amount of time after the new line is installed and energized; and
- the new line must be constructed in the same alignment as the existing line unless an alternate route would benefit GRSG or GRSG habitat.

LR-7: Existing designated corridors, including Section 368 Corridors, will remain Open in all habitat management areas (subject to the ongoing settlement agreement).

LR-8: Process unauthorized use. If the use is subsequently authorized, it would be authorized consistent with direction for the Management Areas within which it is located and the RDFs, buffers and seasonal timing restrictions. If the use is not subsequently authorized the site would be reclaimed by removing these features and rehabilitating the habitat.

LR-9: Land use authorizations that are temporary (less than 3 years) in nature and are not otherwise excluded or restricted would be subject to seasonal or timing restrictions and mitigation requirements regarding habitat loss as needed.

LR-10: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) would be allowed on a case-by-case bases subject to RDFs to reduce impacts to GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.

LR-11: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder would be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove powerline and communication facilities no longer in service).

LR-12: As opportunities and priorities indicate work with existing ROW holders to retrofit existing towers and structures consistent with RDFs described in Appendix F.

LR-13: PHMA and IHMA (Idaho and Montana), and GHMA (Montana only) are designated as avoidance areas for high voltage transmission line and large pipeline ROWs, except for the transmission projects specifically identified

below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in AD-3 and AD-4 of this document. The BLM is currently processing an application for (Gateway West and Boardman to Hemingway Transmission Projects) and the NEPA review for this project is well underway. The BLM is analyzing GRSG mitigation measures through the projects' NEPA review process.

LR-14: Lands classified as PHMA, IHMA, and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the GRSG. Land tenure adjustments would be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG would reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that would remove sagebrush habitat and potentially impact sensitive plants. Criteria:

a. Lands within PHMA, IHMA and GHMA would only be available for disposal through exchange (FEIS Appendix).

b. Acquire habitat within PHMA and IHMA, when possible (i.e. willing landowner), and retain ownership of habitat within all Areas, except if a land exchange would allow for additional or more contiguous federal ownership patterns.

c. Lands within PHMA, IHMA and GHMA would be retained unless exchange of those lands would increase the extent or provide for connectivity of PHMA or IHMA.

d. Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of PHMA. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within PHMA currently in public ownership. Lower priority would be given to other lands that would promote enhancement in the PHMA and IHMA (i.e., areas with fragmented or less in-tact sagebrush).

e. Identify lands for acquisition that increase the extent of or provide for connectivity of PHMA.

Minerals

Fluid Minerals (Oil, Gas, and Geothermal)

Objectives

FLM-OBJ-1: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA, IHMA, and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA, IHMA, and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 USC 226(p) and 43 CFR 3162.3-1(h).

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

Management

FLM-1 (Fluid Minerals): Idaho and Montana: Areas within SFAs would be open to fluid mineral leasing and development and geophysical exploration subject to NSO without waiver, exception, or modification. Areas within PHMA and IHMA would be open to mineral leasing and development and geophysical exploration subject to NSO with a limited exception (FLM-3). GHMA would be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.

FLM-2: In Idaho, parcels nominated for lease in PHMA or IHMA would be evaluated prior to lease offering to determine if development is feasible. In GHMA, parcels that could not be developed when these buffers and restrictions are applied would not be offered for lease.

FLM-3: PHMA: No waivers or modifications to a fluid mineral lease NSO stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease NSO stipulation only where the proposed action:

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

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

Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP amendment. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts.

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

Idaho IHMA: A lease waiver, exception or modification to the NSO stipulation may be considered where a portion of the proposed lease is determined to be in non-GRSG habitat, the area is not used by GRSG, or it would not have direct, indirect or cumulative effects to GRSG or its habitat. The determination would be made by a team of interagency GRSG experts, including an expert from the state wildlife agency, USFWS and the BLM. All exceptions must be approved by the State Director. In the event a waiver, exception or modification were allowed development would still be subject to CSU which includes buffers, seasonal timing restrictions and standard stipulations.

Waivers, Exceptions and Modifications (WEMs) (Source IM-2008-032):

A waiver is a permanent exemption from a lease stipulation, the stipulation would no longer apply anywhere within the lease. Waivers, by regulation, require a 30-day public review if the authorized officer has determined, prior to lease issuance, that a stipulation involves an issue of major concern to the public (43 CFR 3101.4) and are approved and signed by the State Director.

An exception is a one-time exemption for a particular site within the lease; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the lease. An exception is a limited type of waiver.

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

FLM-4: Incorporate required design features and best management practices appropriate to the management area as COAs when post leasing activity is proposed into any post-lease authorizations.

FLM-5: In Montana, prior to leasing conduct a Master Leasing Plan process when all four of the following criteria are met:

A substantial portion of the area to be analyzed in the MLP is not currently leased.

There is a majority Federal mineral interest.

The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.

Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are:

multiple-use or natural/cultural resource conflicts;

impacts to air quality;

impacts on the resources or values of any unit of the National Park System, national wildlife refuge, or National Forest wilderness area, as determined after consultation or coordination with the NPS, the USFWS, or the Forest Service; or

impacts on other specially designated areas. – analyzing likely development scenarios and varying mitigation levels.

FLM-5: In Idaho, complete a Master Development Plan, consistent with plan development guide on leases where a producing field is proposed to be developed.

FLM-6: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.

FLM-7: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize effects to GRSG populations or habitat.

Locatable Minerals

LOC-1 (Locatable Minerals): Lands would remain open to locatable mineral entry in all management areas.

LOC-2: Apply reasonable and appropriate RDFs and BMPs as Conditions of Approval to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM or Forest Service approval, in accordance with 43 CFR 3809.411(d)(2) (or 36 CFR 228.5(a)(3) on National Forest System lands).

LOC-3: Recommend SFAs for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights.

Mineral Materials (Saleable Minerals)

SAL-1 (Salable Minerals): PHMA: All PHMAs will be closed to mineral materials development. IHMA and GHMA: All IHMAs and GHMAs will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria (AD-4), and subject to RDFs, buffers and seasonal timing restrictions. Sales from existing community pits within PHMA and IHMA would be subject to seasonal timing restrictions. GHMA: Open to new site authorizations subject to RDFs, buffers and seasonal timing restrictions. Existing sites open to new sales subject to seasonal timing restrictions.

SAL-2: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.

SAL-3: Require reclamation bonding that would require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA (this would not apply to free use permits issued to a government entity such as a county road district, but would apply to non-profit entities).

SAL-4: Montana: PHMAs are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met:

- the activity is within the BSU and project area disturbance cap;
- the activity is subject to the provisions set forth in the mitigation framework [FEIS Appendix];
- all applicable required design features are applied; and
- the activity is permissible under the Montana screening criteria

Nonenergy Leasable Minerals

NEL-1 (Nonenergy Leasables): PHMAs are closed to leasing. IHMA and GHMA: Areas within Known Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. PHMA areas outside KPLAs are closed to leasing and prospecting. IHMA areas outside of KPLAs are open

to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (AD-4) and the anthropogenic disturbance cap (AD-1) can be met. RDFs, buffers and seasonal timing restrictions shall be applied to prospecting permits. Exceptions to closures in PHMA and IHMA may be made for lease modifications and fringe leases where valid existing rights may be affected. GHMA: Lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, timing restrictions (seasonal and daily) and standard stipulations.

NEL-2: Require seasonal and daily timing restrictions in undeveloped nonenergy mineral leases when exploration activities or initial mine development is proposed (e.g. exploration drilling, timber removal, shrub clearing, etc.) as COAs.

NEL-3: Include RDFs as COAs to mine plans in undeveloped non-energy mineral leases for exploration activities or initial mine development.

Mineral Split Estate

MSE-1 (Mineral Split Estate): BLM Owns Mineral Estate – non-federal surface owner: Where the federal government owns the mineral estate in PHMAs, IHMAs, and GHMAs, 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.

MSE-2: BLM owns surface – non-federal mineral estate owner: Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMA, IHMA, and GHMA, 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.

Comprehensive Trails and Travel Management

TM-1 (Travel Management): Limit off-highway vehicle motorized travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices. Upon completion of travel management plans the designation would change to limited to designated roads, primitive roads and trails.

An off-highway vehicle is any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) Any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency

purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) Vehicles in official use where official use is use by an employee, agent, or designated representative of the Federal Government or one of its contractors, in the course of his employment, agency, or representation.; and (5) any combat or combat support vehicle when used in times of national defense emergencies (43 CFR 8340.0 5).

TM-2: In PHMA, IHMA, and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).

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

TM-3: Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (FEIS Appendix).

TM-4: During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize disturbance of GRSG and/or to have a neural or positive effect on GRSG habitat and populations. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, timing restrictions, seasonal closures, and creation of new routes to help protect habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within PHMA would be placed on having a neutral or positive effect on GRSG habitat. Individual route designations would occur during subsequent travel management planning efforts.

TM-5: Conduct road construction, upgrades, and maintenance activities to avoid disturbance during specific times at different seasons – see seasonal and timing restrictions section.

Recreation and Visitor Services

REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions.

REC-2: In PHMA and IHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development would have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.

RDFs are means, measures, or practices intended to reduce or avoid adverse environmental impacts. This LUPA/EIS proposes a suite of design features that would establish the minimum specifications for water developments, certain mineral development, and fire and fuels management and would mitigate adverse impacts. These design features would be required to provide a greater level of regulatory certainty than through implementing BMPs.

In general, the design features are accepted practices that are known to be effective when implemented properly at the project level. However, their applicability and overall effectiveness cannot be fully assessed except at the project-specific level when the project location and design are known. Because of site-specific circumstances, some features may not apply to some projects (e.g., when a resource is not present on a given site) or may require slight variations from what is described in the LUPA/EIS (e.g., a larger or smaller protective area). All variations in design features would require appropriate analysis and disclosure as part of future project authorizations. Additional mitigation measures may be identified and required during individual project development and environmental review. The proposed RDFs are presented in **Appendix F**.

