Appendix 17

Proposed RMP Amendment and Analysis for Key Research Natural Areas in Oregon

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TABLE OF CONTENTS

Appendix Page

TABLE

MAPS

Appendix 17. Proposed RMP Amendment and Analysis for Key Research Natural Areas in Oregon

17.1 Introduction and Background

This appendix provides excerpts and background information from the 2015 (and 2019) BLM Oregon Greater Sage-grouse (Greater Sage-grouse) final environmental impact statements (EIS) and plan amendment efforts, as well as newer information about the BLM Oregon key Research Natural Areas (RNA) needed to support the current planning and analysis process presented in the body of this EIS. This current effort is limited to RMP-level actions needed to provide guidance for subsequent implementation-level actions.

The 2015 Oregon Greater Sage-grouse ARMPA identified 15 existing RNAs as key RNAs and allocated all or portions of 13 key RNAs in Oregon as unavailable for livestock grazing. The 2019 RMPA reversed that decision and made all or portions of those 13 key RNAs available for livestock grazing. These decisions affected approximately 22,000 acres within 13 existing, district designated, RNAs. The 2019 RMPA was and remains enjoined by the United States District Court for the District of Idaho and the 2015 ARMPA decision for these 13 key RNAs remains in effect. None of the other BLM state Greater Sage-grouse ARMPAs, either in 2015 or in 2019, included the identification of key RNAs or changes in the availability of livestock grazing.

The two other existing RNAs identified as key RNAs in the 2015 planning process were previously excluded from livestock grazing and neither the 2015 nor 2019 RMP amendment processes proposed changing these underlying district-level land use plan decisions. Both the Foster Flat key RNA in the Burns District and Guano Creek-Sink Lakes key RNAs in the Lakeview District were, and will remain, allocated as unavailable for livestock grazing.

The BLM Oregon is addressing key RNAs in this current planning effort to update key RNA affected environment and clarify or modify existing Greater Sage-grouse management direction.

The following excerpts from the 2015 EIS provide background, context, and history regarding the intents and purposes of the RNAs.

17.2 2015 Final EIS Excerpts

The following excerpt from Chapter 3 of the 2015 Oregon Greater Sage-grouse Final EIS describes Research Natural Areas (from Special Designations 3.16.5 Areas of Critical Environmental Concern (ACEC); page 3-134 to 3-135).

RNAs are a unique type of ACEC created to: preserve examples of all significant natural ecosystems for comparison with those influenced by humans; provide educational and nondestructive research for ecological and environmental studies; and preserve gene pools of typical and endangered plants and animals. RNAs are areas that are part of a national network of reserved areas under various ownerships that contain important ecological and scientific values and are managed for minimum human disturbance. RNAs are intended to represent the full array of North American ecosystems with their biological communities, habitats, natural phenomena, and geological and hydrological formations. In RNAs, natural processes are allowed to

predominate and are primarily used for nonmanipulative research and baseline data gathering on relatively unaltered plant community types.

Under certain circumstances (refer to BLM, 1987, section .37B), deliberate manipulation may be used to maintain the unique features for which the RNA was established. Because natural processes are allowed to dominate, RNAs also make excellent controls for similar communities that are being managed and for long-term vegetation monitoring for shifts resulting from changes in precipitation and temperature (climate change). In addition, RNAs provide an essential network of diverse habitat types that will be preserved in their natural state for future generations.

RNAs have important biological or physical attributes that are identified and designated in cooperation with the Pacific Northwest RNA Committee (Forest Service, BLM, and Washington and Oregon) following the Oregon Natural Areas plan (Oregon Natural Heritage Advisory Council 2010).

These areas can be used for long-term baseline plant community monitoring; they are areas where few management activities have influenced the plant community for which the RNA was established. Management practices necessary to maintain or restore ecosystems can be allowed and perhaps are necessary to maintain the values, especially invasive plant control.

17.3 PROPOSED RMP AMENDMENT AND EIS ALTERNATIVES

17.3.1 Alternative 1

Under Alternative 1 all or portions of 13 key RNAs, approximately 21,922 acres total (**Table 17-1** below), would be allocated as unavailable for livestock grazing as described in the 2015 Greater Sage-grouse ARMPA (p. 2-18). Making these areas unavailable for livestock grazing would provide areas where natural processes will proceed for long-term monitoring and research (BLM 2015a, p. 4-24) of the plant communities present. Managing the key RNAs as unavailable for livestock grazing could increase the ecological protection in areas where livestock grazing is removed, although vulnerability to wildfire may increase as fine fuel loads build in the absence of livestock grazing (BLM 2015a, p. 4-100). The BLM would continue to manage ACECs, including key RNAs, to protect their relevant and important values (BLM 2015a, p. 4-272).

17.3.2 Alternative 2

Under Alternative 2, all of the following 13 key RNAs would be available for livestock grazing, subject to applicable laws, regulations, policies, and other BLM Oregon Resource Management Plan decisions: Black Canyon, Dry Creek Bench, East Fork Trout Creek, Fish Creek Rim, Foley Lake, Lake Ridge, Mahogany Ridge, North Ridge Bully Creek, Rahilly-Gravelly, South Bull Canyon, South Ridge Bully Creek, Spring Mountain, and Toppin Creek Butte (BLM 2018a, p. 2-9). Impacts to habitat would not change from the conditions present when these RNAs were identified as key. Opportunities for comparison of ungrazed to grazed areas would be fewer than under alternatives 1, 3, 4, 5, 6 or the Proposed RMP Amendment (BLM 2018a, p. ES-8). The BLM would continue to manage ACECs to protect their relevant and important values (BLM 2015a, p. 4-272). Livestock and other herbivores consume vegetation and affect soils through hoof action and possible compaction. When these impacts are kept at appropriate levels, natural processes such as plant growth and recovery, freeze-thaw periods, and microbial activity in the soil surface result in recovery from these impacts and maintain site stability and health. (BLM 2018a, p. 4-40). Natural processes will predominate on the key RNAs which remain available for research and data gathering on relatively unaltered plant communities.

Table 17-1. Oregon Key RNAs – Summary of Estimated Acres and AUMs by Alternative[1]

RNA Name	District	Total Acres of the Key RNA	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternatives 5 and 6		Proposed RMP Amendment	
			Key RNA Acres Available for Livestock Grazing	Key RNA Acres / estimated AUMs Unavailable for Livestock Grazing	Key RNA Acres / estimated AUMs Available for Livestock Grazing	Key RNA Acres Unavailable for Livestock Grazing	Key RNA Acres Available for Livestock Grazing	Key RNA Acres / estimated AUMs Unavailable for Livestock Grazing	Key RNA Acres Available for Livestock Grazing	Key RNA Acres / estimated AUMs Unavailable for Livestock Grazing	2015 Key RNA Acres that would become Available for Livestock Grazing	Key RNA estimated Acres / estimated AUMs Unavailable for Livestock Grazing	2015 Key RNA Acres Available for Livestock Grazing	Key RNA estimated Acres / estimated AUMs Unavailable for Livestock Grazing
Black Canyon	Vale	2,600 [2]	0	2,600/260	2,600/260	0	0	2.600/260	0	2,600/260	2,600	0/0	2,600	0/0
Dry Creek Bench	Vale	1,637	1,015	622/52	1,637/52	0	0	1,637/52	1,015	622/52	1,637	0/0	1,637	0/0
East Fork Trout Creek	Burns	361	57	304/47	361/47	0	0	361/47 [3]	57	304/47	57 [3]	304/0 [3]	57	304/0
Fish Creek Rim	Lakeview	8,725	5,975	2,750/110	8,725/110	0	0	8,725/110	5,975	2,750/110	8,630	95/4 [4]	8,630	95/4
Foley Lake	Lakeview	2,228	959	1,269/51	2,228/51	0	0	2,228/51	959	1,269/51	1,431	797/33 [4]	1,431	797/33 [4]
Foster Flat	Burns	2,687	0	2,687	0	2,687	0	2,687	0	2,687	0	2,687	0	2,687
Guano Creek–Sink Lakes	Lakeview	11,185	0	11,185	0/0	11,185	0	11,185	0	11,185	0	11,809 [5]	0	11,809
Lake Ridge	Vale	3,857	3,088	769/74	3,857/74	0	0	3,857/74	3,088	769/74	3,844	13/0 [6]	3,844	13/0 [6]
Mahogany Ridge [7] (southern unit only)	Vale	444	289	155/27	444/27	0	0	444/27	289	155/27	304	140/0	375	69/0
North Ridge Bully Creek	Vale	1,569	1,405	164/19	1,569/19	0	0	1,569/19	1,405	164/19	1,569	0/0	1,569	0/0
Rahilly-Gravelly	Lakeview	18,678	10,396	8,282/586	18,678/586	0	0	18,678/586	10,396	8,282/586	16,653	2,025/144	16,653	2,025/144
South Bull Canyon [8]	Vale	770	21	749/116	770/116	0	0	770/116	21	749/116	513	257/0	513	257/0

RNA Name	District	Total Acres of the Key RNA	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternatives 5 and 6		Proposed RMP Amendment	
			Key RNA Acres Available for Livestock Grazing	Key RNA Acres / estimated AUMs Unavailable for Livestock Grazing	Key RNA Acres / estimated AUMs Available for Livestock Grazing	Key RNA Acres Unavailable for Livestock Grazing	Key RNA Acres Available for Livestock Grazing	Key RNA Acres / estimated AUMs Unavailable for Livestock Grazing	Key RNA Acres Available for Livestock Grazing	Key RNA Acres / estimated AUMs Unavailable for Livestock Grazing	2015 Key RNA Acres that would become Available for Livestock Grazing	Key RNA estimated Acres / estimated AUMs Unavailable for Livestock Grazing	2015 Key RNA Acres Available for Livestock Grazing	Key RNA estimated Acres / estimated AUMs Unavailable for Livestock Grazing
South Ridge Bully Creek	Vale	621	224	397/61	621/61	0	0	621/61	224	397/61	621	0/0	621	0/0
Spring Mountain	Vale	996	0	996/153	996/153	0	0	996/153	0	996/153	996	0/0	996	0/0
Toppin Creek Butte [9]	Vale	3,998	1,133	2,865/216	3,998/216	0	0	3,998/216	1,133	2,865/216	3,795	203 [10]/0	3,795	203/0
Totals		60,356	24,562	35,794/1,772	46,484/ 1,772	13,872	0	60,356/1,772	24,562	35,794/1,772	42,650	18,330/181	42,721	18,259/181

Notes:
1 – Acreage estimates and AUM estimates/calculations have been updated from the 2015 ARMPA ROD.
2 – Black Canyon ACEC/RNA acres were reduced by 40 acres to reflect updated GIS data for the boundary.
3 – The Oregon 2015 ARMPA estimated that 47 AUMs may be removed based strictly on the change in acreage. The 2019 RMPA used the same estimate of 47 AUMs. Alternatives 1 and 2 reflect the numbers from the prior EISs. This key RNA has been excluded from the allotment and pasture through an administrative process; no change to permitted AUMs is necessary because the remaining pasture can support the estimated 47 AUMs associated with the key RNA made unavailable for livestock grazing.
4 – Estimated AUMs for Alternatives 5 and 6 associated with the area allocated as 'unavailable for livestock grazing' would be absorbed in portions of the associated pasture and/or allotment in which the Key RNA exists. Site-specific monitoring would inform if AUMs cannot be absorbed, with site-specific NEPA and grazing decisions to implement any reductions in AUMs as a result of implementing removal of livestock from those areas allocated as unavailable for livestock grazing as a result of this alternative.
5 – The 2015 and 2019 estimates of acres used the Guano Creek Wilderness Study Area boundary. The Guano Creek-Sink Lakes ACEC/RNA is much smaller and contained entirely within the larger WSA boundary. The corrected acres reflect just the ACEC/RNA portion that is, and would continue to be, unavailable for livestock grazing use under all alternatives.
6 – Lake Ridge key RNA would become available for livestock grazing, however a 13-acre area adjacent to the 2015 ARMPA-identified Lakeridge key RNA and within the ACEC/RNA would be unavailable for livestock grazing.
7 – Mahogany Ridge ACEC/RNA is divided into two "Parcels", totaling 622 acres. The southern parcel is 444 acres; the Key RNA is located solely in the southern parcel and totals 155 acres. In Alternatives 5 and 6, 140 acres would be allocated as unavailable for livestock grazing.
8 – South Bull Canyon data has been revised based on updated district site-specific information. The entire ACEC/RNA acreage is 770 of which 749 acres were designated in 2015 as a key RNA (and allocated as unavailable for livestock grazing). Under Alternatives 5 and 6, 492 of the 749 acres previously allocated as unavailable for livestock grazing would be reallocated as available for livestock grazing.
9 – Exception criteria would be have to be met for construction of exclosure fencing within WSA or increased management presence would be needed.
10 – Toppin Creek Butte acres were corrected to reflect updated GIS data for the area.

17.3.3 Alternatives 3, 4, 5, 6, and Proposed RMP Amendment

Alternatives 3, 4, 5, 6, and the Proposed RMP Amendment are based upon changed habitat management area boundaries. In 2022, ODFW informed BLM that they were going to update core and low density HMAs. Using ODFW's published methodology to estimate core and low density HMA, the BLM drafted maps of what would likely be considered core and low density HMAs. These maps were used for the draft EIS. For the final EIS, we have adopted ODFW's revised habitat designations.

Under Alternative 3, ODFW's revised core and low-density habitat would become PHMA and GHMA respectively. In addition, GHMA would include the modelled sagebrush habitat as in the 2015 ARMPA from Durtsche et al. (2010). Under Alternative 3, all proposed PHMA and GHMA would become PHMA and be allocated as unavailable for livestock grazing, including all of the 13 key RNAs.

Under Alternative 4, ODFW's revised core and low-density habitat would become PHMA and GHMA respectively. In addition, the GHMA includes the modelled sagebrush habitat as in the 2015 ARMPA from Durtsche et al. (2010). This alternative would retain the 2015 decision that makes all or portions of the 13 key RNAs unavailable for livestock grazing.

Under Alternatives 5, 6, and the Proposed RMP Amendment, ODFW's revised core would become PHMA and GHMA would be comprised of their low-density lek areas plus HAF mapped seasonal habitat. Under all three of these alternatives all, some, or none of specific key RNAs would be unavailable for livestock grazing as shown below and described in **Table 17-1** above. Under all three alternatives, the entirety of the key RNAs identified in 2015 are key RNAs and all of these key RNAs would be retained. All three alternatives would update management direction to reflect this interpretation. Special Designation (SD) 4 would be changed to: manage key RNAs as baseline reference areas for sagebrush plant communities they represent that are important to Greater Sage-grouse. Active or passive restoration actions, including removal of encroaching juniper, are allowed within key RNAs to support maintenance or improvement of identified vegetation communities and to meet Greater Sage-grouse habitat objectives.

The Proposed RMP Amendment is nearly the same as Alternative 5 with the following exceptions:

- the area allocated as unavailable for grazing in the Mahogany Ridge key RNA is reduced from 140 acres to 69 acres.
- A 5-acre or less exclosure is proposed that would remove livestock use and other permitted activities to allow for nonmanipulative research and baseline data gathering within the North Ridge Bully Creek key RNA or within close proximity to this key RNA to allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse.
- A 5-acre or less exclosure is proposed that would remove livestock use and other permitted activities to allow for nonmanipulative research and baseline data gathering within the South Ridge Bully Creek key RNA or within close proximity to this key RNA to allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse.
- A 5-acre or less exclosure is proposed that would remove livestock use and other permitted activities to allow for nonmanipulative research and baseline data gathering within the Spring Mountain key RNA or within close proximity to this key RNA to allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse.

For purposes of this plan, a baseline reference area is one where ecological processes and current ecological condition are functioning within a normal range of variability and the plant community has adequate resistance to, and resiliency from, most disturbances. Ecological condition considers historical disturbance regimes, current authorized uses, climatic variability, and existing vegetation. The original designation of the Research Natural Areas that were later identified as key RNAs occurred because they possessed a typical representation of a common plant or animal association that is of scientific or other special interest. At the time of the RNA designation, livestock grazing and trailing on public, private, and state lands had occurred for decades; they were not undisturbed areas. Several of them, however, were topographically difficult for livestock to access or lacked nearby water sources and that remains true today. Preservation and protection of the natural attributes will predominate within the baseline reference areas. The baseline reference area is that area where grazing is restricted due to fences, topography, or active herd management.

17.3.4 Environmental Consequences

Under Alternatives 1 and 4 in 13 of the 15 key RNAs, 21,922 acres would be unavailable for livestock grazing, while under alternative 3, 46,484 acres would be unavailable for livestock grazing in the same areas; this would allow plant communities in these areas to be available for comparison with other areas that had more human influence for future research needs. Under these alternatives fencing might be present in and adjacent to key RNAs. These fences could affect livestock distribution. Modifications to existing water improvements and limitations on new water improvements may create additional limitations, however, livestock distribution outside of key RNAs should generally be maintained, and impacts should be limited from these actions (BLM 2015a, p. 4-203). Making portions of RNAs that contain plant communities important to Greater Sage-grouse unavailable for livestock grazing could provide the BLM with areas for baseline vegetation monitoring without the influence of livestock grazing. This could allow natural succession processes to proceed without the influence of livestock grazing, making these areas available for use as comparative controls to treated areas. Whether removal of livestock grazing would reduce the risk of invasive plant spread into the key RNAs is uncertain, as there are many vectors for invasive plants besides livestock, but reducing the physical disturbance from livestock grazing is likely to reduce one of those vectors (BLM 2018a, p. 4-4). OHV use would continue to be allowed or restricted as currently designated.

Under Alternative 2, livestock grazing management would be governed by the livestock grazing provisions in the 2019 ARMPA, which changed Objective Livestock Grazing 2 and deleted Management Direction Livestock 1 from the 2015 ARMPA to make all or portions of 13 key Research Natural Areas (key RNAs) available for livestock grazing. The key RNAs would continue to be required to meet rangeland health standards and other applicable BLM regulations and policies (BLM 2018a, p. 4-6). Impacts to habitat would not change from the conditions present when these RNAs were identified as key for Sage-grouse. Alternative 2 would result in 21,922 fewer undisturbed acres within Oregon available for research on the impact of livestock grazing on plant communities. However, these acres would remain available for long-term vegetation monitoring. Although the USFWS has determined improper livestock grazing can have adverse effects on Greater Sage-grouse habitat, properly managed livestock grazing may benefit the species (USFWS 2015, p. 59909). Under Alternative 2, the key RNAs would remain subject to management, including regulation of livestock grazing, to maintain and promote the key characteristics of the RNAs. Finally, making the key RNAs unavailable for livestock grazing would not address any threats to Greater Sage-grouse habitat identified in the COT report (USFWS 2013) that may exist within the boundaries of the RNAs. (BLM 2018a, p. 4-7).

Effects of Alternatives 5, 6, and the Proposed RMP Amendment are discussed below. The summarized impact analyses in Chapter 4 for the key RNAs in Oregon is supported by and based on the more detailed RNA

specific information presented in the following section. These alternatives are proposed to resolve or reduce specific conflicts and plan conformance issues.

Under all alternatives, the BLM would require changes to livestock grazing/management in the 13 key RNAs if a rangeland health evaluation finds that standard(s) are not being met and the determination document identifies existing livestock grazing as a causal factor in the failure to meet rangeland health standards. BLM may also require changes to livestock grazing/management for various reasons in accordance with its grazing regulations (43 CFR 4100 [2006]).

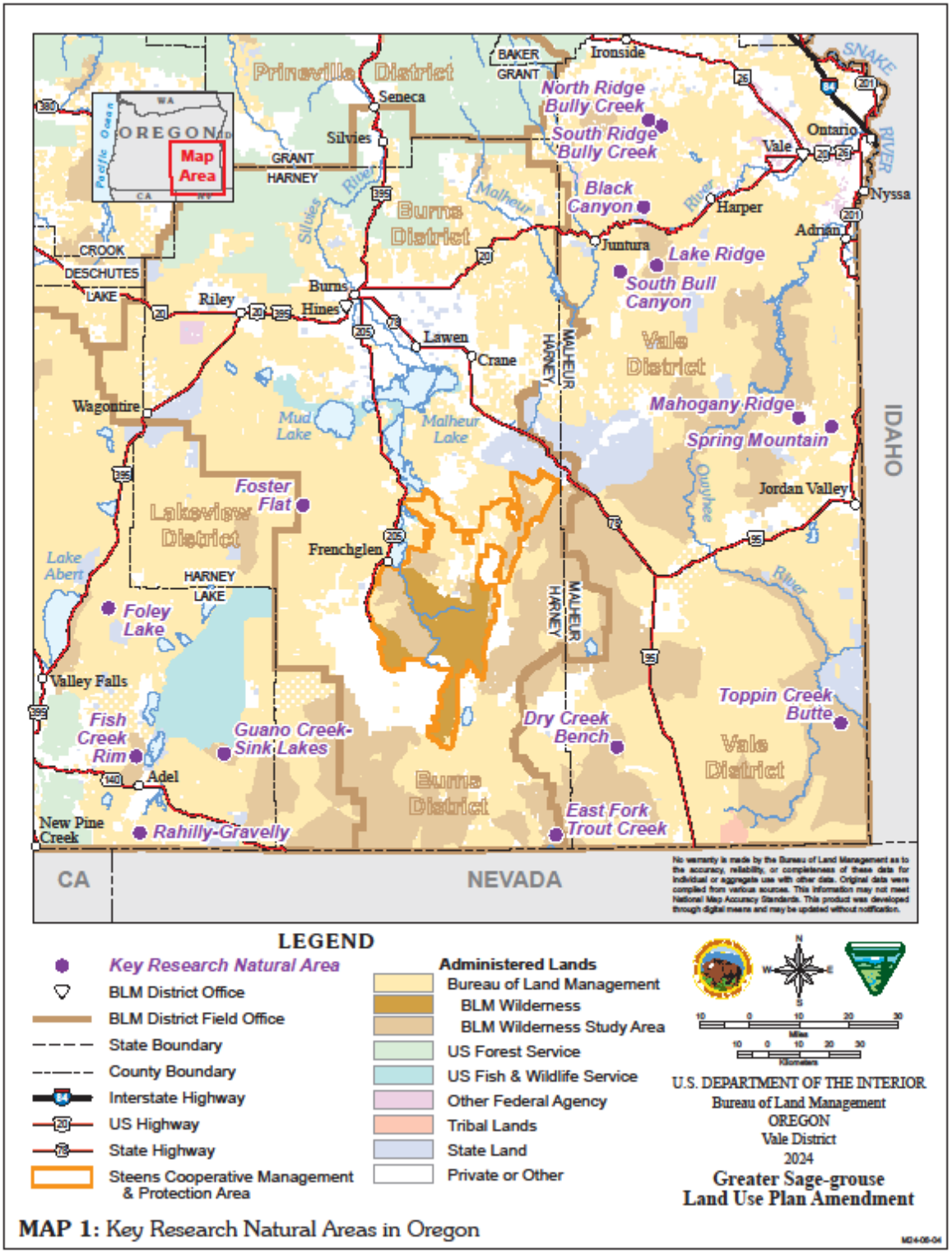
The BLM Assessment, Inventory and Monitoring (AIM) Strategy for Integrated Renewable Resources Management provides a framework for the BLM to quantitatively assess the condition, trend, amount, location, and spatial pattern of natural resources on the nation's public lands. The Landscape Monitoring Framework (LMF) is a component of the AIM strategy and is used to assess and monitor renewable resources on BLM-managed rangelands. We have identified the number of AIM and LMF plots, if any, within individual key RNAs. This information can be found in the description of the key RNAs.

17.4 KEY ACEC AND RNA DESCRIPTIONS

The key ACEC/RNAs in Oregon were identified as containing native sagebrush (*Artemisia* sp.) shrublands, grasslands, and other habitats that provide plant communities that sage-grouse use for breeding, nesting, brood rearing, foraging, and wintering. The plant community types that the RMPA/FEIS (BLM 2015a, p. 3-138 to 3-139) identified as important for sage-grouse are:

- Mountain big sagebrush (*Artemisia tridentata* spp. *vaseyana*)/grasslands
- Basin big sagebrush (*A. tridentata* spp. *tridentata*)/grasslands
- Wyoming big sagebrush (A. t. spp. *wyomingensis*)/grasslands
- Mountain mahogany (*Cercocarpus ledifolius*) and bitterbrush (*Purshia tridentata*) shrublands and grasslands
- Low sagebrush (*Artemisia arbuscula*)/grasslands
- Black sagebrush (*A. nova*)/grasslands
- Rigid sagebrush (*A. rigida*)/grasslands
- Silver sagebrush (*A. cana*)/grasslands
- Three-tip sagebrush (*A. tripartite*)/grasslands
- Shadscale, greasewood, and bud sagebrush *(A. canescens, A. confertifolia, Sarcobatus vermiculatus, Artemisia spinescens*)/desert scrub
- Vernal pools, playas, lake margins
- Black cottonwood (*Populus tricocarpa*), willow (*Salix* sp.) and aspen (*Populus tremuloides*) riparian areas, wet meadows, seeps, and springs

Map 1. Key Research Natural Areas in Oregon



17.4.1 Key ACECs

Three key ACECs were identified in the Proposed RMPA/Final EIS, all within the Lakeview Field Office: Abert Rim, High Lakes, and Red Knoll (BLM 2015a, p. 2-45). Current livestock grazing management would continue within all three key ACECs under all alternatives.

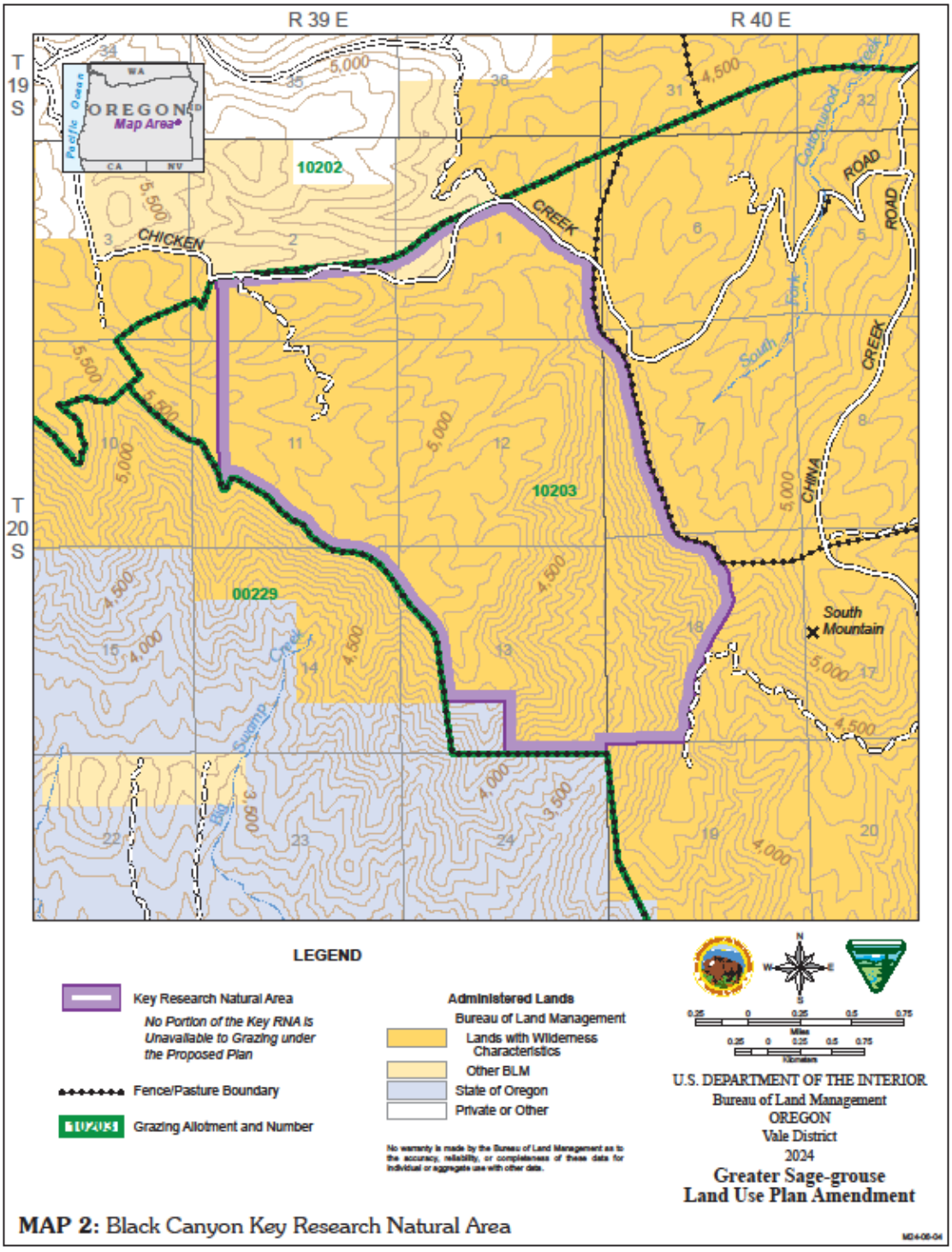
17.4.2 Key RNAs (District)

Black Canyon (Vale District)

Proposed RMP Amendment

Retain the area identified as a key RNA and reallocate the entire key RNA as available for livestock grazing.