APPENDIX E: Forest Service Proposed Plan Amendment

Forest Service Plan Components

Desired conditions - A description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates. (36 CFR 219.7(e)(1)(i)) FSH 1909.12, Chapter 20)

Guideline – A constraint on project and activity decisionmaking that allows for departure from its terms, so long as the purpose of the guideline is met. (§ 219.15(d)(3)). Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR 219.7(e)(1)(iv); FSH 1909.12, Chapter 20)

Objective - A concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets. (36 CFR 219.9(e)(1)(ii)) FSH 1909.12, Chapter 20)

Standard - A mandatory constraint on project and activity decisionmaking, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR 219.7(e)(1) (iii)) FSH 1909.12, Chapter 20)

General Greater Sage-grouse

GRSG-GEN-DC-001-Desired Condition – The landscape for greater sage-grouse encompasses large contiguous areas, approximately 6 to 62 square miles in area, to provide for multiple aspects of species life requirements. Within these landscapes, a variety of sagebrush-community compositions exist, with variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure, to meet seasonal requirements for food, cover, and nesting for greater sage-grouse.

GRSG-GEN-DC-002-Desired Condition – Anthropogenic disturbance is focused in non-habitat areas outside of priority, important, and general habitat management areas and sagebrush focal areas[18]. Disturbances in general habitat management areas are limited, and there is little to no disturbances in priority and important habitat management areas and sagebrush focal areas except for valid existing rights and existing authorize uses.

GRSG-GEN-DC-003-Desired Condition – In all seasonal habitats, 70% of lands capable of producing sagebrush have 10 to 30% sagebrush canopy cover and less than 10% conifer canopy cover. In addition, within breeding and nesting habitat, sufficient herbaceous vegetation structure and height provides

[18] Suitable greater sage-grouse habitat within polygons identified as priority or general habitat management areas. Areas of non-habitat within a polygon are not included as part of any priority or general habitat management areas. Sagebrush focal areas may include areas of non-habitat.

overhead and lateral concealment for nesting and early brood rearing life stages. Within brood rearing habitat, wet meadows and riparian areas sustain a rich diversity of perennial forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for greater sage-grouse during this seasonal period. Specific desired conditions for greater sage-grouse based on seasonal habitat requirements are in table 1.

Table 1. Seasonal Habitat Desired Conditions for Greater Sage-grouse.

ATTRIBUTE	INDICATORS	DESIRED CONDTION
BREEDING AND NESTING [1,2,3] (Seasonal Use Period March 1-June 15) Apply 6.2 miles from active leks. [4]		
Lek Security	Proximity of trees [5]	Trees or other tall structures are none to uncommon within 1.86 miles of leks [6,7]
	Proximity of sagebrush to leks [6]	Adjacent protective sagebrush cover within 328 feet of lek [6]
Cover	Seasonal habitat extent [7]	>80% of the breeding and nesting habitat
	Sagebrush canopy cover[6,7,8]	15 to 25%
	Sagebrush height [7] Arid sites [6,7,9] Mesic sites [6,7,10]	 12 to 32 inches 16 to 32 inches
	Predominant sagebrush shape [6]	>50% in spreading [11]
	Perennial grass canopy cover [6,7] Arid sites [7,9] Mesic sites [7,10]	 ≥10% ≥15%
	Perennial grass height [6,7,8]	Provide overhead and lateral concealment from predators [7]
	Perennial forb canopy cover [6,7,8] Arid sites [9] Mesic sites [10]	 ≥5%[6,7] ≥10%[6,7]
BROOD-REARING/SUMMER[1] (Seasonal Use Period June 16-October 31)		
Cover	Seasonal habitat extent [7]	>40% of the brood-rearing/summer habitat
	Sagebrush canopy cover [6,7,8]	10 to 25%
	Sagebrush height [7,8]	16 to 32 inches
	Perennial grass canopy cover and forbs [7,8]	>15%
	Riparian areas/mesic meadows	Proper Functioning Condition [12]
	Upland and riparian perennial forb availability [6,7]	Preferred forbs are common with several preferred species present [13]
WINTER[1] (Seasonal Use Period November 1-February 28)		
Cover and Food	Seasonal habitat extent [6,7,8]	>80% of the winter habitat
	Sagebrush canopy cover above snow [6,7,8]	>10%
	Sagebrush height above snow [6,7,8]	>10 inches [14]

[1]Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the amount of days cannot be shortened or lengthened by the local unit.
[2] Doherty, K. 2008. *Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts*. University of Montana. Missoula, MT.
[3] Holloran and Anderson. 2005. *Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats*. Condor 107:742-752.
[4] Buffer distance may be changed only if 3 out of 5 years of telemetry studies indicate the 6.2 miles is not appropriate.
[5] 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. *Saving sage-grouse from trees*: A proactive solution to reducing a key threat to a candidate species. Biological Conservation 167: 233-241.
[6] Stiver, S.J., E.T. Rinkes, D.E. Naugle, P.D. Makela, D.A. Nance, and J.W. Karl, eds. 2015. Sage-Grouse Habitat Assessment Framework: A Multiscale Assessment Tool. Technical Reference 6710-1. Bureau of Land Management and Western Association of Fish and Wildlife Agencies, Denver, Colorado.
[7] Connelly, J. M. A. Schroweder, A.R. Sands, and C.E. Braun.2000. Guidelines to manage sage-grouse populations and their habitats. Wildlife Society Bulletin 28 (4): 967-985.
[8] Connelly, J. K. Reese, and M. Schroder. 2003. *Monitoring of Greater sage-grouse habitats and populations*. Station Bulletin 80, Contribution 979. University of Idaho, College of Natural Resources Experiment Station. Moscow, ID.
[9] 10–12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (HAF 2014).
[10] ≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (HAF 2014).
[11] Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (HAF 2014).

ATTRIBUTE	INDICATORS	DESIRED CONDTION
[12] Existing land management plan desired conditions for riparian areas/wet meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting greater sage-grouse habitat requirements. [13] Preferred forbs are listed in HAF Table III-2 (HAF 2014). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred in Table III-2. [14] The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy, sagebrush stands.		

GRSG-GEN-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project analysis area, regardless of ownership, and the new use will not cause exceedance of the 3% cap (FEIS Appendix – Disturbance Cap Guidance).

GRSG-GEN-ST-002-Standard - In priority, sagebrush focal, and important management areas, only allow new authorized land uses if the residual impacts to greater sage-grouse or their habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, which will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compens atory mitigation, as addressed in the Mitigation Framework (FEIS Appendix).

GRSG-GEN-GL-001-Guideline - During lekking (March 1 to April 30) surface disturbing and disruptive activities, including noise at 10dB above ambient (not to exceed 20-24 dB) to lekking birds should be restricted from 6 pm to 9 am at a distance of 3.1 miles from the perimeter of an occupied lek.

GRSG-GEN-GL-002-Guideline – During breeding and nesting (March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be restricted.

GRSG-GEN-GL-003-Guideline - When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired habitat conditions displayed in table 1.

GRSG- GEN-GL-004-Guideline – Development of tall structures within 2.0 miles from the perimeter of occupied leks, as determined by local conditions (such as vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities avian predators or by decreasing the use of an area, should be restricted in nesting habitat.

Adaptive Management

GRSG-AM-ST-001-Standard – If a hard trigger is identified, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. The hard trigger response will be an entire restrictive alternative, or one or more appropriate components of a more restrictive alternative, such as the immediate cessation of authorizing land use authorizations. An interagency team will conduct an assessment to determine the causal factor(s) and recommend corrective strategies (Appendix Z - Adaptive Management Guidance and Sideboards).

GRSG-AM-ST-002-Standard – If a soft trigger is identified, apply more conservative or restrictive implementation measures (e.g., extending seasonal restrictions for seasonal surface disturbing activities, modifying seasons of use for livestock grazing, and applying additional restrictions on discretionary activities) for the specific causal factor in the decline of populations and/or habitats, with consideration of local knowledge and conditions (FEIS Appendix- Adaptive Management Guidance and Sideboards).

Lands and Realty

Special Use Authorizations (non recreation)

GRSG-LR-SUA-O-001-Objective - In priority and important habitat management areas and sagebrush focal areas, retrofit existing tall structures (e.g., power poles, cellular towers) with perch deterrents or other anti-perching devices within 2 years of signing the Record of Decision.

GRSG-LR-SUA-ST-001-Standard – In priority habitat management areas and sagebrush focal areas, restrict issuance of new lands special use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, hydropower, distribution lines, and cellular towers. Exceptions must be limited and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to greater sage-grouse will be avoided by the exception.

GRSG-LR-SUA-ST-002-Standard – In general habitat management areas, new lands special use authorizations may be authorized for infrastructure, such as high-voltage transmission lines and major pipelines, if they can be located within existing designated corridors and the authorization includes stipulations to protect greater sage-grouse and their habitats.

GRSG-LR-SUA-ST-003-Standard – In priority and important habitat management areas and sagebrush focal areas, do not authorize temporary lands special uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (greater than 5 years) negative impact on greater sage-grouse or their habitats.

GRSG-LR-SUA-ST-004-Standard – In priority, important, and general habitat management areas and sagebrush focal areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers).

GRSG-LR-SUA-ST-005-Standard – In priority, important, and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors unless an alternate route would benefit greater sage-grouse or their habitats.

GRSG-LR-SUA-ST-006-Standard - In priority, important, and general habitat management areas and sagebrush focal areas, when a lands special use authorization is revoked or terminated and no future use is contemplated the authorization holder must remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).

GRSG-LR-SUA-ST-007-Standard - In priority, important, and general habitat management areas and sagebrush focal areas, if the potential long-term (greater than 5 years) impacts of mitigation (e.g., relocation or burying) to greater sage-grouse or their habitats are greater than the potential impacts from new lands special use authorizations, do not pursue the mitigation. If mitigation is not feasible or would result in short-term (less than 5 years) or long-term impacts, incorporate additional terms and conditions in the special use authorization for protection of greater sage-grouse or their habitats

GRSG-LR-SUA-ST-008-Standard – In priority, important, and general habitat management areas and sagebrush focal areas, co-locate new infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers) with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts to greater sage-grouse or their habitats. When co-location of new infrastructure is not accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas. Consider new communication tower sites where necessary for public safety.

GRSG-LR-SUA-GL-001-Guideline – In priority and sagebrush focal management areas, outside of existing designated corridors, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to greater sage-grouse and its habitat are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines.

Land Ownership Adjustments

GRSG-LR-LOA-ST-001-Standard – In priority, important, and general habitat management areas and sagebrush focal areas, prohibit land ownership adjustments unless the action results in a net conservation gain to greater sage-grouse or it will not directly or indirectly adversely impact greater sage-grouse conservation.

GRSG-LR-LOA-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas with minority federal ownership, consider land ownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitats.

Land Withdrawal

GRSG-LR-LW-GL-001-Guideline – In priority and important habitat management areas and sagebrush focal areas, utilize land withdrawals as a tool, where appropriate and subject to valid existing rights, to prevent activities that will be detrimental to greater sage-grouse or their habitats.