Map 2. Black Canyon Key Research Natural Area



Affected Environment

The 2,600[1] acre Black Canyon ACEC/RNA, located north of the Malheur River above Jonesboro, Oregon, occupies the drainage of Black Canyon, a steep south-facing canyon that drains the uplands directly above the mainstem of the Malheur River. The drainage consists of an intermittent to perennial stream flowing just enough to develop riparian vegetation in the steep canyon. The uplands surrounding the drainage are sparsely vegetated due to the shallow soils and dry south-facing aspect. Elevations range from approximately 2,760 to 5,900 feet. There are two AIM plots within the area available for livestock grazing.

Livestock grazing and trailing on public, private, and state lands has occurred for decades in the area. Although there are flat benches conducive to livestock grazing in the upper elevations of the key RNA, the permittee does not currently push livestock to these areas, resulting in little to no use by livestock within the key RNA boundaries.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use will be limited to designated roads and trails. The ACEC/RNA is managed as VRM Classes II and III. Plant collecting requires a permit. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if values will be maintained or enhanced. Where adverse impacts are identified, existing livestock use allocations will be adjusted using a variety of methods that could include fencing, reduction in livestock numbers, and changes in livestock grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 Southeastern Oregon RMP (SEORMP) ACEC/RNA Designation

The relevant and important values of the ACEC/RNA are the following vegetation cells identified by the Oregon Natural Heritage Program (ONHP): stiff sagebrush/Sandberg bluegrass, western juniper/big sagebrush/bluebunch wheatgrass, riparian community dominated by coyote willow with Pacific willow, and first to third order stream system in sagebrush zone.

2015 Greater Sage-grouse ARMPA

The Black Canyon ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities in the key RNA include old-growth western juniper/Wyoming big sagebrush/bluebunch wheatgrass, Wyoming big sagebrush/Idaho fescue (*Festuca idahoensis*), and stiff sagebrush/Sandberg bluegrass plant associations, as well as riparian community dominated by coyote willow and Pacific willow. Upland areas consist of shale rock outcroppings and steep canyons.

Vegetative communities in this key RNA that are important to Greater Sage-grouse habitat continue to be relatively unaltered. These are Wyoming big sagebrush/Idaho fescue (*Festuca idahoensis*), and stiff sagebrush/Sandberg bluegrass plant associations and the riparian community. These communities represent the Cool-Moist/Warm Dry sagebrush, Shallow-Dry Sagebrush, and Riparian communities important for

[1] Updated boundaries of some Key RNAs since publication of the 2015 Oregon ARMPA have resulted in minor change to acreages. No official boundary changes, however, have been made.

Greater Sage-grouse. Use by sage-grouse within the key RNA has not been documented, nor were signs of Greater Sage-grouse presence observed during site visits in 2022 (Fritts, Susan, McDaniel, Michele, and McGuire, Megan. Site visit. 10/12/2022). The key RNA is within 2015 ARMPA designated Greater Sage-grouse Priority and General Habitat Management Area (PHMA, GHMA); the nearest lek is more than three miles away.

The old-growth western juniper/Wyoming big sagebrush/bluebunch wheatgrass community is not suitable habitat for sage-grouse because the western juniper provides perch opportunities for predators.

Other Resources

The Black Canyon key RNA is wholly within the Trail Creek lands with wilderness characteristics unit OR-034-031. The 11,890-acre unit possesses naturalness and outstanding opportunities to experience solitude. The entire Black Canyon Creek drainage is within the unit. The BLM decided not to prioritize protection of the wilderness characteristics in the Trail Creek unit (BLM 2024a, Appendix A, p. A-4).

Some drainages possess varying woody riparian vegetation along portions of their canyon channels, dominated by coyote willow and Pacific willow. Existing human imprints within the unit consists of 5.3 miles of motorized primitive routes, 17.5 miles of rangeland fence, three earthen reservoirs, and four developed springs.

The key RNA is utilized by deer and pronghorn year-round and is designated as deer and elk winter range.

The Visual Resource Management Class (VRM) in the key RNA is mostly Class III with some Class II and Class IV.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The vegetative communities identified as important for Greater Sage-grouse habitat within the key RNA continue to be in good condition. Management would continue to protect the relevant and important values of the RNA.

Benches of sagebrush provide suitable nesting and winter habitat for Greater Sage-grouse.

The key RNA retains the following vegetation types important for Greater Sage-grouse: Ecotone between cool-moist and warm-dry sagebrush, shallow-Dry Sagebrush, and Riparian-Wetlands.

Opportunities for nonmanipulative research and baseline data gathering on relatively unaltered plant community types continue to remain, along with vegetative communities identified as important for greater sage-grouse, due to the remote and rugged nature of the area.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

Prior to the removal of livestock grazing from this key RNA, there was no indication of negative impacts from livestock grazing to these vegetative communities or the relevant and important values for which the RNA was designated (BLM. Monitoring data. 06/01/2018-06/02/2018; BLM. Monitoring data. 06/26/2020-06/27/2020).

The key RNA portion of the pasture is largely inaccessible to livestock grazing due to topography, such as steep, rugged slopes that are sparely vegetated due to shallow soils and dry south-facing aspects (BLM 2001b,

p. 296). The existing pasture boundaries, which encompass the key RNA on three sides, includes two areas that remain allocated to livestock grazing in the 2015 ARMPA.

Due to the deep canyons and rugged terrain that characterize the key RNA, the current and historical livestock use is limited and provides opportunities for ungrazed areas to be found within the key RNA (Fritts, Susan, McDaniel, Michele, and McGuire, Megan. Site visit. 10/12/2022; R. Bond & D. Thomas site visit 06/23/2023) without retaining an allocation of "unavailable for livestock grazing". The objective for which the RNA was designated in 2002 would continue to be met, which allows for scientific research objectives without the need to make the area unavailable for livestock grazing, thus eliminating the need for fence construction.

The key RNA would continue to provide opportunities to gather baseline data on relatively unaltered plant community types important to Greater Sage-grouse without additional fencing as field observations confirmed that the area has limited access for livestock due to extreme topographic features and it is presently largely undisturbed. Continued livestock grazing is not expected to adversely affect current conditions, and conditions continue to exist at the time the RNA was designated under the 2002 SEORMP.

Environmental Consequences

Consequences Common to all Alternatives

The terrain of the key RNA naturally excludes livestock access from all but the south-eastern boundary. Because of limited livestock presence or use occurring within the key RNA, vegetative communities that are important to Greater Sage-grouse habitat would continue to be relatively unaltered and available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

The removal of livestock grazing under Alternative 1 has not changed the condition of the vegetative communities as access to the area by livestock was limited due to topography regardless of how livestock use is allocated for the area. Vegetative communities were in a desirable state prior to the removal of livestock grazing (BLM. Monitoring data. 06/01/2018-06/02/2018; BLM. Monitoring data. 06/26/2020-06/27/2020). Topography is currently the primary factor in livestock being removed from the area, along with livestock management practices such as herding and placement of salt or other active management practices that deter livestock from entering drainage areas within the key RNA. In the future, should the decision be made to construct fence to keep livestock out of the area, there could be ground disturbance associated with fence construction, and potential for increased weeds, unless specific design features are implemented to reduce or eliminate these negative effects. There would be short-term impacts to visual resources during fence construction.

Alternatives 2, 5, 6, and Proposed RMP Amendment

Allocating the 2600-acre area as available for livestock grazing would avoid the need to either construct fencing within areas possessing wilderness characteristics or to implement management actions that require the permittee to manage livestock to avoid incursion into the key RNA that currently receives very little to no use by cattle in the absence of fence construction. There would be no impacts to wildlife, including sage-grouse, from fencing or active livestock management because none would occur for the purposes of removing livestock from the key RNA. There would be no ground disturbance associated with fencing and no associated potential increase in weeds. There would be no impacts to visual resources because there would be no fencing.

No impacts to vegetative communities are expected from re-allocating this key RNA as available for livestock grazing. As stated in the rationale for maintaining the key RNA status, the vegetative communities identified as important for Greater Sage-grouse in 2015 are still present in their entirety as the area has not been subject to wildfire, even though until recently, actions to remove livestock from the area allocated as unavailable for such use had not been implemented. Topographical features allow for long-term natural succession in relatively undisturbed areas from livestock use throughout the majority of the key RNA, and where livestock use does occur, use would be negligible due to limited water availability and access to these areas. Therefore, the condition of the vegetative communities that were present when the 2002 SEORMP designated the RNA while retaining livestock grazing use would continue (BLM. Monitoring data. 06/01/2018-06/02/2018; BLM. Monitoring data. 06/26/2020-06/27/2020).

These alternatives, compared with Alternatives 1, 3, and 4, would have similar impacts from livestock grazing due to limited livestock presence or use occurring in the key RNA boundaries. Vegetation communities that are important to Greater Sage-grouse habitat would continue to be relatively unaltered and provide life-cycle needs (such as nesting, brood rearing, and wintering) under all alternatives.

Outstanding opportunities for solitude would not be negatively impacted because active management by livestock operators to exclude livestock from an unfenced key RNA would not occur nor would there be any short-term disturbances to these opportunities caused by fence construction. The wilderness characteristic of naturalness would not be negatively impacted by the presence of new fencing on the landscape. Fence related conflicts would not occur. Under these alternatives, the BLM could focus management responses on actions that maintain or improve Greater Sage-grouse habitat conditions outside the key RNA rather than focusing on actions that ensure livestock do not enter an area already witnessing limited use.

Alternative 3

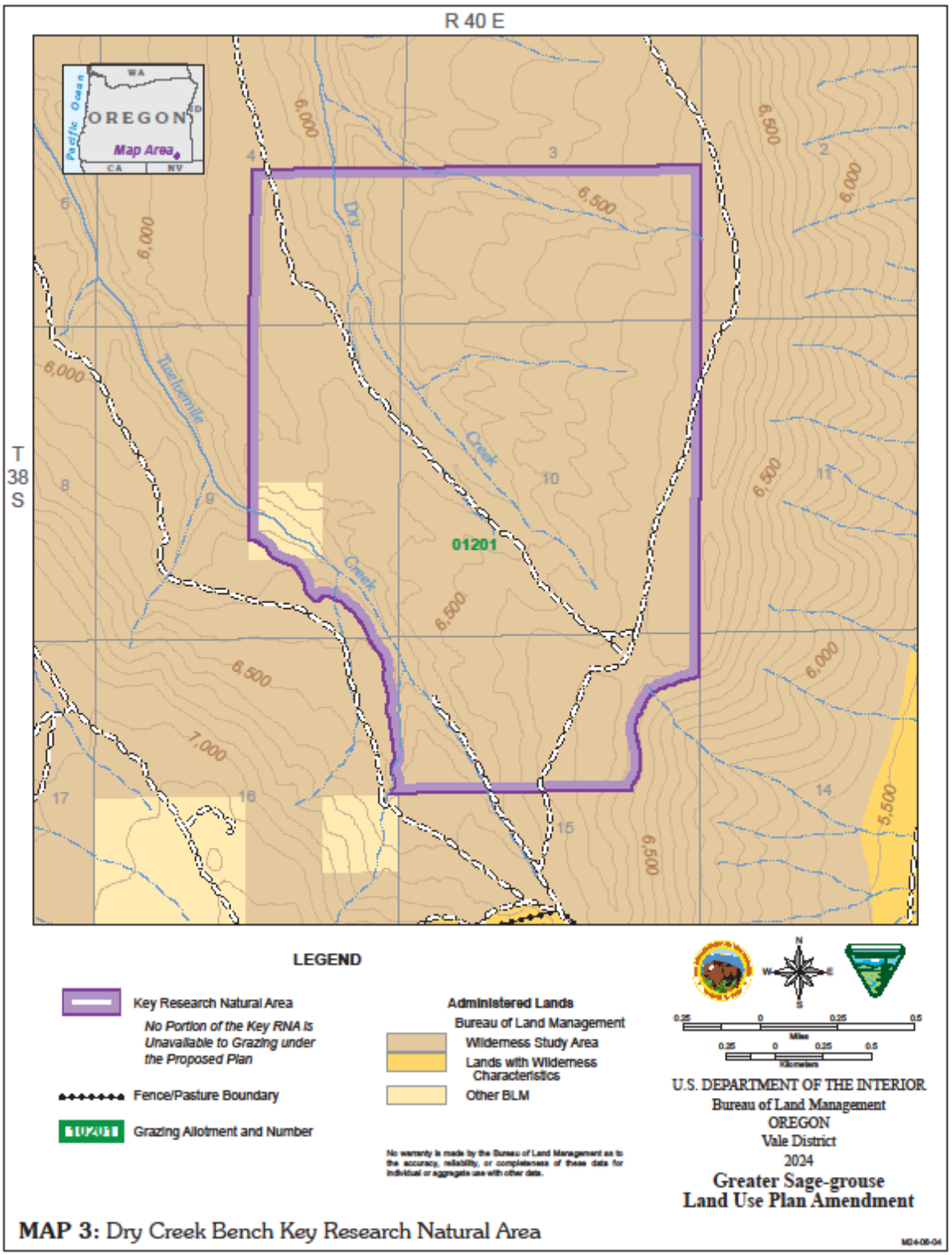
Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). Wilderness characteristics of naturalness and outstanding opportunities for solitude would not be impaired under this alternative, nor would there be any short-term disturbances to these opportunities caused by fence construction. Fence related conflicts would not occur. An ungrazed reference for research would be retained.

Dry Creek Bench (Vale District)

Proposed RMP Amendment

Retain the area identified as a key RNA and reallocate the entire key RNA as available for livestock grazing.

Map 3. Dry Creek Bench Key Research Natural Area



Affected Environment

The 1,635-acre ACEC/RNA is located on the northern edge of the Oregon Canyon Mountains, taking in the upper basin of Dry Creek about 20 miles northwest of McDermitt, Nevada. Terrain of the key RNA naturally excludes livestock access from all but the south-eastern boundary. The area has sizeable patches of mountain mahogany in relatively good condition in association with Saskatoon serviceberry. The mountain mahogany stands in this area are extensive, compared to other stands in the basin, and cover large areas within the steep drainages as well as on the small plateaus that lie at the edge of the drainages. Use by sage-grouse within the key RNA has not been documented, nor were signs of Greater Sage-grouse presence observed during site visits in 2023. The ACEC/RNA is located in the Twelvemile Wilderness Study Area, and classified as VRM class I. The area is known big horn sheep habitat and range. The 2012 Holloway Fire burned through the ACEC/RNA impacting some but not all of the patches of mountain mahogany. The vegetation has been recovering from the fire with grasses and forbs coming back the following year, while mountain mahogany is slower growing and will take time for seedlings to mature.

The 1,635 acre key RNA, including the 622-acre area currently allocated as unavailable for livestock grazing, is in the Green Ponds pasture of the 15-Mile Community allotment (allotment #OR01201). The 15-Mile Community Allotment has seven livestock grazing authorizations associated with it. The allotment currently has a use area agreement in place that formalizes use areas between the livestock operators. There is one AIM plot within the area available for livestock grazing.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use is limited to existing roads and trails. Plant collecting requires a permit. Road maintenance will be limited to the existing roadway, and shoulder/ barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if the values will be maintained or enhanced. Existing livestock use allocations will be adjusted where adverse impacts are identified using a variety of methods, that could include, but is not limited to, fencing, reduction in livestock numbers, and changes in livestock grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 SEORMP ACEC/RNA Designation

The relevant and important values of this ACEC/RNA are the mountain mahogany/whortleleaf snowberry/Idaho fescue and mountain mahogany/big sagebrush/Idaho fescue Basin and Range Province vegetation cells identified by the ONHP.

2015 Greater Sage-grouse ARMPA

The Dry Creek Bench ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities in this ACEC/RNA include mountain mahogany/mountain big sagebrush woodland with mountain snowberry (*Symphoricarpus oreophilis*) and various bunchgrasses, and mountain mahogany/mountain big sagebrush/Idaho fescue plant associations. Although not mentioned in the 2015 ARMPA as a community present, low sagebrush/Idaho fescue and mountain big sagebrush/bluebunch

wheatgrass are present within the proposed key RNA as observed through site visits. These communities represent the Cool-Moist sagebrush and Shallow-Dry sagebrush communities.

The mountain mahogany plant community does not represent an important Greater Sage-grouse habitat type because the density of mountain mahogany within the key RNA boundaries and its elevated structure can pose an increased likelihood of predation by raptors. The key RNA is within Greater Sage-grouse PHMA; the nearest lek is 1.8 miles away. A total of four pending active leks are within four miles of the key RNA.

Other Resources

The visual resource management is Class I.

The Dry Creek Bench key RNA is wholly located in the 28,000-acre Twelvemile Creek WSA. It is one of five WSAs that make up the Trout Creek Mountains Group of WSAs. The WSA is located approximately 26 miles northwest of McDermitt Nevada. The Twelvemile Creek WSA consists of two fault block plateaus, steeply scarped on the east and sloping gently to the northwest. The elevation ranges from 6,000 to 6,800 feet. The predominant plant communities are typical of sagebrush/grass ecosystems, with low sagebrush dominant on the shallower rocky soils, Wyoming big sage dominant on deeper soils. The Twelvemile Creek WSA has outstanding opportunities for experiencing both solitude and primitive and unconfined recreation. Supplemental values include geologic, scenic, archaeological, big game Habitat, and diverse plant community.

Dry Creek Bench key RNA is utilized by mule deer and pronghorn year-round, designated as deer winter range, and is within bighorn sheep occupied habitat. Rugged topography in the area could constrict wildlife movement between deep drainages and steep terrain, focusing movement on flatter benches.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

Notwithstanding being burned by wildfire in 2012, the area continues to be in desirable condition for the vegetative communities identified in the 2015 ARMPA. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated (BLM. Monitoring data. 06/12/2013-06/13/2013; BLM. Monitoring data. 06/02/2018-06/13/2018; BLM. Monitoring data 07/06/2020). Management will continue to protect the relevant and important values. The area continues to recover and provides opportunities for nonmanipulative research and baseline data gathering where natural recovery post-fire was allowed to occur. Site visits indicate that mountain mahogany stands that were not impacted by the 2012 Holloway fire are dense and continuous, with mountain big sagebrush on the periphery of the mahogany stands. Mountain mahogany impacted by the 2012 wildfire are standing dead, creating perches for raptor species that may occur in the area. However, the key RNA as identified in the 2015 ARMPA includes the mountain big sagebrush that occurs within the mountain mahogany community type. Sagebrush communities within the key RNA provide suitable nesting and winter habitat for Greater Sage-grouse.

Retaining the Dry Creek Bench key RNA would continue to allow natural processes to predominate and research and baseline data gathering on relatively unaltered plant communities important for Greater Sage-grouse: cool-moist sagebrush and shallow-dry sagebrush. The key RNA would continue to be managed for minimum human disturbance and to allow natural processes to predominate.

Research opportunities continue to remain within the area due to its remote and rugged nature, including vegetative communities identified as relevant and important values that are important for greater sage-grouse.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

Allocation of the key RNA as unavailable for livestock grazing is unnecessary as this portion of the pasture has limited water availability and consists of topographic features that limit access use. The pasture in which the key RNA is situated has historically received limited use by livestock; this portion of the pasture's vegetative community is in a desired condition. Additional actions or disturbance to exclude livestock are not necessary to protect the relevant and important values because there is limited adequate available water and the remote, rugged nature of the area naturally limits livestock use in this key RNA. Additionally, under the 2015 Biological Opinion this pasture currently receives a minimum 2-year rest followed by a maximum 2-year consecutive livestock grazing use, and livestock grazing use is allowed for a maximum of 61 days during the period of May 15 to July 30. Returning the low level of grazing that occurred until the area was made unavailable for livestock grazing in 2023 is not expected to adversely impact current conditions. Conditions continue to exist (excluding impacts from wildfire) as they did at the time the RNA was designated under the 2002 SEORMP. The potential need to construct fence to create an area to exclude livestock use would be eliminated, therefore reducing the amount of fence on the landscape, as well as the need to address fence maintenance on an annual basis due to snow loads that occur in the area.

The key RNA is located in a WSA. Not building fences to exclude livestock would avoid the potential conflicts fence (exclosure) construction in the WSA would have. Developments that would "impair the suitability of WSAs for the preservation as wilderness" cannot be permitted unless they were to meet one of the exception criteria described in BLM Manual 6330, Management of Wilderness Study Areas. "In determining whether a development meets the protecting or enhancing wilderness characteristics exception, the BLM will determine if the structure's benefits to the natural functioning of the ecosystem outweigh the increased presence of human developments and any loss of naturalness, or outstanding recreational opportunities caused by the new development" (BLM 2012, p. 1-17). However, developments that meet an exception criterion must still be carried out in the least impairing manner practical. Furthermore, if an impairing proposed development—even one that meets an exception—can be implemented outside of a WSA and accomplish the objectives identified in the purpose and need statement prepared under NEPA, the BLM should endeavor to ensure that the project is implemented outside the WSA (BLM 2012, p. 1-11). Under the Proposed RMP Amendment, not building fences to exclude livestock would avoid impacts to wilderness characteristics within the WSA.

Concerns from the public regarding impacts to bighorn sheep were identified through the public scoping process for completing site-specific analysis (BLM 2023a, BLM 2023b) for implementing the removal of livestock grazing from the key RNA. The area is in pristine condition, and in a seral state that is expected to occur post-wildfire, as indicated by the presence of green rabbitbrush within the big sage communities that were affected by the 2012 Holloway wildfire. Although impacts to vegetation and soils may be short-term in nature with the construction of a potential fence to further aid in deterring livestock from using the area allocated as unavailable for livestock grazing, the fence would adversely impact the pristine (naturalness) nature of the area.

The key RNA would continue to provide research opportunities to study relatively unaltered plant community types important to sage-grouse without additional fencing as it is largely undisturbed. Given the topography and limited water sources for livestock use, there are areas that are unused by livestock, allowing

for ungrazed comparison areas without the need of additional fencing or increased livestock grazing management practices to remove livestock from an unfenced exclusion area.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

The removal of livestock grazing under Alternative 1 has not changed the condition of the vegetative communities as access to the area by livestock had been limited due in part to topographical features as well as the management practices prior to the removal of livestock grazing (BLM. Monitoring data. 06/12/2013-06/13/2013; BLM. Monitoring data. 06/02/2018-06/13/2018; BLM. Monitoring data 07/06/2020). Grazing management has been impacted by the need for increased presence to ensure livestock are not entering the area allocated as unavailable for livestock use. These impacts would be witnessed during the portion of the two-year rotation when grazing is allowed within the pasture per the currently prescribed grazing system.

Outstanding opportunities for solitude and primitive and unconfined recreation within the WSA are expected to be negatively impacted by active management to exclude livestock from 622 acres of the key RNA.

Topography and active livestock management through herding, salting, and increased checks on livestock location by the grazing permittee, as well as a grazing system that prescribes a 2-year rest cycle have removed livestock from the area allocated as unavailable for livestock grazing. In the future, should the decision be made to construct fence to exclude livestock from the area, the wilderness characteristic of naturalness would be impacted. Outstanding opportunities for solitude and primitive and unconfined recreation would be impacted by short-term impacts to solitude caused by fence construction. Fence construction may result in short-term disturbance to sage-grouse individuals and fence related conflicts (e.g. bird collisions and entrapments). The area occurs within Visual Resource Management (VRM) Class 1, which would require any fencing to be either screened from view of primary travel corridors by landform and vegetation, or the project elements be small enough and common enough in these landscapes so the level of change would be very low and would not attract attention. A fence is assumed to conform to VRM Class 1 if in an area that would allow for screening and location away from the travel corridor. There would be portions of the fence that would cross the travel corridor due to the location of the key RNA and associated area allocated as unavailable for livestock grazing under these alternatives. Fencing locations to exclude livestock use should consider natural barriers and other topographical features to reduce negative impacts to WSA and VRM Class 1 within the WSA; design features would also need to be incorporated to reduce negative impacts, although any impacts are not expected to be significant.

Wildlife identified for analysis may witness short-term impacts as a result of increased human presence during times when active herding is required to keep livestock out of the area allocated as unavailable for use during the two-year use cycles for the portions of the pasture that remain available for livestock use. If a fence is constructed in the future, impacts to movement within the area may be impacted, but are expected to be short-term in nature, and reduced through fence designs that are intended to reduce long-term impacts. Removal of livestock as a result of the unavailable for livestock use allocation within a portion of the Key RNA is not expected to have positive or negative impacts to wildlife or the associated habitat due to current conditions of the area.

Alternatives 2, 5, 6, and Proposed RMP Amendment

Reallocating the key RNA as available for livestock grazing eliminates the need for additional presence of livestock operators for managing livestock away from unfenced boundaries and the need for additional fence construction. Livestock management that prescribes a 2-year rest followed by 2 years of utilization, which had been in place prior to the 2023 grazing season, would resume.

Throughout the majority of the key RNA, topographical features and current livestock management practices restrict livestock access creating areas relatively undisturbed by livestock (BLM site visits by R. Bond and M. McDaniel July 2023; D. Thomas July 2023) which allows for long-term natural succession. Where livestock use does occur, use would be negligible due to limited water availability and access to these areas. This would result in limited livestock presence or use within the key RNA.

The condition of the vegetative communities that were present when the 2002 SEORMP designated the RNA while retaining livestock grazing use would continue. Livestock grazing management prescribed did not adversely impact conditions of the vegetative communities that support wildlife habitat important to the area or the condition of the important vegetative communities identified for the Greater Sage-grouse.

There are no existing unnatural conditions on the landscape attributed to the livestock grazing that occurred prior to the key RNA being allocated as unavailable for livestock grazing, therefore no additional impacts to wilderness characteristics are anticipated from reallocating livestock grazing in the key RNA.