Wind and Solar

GRSG-WS-ST-001-Standard – In priority and sagebrush focal management areas, prohibit new solar and wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).

GRSG-WS-GL-001-Guideline – In important habitat management areas, new wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to

existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect greater sage-grouse and their habitats.

Greater Sage-grouse Habitat

GRSG-GRSGH-O-001-Objective – Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species in the number of acres shown in table 2.

Table 2. Treatment Acres per Decade.[1]

ACRES			
FOREST	**MECHANICAL**[2]	**PRESCRIBED FIRE**[3]	**GRASS RESTORATION**[4]
Boise	1000	2000	0
Caribou-Targhee-Curlew	3000	2000	3000
Salmon-Challis	5000	1000	0
Sawtooth	7000	1000	7000
Beaverhead-Deerlodge	0	0	0

[1]These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of ten years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the ten-year simulation using stochastic, not predictive, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.
[2]Removal of conifers that have invaded sagebrush including phase one juniper that is 10% or less and reducing sagebrush cover in areas over 30% canopy cover
[3]Acres are those that are greater than 30% sagebrush canopy cover and/or invaded by 10% or greater conifer.
[4]Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.

GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move towards desired conditions (table 1) and incorporate the concepts outlined in FEIS Appendix - *Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approac*h.

GRSG-GRSGH-GL-001-Guideline – Sagebrush removal in greater sage-grouse breeding and nesting and wintering habitats should be restricted unless necessary to support attainment of desired habitat conditions (table 1).

GRSG-GRSGH-GL-002-Guideline – When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (old growth relative to the site or more than 100 years old).

GRSG-GRSGH-GL-003-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, actions and authorizations should be designed to limit the spread and effect of non-native plant species.

GRSG-GRSGH-GL-004-Guideline - To facilitate safe and effective fire management actions, in priority, important, and general habitat management areas and sagebrush focal areas, fuels treatments should be designed to reduce the spread and intensity of wildfire in high-risk areas (i.e., areas of increased potential for ignition and in areas where there is a potential for wildfire that would be difficult for suppression resources to contain and control).

GRSG-GRSGH-GL-005-Guideline - In priority, important, and general habitat management areas and sagebrush focal areas, native plant species should be used, when possible, to restore, enhance, or maintain desired habitat conditions (table 1).

GRSG-GRSGH-GL-006-Guideline – In priority and important habitat management areas and sagebrush focal areas, vegetation treatment projects should only be conducted if they restore, enhance, or maintain desired habitat conditions (table 1).

Livestock Grazing

GRSG-LG-DC-001-Desired Condition – In priority and important habitat management areas and sagebrush focal areas, livestock grazing is managed to ensure adequate nesting cover and does not conflict with the attainment of other vegetative attributes (table 1).

GRSG-LG-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, prohibit construction of water developments unless beneficial to greater sage-grouse habitat.

GRSG-LG-GL-001-Guideline - Grazing guidelines should be applied in each of the seasonal habitats in table 3. If values in table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site capability analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in table 1 consistent with the ecological site capability. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.

Table 3. Grazing Guidelines for Greater Sage-grouse Seasonal Habitat.

Seasonal Habitat	Grazing Guidelines
Breeding and nesting [1] within 6.2 miles of occupied leks	Perennial grass height: [2] When grazing occurs during breeding and nesting season (March 1 to June 15) manage for upland perennial grass height of 7 inches [3,4,5] When grazing occurs post breeding and nesting season (June 16 to October 30) manage for 4 inches [4,5,6] of perennial grass height.
Brood rearing and summer [1]	Retain an average stubble height of 4 inches for herbaceous riparian/mesic meadow vegetation [7,8]
Winter [1]	≤35% use of sagebrush

[1] For descriptions of Seasonal Habitat and Seasonal Periods of greater sage-grouse see table 1.
[2] Grass heights only apply in breeding and nesting habitat with ≥10% sagebrush cover to support nesting.
[3] Holloran et al. 2005. *Greater sage-grouse nesting habitat selection and success in Wyoming*.
[4] Average droop height, assuming current vegetation composition has the capability to achieve these heights. Heights will be measured at the end of the nesting period (Connelly, 2000).
[5] Hagen C., J.W. Connelly, and M.A. Schroeder. 2007. *A meta-analysis of greater sage-grouse Centrocercus urophasianus nesting and brood-rearing habitats*. Wildlife Biology 13(1): 42-50.
[6] Stubble height to be measured at the end of the growing season.
[7] Crawford et al. 2004. Ecology and Management of sage-grouse and sage-grouse habitat. "In riparian brood-rearing habitat, sage-grouse prefer the lower vegetation (5-15 cm (2-6 in) vs. 30-50 cm (12-20 in); Oakleaf 1971, Neel 1980, Klebenow 1982, Evans 1986) and succulent forb growth stimulated by moderate livestock grazing (Neel 1980, Evans 1986). "Moderate use equates to a 10-cm residual stubble height for most grasses and sedges."
[8] Stubble height to be measured in the meadow areas used by greater sage-grouse for brood-rearing (not on the hydric greenline).

GRSG-LG-GL-002-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, consider closure of grazing allotments, pastures, or portions of pastures, or

managing the allotment as a forage reserve as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired habitat conditions (table 1).

GRSG-LG-GL-003-Guideline – Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (March 1 to April 30) should be restricted.

GRSG-LG-GL-004-Guideline – During breeding and nesting season (March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified, existing trails should be used, and stopovers on active leks should be restricted.

GRSG-LG-GL-005-Guideline – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).

GRSG-LG-GL-006-Guideline – New permanent livestock facilities (e.g., windmills, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.

Fire Management

GRSG-FM-ST-001-Standard – In priority, important, and general habitat management areas and sagebrush focal areas, do not use prescribed fire, except for pile burning, in 12-inch or less precipitation zones unless necessary to facilitate site preparation for restoration of greater sage-grouse habitat consistent with desired conditions in table 1.

GRSG-FM-ST-002-Standard – In priority, sagebrush focal, and general management areas, if it is necessary to use prescribed fire to facilitate site preparation for restoration of greater sage-grouse habitat consistent with desired conditions in table 1, the associated NEPA analysis must identify how greater sage-grouse desired conditions would be met, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.

GRSG-FM-GL-001-Guideline – In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire.

GRSG-FM-GL-002-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistant non-native to meet resource objectives.

GRSG-FM-GL-003-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, treatments should be designed to restore, enhance, or maintain greater sage-grouse habitat.

GRSG-FM-GL-004-Guideline – Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority, sagebrush focal, and general habitat management areas should be restricted.

GRSG-FM-GL-005-Guideline - In priority, important, and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted whenever safe and practical to do so, as determined by fireline leadership, incident commanders, etc.

GRSG-FM-GL-006-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, burnout operation areas should be avoided by constructing direct fire lines, whenever safe and practical to do so, to improve suppression effectiveness and minimize loss of existing sagebrush habitat as determined by fireline leadership, incident commanders, etc.

GRSG-FM-GL-007-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).

GRSG-FM-GL-008-Guideline - In priority, important, and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated into fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.

GRSG-FM-GL-009-Guideline - In priority, important, and general habitat management areas and sagebrush focal areas, all fire associated vehicles and equipment should be power-washed before entering and exiting the area to minimize the introduction of undesirable invasive plant species.

GRSG-FM-GL-010-Guideline - Unit-specific greater sage-grouse fire management toolboxes containing maps, lists, contact information for qualified resource advisors, local guidance, and relevant information should be developed.

GRSG-FM-GL-011-Guideline – Localized maps of priority, important, and general habitat management areas and sagebrush focal areas should be provided to dispatch offices and extended attack incident commanders to use when prioritizing wildfire suppression resources and designing suppression tactics.

GRSG-FM-GL-012-Guideline - In or near priority, important, and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.

GRSG-FM-GL-013-Guideline – On critical fire weather days, available fire suppression resources should be pre-positioned to optimize a quick and efficient response into priority, important, and general habitat management areas and sagebrush focal areas.

GRSG-FM-GL-014-Guideline - During periods of multiple fires, line officers should be involved in setting priorities to help protect priority, important, and general habitat management areas and sagebrush focal areas.

GRSG-FM-GL-015-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage.

GRSG-FM-GL-016-Guideline – In priority, important and general habitat management areas, to minimize sagebrush loss, mop-up should be conducted where the burned areas adjoin unburned islands, doglegs, or other habitat features, as safety and available resources allows.

Wild Horse and Burro

GRSG-HB-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, wild horse and burro populations should be managed within established appropriate management levels to restore, enhance, or maintain greater sage-grouse desired habitat conditions (table 1).

GRSG-HB-GL-002-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, appropriate management levels should be adjusted if greater sage-grouse management standards are not met due to degradation that can be at least partially attributed to wild horse or burro populations.

Recreation

GRSG-R-DC-001-Desired Condition – In priority, important, and general habitat management areas and sagebrush focal areas, existing and new recreation special use authorizations and expansion of special use authorizations restrict effects to greater sage-grouse and their habitats.

GRSG-R-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (greater than 5 years) negative impacts on greater sage-grouse or their habitats.

GRSG-R-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.

GRSG-R-GL-002-Guideline – In priority, sagebrush focal, and important habitat management area, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to greater sage-grouse and/or their habitats or the development is required for visitor safety.

Roads/Transportation

GRSG-RT-DC-001-Desired Condition - In priority, important, and general habitat management areas and sagebrush focal areas, within the travel management system, greater sage-grouse experience minimal

disturbance during breeding and nesting (March 1 to June 15) and wintering periods (November 1 to February 28).

GRSG-RT-ST-001-Standard – In priority, important, and general habitat management areas and sagebrush focal areas, prohibit new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts

GRSG-RT-ST-002-Standard – Prohibit road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (March 1 to April 30) from 6 pm to 9 am.

GRSG-RT-ST-003-Standard – In priority and important habitat management areas and sagebrush focal areas, prohibit public access on temporary energy development roads, unless consistent with all other terms and conditions included in the land use management plan.

GRSG-RT-GL-001-Guideline – In priority and important habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with greater sage-grouse.

GRSG-RT-GL-002-Guideline – In priority and important habitat management areas and sagebrush focal areas, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so.

GRSG-RT-GL-003-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (table 1).

GRSG-RT-GL-004-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road use permits when dust has the potential to impact greater sage-grouse.