Alternative 3

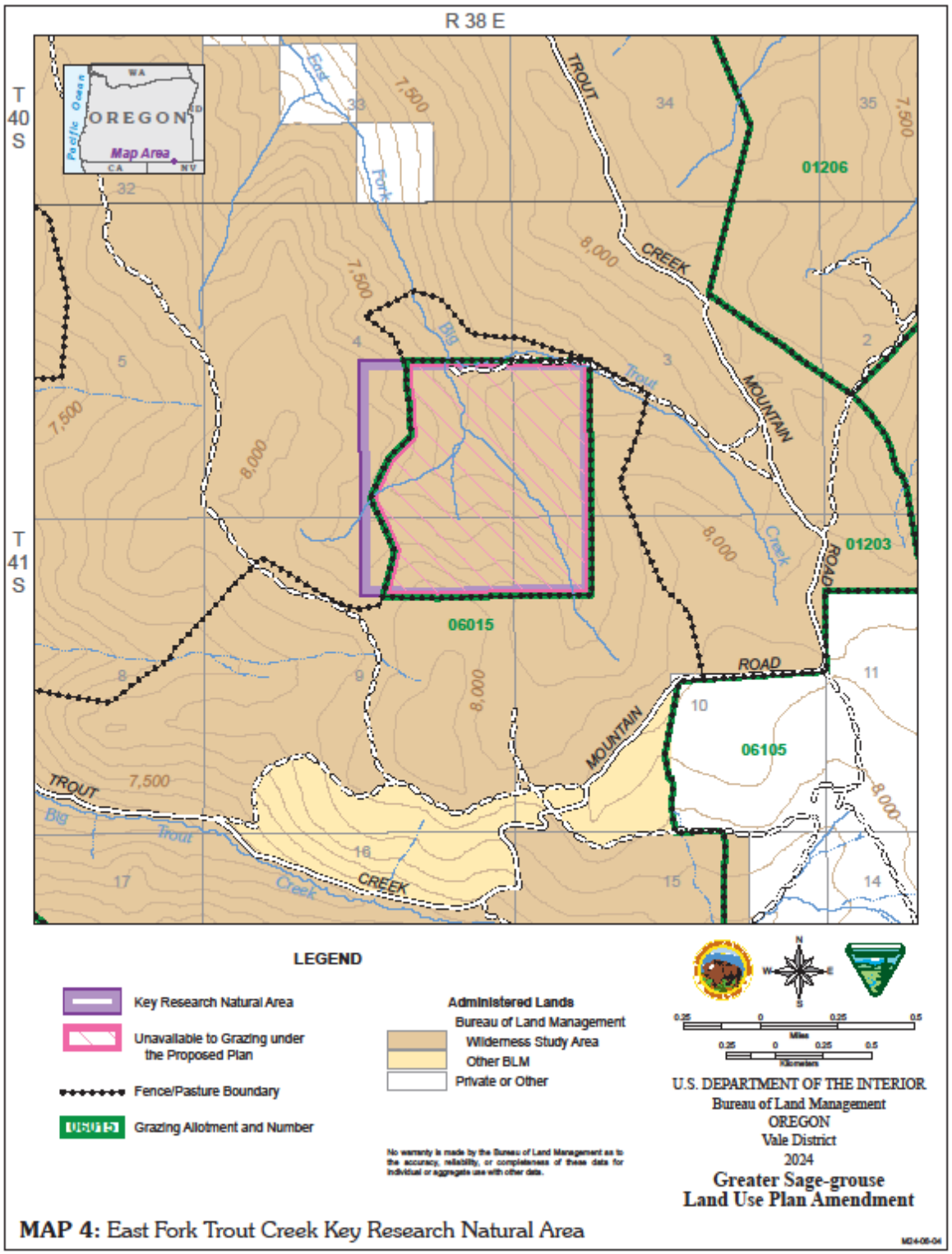
Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). Wilderness characteristics of naturalness, opportunities for solitude, or primitive and unconfined recreation would not be impaired under this alternative, nor would there be any short-term disturbances to these characteristics caused by fence construction. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

East Fork Trout Creek (Burns)

Proposed RMP Amendment

No proposed changes from 2015 ARMPA; the portion of the key RNA that is currently unavailable for livestock grazing would remain unavailable for livestock grazing through a rangeline agreement, which removed the key RNA from the Headwaters Pasture and identified it as an area unavailable for livestock grazing.

Map 4. East Fork Trout Creek Key Research Natural Area



Affected Environment

The East Fork Trout Creek key RNA is located in Southeast Oregon, about 25 miles southeast of Fields, Oregon and 20 miles east of Denio, Nevada. It is situated at the headwaters of the East Fork of Trout Creek in the Trout Creek Mountains. The East Fork Trout Creek key RNA contains 361 acres of BLM managed land. The elevation of the key RNA ranges from 7,350 feet to 8,000 feet and the yearly rainfall averages from 16 to 35 inches per year. Temperatures range from a maximum of 90 degrees F in the summer to an occasional low of minus 20 degrees F in the winter. A 4-strand barbed wire fence runs for 0.75 mile through the west part of the key RNA, running from north to south. The fence will continue to be maintained because it is a pasture boundary. This fence splits the key RNA into two pieces. The piece north-west of the fence is in the East Fork Pasture which is still open to livestock grazing. The portion of the key RNA to the south-east of the fence was previously in the Headwater Pastures, and livestock grazing was limited to 5 days per year. This portion of the key RNA has now been made into its own pasture and has been unavailable for livestock grazing through a rangeline agreement with livestock operators. Livestock grazing is still authorized in the Headwaters Pasture which no longer includes the key RNA.

Specific Management under the 2005 Andrews Management Unit RMP ROD, as Amended

OHV use is limited to existing roads and trails.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2005 Andrews Management Unit ROD/RMP ACEC/RNA Designation

The relevant and important values include several plant community types. The ONHP vegetation cells represented in this area include a riparian community dominated by quaking aspen and Scouler willow, a high-elevation wet meadow dominated by sedges, and a first-to-third order stream system originating in the subalpine zone.

2015 Greater Sage-grouse ARMPA

The East Fork Trout Creek ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities

The vegetation in the key RNA consists of three major plant communities, a riparian community, a mountain big sagebrush (*Artemisia tridentata s. vaseyana*) community and a quaking aspen community (BLM 2007, p. 3). The riparian community is made up of two first order streams with associated meadow and willow (*Salix spp.*) types along the stream route. Meadow types are quite extensive in some areas where springs emerge from the ground and saturate the soil. Sedges and Rushes (*Juncus spp.*) dominate these saturated areas with occasional willow patches. Other species that occur in the meadow type include: aspen, alder, false hellebore (*Veratrum californicum*), monkeyflower (*Mimulus guttatus*), clover (*Trifolium longipes*), cinquefoil (*Potentilla gracilis*), willow herb (*Epilobium watsonii*), and buttercup (*Ranunculus macounii*). The mountain big sagebrush community covers the most area within the RNA. This type covers the dryer upland areas around and between the riparian areas and the aspen groves. Portions of this type include late-lying snow accumulation zones where very little sagebrush grows. Mountain big sagebrush is the dominant shrub in this community and needle grass (*Achnatherum* spp.) and mountain brome (*Bromus carinatus*) are the dominant grass species. Other species include wax currant (*Ribes cereum*), service berry (*Amelanchier alnifolia*), Snowberry (*Symphoricarpos rotundifolius*), lupine (*Lupinus* spp.), Idaho fescue (*Festuca idahoensis*), and phlox (*Phlox* spp.).

The quaking aspen community covers nearly one third of the natural area and includes the Scouler willow vegetation type. Much of this community is comprised of very dense canopy cover with poorly vegetated

understory. Other areas are more sparsely covered with trees and have well vegetated understories. Some of the species include: yarrow (*Achillea millefolium*), columbine (*Aquilegia formosa*), bedstraw (*Galium triflorum*), miner's lettuce (*Mantia perfoliata*), Solomon's seal (*Smilacina stellata*), stinging nettle (*Urtica dioica*), rose (*Rosa woodsii*), snowberry, and creeping wildrye (*Leymus triticoides*). No special status plant species are known to occur within the natural area.

Other Resources

Some of the common wildlife species found in the key RNA include mule deer, pronghorn, cougar, coyote, bobcat, badger, Belding ground squirrel, beaver, weasel, golden eagle, raven, cottontail, snowshoe hare, and spotted frog. The East Fork of Trout Creek supports a population of hybrid rainbow/cutthroat trout up to 10 inches in length. Special status animal species that could be present in the key RNA include Greater Sage-grouse, ferruginous hawk, Northern goshawk, and spotted frog. Many species of migratory birds nest in and around the natural area.

The fire return interval for the area in and around the RNA could be up to 100 years at the top end but the best estimate is between 35 and 50 years. The fine fuels from perennial grasses have increased in the last 15 years due to the change in livestock use (limited to no more than 5 days per grazing season).

The key RNA is located entirely within the Mahogany Ridge Wilderness Study Area (WSA). The area will be managed according to the BLM WSA policy.

Two separate stream forks form the headwaters of the East Fork Trout Creek. Each fork originates as two first order streams coming together to form a second order stream. When the two second order streams flow together in the lower part of the RNA they form a third order stream. All of the first order streams originate at 7,600 feet or higher in elevation. In all, about 1.2 miles of the East Fork Trout Creek and its tributaries are present within the natural area.

The area is encompassed within the 1.2 mile lek buffer and within a WSA. In addition, there are special status species flora located adjacent to the key RNA. The key RNA has been removed from the pasture and a fence is not needed to exclude livestock grazing from the area identified as unavailable for livestock grazing as topography and water sources in lower elevations of the Headwaters Pasture typically prevent livestock from grazing within the RNA. By utilizing a rangeline agreement in lieu of a fence, the BLM removed any resource conflicts that fence construction might present.

Environmental Consequences

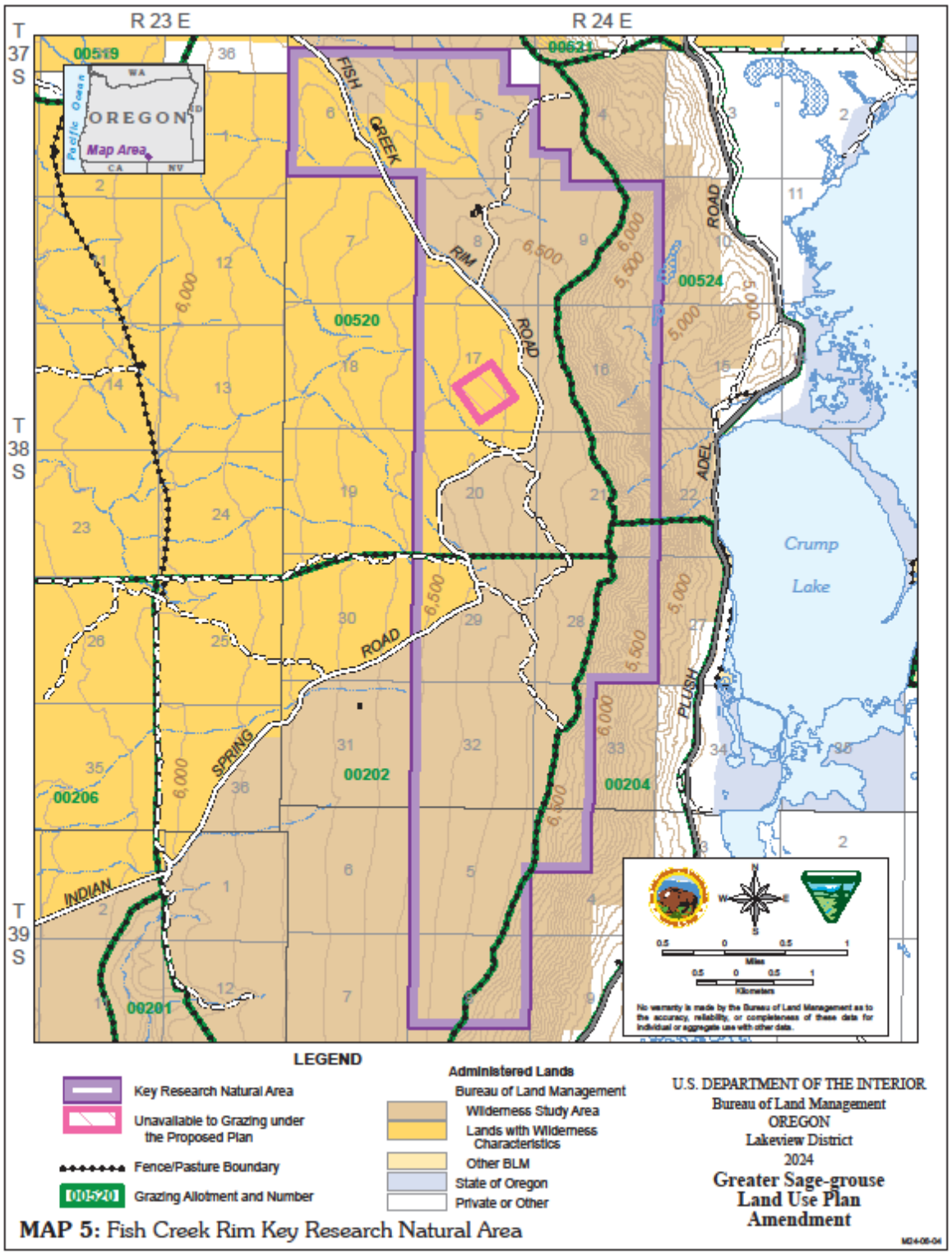
As there are no changes in livestock grazing management proposed in this planning effort there would be no effect to the vegetation communities and resources described above. An ungrazed reference for research would be retained.

Fish Creek Rim (Lakeview)

Proposed RMP Amendment

Retain the area identified as a key RNA and reduce the 2,750 acres allocated as unavailable for livestock grazing to 95 acres within a low sagebrush/grassland community.

Map 5. Fish Creek Rim Key Research Natural Area



Affected Environment

The 8,725-acre Fish Creek Rim ACEC/RNA is located about 22 miles northeast of Lakeview. The 2015 Proposed RMPA/Final EIS described the plant communities of the Fish Creek Rim ACEC/RNA as representing mountain mahogany/mountain big sagebrush, low sagebrush/Idaho fescue, low sagebrush/Sandberg's bluegrass, mountain big sagebrush/bitterbrush/Idaho fescue, and a snowbrush/bittercherry shrub (*Ceanothus velutinus*/*Prunus emarginata*) complex (BLM 2015a, p. 3-140). Approximately 2,700 acres of the ACEC/RNA contains these specific plant communities ("cells" identified in Vander Schaaf 1992; BLM 2000a, p. III-30). Sage-grouse use has not been documented in all of these communities. Wyoming big sagebrush, small stands of quaking aspen and white fir (*Abies concolor*), and dense western juniper stands are also found within the ACEC/RNA boundary (BLM 2000a, p. III-30). Only Wyoming big sagebrush, mountain big sagebrush, and low sagebrush communities represent potential sage-grouse habitat.