GRSG-RT-GL-005-Guideline - In priority, important, and general habitat management areas and sagebrush focal areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle or human-caused wildfires and the spread of invasive plants.

Minerals

Fluid Minerals – Unleased

GRSG-M-FMUL-ST-001-Standard - In priority and important habitat management areas and sagebrush focal areas, any new oil and gas leases must include a no surface occupancy stipulation. There will be no waivers, exceptions, or modifications. An exception could be granted by the authorized officer with

unanimous concurrence from a team of agency greater sage-grouse experts from the Fish and Wildlife Service, Forest Service, and State wildlife agency if:

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

GRSG-M-FMUL-ST-002-Standard – In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect greater sage-grouse and their habitat.

GRSG-M-FMUL-ST-003-Standard – In sagebrush focal habitat management areas, there will be no surface occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.

GRSG-M-FMUL-ST-004-Standard – In priority, sagebrush focal, and general management areas, when analyzing leasing of fluid mineral resources, prioritize development in non-habitat areas first and then in the least suitable habitat for greater sage-grouse, subject to valid existing rights, law, and regulations.

Fluid Minerals – Leased

GRSG-M-FML-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.

GRSG-M-FML-ST-002-Standard – In priority and important habitat management areas and sagebrush focal areas, when facilities are no longer needed or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in table 1.

GRSG-M-FML-ST-003-Standard – In general habitat management areas, authorize new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect greater sage-grouse and their habitats, consistent with the terms and conditions of the permit.

GRSG-M-FML-ST-004-Standard – Locate compressor stations on portions of a lease that are non-habitat and are not used by greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on sage-grouse or their habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise.

GRSG-M-FML-ST-005-Standard – In priority, sagebrush focal, and general management areas, when authorizing development of fluid mineral resources, prioritize development in non-habitat areas first and then in the least suitable habitat for greater sage-grouse, subject to valid existing rights, law, and regulations

GRSG-M-FML-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. At the time of approval of the Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.

GRSG-M-FML-GL-002-Guideline – On Federal leases in priority and important habitat management areas and sagebrush focal areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.

GRSG-M-FML-GL-003-Guideline - In priority, sagebrush focal, and general management areas, where the federal government owns the surface and the mineral estate is in non-federal ownership, coordinate with the mineral estate owner/lessee to apply appropriate stipulations, conditions of approval, conservation measures and required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.

Fluid Minerals – Operations

GRSG-M-FMO-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, prohibit employee camps.

GRSG-M-FMO-ST-002-Standard – In priority and important habitat management areas and sagebrush focal areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.

GRSG-M-FMO-GL-001-Guideline – In priority and important habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.

GRSG-M-FMO-GL-002-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, during drilling operations, soil compaction should be reduced and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.

GRSG-M-FMO-GL-003-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include:

- Increase the depth of ponds to accommodate a greater volume of water than is discharged.
- Build steep shorelines (greater than 2 feet) to reduce shallow water and aquatic vegetation around the perimeter of impoundments to reduce breeding habitat for mosquitoes.
- Maintain the water level below that of rooted aquatic and upland vegetation. Restrict flooding terrestrial vegetation in flat terrain or low-lying areas.
- Construct dams or impoundments that restrict down-slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.

- Line the channel where discharge water flows into the pond with crushed rock or use a horizontal pipe to discharge inflow directly into existing open water.
- Line the overflow spillway with crushed rock and construct the spillway with steep sides.
- Fence pond sites to restrict access by livestock and other wild ungulates.
- Remove or re-inject produced water.
- Treat waters with larvicides to reduce mosquito production where water occurs on the surface.
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- **GRSG-M-FMO-GL-004-Guideline** – In priority, important, and general habitat management areas and sagebrush focal areas to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

Coal Mines - Unleased

GRSG-M-CMUL-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, prohibit surface disturbances (e.g., appurtenant facilities) for new underground coalmines.

Coal Mines – Leased

GRSG-M-CML-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, do not authorize new appurtenant facilities for existing underground mines unless no technically feasible alternative exists. If new appurtenant facilities associated with existing mine leases cannot be located outside of priority and important habitat management areas and sagebrush focal areas, co-locate them with any existing disturbed areas, if possible. If co-location is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements, as identified by MSHA mine-plan approval process, and locate the facilities in an area least harmful to greater sage-grouse habitats based on vegetation, topography, or other habitat features.

GRSG-M-CML-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to protect and reduce threats to greater sage-grouse and their habitats to conserve, enhance, and restore habitat for long-term viability.

Locatable Minerals

GRSG-M-LM-ST-001-Standard – In priority and important habitat management areas and sagebrush focal areas, approve Plans of Operation with mitigation to protect greater sage-grouse and their habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

GRSG-M-LM-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas to keep habitat disturbance at a minimum, a phased development approach should be applied to operations consistent with the rights granted under the General Mining Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

GRSG-M-LM-GL-002-Guideline - In priority, important, and general habitat management areas and sagebrush focal areas, abandoned mine sites should be closed or mitigated, subject to valid or existing rights, to reduce predation of greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.

Non-energy Leasable Minerals

GRSG-M-NEL-GL-001-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, at the time of issuance of prospecting permits, exploration licenses and leases, or readjustment of leases, the Forest Service should provide recommendations to the Bureau of Land Management for the protection of greater sage-grouse and their habitats.

GRSG-M-NEL-GL-002-Guideline - In priority, sagebrush focal, and general habitat management areas, the Forest Service should recommend to the Bureau of Land Management that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to greater sage-grouse and their habitat

Mineral Materials

GRSG-M-MM-ST-001-Standard – In priority and sagebrush focal management areas, prohibit new mineral material disposal or development.

GRSG-M-MM-ST-002-Standard – In priority and important habitat management areas and sagebrush focal areas, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to April 30 between 6 pm and 9 am within 2 miles from the perimeter of occupied leks, if doing so is within the Biologically Significant Unit and does not exceed the disturbance cap.

GRSG-M-MM-ST-003-Standard - In priority, important, and general habitat management areas and sagebrush focal areas, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to restore or maintain desired habitat conditions (table 1).

Glossary of Terms as Used in this Plan

Active lek - Any lek that has been attended by male greater sage-grouse during the most recent strutting season.

Adjacent – Installation of new linear improvements parallel, near, or next to existing linear improvements.

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

Allotment management plan - A written program of livestock grazing management, including supportive measures, if required, designed to attain specific, multiple-use management goals in a grazing allotment. The Plan is prepared in consultation with the permittee(s), lessee(s), and other affected interests. Livestock grazing is considered in relation to other uses of the range and to renewable resources, such as watershed, vegetation, and wildlife. The Plan establishes seasons of use, the number of livestock to be permitted, the range improvements needed, and the grazing system.

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.

Anthropogenic disturbances – Human-created features including 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, grazing-related facilities and structures, and mines.

Appurtenant (minerals) - A piece of equipment (e.g., pump jack, separator, storage tank, compressor station, metering equipment) necessary for production.

Authorized uses - An activity (i.e., resource use) occurring on the public lands that is either explicitly or implicitly recognized and legalized by law or regulation. The term may refer to activities occurring on the public lands for which the Forest Service has issued a formal authorization document (e.g., livestock grazing permit, special use authorization, approved plan of operation, etc.). Formal authorized uses can involve both commercial and 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 Forest Service authorization.

Biologically significant unit - A geographical/spatial area within greater sage-grouse 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.

The biologically significant unit is defined as:

- Idaho: All of the modeled nesting and delineated winter habitat based on 2012 data, within priority and/or important habitat management areas within a Conservation Area.
- Montana: All of the priority and sagebrush focal management areas.

Co-locate - Installation of new linear improvements in or on existing linear improvements.

Communication tower site - Sites that include broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast translator) and non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, passive reflector).

Compensatory mitigation – Compensating for the residual impact of a certain action or parts of an action by replacing or providing substitute resources or environments(s).

Compensatory mitigation projects – The restoration, creation, enhancement, and/or preservation of impacted resources, such as on-the-ground actions to improve and/or protect habitats (e.g. chemical vegetation treatments, land acquisitions, conservation easements)

Conservation area - Areas determined to be necessary to monitor population objectives to evaluate the disturbance density and adaptive regulatory triggers and engage adaptive management responses. Conservation Areas may contain priority, important, and general habitat management areas and sagebrush focal areas. Specifically, these areas are Mountain Valleys, Desert, West Owyhee, and Southern and Southwestern Montana.

Disruptive activities - Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to greater sage-grouse populations occurring at a specific location and/or time. Actions that alter behavior or cause the displacement of individuals such that reproductive success is negatively affected, or an individual's physiological ability to cope with environmental stress is compromised.

Distribution line - An electrical utility line with a capacity of less than 100kV or a natural gas, hydrogen, or water pipeline less than 24” in diameter.

Diversity (species) – The number, distribution, and geographic ranges of plant and animal species including focal species and species-at-risk.

Durable (protective and ecological) - The administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site, and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist.

Enhance - The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the habitat (e.g., road commissioning) to meet greater sage-grouse objectives.

Exception (minerals) - A case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply. The authorized officer

(any employee of the Forest Service to whom has been delegated the authority to perform the duties described in the applicable Forest Service manual or handbook) may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of greater sage-grouse.

Feasible – see technically/economically feasible.

Fluid minerals - Oil, gas, coal bed natural gas, and geothermal resources.

General habitat management areas - Areas identified by the Forest Service, in coordination with respective state wildlife agencies, as those areas outside of priority and sagebrush focal management areas and occupied by greater sage-grouse seasonally or year-round.

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.

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.

Hard triggers - Thresholds indicating that immediate action is necessary to stop a severe deviation from sage grouse conservation objectives set forth in the land and resources management plan.

High-voltage transmission line – An electrical power line that is 100 kilovolts or larger.

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

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

Important habitat management areas - High value habitat and populations that provide a management buffer for the priority and sagebrush focal management areas and connect patches of priority and sagebrush focal management areas. The areas encompass areas of generally moderate to high conservation value habitat and/or populations and, in some conservation areas, include areas beyond those identified by USFWS as necessary to maintain redundant, representative, and resilient populations. The areas are typically adjacent to priority and sagebrush focal management areas but generally reflect somewhat lower greater sage-grouse population status and/or reduced habitat value due to disturbance, habitat fragmentation, or other factors. No important habitat management areas are designated within the southwestern Montana conservation area.

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

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

Invasive species (invasives 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.

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.

Lease – A type of special use authorization (usually granted for uses other than linear rights-of-way) that is used when substantial capital investment is required and when conveyance of a conditional and transferable interest in National Forest System lands is necessary or desirable to serve or facilitate authorized long-term uses, and that may be revocable and compensable according to its terms.

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

Lessee - A person or entity authorized to use and occupy National Forest System land under a specific instrument identified as a lease. Forest special use leases are limited to authorize certain wireless communication uses. Leases are also used for certain mineral leasable activities.

Lek - A courtship display area attended by male greater sage-grouse in or adjacent to sagebrush dominated habitat. For management purposes, leks with less than five males observed strutting should be confirmed active for 2 years to meet the definition of a lek (Connelly et al 2000, Connelly et al. 2003, 2004).

Locatable minerals - Mineral disposable under the General Mining Act of 1872, as amended, that was not excepted in later legislation. They include hardrock, placer, industrial minerals, and uncommon varieties of rock found on public domain lands.

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)).

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 materials - Common varieties of mineral materials such as soil, sand and gravel, stone, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended.

Minimization mitigation - Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

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) - A fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

Native plant species - 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.

No surface occupancy (NSO) - Use or occupancy of the land surface for fluid mineral exploration or development prohibited to protect identified resource values. The NSO stipulation includes stipulations that may be worded as “No Surface Use/Occupancy,” “No Surface Disturbance,” “Conditional NSO,” or “Surface Disturbance or Surface Occupancy Restriction (by location).”

Occupied Lek - A lek that has been active during at least one strutting season within the prior 10 years.

Opportunity (allotment closure) - A suitable or favorable time to abolish or close an allotment because of nonuse violations, term permit waivers where the permit is waived back to the government, resource protection, or permit actions resulting in cancellation of the permit.

Permit — A special use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System land or facilities for specified purposes, and which is both revocable and terminable.

Persistent woodlands – Long-lived pinyon-juniper woodlands that typically have sparse understories and occur on poor substrates in the assessment area.

Plan of Operation - A Plan of Operation is required for all mining activity conducted under the General Mining Act of 1872, as amended, if the proposed operations will likely cause significant disturbance of surface resources. The Plan of Operation describes the type of operations proposed and how they would

be conducted, the type and standard of existing and proposed roads or access routes, the means of transportation to be used, the period during which the proposed activity will take place, and measures to be taken to meet the requirements for environmental protection (36 CR 228.4).

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.

Priority management areas - Areas identified by the Forest Service, in coordination with respective state wildlife agencies, as having the highest conservation value to maintaining sustainable greater sage-grouse populations. These areas include breeding, late brood-rearing and winter concentration areas.

Prohibit – To forbid (something) by law, rule, or other authority; no authorizations will be issued.

Reclamation plans – Plans that guide the suite of actions taken within an area affected by human disturbance, the outcome of which is intended to change the condition of the disturbed area to meet pre-determined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

Residual impacts - Impacts from an implementation-level decision that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

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 greater 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.

Restrict – To put a limit on; keep under control; to limit someone's actions or movement, or to limit the amount, size, etc., of something.

Right-of-way - Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under or through such land.

Road or trail - A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

Sagebrush focal areas – A subset of priority greater sage-grouse habitat, as identified by the U.S. Fish and Wildlife Service, which are considered most vital to the species persistence and therefore, have the strongest levels of protection.

Soft triggers - An intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses.

Special use authorization - A written permit, term permit, lease, or easement that authorizes use or occupancy of National Forest System lands and specifies the terms and conditions under which the use or occupancy may occur.

Stipulation (general) - A term or condition in an agreement, contract, or written authorization.

Stipulation (oil and gas) - A provision that modifies standard oil and gas lease terms and conditions in order to protect other resource values or land uses and is attached to and made a part of the lease.

Soft trigger - An intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses.

Surface disturbing and disruptive activities - Actions that alter the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other public land values. Examples of surface disturbing activities may include operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; maintenance activities, and several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be either restricted or prohibited.

Surface use - Activities that may be present on the surface or near-surface (e.g., pipelines) of public lands. When administered as a use restriction (e.g., no surface occupancy), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study exclosure, etc.), and/or administrative sites (e.g., government ware-yard, etc.) where only authorized, agency personnel are admitted.

Tall structures - A wide array of infrastructures (e.g., poles that support lights, telephone and electrical distribution, communication towers, meteorological towers, high-tension transmission towers, and wind turbines) that have the potential to disrupt lekking or nesting birds by creating new perching/nesting opportunities and/or decreasing the use of an area. A determination as to whether something is considered a tall structure would be based on local conditions such as vegetation or topography.

Technically/economically feasible - Actions that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. It is the Forest Service's sole responsibility to determine what actions are technically and economically feasible. The Forest Service will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant's costs and profit.

Temporary special use permit – A type of permit that terminates within 1 year or less after the approval date. All other provisions applicable to permits apply fully to temporary permits. Temporary special use permits are issued for seasonal or short-duration uses involving minimal improvement and investment.

Term permit – An authorization to occupy and use National Forest System land, other than rights-of-way for a specified period that is both revocable and compensable according to its terms.

Timely - The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun.

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.

Travel management system – Planned and authorized roads, trails, and areas for motor vehicle use on National Forest System lands that are managed in a controlled, sustained manner.

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.

Valid existing rights - Documented, legal rights, or interests in the land, which allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted or otherwise authorized under various statutes of law.

Vegetation treatments - Management practices that are designed to maintain current vegetation structure or change the vegetation structure to a different stage of development. Vegetation treatment methods may include managed fire, prescribed fire, chemical, mechanical, and seeding.

Viability - For purposes of the National Forest Management Act 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.

Waiver (oil and gas) - Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

West Nile virus - A virus that is found in temperate and tropical regions of the world and most commonly transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in humans and can be lethal to birds, including greater sage-grouse.

Wildfire suppression - An appropriate management response to wildfire, or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

Appendix F – Required Design Features

The following required design features (RDFs) are included for consideration and use based upon review of current science and effects analysis (circa 2014) (Table A-1). These may be reviewed during project evaluation and updated through plan maintenance as new information and updated scientific findings become available.

The table is organized by program area grouping the RDFs most relevant to that program. All relevant RDFs, regardless of which program they are grouped under, should be considered during project evaluation and applicable RDFs should be applied during implementation, with the exception that they would be implemented as best management practices for locatable minerals activities, to the extent allowable by law. The table identifies the specific measure (numbered) and its appropriate application – as an RDF – required all the time everywhere; or as an RDF required when the applicable resources are present. In some cases the RDFs may not all be appropriate based on local conditions and would be assessed in the appropriate site specific NEPA analysis, these all should be considered and where determined to be beneficial to achieving GRSG habitat objectives included as part of the site specific project. In other cases additional project design criteria or best management practices could be incorporated into project implementation to address site specific concerns not fully addressed by the RDFs described here.