Specific Management under the Lakeview RMP/ROD

OHV use is limited to existing roads and trails.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

Lakeview RMP ACEC/RNA Designation

The Fish Creek Rim ACEC/RNA was designated in the Lakeview RMP/ROD to protect relevant/important natural system (plant communities) and cultural resource values (BLM 2000a, p. III-30; 2001a, p. A-242 to A-243; 2003b, p. 58).

During the development of the *Lakeview RMP*/*ROD* (BLM 2003b), the BLM expanded the Fish Creek Rim ACEC/RNA (from the original 2,700-acre proposal to 8,725 acres) solely to include important cultural values in the added acreage. These values included the presence of stone rings/occupation sites, lithic scatter, rock art sites, and hunting blinds (BLM 2000a, p. III-28; 2003b, p. 77).

2015 Greater Sage-grouse ARMPA

The 2015 Proposed RMPA/Final EIS described the plant communities of the Fish Creek Rim ACEC/RNA as representing mountain mahogany/mountain big sagebrush, low sagebrush/Idaho fescue, low sagebrush/Sandberg's bluegrass, mountain big sagebrush/bitterbrush/Idaho fescue, and a snowbrush/bittercherry shrub (*Ceanothus velutinus*/*Prunus emarginata*) complex (BLM 2015a, p. 3-140). Approximately 2,700 acres of the ACEC/RNA contains these specific plant communities ("cells" identified in Vander Schaaf 1992; BLM 2000a, p. III-30).

Updated Vegetation Communities

Based on ecological site inventory (ESI) data, the most dominant vegetation communities in the Fish Creek Rim ACEC/RNA include low sagebrush/squirreltail, low sagebrush/Idaho fescue, mountain mahogany/mountain big sagebrush/bluegrass, and juniper-encroached mountain big sagebrush/squirreltail associations.

The Fish Creek Rim ACEC/RNA has extensive current and historical whitetop species (*Lipidium draba, L. appelianum, and L. chalepense*) weed sites along the road system, Canada thistle (*Cirsium arvense*) near water developments, and scattered patches of cheatgrass (*Bromus tectorum*) throughout the area.

Other Resources or Issues

Small riparian/wetland areas occur around several livestock water developments and within existing exclosures around Cleland and Cox Springs (BLM 2024b, p. 24).

The Fish Creek Rim ACEC/RNA includes a diversity of wildlife habitats. The area contains occupied bighorn sheep habitat, mule deer winter habitat, year-round antelope habitat. While the key RNA includes PHMA and GHMA, there are no known leks within the key RNA (BLM 2015a, p. 3-140) and documented use by Greater Sage-grouse within the key RNA is limited. Telemetry data collected in the area from 2009-2017 as part of various studies, documented spring, summer, and winter use in portions of the key RNA, but the majority of use occurred west of the key RNA, and no use was documented within the area allocated as unavailable for livestock grazing considered under Alternative 1 (Olsen *et al.* 2021a, Olsen *et al.* 2021b, and unpublished data).

During the development of the *Lakeview RMP/ROD* (BLM 2003b), the BLM expanded the Fish Creek Rim ACEC/RNA (from the original 2,700-acre proposal to 8,725 acres) to include important cultural values in the surrounding area, in general these additional acres do not include sage-grouse habitat. These values included the presence of stone rings/occupation sites, lithic scatter, rock art sites, and hunting blinds (BLM 2000a, p. III-28). A small portion of the Fish Creek Rim Wilderness Study Area (WSA) (OR-1-117; 1,786 acres) overlaps a portion of the Fish Creek Rim key RNA. A small portion of the Monument Flat wilderness characteristics unit (OR-015-117A) also overlaps a portion of the Fish Creek Rim key RNA.

Fish Creek Rim ACEC/RNA is managed under two different VRM classifications. The Fish Creek Rim WSA portion is managed as VRM Class I. The remainder of the ACEC/RNA is managed as VRM Class II.

The Fish Creek Rim ACEC/RNA falls within portions of the 22,011-acre Lynch-Flynn (00520), 3,548-acre Crump Individual (00201), 3,054-acre Lane Individual (00524), and 8,073-acre Hickey Individual (00202) Allotments. The area allocated as unavailable for livestock grazing under Alternative 1 falls within a portion of the East Pasture of the Lynch-Flynn Allotment. A rangeland health assessment was completed for this allotment in 2003 and updated in 2013 (BLM 2003c, 2013b). During these assessments no rangeland health issues were identified within the allocated as unavailable for livestock grazing under Alternative 1.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated. Management would continue to protect the relevant and important values of the RNA.

The key RNA retains the following vegetation types important for Greater Sage-grouse: cool-moist sagebrush, shallow-dry sagebrush, mountain brush, and riparian-wetlands.

Opportunities for nonmanipulative research and baseline data gathering on relatively unaltered plant community types continue to remain, along with vegetative communities identified as important for greater sage-grouse, due to the remote and rugged nature of the area.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

Portions of the boundary around the area allocated as unavailable for livestock grazing in Alternative 1 traversed terrain/topography where the BLM determined, based on further analysis and field inventory, it would be difficult to construct exclosure fencing.

The mountain mahogany plant community does not represent an important sage-grouse habitat type because of the high density and decadent condition of the mountain mahogany stands and lack of sagebrush

understory within this portion within the key RNA boundary. White fir and western juniper stands do not represent important sage-grouse habitats because Greater Sage-grouse are a sagebrush-obligate species and these are forest or woodland habitats rather than sagebrush habitats. In addition, other existing native plant communities within the key RNA boundary are severely degraded by western juniper encroachment. The mountain mahogany, white fir, and western juniper all present perching locations for raptors, decreasing security for sage-grouse and resulting in their avoidance of these areas.

Portions of the existing low sagebrush/grassland community would be located both inside and outside of the boundary of the area allocated as unavailable for livestock grazing creating both grazed and ungrazed (control) sites in the same area suitable for future research related to the effects of livestock grazing.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

Livestock are currently being kept out of areas allocated as unavailable for grazing through active management (herding, adjustment of turnout dates, removal of nearby water developments, and/or placement of salt or other supplements). There is an ungrazed reference area for research.

In the future, should the decision be made to construct fence to keep livestock out of the area, there would be impacts to wildlife, including sage-grouse, from fence construction including possible bird collisions and entrapments. There would also be ground disturbance associated with fencing and an associated potential increase in weeds. Construction of fencing and subsequent livestock trailing along the fence would create new ground disturbance within an area that has been relatively undisturbed in the past. Any time equipment and people are working in new areas there is a potential risk of introducing new noxious weeds/invasive species into native communities from equipment and people doing the work. There would be short-term impacts to visual resources during fence construction.

The wilderness characteristic of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired by fence construction under this alternative either in the short-term and long-term. There would be one-time fence construction costs to the BLM. Currently, fence construction costs are estimated at about $10,000 per mile (material and labor). Assuming that local contractors would be hired to construct the fence, there would be a small benefit to the local economy. There would also be additional operational costs to the permittee associated with the annual maintenance of the new exclosure fence.

Under these alternatives there are negative economic effects to affected livestock operators that arose from making 2750 acres (approximately 110 AUMs) unavailable for livestock grazing.

Alternative 2

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing, active livestock management (herding), or water developments for livestock. The wilderness characteristic of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative either short-term or long-term any more than it had been at the time that this unit was identified as one with wilderness characteristics. Fence-related conflicts would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing, active livestock management (herding), or water developments for livestock. Wilderness characteristics of naturalness, opportunities for solitude, or primitive and unconfined recreation would not be impaired under this alternative, nor would there be any short-term disturbances to these characteristics caused by fence construction. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Alternatives 5, 6, and Proposed RMP Amendment

These alternatives would reallocate a portion of the WSA in the RNA as available for livestock grazing. Because the ecological condition had been good when grazing was allowed, the effect from this reallocation on wilderness characteristics is expected to be negligible.

Low sagebrush/grassland wildlife habitat would be present within the area allocated as unavailable for livestock grazing.

The modified boundary of the reduced area allocated as unavailable for livestock grazing under these alternatives would reduce amount of fencing needed within sage-grouse habitat and none of the boundary of the area allocated as unavailable for livestock grazing would be within 1.2 miles of any leks. This modification also eliminates the need for new fencing within the Fish Creek Rim WSA and eliminates the impact such fences would have on WSA values. The modified boundary would avoid all five existing livestock water sources and eliminate the need to mitigate for lost livestock watering sites. 2,655 acres would be reallocated as available for livestock grazing.

Construction of fencing and subsequent livestock trailing along the fence would create new ground disturbance within an area that has been relatively undisturbed in the past. Any time equipment and people are working in new areas there is a potential risk of introducing new noxious weeds/invasive species into native communities from equipment and people doing the work. However, the risk of weed introduction or expansion would be slightly less than Alternative 1 due to less fencing being needed, livestock trailing along the fence and associated ground disturbances.

All fencing would pose a low collision risk to sage-grouse and would be constructed with wildlife-friendly specifications.

No fencing or changes in livestock grazing use would occur within the VRM Class I (Fish Creek Rim WSA) area. As a result, there would be no impacts to scenic values within VRM Class I areas. The exclosure fencing would have minor, negative impacts on the scenic quality in the rest of the Fish Creek Rim ACEC/RNA, but these effects would be consistent with VRM Class II management objectives.

A portion of the boundary of the area allocated as unavailable for livestock grazing would be within the Monument Flat wilderness characteristics inventory unit. If it were to be fenced, the fencing would be noticeable within close proximity but would not be substantially noticeable across the unit as a whole.

These alternatives would substantially reverse negative economic effects to affected livestock operators that arose from making 2,750 acres unavailable for livestock grazing. Under these alternatives, 2,655 acres would be reallocated as available for livestock grazing (approximately 106 AUMs).

There would be one-time fence construction costs to the BLM. Currently, fence construction costs are estimated at about $10,000 per mile (material and labor). Assuming that local contractors would be hired

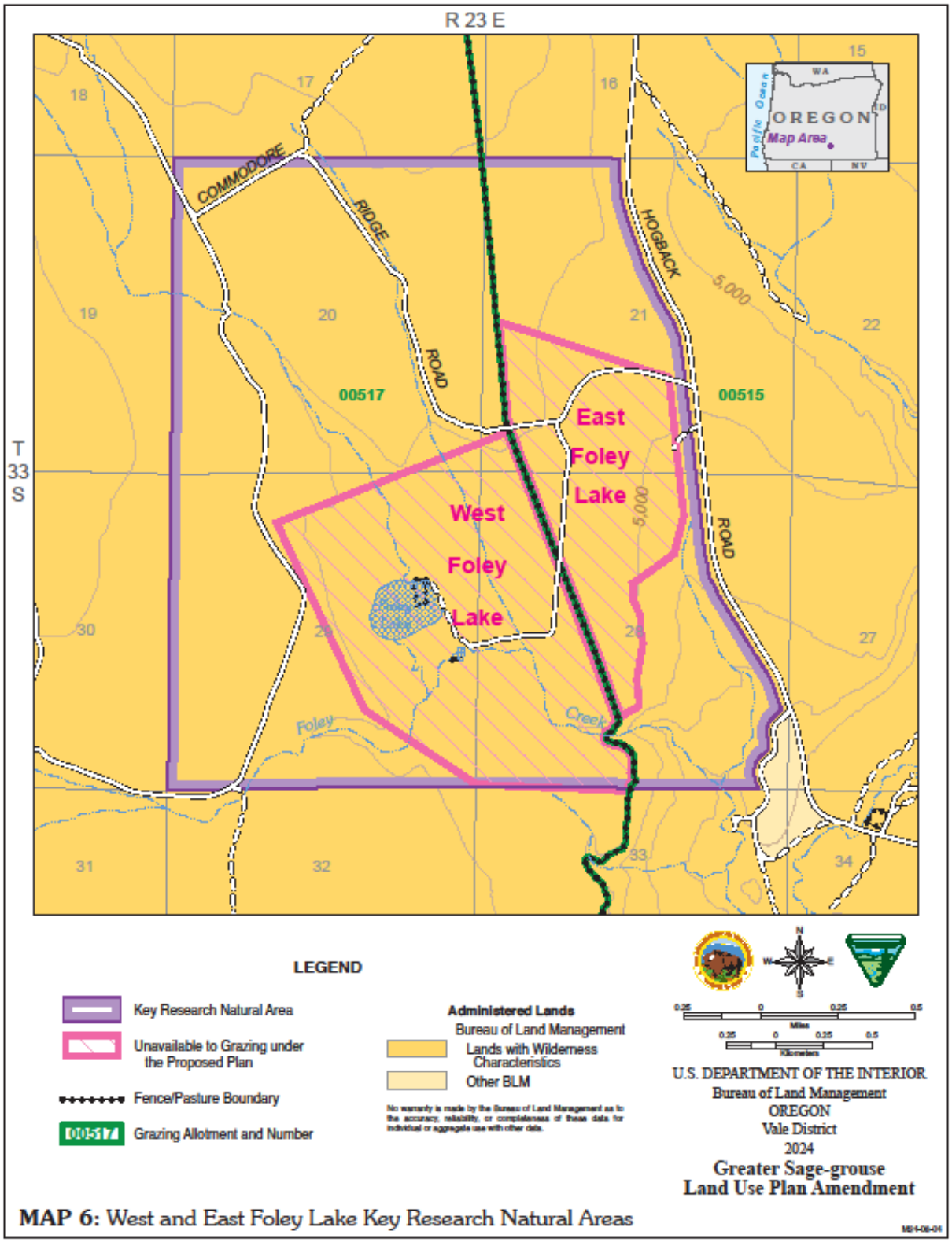
to construct the fence, there would be a small benefit to the local economy. There would also be additional operational costs to the permittee associated with the annual maintenance of the new exclosure fence.

Foley Lake (Lakeview)

Proposed RMP Amendment

Retain the area identified as a key RNA and reduce the area unavailable for livestock grazing use. The area allocated as unavailable for livestock grazing would be reduced from 1269 acres to 797 acres. The western portion would be reduced to 521 acres within the Coyote-Colvin Allotment that contains silver sagebrush/grassland, Wyoming big sagebrush/grassland, and black sagebrush/grassland plant communities. The eastern portion would be reduced to 276 acres within the Juniper Mountain Allotment that contains black sagebrush/grassland and Wyoming big sagebrush/grassland plant communities. Approximately one mile of the existing allotment boundary fence could be removed from the middle of the key RNA once the exclosure fences are completed.