Table A-1. Required Design Features

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
General		
Solicit and consider expertise and ideas from local landowners, working groups, and other federal, state, county, and private organizations during development of projects.		X
Wildfire Suppression		
Compile district-level information into state-wide sage-grouse tool boxes. Tool boxes will contain maps, listing of resource advisors, contact information, local guidance, and other relevant information for each district, which will be aggregated into a state-wide document.	X	
Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics. The Fire Planning and Fuels Management Division (FA-600) hosts a webpage containing up-to-date maps, instruction memoranda, conservation measures, BMPs, and spatial data specific to fire operations and fuels management/sage-grouse interactions. These resources can be accessed at: http://web.blm.gov/internal/fire/fpfm/sg/index.html . Additional BLM sage-grouse information can be found at: http://www.blm.gov/wo/st/en/prog/more/fish__wildlife_and/sage-	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
grouse-conservation.html .		
Assign a resource advisor with sage-grouse expertise, or who has access to sage-grouse expertise, to all extended attack fires in or near sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals. Involve state wildlife agency expertise in fire operations through: instructing resource advisors during preseason trainings; qualification as resource advisors; coordination with resource advisors during fire incidents; contributing to incident planning with information such as habitat features or other key data useful in fire decision making	X	
At the onset of an emerging wildland fire the Agency Administrators and Fire Management Officers will an engage a local Resource Advisor to assess sage-grouse habitat that may be affected by the fire or suppression activities.	X	
If complexity of the wildland fire warrants the activation of an Incident Management Team, locally refined information regarding important sage-grouse habitat will be relayed during in brief and continually throughout the incident.		X
On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.		X
As appropriate, utilize existing fuel breaks, such as roads or discrete changes in fuel type, as control lines in order to minimize fire spread.		X
During periods of multiple fires, ensure line officers are involved in setting priorities.	X	
To the extent possible, locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, heli-bases, etc.) in areas where physical disturbance to sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails or in other areas where there is existing disturbance or minimal sagebrush cover.	X	
Power-wash all firefighting vehicles, to the extent possible, including engines, water tenders, personnel vehicles, and all-terrain vehicles (ATV) prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.	X	
Minimize cross-country vehicle travel during fire operations in sage-grouse habitat.	X	
Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.	X	
Utilize retardant, mechanized equipment, and other available	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
resources to minimize burned acreage during initial attack.		
As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.		X
Adequately document fire operation activities in sage-grouse habitat for potential follow-up coordination activities.	X	
Fuels Management Unless otherwise specified as part of the land use plan consider the full array of fuels management treatment types (prescribed fire, mechanical, chemical and biological) when implementing the following RDFs.		
Where applicable, design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage-grouse habitat.	X	
Provide training to fuels treatment personnel on sage-grouse biology, habitat requirements, and identification of areas utilized locally.	X	
Use burning prescriptions which minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of annual grass invasion).	X	
Ensure proposed sagebrush treatments are planned with full interdisciplinary input pursuant to NEPA and coordination with state fish and wildlife agencies, and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.	X	
Where appropriate, ensure that treatments are configured in a manner that promotes use by sage-grouse.	X	
Where applicable, incorporate roads and natural fuel breaks into fuel break design.		X
Power-wash all vehicles and equipment involved in fuels management activities, prior to entering the area, to minimize the introduction of undesirable and/or invasive plant species.	X	
Design vegetation treatments in areas of high fire frequency which facilitate firefighter safety, reduce the potential acres burned, and reduce the fire risk to sage-grouse habitat. Additionally, develop maps for sage-grouse habitat which spatially display existing fuels treatments that can be used to assist suppression activities.	X	
Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands, first to sites which are adjacent to or surrounded by Priority Habitat Management Areas or that reestablish continuity between Priority Habitat Management Areas. Annual grasslands are a second priority for restoration when the sites are not adjacent to Priority Habitat Management Areas, but within Important Habitat Management Areas. The third priority for annual grassland habitat restoration projects are sites within General	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
Habitat Management Areas. The intent is to focus restoration outward from existing, intact habitat.		
As funding and logistics permit, restore annual grasslands to a species composition characterized by perennial grasses, forbs, and shrubs or one of that referenced in land use planning documentation.	X	
Emphasize the use of native plant species, especially those from a warmer area of the species' current range, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.	X	
Remove standing and encroaching trees within at least 110 yards of occupied sage-grouse leks and other habitats (e.g., nesting, wintering and brood rearing) to reduce the availability of perch sites for avian predators, as resources permit.		X
Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.		X
Reduce the risk of vehicle- or human-caused wildfires and the spread of invasive species by installing fuel breaks and/or planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way.		X
Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, etc.) to aid in controlling wildfire, should wildfire occur near PHMA or priority restoration areas (such as where investments in restoration have already been made).	X	
Design treatments to provide a break in fuel continuity in large, at-risk, expanses of continuous sagebrush. Use local knowledge of fire occurrence, spread patterns, and habitat values at risk to determine the proper placement and size of the fuel break.	X	
Use existing agreements with local, county, and state road departments to improve and maintain existing fuel breaks during routine road maintenance. Examples include: blading, mowing, disking, grading, and spraying roadside vegetation.		X
Form partnerships with linear right-of-way holders to maintain fuel breaks, which reduce fuel continuity and serve to protect at-risk landscapes.		X
Use existing NEPA documentation and authorities, where possible, when conducting road right-of-way maintenance. In many instances, existing authorizations for roads or linear rights-of-way contain provisions for maintenance activities that could be implemented and incorporated into a vegetation and habitat protection strategy without requiring additional NEPA analysis. Document this with a Determination of NEPA Adequacy (DNA).		X
Enter into agreements with road departments which may help fund the construction and maintenance of fuel breaks adjacent to roads, as funding permits.		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
Spatially depict the locations of existing and planned fuel breaks in a landscape fuel break map and label each vegetation polygon for reference. Offices will make these maps available to suppression resources for use in fire operations.	X	
Vegetation Treatment		
Utilize available plant species based on their adaptation to the site when developing seed mixes. (Lambert 2005; VegSpec).	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
Utilizing the warmer component of a species' current range when selecting native species for restoration when available (Kramer and Havens 2009).		X
Reduce annual grass densities and competition through herbicide, targeted grazing, tillage, prescribed fire, etc. (Pyke 2011).		X
Reduce density and competition of introduced perennial grasses using appropriate techniques to accomplish this reduction (Pellant and Lysne 2005).		X
Utilize techniques to introduce desired species to the site such as drill seeding, broadcast seeding followed by a seed coverage technique, such as harrowing, chaining or livestock trampling, and transplanting container or bare-root seedlings.		X
Assess existing on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider techniques to increase on-site seed production to facilitate an increase in density of desired species.		X
Use site preparation techniques that retain existing desirable vegetation.	X	
Use "mother plant" techniques or planting of satellite populations of desirable plants to serve as seed sources.		X
Utilize post-treatment control of annual grass and other invasive species.	X	
Utilize new tools and use of new science and research as it becomes available.	X	
Give higher priority to vegetation rehabilitation or manipulation projects that include: Sites where environmental variables contribute to improved chances for project success (Meinke et al. 2009). Areas where seasonal habitat is limiting GRSG distribution and/or abundance (wintering areas, wet meadows and riparian areas, nesting areas, leks, etc.). Re-establish sagebrush cover in otherwise suitable GRSG with consideration to local needs and conditions using the general priorities in the following order: Recently burned native areas Native grassland with suitable forb component Nonnative grassland with suitable forb component Recently converted annual grass areas Native grassland Nonnative grassland Where desirable perennial bunchgrasses and/or forbs are deficient in existing sagebrush stands, use appropriate mechanical, aerial or other techniques to re-establish them. Examples include but are not limited to, use of a Lawson aerator with seeding, harrow or chain with	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
seeding, drill seeding, hand planting plugs, aerial seeding or other appropriate technique. Cooperative efforts that may improve GRSG habitat quality over multiple ownerships. Projects that may provide connectivity between suitable habitats or expand existing good quality habitats. Projects that address conifer encroachment into important GRSG habitats. In general the priority for treatment is 1) Phase 1 (≤10% conifer cover), 2) Phase 2 (10-30%), and 3) Phase 3 (>30%). • Replacing stands of annual grasses within otherwise good quality habitats with desirable perennial species. Other factors that contribute to the importance of the restoration project in maintaining or improving GRSG habitat.		
When conducting vegetation treatments in areas inhabited or potentially inhabited by slickspot peppergrass (*Lepidium papilliferum*) follow the conservation measures in the applicable conservation agreement (revised August 2014).		X
Lands and Realty		
Where technically and financially feasible, bury distribution powerlines and communication lines within existing disturbance.		X
Above-ground disturbance areas would be seeded with perennial vegetation as per vegetation management.	X	
Place infrastructure in already disturbed locations where the habitat has not been fully restored.		X
Cluster disturbances, operations (fracturing stimulation, liquids gathering, etc.) and facilities as close as possible.		X
Co-locate linear facilities within one mile of existing linear facilities.		X
Micro-site linear facilities to reduce impacts to sage-grouse habitats.	X	
Locate staging areas outside the Priority Habitat Management Areas to the extent possible.	X	
Consider colocating powerlines, flowlines and pipelines under or immediately adjacent to a road or adjacent to other pipelines first, before considering co-locating with other ROW.		X
Restrict the construction of tall facilities and fences to the minimum number and amount needed.	X	
Use free standing structures where possible, to limit the use of guy wires. Where guy wires are necessary and appropriate bird collision diverters would be used, if doing so would not cause a human safety risk.	X	
Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.		X
Construction and development activities should conform to seasonal restrictions.	X	
Fluid Mineral Leasing		

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
Use directional drilling and/or multi well-pads to reduce surface disturbance.	X	
Apply a phased development approach with concurrent reclamation.	X	
Place liquid gathering facilities outside of PHMAs. Have no tanks at well locations within PHMAs to minimize truck traffic and perching and nesting sites for ravens and raptors.	X	
Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).		X
Site and/or minimize linear ROWs or SUAs to reduce disturbance to sagebrush habitats.	X	
Design or site permanent structures which create movement (e.g. pump jack) to minimize impacts to GRSG.	X	
Equip tanks and other above-ground facilities with structures or devices that discourage nesting of raptors and corvids.		X
Control the spread and effects of non-native plant species (Gelbard and Belnap 2003, Bergquist et al. 2007, Evangelista et al. 2011). (E.g. by washing vehicles and equipment.)		X
Restrict pit and impoundment construction to reduce or eliminate threats from West Nile virus (Doherty 2007).		X
Remove or re-inject produced water to reduce habitat for mosquitoes that vector West Nile virus. If surface disposal of produced water continues, use the following steps for reservoir design to limit favorable mosquito habitat: Overbuild size of ponds for muddy and non-vegetated shorelines. Build steep shorelines to decrease vegetation and increase wave actions. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Construct dams or impoundments that restrict down slope seepage or overflow. Line the channel where discharge water flows into the pond with crushed rock. Construct spillway with steep sides and line it with crushed rock. Treat waters with larvicides to reduce mosquito production where water occurs on the surface		X
In PHMA, limit noise from discretionary activities to not less than 10 decibels above ambient sound levels (typically 20-24 dBA) at occupied leks from 2 hours before to 2 hours after sunrise and sunset during breeding season.	X	
Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season.		X
The BLM/Forest Service would work with proponents to limit	X	

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
project related noise where it would be expected to reduce functionality of habitats in Priority and Important Habitat Management Areas.		
The BLM/Forest Service would evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate.	X	
Limit noise sources that would be expected to negatively impact populations in Priority and Important Habitat Management Areas and continue to support the establishment of ambient baseline noise levels for occupied leks in Priority Habitat Management Areas.	X	
As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate limitations would be implemented where necessary to minimize potential for noise impacts on sage-grouse core population behavioral cycles.	X	
As new research is completed, new specific limitations would be coordinated with the IDFG and MT FWP and partners.	X	
Fit transmission towers with anti-perch devices (Lammers and Collopy 2007).		X
Require sage-grouse-safe fences.		X
Locate new compressor stations outside Priority Habitat Management Areas and design them to reduce noise that may be directed towards Priority Habitat Management Areas.	X	
Clean up refuse (Bui et al. 2011).	X	
Locate man camps outside of priority sage-grouse habitats.	X	
Consider using oak (or other material) mats for drilling activities to reduce vegetation disturbance and for roads between closely spaced wells to reduce soil compaction and maintain soil structure to increase likelihood of vegetation reestablishment following drilling.		X
Use only closed-loop systems for drilling operations and no reserve pits.	X	
Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality.	X	
Roads		
Utilize existing roads, or realignments of existing routes to the extent possible.	X	
Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.	X	
Do not issue ROWs or SUAs to counties on newly constructed energy or mineral development roads, unless for a temporary use consistent with all other terms and conditions included in this document.	X	
Establish speed limits on BLM and FS system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
speeds.		
Coordinate road construction and use among ROW or SUA holders.	X	
Construct road crossings at right angles to ephemeral drainages and stream crossings.		X
Use dust abatement on roads and pads.	X	
Close and reclaim duplicate roads by restoring original landform and establishing desired vegetation.		X
Roads Specific to Priority and Important Habitat Management Areas		
Locate roads to avoid priority areas and habitats as described in the Wildfire and Invasive Species Assessments.	X	
Establish trip restrictions (Lyon and Anderson 2003) or minimization through use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).	X	
Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)	X	
Reclamation Activities		
Include objectives for ensuring habitat restoration to meet sage-grouse habitat needs in reclamation practices/sites (Pyke 2011).	X	
Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs.		X
Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling and revegetating cut-and-fill slopes.	X	
Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.	X	
Irrigate interim reclamation if necessary for establishing seedlings more quickly.		X
Utilize mulching techniques to expedite reclamation and to protect soils.		X
Grazing Required Design Features		
Avoid building new wire fences within 2 km of occupied leks (Stevens 2011). If this is not feasible, ensure that high risk segments are marked with collision diverter devices or as latest science indicates.	X	
Place new, taller structures, including corrals, loading facilities, water storage tanks, windmills, out of line of sight or at least one kilometer (preferably 3 km) from occupied leks, where such structures would increase the risk of avian predation.	X	
Utilize temporary fencing (e.g., ESR, drop down fencing) where feasible and appropriate to meet management objectives.		X
Fence wetlands (e.g., springs, seeps, wet meadows and/or riparian areas) where appropriate, to maintain or foster progress toward Proper Functioning Condition and to facilitate management of sage-		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
grouse habitat objectives. Where constructing fences or exclosures to improve riparian and/or upland management, incorporate fence marking or other BMPs/RDFs as appropriate.		
During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25-May 15 in higher elevations), livestock trailing will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse. Over-nighting, watering and sheep bedding locations on public lands must be at least 1 km from occupied leks during the lekking season to reduce disturbance from sheep, human activity and guard animals.	X	
Work with permittees in locating sheep over-nighting, watering and sheep bedding locations to minimize impacts to sage-grouse seasonal habitats.	X	
When trailing livestock during the lekking or nesting season, use roads or existing trails, to the extent possible to reduce disturbance to roosting, lekking or nesting sage-grouse.		X
Design new spring developments in GRSG habitat to maintain or enhance the free flowing characteristics of springs and wet meadows. Modify developed springs, seeps and associated pipelines to maintain the continuity of the predevelopment riparian area within priority GRSG habitat where necessary.		X
Install ramps in new and existing livestock troughs and open water storage tanks to facilitate the use of and escape from troughs by GRSG and other wildlife.		X
West Nile Virus Required Design Features		
Construct water return features and maintain functioning float valves to prohibit water from being spilled on the ground surrounding the trough and/or tank and return water to the original water source, to the extent practicable.	X	
Minimize the construction of new ponds or reservoirs except as needed to meet important resource management and/or restoration objectives.	X	
Develop and maintain non-pond/reservoir watering facilities, such as troughs and bottomless tanks, to provide livestock water.	X	
For most spring developments or wells, mosquito breeding habitat usually is not an issue. Flowing cold (less than 50° Fahrenheit) water and steep sides of the stock tanks are not conducive for egg laying or larvae production. If flows are low, the water is warm, or moss production is an issue in the tank, mosquito breeding habitat could exist in the tank.	X	
Maintenance of healthy wetlands at spring sources helps control mosquitoes and their larvae by providing habitat for natural predators such as birds, dragonflies and amphibians. Protecting the		X

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
wetland at the spring source with a fence is an option to consider.		
Clean and drain stock tanks before the season starts. If never cleaned or drained, many tanks will fill with silt or debris causing warmer water and heavy vegetation growth conducive to mosquito reproduction.		X
Draining tanks after the period of use is completed, particularly in warmer weather, also reduces potential habitat by eliminating stagnant standing water.		X
Maintain a properly functioning overflow to prevent water from flowing onto the pad and surrounding area, to eliminate or minimize pooling of water that is attractive to breeding mosquitoes.	X	
Clean or deepen overflow ponds to maintain colder temperatures to reduce mosquito habitat.		X
Install and maintain float valves on stock tank fill pipes to minimize overflow	X	
Harden stock tank pads to reduce tracks that can potentially hold water where mosquitoes may breed.	X	
Build ponds with steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments to deter colonizing by mosquitos (Knight et al. 2003, cited in NTT report page 61).	X	
Consider removing and controlling trees and shrubs to reduce shade and wind barriers on pit and reservoir shorelines if not needed for wildlife, fish, or recreational values.		X
Impoundments that remain accessible to livestock and wildlife can cause tracking and nutrient enrichment from manure which can create favorable mosquito breeding habitat. Where this is a concern, it may be desirable to fence the reservoir and pipe the water to a tank.		X
Construct dams or impoundments that minimize down-slope seepage or overflow. Seepage and overflow results in down-grade accumulation of vegetated shallow water areas that support breeding mosquitoes.		X
On ponds and reservoirs with enough depth and volume, introduce native fish species, which feed on mosquito larvae.		X
Line the overflow of a dam's spillway with crushed rock and constructing the spillway with steep sides to preclude the accumulation of shallow water and vegetation to reduce mosquito habitat.		X
Where an existing reservoir has filled with silt, consider cleaning to reduce shallow water habitat conducive to mosquito reproduction.		X
During confirmed West Nile virus outbreaks in sage-grouse habitat, consider larvicide applications.		X
Travel Management Required Design Features		

Measure	Required Design Feature (RDF)	RDF if appropriate and when the resources/ values are present
Designate or design routes to direct use away from priority areas identified in Wildfire and Invasive Species Assessments and still provide for high-quality and sustainable travel routes and administrative access, legislatively mandated requirements, and commercial needs	X	
Recreation Required Design Features		
Direct use away from GRSG priority areas as described in the Wildfire and Invasive Species Assessments.	X	
Eliminate or minimize external food sources for corvids.		X

Appendix G – Seasonal Timing Restriction

During lekking periods, as determined locally (approximately March 15-May 1 in lower elevations and March 25-May 15 in higher elevations), project activities will be avoided to the extent possible within 1 km (0.62 mile) of occupied leks between 6:00 p.m. and 9:00 a.m. to avoid disturbance to lekking and roosting sage-grouse.

Appendix H - Application of Buffers

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
Incidental disturbance to individual GRSG within all habitat types during all seasons			
	Public or administrative activities that include incidental foot, aerial, horseback, or other similar travel.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Livestock grazing activities (except where specifically noted below).	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
	Public vehicle travel not otherwise restricted in Travel Management Plans; or administrative vehicle travel on existing routes for maintenance of existing infrastructure, facilities, or vegetation projects; or non-organized/non-permitted activities.	None.	Impacts from these type of activities are immeasurable and would not warrant any minimization measures.
Loss (i.e. death) of nests/eggs, chicks and/or adults that may occur within the nesting4 habitat during the nesting season			
	Anthropogenic activities such as the use of heavy equipment2 or targeted grazing in nesting habitat3 for: 1) implementation of fuels/vegetation/habitat restoration management projects, 2) infrastructure construction or maintenance, 3) geophysical	BMP Priority, Important, General: Avoid these activities within nesting habitat during the nesting3 season.	Application of the seasonal nesting habitat restriction would avoid and minimize the loss of nests/chicks/hens. This is a BMP since the impact is loss of individual grouse and is small scale and not population-scale. Disallowing infrastructure maintenance or

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	exploration activities; 4) organized motorized recreational events		construction in nesting habitat outright may not be realistic as an RDF. Impacts may be able to be offset via appropriate mitigation.
	Bedding Sheep & Associated Camps	BMP: Priority, Important, General: During the nesting season, locate bedding areas and camps outside of sagebrush areas3 .	Application of the seasonal nesting habitat restriction would avoid/minimize the loss of nests/chicks by focusing bedding and camps in areas not meeting nest habitat characteristics for sagebrush cover (i.e., use areas less than 15% canopy cover).
	Fences	Existing Fences: RDF: Priority and Important; BMP for General- Where consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management, move, modify (e.g. lay down fences) or mark existing fences to reduce collision risk within areas that have a high probability of fence strikes (per Stevens et al. 2012 model or latest science).	Application of these measures would avoid/minimize the loss of birds to fence strikes.
		New Fences: RDF: Priority and Important; BMP for General- Do not construct new fences within areas of high collision risk unless marked or modified, consistent with policy, laws and/or regulations relative to Wilderness, Wilderness Study Areas and Visual Resource Management .	

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
Permanent functional or physical loss of a lek or declining attendance at lek4			
	Unleased fluid minerals	Stipulation: Preiority, Important, General: Do not allow wells, pads, facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek. Stipulation: Priority, Important, General: Limit average well pad density to no more than 1 per 640 acres within nesting3 and winter3 habitat.	This impact may have a population level effect and trip a population trigger therefore we recommended this be an RDF. Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended as far as 1.6 km from grouse leks. The 1/640 density per based on consideration of 1) Harju et al. (2010) who found pad density of 1.54 pad/sq km (1 pad/247 ac) had 13-74% lower attendance at leks and 2) Doherty (2008 page iii and 79) who noted potential impacts from oil and gas development were indiscernible at ~1 well/640 acres. IDswMT biology team recommended a more conservative approach to minimize risk of tripping a population trigger, hence the 1/640.
	Commercial solar development	RDF: Priority-No commercial solar development. RDF: Important- Do not allow new facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek4. BMP-General: Avoid new facilities or associated above ground	No specific literature available relative to solar development. Recommended buffer is based on recent literature (Harju et al 2010) that 0.6 or 0.25 mile buffers are not. The 2 mile buffer is consistent with Connelly et al. 2000 regarding energy facilities (page 978).

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		infrastructure within 2 miles (3.2 km) a lek4.	
	Roads	BMP: Priority, Important, General: Do not construct new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of leks4.	Patricelli et al. 2012 (Recommendations for interim protections in WY) recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. We apply it here as a lek-centric BMP because we may need to construct a road near a lek (perhaps for fire operations/access or to allow access to private lands or per ROW need). If we buffer roads in the Priority or Important Areas via a large lek buffer, it may lead to disturbance of a much larger area of nesting habitat in the course of avoiding the lek and buffers. The BMP would at least allow for siting to avoid the lek, and reducing road noise near the lek, without compromising broader landscapes.
	Commercial/ industrial Pipelines (oil, gas, slurry, and similar)	BMP: Priority, Important, General. Minimize removal of sagebrush within 0.6 miles of leks4.	Application of this measure is designed to minimize loss of sagebrush in the vicinity of the lek. The main concern was with loss of sagebrush in vicinity of lek, that is used by GRSG for cover. The 0.6 mile buffer is based on rationale in the Colorado GRSG Conservation Plan as below: BACKGROUND INFORMATION: From Colorado GRSG Conservation Plan Appendix B: [Lek Habitat

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			(March through mid-May) - The basis and rationale for the first radius, 0.6 miles from a lek (Fig. B-1), is developed by summarizing data from 5 separate studies of daytime movements of adult male sage-grouse during the breeding season (Carr 1967, Wallestad and Schladweiler 1974, Rothenmaier 1979, Emmons 1980, Schoenberg 1982), because daytime movements of adult male GRSG during the breeding season do not vary greatly. Wallestad and Schladweiler (1974) found daily movements of adult males ranged between 0.2 and 0.8 miles from leks, with a maximum cruising radius of 0.9 - 1.2 miles. Ellis et al. (1987) reported that dispersal flights of male GRSG (to day-use areas) ranged from 0.3 – 0.5 miles, with the longest flights ranging from 1.2 – 1.3 miles. Carr (1967) recorded a cruising radius for male GRSG that ranged from 0.9-1.1 miles. Rothenmaier (1979) found that 60-80% of male GRSG locations were within 0.6 - 0.7 miles of a lek. Emmons (1980) reported that male dispersal distances to day-use areas of 0.1 miles were common and that 67% of all use areas were greater than 0.3 miles from the lek. In addition, Schoenberg (1982) found that male daily movements averaged 0.6 miles, but ranged from 0.02 - 1.5 miles.