Map 6. Foley Lake Key Research Natural Area



Affected Environment

The Foley Lake ACEC/RNA falls within portions of the 130,345-acre Coyote-Colvin (00517) and 86,518-acre Juniper Mountain (00515) Allotments. There is an existing allotment boundary fence running in a north-south direction through the center of this key RNA. Potential management changes would impact two livestock operators. For this reason, portions of the following discussion for Foley Lake key RNA are broken out into an eastern and western portion. An exclosure fence has been constructed in the western portion along the boundary of the area that would be allocated as unavailable for grazing in the Proposed RMP Amendment.

Updated Vegetation Communities

Foley Lake itself lies in a small basin on the gently sloping backside of the Abert Rim fault within a larger Wyoming big sagebrush/grassland landscape. Black sagebrush is the predominant shrub in the ACEC/RNA with low sagebrush common on lithic soils. Wyoming big sagebrush occurs on deeper soils and silver sagebrush on the large vernally wet playa and (Foley) lake margin. Bud sagebrush (*Artemisia spinescens*) is also present (BLM 2015a, p. 3-140).

The 2015 Proposed RMPA/Final EIS described the plant communities the Foley Lake ACEC/RNA contains as black sagebrush/Sandberg bluegrass shrubland and low sagebrush/bunch grass (Sandberg bluegrass, bottle brush squirreltail, Idaho fescue), silver sagebrush/Sandberg's bluegrass plant associations (BLM 2015a, p. 3-140), however, a smaller portion of this area (approximately 1,035 acres) actually contains those specific plant communities (Vander Schaaf 1992, map pp. 14-15).

Based on ESI data, the most dominant vegetation communities in the Foley Lake ACEC/RNA include Wyoming big sagebrush/squirreltail and black sagebrush/field smartweed plant associations in the western portion and Wyoming big sagebrush/squirreltail and black sagebrush/squirreltail and smartweed plant associations in the eastern portion. Silver sagebrush associated with the margins of Foley Lake also occur in the western portion of the ACEC/RNA. No wetland or riparian areas occur within the east half of the Foley Lake ACEC/RNA (BLM 2024b, p. 25).

There are no known noxious weeds documented in the Foley Lake key RNA. However, cheatgrass has been documented recently in the understory. No special status plants occur within the east half of the Foley Lake ACEC/RNA.

Other Resources

The entire ACEC/RNA area is classified as PHMA and as seasonal breeding, summer, and winter sage-grouse habitat. However, there are no documented leks located within the key RNA boundary. Telemetry data collected from 2009-2017 for various studies failed to document sage-grouse use in the Foley Lake RNA, though summer usage was documented to the northwest and southwest of the RNA. Usage of the RNA has been observed indirectly in recent years (e.g. fecal pellets) (BLM, unpublished data). The eastern portion of the ACEC/RNA lies within sage-grouse Warners PAC, mid-scale HAF (Warner-Meizner), and fine-scale HAF (Warner) boundaries.

The Foley Lake ACEC/RNA provides habitat for a variety of other sagebrush-associated birds, mammals, and reptiles (BLM 2024b, p. 50). The western portion of the key RNA is pronghorn habitat (BLM 2019b, p. 77). While two pygmy rabbit burrows were located near or within the western exclosure area in recent years, the majority of the exclosure area is not an area of high pygmy rabbit use or typical pygmy rabbit habitat due to the shallow, rocky soils. (BLM 2019b, p. 77).

The western portion of the Foley Lake key RNA falls within the Twin Lakes Pasture of the Coyote-Colvin Allotment. A rangeland health assessment was completed for this allotment in 2000 and updated in 2016. No rangeland health issues were identified in the Twin Lakes Pasture during either assessment (BLM 2000b, 2016).

The eastern portion of the Foley Lake key RNA falls within the Flint Hills Pasture of the Juniper Mountain Allotment. A rangeland health assessment was completed for this allotment in 2004 (BLM 2004). No rangeland health issues were identified in the assessment for the Flint Hills Pasture of the allotment which contains the proposed grazing exclosure area.

Specific Management under the Lakeview RMP/ROD

OHV use is limited to existing roads and trails. The Foley Lake ACEC/RNA is managed as VRM Class III.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

Lakeview RMP/ROD ACEC/RNA Designation

The 2,228-acre Foley Lake ACEC/RNA is located about 37 miles northeast of Lakeview and was designated in the Lakeview RMP/ROD to protect relevant/important natural system (plant communities) and cultural resource values (BLM 2000a, pp. II-9, III-39; 2001a, p. A-243 to A-244; 2003b, p. 58). In the *Lakeview RMP/ROD* the BLM expanded the original Foley Lake ACEC/RNA proposal (from 1,035 acres to 2,228 acres) solely to include important cultural resource values in the added acreage. These include the presence of stone rings, rock art, burial sites, rock shelters, and lithic scatters (BLM 2000a, p. III-37 to III-38; 2003a, p. 2-58).

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The vegetative communities identified as important for Greater Sage-grouse habitat within the key RNA continue to be in good condition. Management would continue to protect the relevant and important values of the RNA.

The key RNA retains the following vegetation types important for Greater Sage-grouse: warm-dry sagebrush, shallow-dry sagebrush, and playa.

Opportunities for nonmanipulative research and baseline data gathering on relatively unaltered plant community types continue to remain, along with vegetative communities identified as important for greater sage-grouse, due to the remote and rugged nature of the area. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to these vegetative communities or the relevant and important values for which the RNA was designated.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

Portions of the original boundary of the area allocated as unavailable for grazing (Alternative 1) traversed steep slopes and rocky surfaces. The modified proposal avoids these. The modified boundary would not be within 1.2 miles of active or pending active leks and would avoid creating a livestock trailing safety problem along County Road 3-10 (Hogback Road), a main, well-traveled county road on the east. The proposed boundary also takes advantage of existing topographic features (steep rim) on the south.

The western exclosure boundary includes all of the silver sagebrush/grassland community associated with Foley Lake, most of the surrounding black sagebrush/grassland community, and some of the Wyoming big sagebrush/grassland community. This allows both grazed and ungrazed (control) sites located in the same

area for future research related to the effects of livestock grazing on black sagebrush and Wyoming big sagebrush communities.

The proposed eastern exclosure boundary includes some of the black sagebrush/grassland and Wyoming big sagebrush/grassland communities. This would allow both grazed and ungrazed (control) sites to be located in same area for future research related to the effects of livestock grazing on black sagebrush/ grassland and Wyoming big sagebrush/grassland communities. The modified exclosure boundary avoids cultural sites located during field inventories of the original Alternative 1 alignment.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

Livestock are currently being kept out of areas allocated as unavailable for grazing through active management (herding, adjustment of turnout dates, removal of nearby water developments, and/or placement of salt or other supplements).

The relevant and important values within the 1,269 acres allocated as unavailable for livestock grazing protected through the elimination of soil and vegetation disturbance. Native plant communities in this area are not subject to cattle trailing and trampling effects. There is an ungrazed reference for research.

Foley Lake waterhole and several existing natural water sources would no longer be available as livestock water sources for cattle grazing in the Twin Lakes Pasture. Excluding these water sources will change livestock distribution, and livestock grazing use will be less in the area immediately surrounding the exclosure and more concentrated in other areas of the Twin Lakes Pasture with water. Water will need to be hauled (at permittee's expense) to temporary troughs near two existing waterholes in the north end of the Twin Lakes Pasture on years when livestock water is limited which could create expanded disturbances due to increased cattle concentration and semi-truck use. These existing watering sites are located along existing roads and are not within 1.2 miles of leks or other important sage-grouse habitats (BLM 2019b, p. 103; Appendix D, Map 7). Vegetation disturbance would occur from semi-trucks turning around near the water trough sites (outside the key RNA).

Removal of livestock grazing removes one potential weed-spreading vector within the exclosure area. However, other vectors (wildlife, vehicles, wind, and water) would continue and potentially spread weed species. The lack of spring livestock grazing could allow more invasive annual grasses to flower and produce seed. Monitoring data has shown that removal of livestock from areas where weeds are present (such as riparian areas and exclosures) often leads to more robust weed infestations and allows the invasive species to negatively impact native vegetation (BLM 2019b, p. 50). Fenceline disturbance could represent an area of increased risk of potential cheatgrass invasion/expansion. Fencing would negatively affect the existing visual quality within the area, but would meet the VRM Class III management objectives.

In the absence of spring grazing, areas with high amounts of annual grasses will continue to degrade the landscape and create a less fire-resistant landscape. There will be an increase in fine fuels and a potential increase in the risk of catastrophic wildfire occurrence within this exclosure (BLM 2019b, p. 42). Should a wildfire occur and impact the proposed grazing exclosure, the exclosure area could be subject to increased

cheatgrass dominance and could require active vegetation management such as herbicide treatment or native grass seeding.

If fencing is used, there would be some surface disturbance to upland native vegetation communities, soils, and biological crusts from vehicle traffic during fence construction and removal and future maintenance of the proposed fence.

Making portions of the key RNA unavailable for livestock grazing would not prevent the use of Foley Lake as a water source by mule deer, pronghorn, bighorn sheep, or other wildlife. A fence could alter behavior and use patterns of big game species, but those effects would be mitigated to the extent feasible by building the fence to standard wildlife passage specifications (BLM 2019b, p. 77).

Fence construction would not impact pygmy rabbits at a population level and would not improve pygmy rabbit habitat or encourage movement of more pygmy rabbits into the exclosure area (BLM 2019b, p. 77).

Excluding the western portion of the Foley Lake RNA would remove approximately 31 AUMs of forage available for livestock grazing use in the Twin Lakes Pasture of the Coyote-Colvin Allotment. Excluding the eastern part of would remove about 32 AUMs of forage available for livestock grazing use in the Juniper Mountain Allotment. This total reduction of about 63 AUMs could be absorbed by spreading the AUMs across other pastures within the allotments, and would not require reducing the permitted number of AUMs.

There would be annual operational costs to the permittee associated with future fence maintenance (estimated at $600-1,200 per year) and water hauling.

Alternative 2

Reallocating the entire key RNA as available for livestock grazing is unlikely to harm the habitat quality of the area, as under the previous grazing regimen, it was in good ecological condition and met applicable rangeland health standards (BLM 2000b; BLM 2016, pp. 7, 9, 10, 12; BLM 2019b, p. 79). Because the entire area would be allocated as available for livestock grazing, there would be no need for additional fencing, active livestock management (herding), or water developments for livestock.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing, active livestock management through increased herding, or water developments for livestock. Eliminating livestock grazing would eliminate soil and vegetation disturbance caused by livestock. This would allow natural processes to occur in the absence of most human-caused disturbances and provide an area for future baseline monitoring and research purposes. Native plant communities and soils would no longer be subject to livestock grazing or trampling effects. An ungrazed reference for research would be retained.

Removal of livestock grazing would remove one potential weed-spreading vector. However, other vectors (wildlife, vehicles, wind, and water) would continue and potentially spread weed species. The lack of spring livestock grazing could allow more invasive annual grasses to flower and produce seed. Monitoring data has shown that removal of livestock from areas where weeds are present (such as riparian areas and exclosures) often leads to more robust weed infestations and allows the invasive species to negatively impact native vegetation (BLM 2019b, p. 50).

In the absence of spring grazing, areas with high amounts of annual grasses would continue to degrade the landscape and create a less fire-resistant landscape. There would be an increase in fine fuels and a potential increase in the risk of catastrophic wildfire occurrence within this exclosure (BLM 2019b, p. 42). Should a

wildfire occur and impact the proposed grazing exclosure, the exclosure area could be subject to increased cheatgrass dominance and could require active vegetation management such as herbicide treatment or native grass seeding.

Alternatives 5, 6, and Proposed RMP Amendment

These alternatives would reallocate a portion of the area that is currently unavailable for livestock grazing as available for livestock grazing. Because the ecological condition had been good when grazing was allowed, the effect from this reallocation on wilderness characteristics is expected to be negligible.

Foley Lake waterhole and several existing natural water sources would remain unavailable as livestock water sources for cattle grazing in the Twin Lakes Pasture, but this would not prevent the use of Foley Lake as a water source by mule deer, pronghorn, bighorn sheep, or other wildlife. For more details, see Alternatives 1 and 4.

There are two special status plant species (Columbia yellowcress and Mesamint) currently located within two existing small exclosures on the west side of Foley Lake RNA. However, most of the Columbia yellowcress and Mesamint populations are located within two smaller existing grazing exclosures (BLM 2019b, p. 49), so the larger exclosure proposed under Alternatives 1, 4, 5, 6, and the Proposed RMP Amendment would do little to further remediate this potential threat.

Reallocating a portion of the key RNA as available for livestock grazing is unlikely to harm the habitat quality of the area, as under the previous grazing regimen, it was in good ecological condition and met applicable rangeland health standards (BLM 2000b; BLM 2016, pp. 7, 9, 10, 12; BLM 2019b, p. 79).

If a fence were constructed to make the eastern portion unavailable for livestock, there would be some surface disturbance to upland native vegetation communities, soils, and biological crusts from vehicle traffic during fence construction and removal and future maintenance of the fence. (BLM 2019b, p. 30). A fence could alter behavior and use patterns of big game species, but those effects would be mitigated to the extent feasible by building the fence to standard wildlife passage specifications (BLM 2019b, p. 77). Construction of an exclosure fence would not impact pygmy rabbits at a population level and would not improve pygmy rabbit habitat or encourage movement of more pygmy rabbits into the exclosure area (BLM 2019b, p. 77).

No active or pending active leks are within 1.2 miles of the boundary of the area that would remain unavailable for livestock grazing, so there is not a high risk for fence-sage-grouse collisions.

The proposed exclosure fence would negatively affect the existing visual quality within the area, but would meet the existing visual resource management (VRM Class III) objectives for the surrounding area.

There would be annual operational costs to the permittee associated with future fence maintenance (estimated at $600-1,200 per year) and water hauling. There would also be additional one-time costs to the BLM associated with fence construction (about $10,000 per mile) totaling about $13,000 for the eastern portion. The western portion is already built. Assuming that local contractors would be hired to construct the fence, there would be a small benefit to the local economy.