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			Male GRSG activity patterns during the breeding season include strutting during the early morning hours, feeding and loafing during the day, and roosting on the lek during the night. Grouse attending the lek do not always roost on the exact location where the strutting occurs the next morning. Occasionally (this is lek-dependent), grouse roost in adjacent sagebrush cover. Ultimately, male GRSG require an open area for strutting, and sagebrush immediately adjacent for feeding and loafing. Sagebrush adjacent to the lek is also used as escape cover from predators or other types of disturbance. Female GRSG that attend the lek also use the area in this zone in the same fashion as do males (Patterson 1952, Barnett and Crawford 1994, Coggins 1998).] Study locations noted above: Carr-Colorado; Wallestad and Schladweiller- Montana; Emmons-Colorado; Schoenberg- Colorado; Rothenmaier –unable to locate Univ. WY Thesis but study area not defined.
	Miscellaneous anthropogenic structures/ activities (e.g., corrals, water windmills, apiaries, signs, informational kiosks, etc.)	BMP Priority, Important, General: Avoid human activities or placement of new structures as noted within 2 miles (3.2 km) mi of a lek4 or ensure	This is a catch all to reduce impact of miscellaneous structures where possible (some are tall5, such as water windmill, some are small, but have

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		they are out of the viewshed of the lek.	human activity- such as kiosks) or activities not otherwise addressed in this table. Based on biology team discussion and input, and Connelly et al. 2000 Guidelines that state, “avoid building powerlines and other tall structures that provide perch sites for raptors within 3 km of seasonal habitats” (page 977). Avoiding “seasonal habitats” entirely by 3 km would preclude any of these activities at all in Priority, Important or General, but siting 2 miles + from leks as a BMP would nonetheless help protect leks from disturbance. Adding the “viewshed” caveat can help with siting in cases where topography or such screens view of the activity or structure.
	Campgrounds and other developed recreation facilities (trailheads etc.)	BMP: Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	Biology team discussion. No literature specific to this issue. Aldrich (2012) mentions GRSG avoidance threshold 2.5 km from any single development at patch scale.
	OHV Play or Open Areas	RDF-Priority and Important; BMP for General. No new Open or Play areas.	Rationale is to reduce risk for further noise, habitat loss, fire risk in the Priority, Important and General Areas.
	Solid Minerals		These measures for solid minerals are intended to reduces noise and human disturbance to lekking birds. Siting/ avoidance buffers not realistic due to

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
			the nature of mineral deposits.
		Locatables-BMP Priority, Important, General: Access roads and associated infrastructure not on the mining claim-Avoid disturbance to leks4 during the lekking season.	Regulations 43 CFR 3809.420 performance standards, speak to T/E, and habitat. As a BMP, it provides an opportunity to work with the developer where we can, such as routing access roads etc., siting of facilities/infrastructure etc., that are off the claim, that we have some discretion with.
		Salables- RDF: Priority: Do not construct new salable development within 0.8 mile (1.3 km) of leks4.	Salables- No literature specific to salables but buffer distance is based on the noise literature for roads. See Patricelli et al. 2012 (WY recommendations for interim noise protections) that recommended siting roads 0.7 to 0.8 miles from crucial seasonal habitat. Chose RDF for Priority and BMP in Important and General habitat since new Salable pits (e.g., gravel) may be necessary to support road maintenance or improvement for access by fire operations or for other locally important factors.
		Leasables-non-energy (e.g., phosphate)-	Leasables: None presently known in Priority based on current mapping, but

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		RDF-Priority and Important: New phosphate leasing is administratively unavailable. BMP-Priority, Important, General-On existing leases avoid disturbance to leks4 during the lekking season	Priority RDF included in case of a trigger trip and re-delineation of IDswMT subregional management areas. In “Important” there is only one such area with existing lease and Known Phosphate Lease Areas (KPLAs), just west of Bear. It is Federal mineral/private surface. No interest in surface mining but there is interest by a company in underground development. Company is proposing facilities on surface, but working with IDFG locally. Lek within .3 mile. BMP for lek disturbance for all Management Areas in case of trigger trip and IDswMT Management Area re-delineation and since there are some KPLAs in the General Management Area. Working with proponent to reduce lek disturbance is realistic and may take on different forms, such as road access, placement of facilities, etc.. However, “exclusion” buffers are not realistic given the nature of the location of solid mineral deposits (i.e., cannot site elsewhere). For these, incorporation of appropriate mitigation, in addition to the lek BMP may need to be a primary focus.
	Wind development (commercial)	RDF. Priority-No commercial wind development .	Wind: Labeau et al. (2014) stated that erecting wind turbines at least 5 km

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		BMP: Important and General: Avoid wind development in nesting and/or winter habitat.	from nesting and brood rearing habitat should reduce negative impacts, at least in the short term. However putting a 5 km (3 mile) buffer around leks in Important habitat, would create a defacto closure for the most part, inconsistent with the intent of the Important designation. Hence BMP to avoid placement in nesting or winter habitat.
	Communication Towers	RDF: Priority -Do not allow communication tower construction within 3 miles (5 km) of a lek4 unless needed to address public safety needs. BMP- Important and General--Avoid communication tower construction within 3 miles (5 km) of a lek4 unless needed to address public safety needs.	Johnson et al. (2011 pg. 427) noted "Analogously, across all management areas there was a steady downward pattern of trends of lek counts as the number of towers increased, either within 5 km (Fig. 21) or within 18 km (Fig. 22)."
	Transmission Lines	RDF: Priority, Important, General: Do not allow transmission line construction within 600 m of a lek. BMP Priority, Important, General: Avoid transmission line construction within 2 miles (3.2 km) of a lek.	A 600 m GRSG avoidance zone reported per Gillan et al. (2013). No other spatial buffer supported by literature. While 600 m is a citable buffer, a 2 mile zone as BMP for Transmission is recommended as well. Based on Connelly et al. 2000 Guidelines to avoid tall structures in important seasonal habitats.
	Distribution Lines	BMP: Priority, Important and General-Avoid distribution line construction within 600 m of a lek or bury where possible	600 m, based on Gillan et al. BMP as this may not always be feasible.

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
Temporary functional loss of a lek4. SEASONAL RESTRICTION			
	BLM and Forest Service permitted anthropogenic activities that result in noise or visual disturbance that may lead to sustained avoidance of the lek during a particular lekking season.	RDF: Priority and Important- No repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season3. BMP-General: Avoid repeated or sustained behavioral disturbance (e.g., visual, noise, etc.) to lekking birds from 6:00 pm to 9:00 am within 2 miles (3.2 km) of leks during the lekking season3.	Recent literature says 0.25 mile and 0.6 mile buffers are not sufficient (Harju et al. 2010). Hess (2011 MS Thesis) found statistical evidence that oil/well pad influence extended as far as 1.6 km (~ 1 mile) from grouse leks. . IDswMT biology team recommended a more conservative approach to managing disturbance to minimize risk of disturbance.
	Sheep Bedding & Sheep Camps	BMP Priority, Important, General: Avoid bedding sheep and placing camps within 0.6 mi of a lek during the lekking season.	No literature. BMP based on biology team consensus.
	Organized Recreational Events	RDF Priority and Important-Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season. BMP General- Do not schedule disruptive recreational events (e.g., motorized races) within 2.0 miles (3.2 km) of occupied leks during the lekking season.	Biology team consensus. No specific literature relative to buffers for recreational events but can manage this through avoiding the appropriate season. This threat (organized recreational events) is a short term, typically one-day event, with temporary disruption from noise the main issue.
Permanent functional or physical loss of nesting or winter habitat.			

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
	Anthropogenic development or activities that result in loss of habitat or constant or repeated noise levels or objects on the landscape that result in permanent avoidance of the habitat.	Ensure > 80% of the landscape is functionally and physically meeting GRSG habitat objectives appropriate to the seasonal habitat3.	Impacts resulting from loss of habitat vary depending on the extent of the habitat lost. Minimal loss of habitat (e.g. removal of small amounts of sagebrush cover) would not likely result in any measurable impacts to GRSG individuals or the associated populations. More extensive loss of habitat may result in increased probability of population level impacts, and trigger trips, through the increased probability that leks will no longer persist.
	Roads	BMP: Priority, Important, General: Avoid construction of new paved or high volume traffic gravel roads within 0.8 mile (1.3 km) of nesting habitat.	See citations used for permanent loss of leks, above.
	Unleased Fluid Minerals	Stipulation: Priority, Important, General: Limit average well pad density to no more than 1/640 acres within nesting3 and winter3 habitat.	See citations used for permanent loss of leks, above.
	Commercial Solar	RDF: Priority-No commercial solar development. RDF: Important: Do not allow facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek4. BMP-Important: Avoid placing new	See citations used for permanent loss of leks, above.

Idaho and Southwest Montana GRSG Buffers and Seasonal Restrictions Summary			
Impacts	Causes1	Minimization Measures Seasonal/Timing Restrictions & Buffers	Rationale
		facilities or associated above ground infrastructure within 2 miles (3.2 km) a lek4.	
	Campgrounds	BMP-Priority, Important, General. Avoid development of new campgrounds or recreation facilities in nesting habitat.	See citations used for permanent loss of leks, above.
	OHV Play and Open areas	RDF-Priority and Important. No new Open or Play areas. BMP-General: Avoid new Open or Play areas	See citations used for permanent loss of leks, above.
	Wind Development (commercial)	RDF Priority - No commercial wind development . BMP: Important: Avoid wind development in nesting habitat	See citations used for permanent loss of leks, above.
Temporary functional loss of winter habitat			
	Anthropogenic activities that result in noise or visual disturbance that may lead to avoidance of a particular wintering area during a particular wintering season.	RDF: Priority, Important- No repeated or sustained disturbance from construction activities in winter habitat during the wintering season. BMP General: Avoid repeated or sustained disturbance from construction activities in winter habitat during the wintering season.	No known buffer. Biology team recommendation.