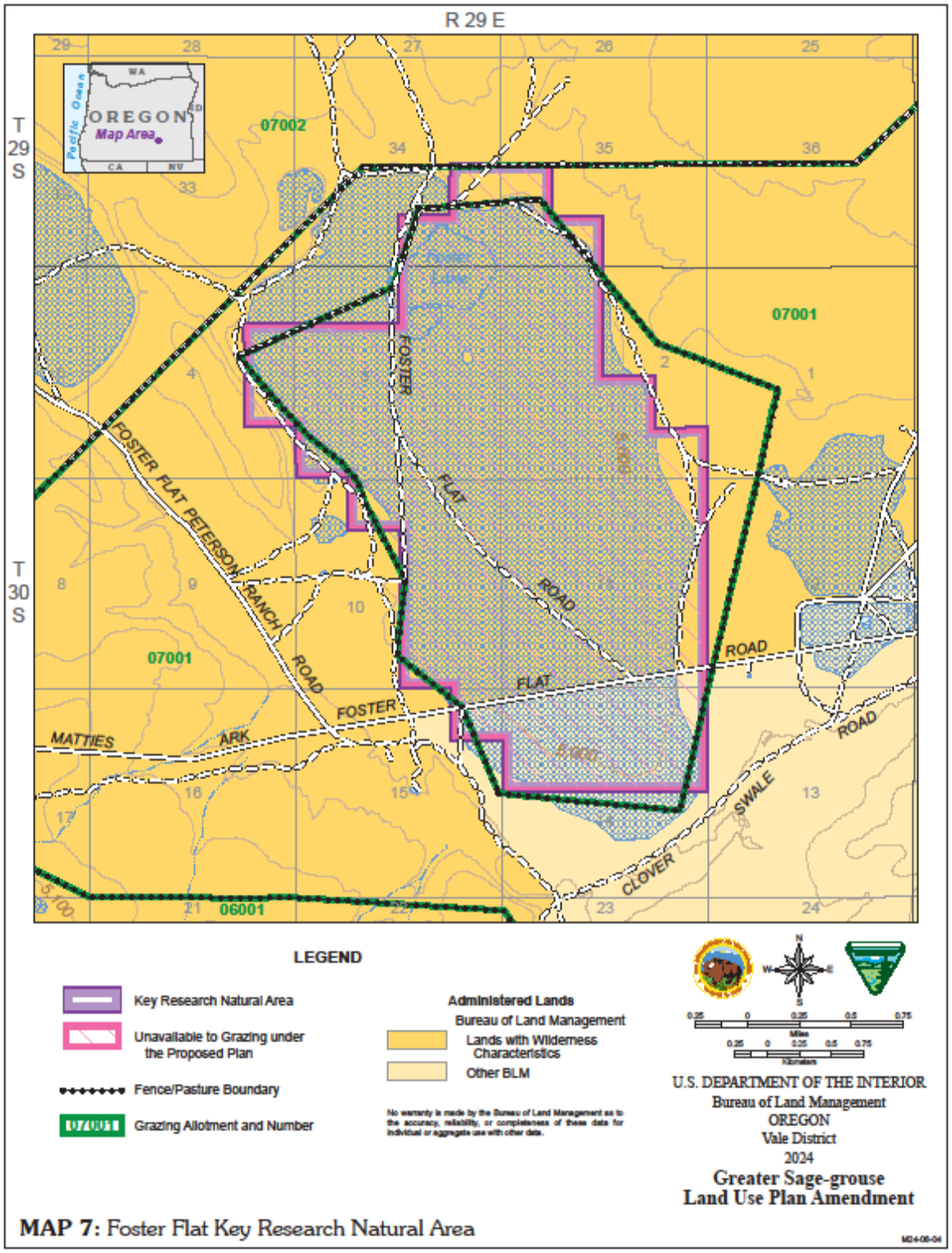
Foster Flat (Burns)

Proposed RMP Amendment

The Foster Flat key RNA was allocated as unavailable for livestock grazing prior to the 2015 OR Greater Sage-grouse ARMPA via the underlying 1992 Three Rivers Resource Management Plan ROD/RMP. Neither the 2015 nor the 2019 RMP amendment made any changes to the prior district decision. The Proposed RMP

Amendment would not make any changes to management of this RNA, and it would remain unavailable for livestock grazing.

Map 7. Foster Flat Key Research Natural Area



Affected Environment

Foster Flat RNA/ACEC is located in Harney County approximately 42 miles south of Burns, Oregon, and 20 miles west of Highway 205 near the Burns District boundary with Lakeview District. The Foster Flat RNA/ACEC is 2,687 acres in size. It is in East Warm Springs Allotment (No. 7001) and in the Warm Springs HMA. The elevation of the RNA/ACEC is approximately 5,000 feet. There is one AIM plot and one LMF plot within the area unavailable for livestock grazing.

Specific management under the 1992 Three Rivers Resource Management Plan ROD/RMP

The primary management goal of the Foster Flat RNA/ACEC is to the manage the area to preserve the characteristics of the ecosystem and to provide areas for ecological studies, monitoring and research, and education. The primary management action undertaken was construction of perimeter boundary fencing. The perimeter boundary fence excluded livestock and wild horse access the water source and vegetation in the northwestern corner of Foster Flat. The area is open to OHV use.

Summary of key RNA and Relevant and Important values evaluated for ACEC/RNA designation

Foster Flat RNA/ACEC was designated to represent silver sagebrush/Nevada bluegrass communities and provide an area for ecological studies, monitoring and research, and education opportunities.

1992 Three Rivers Resource Management Plan ROD/RMP ACEC/RNA Designation

Foster Flat RNA/ACEC was designated to represent silver sagebrush/Nevada bluegrass communities. This community is found in playas throughout the Great Basin in sites which are flooded for a period of months during the winter and early spring, but which dry up rapidly as the weather warms. Foster Flat covers a large area that is essentially devoid of topographic relief and is dominated by silver sagebrush. The silver sagebrush/Nevada bluegrass community covers approximately 800 acres in the central portion of the playa area. At slightly lower elevation on the playa is a silver sagebrush/rush community which stays wetter longer than the Nevada bluegrass association. The slightly higher elevation areas of the playa contain silver sagebrush/green rabbitbrush. There are also areas of basin wildrye, creeping wildrye or silver sagebrush with no understory. It is ringed by a slightly raised rim that is dominated by greasewood and big sagebrush.

2015 Greater Sage-grouse ARMPA

The Foster Flat RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities

Large playa (dry lakebed) containing silver sagebrush/Baltic rush (*Juncus balticus*), silver sagebrush/Sandberg's blue grass, low sagebrush/Sandberg's bluegrass associations, grading into slightly higher areas and hummocks of basin or Wyoming big sagebrush/bluebunch wheatgrass associations.

Environmental Consequences

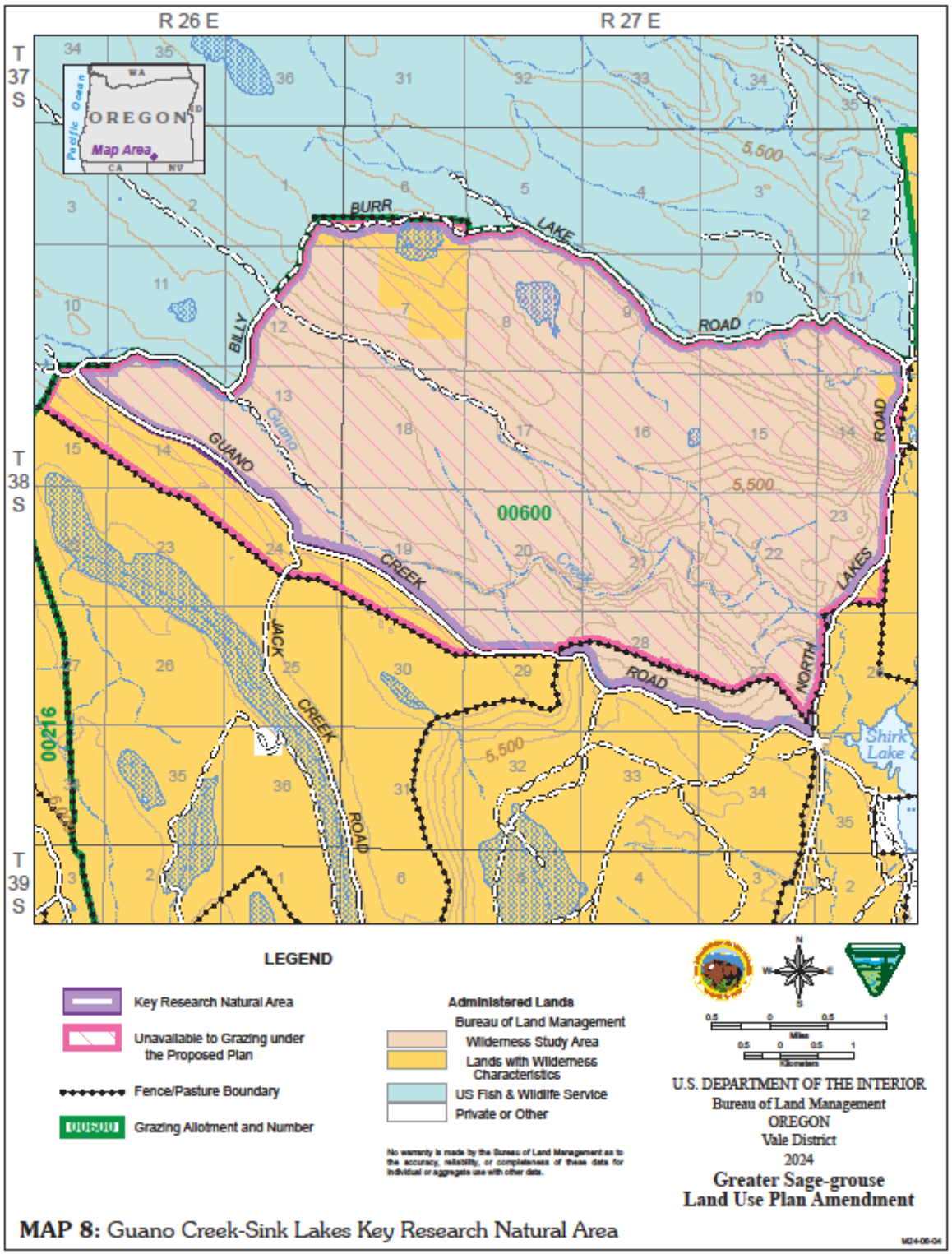
As there are no changes in livestock grazing management proposed in this planning effort there would be no potential changes in environmental effects. An ungrazed reference for research would be retained.

Guano Creek – Sink Lakes (Lakeview)

Proposed RMP Amendment

The Guano Creek-Sink Lakes ACEC/RNA falls within the larger Guano Creek wilderness study area (WSA), the majority of which was made unavailable for livestock grazing use through an Act of Congress in 1998. For this reason, no changes in livestock grazing use are proposed. The area unavailable for livestock grazing is set off by the pasture fences so it differs slightly from the ACEC boundary.

Map 8. Guano Creek-Sink Lakes Key Research Natural Area



Affected Environment

The 11,823-acre Guano Creek-Sink Lakes ACEC/RNA complex is located about 39 miles northeast of Lakeview. There are four AIM plots and four LMF plots within the area unavailable for livestock grazing.

Specific Management under the Lakeview RMP/ROD

OHV use is limited to existing roads and trails.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

The 11,823-acre Guano Creek-Sink Lakes ACEC/RNA complex is located about 39 miles northeast of Lakeview and was designated in the Lakeview RMP/ROD to protect relevant/important natural system (plant communities) values (BLM 2000a, pp. II-9, III-16, III-19; 2001a, p. A-244 to A-245; 2003b, p. 58).

Lakeview RMP/ROD

The Guano Creek-Sink Lakes ACEC/RNA complex contains Wyoming big sagebrush/needle-and-thread grass and low sagebrush/Sandbergs bluegrass scablands as well as low elevation vernal pool. The Sink Lakes area contains three vernal lakes (if Billy Burr Lake is included in site) which are essentially dry playas in the drought years and vernal pools during wet years. The playas are all ringed by silver sagebrush (*Artemisia cana*) and surrounded by uplands that are dominated by low sagebrush grasslands. The dry lakebeds differ in their vegetative composition and may be dominated by tansy-leaf evening primrose (*Camissonia tanacitifolia*). The middle lake or playa located in Section 8 is best characterized as a silver sagebrush/Nevada bluegrass (*Poa nevadensis*) community. This is a common playa community. The Guano Creek site has a high-quality natural community that is characterized by and Thurbers needlegrass. There is a rich community of Great Basin wildrye (*Zvmus cinerus*) and other forbs. Two Bureau sensitive plant species, grimy ivesia (J*vesia rhypara* var. *rhypara*) and Crosby's buckwheat (*Eriogonum crosbyae*) are also present. The two species do not grow in the same habitat at the Guano Creek site, nor do they occur in the big sagebrush/needle-and-thread grass community which is the prominent feature in the RNA. (BLM, 2000a, p. III-18).

2015 Greater Sage-grouse ARMPA

Updated Vegetation Communities

The Guano Creek-Sink Lakes ACEC/RNA complex contains Wyoming big sagebrush/needle-and-thread (*Hesperostipa comata*) and low sagebrush/Sandberg bluegrass scabland communities, as well as low elevation vernal ponds (aquatic ecosystem). Three vernal ponds (including Billy Burr Lake), which are dry playas in drought years and vernal pools during wet years, are present. The playas are ringed by silver sagebrush and the surrounding uplands contain low sagebrush/grasslands. The dry playa lake beds differ in their vegetative composition and may be dominated by tansy-leaf evening primrose (*Camissonia tanacitifolia*). The middle lake is characterized as a silver sagebrush/Nevada bluegrass (*Poa nevadensis*) playa community. Common riparian vegetation occurs along portions of Guano Creek (BLM 2001a, p. A-244, Vander Schaaf 1992, p. 12).

Environmental Consequences

As there are no changes in livestock grazing management proposed in this planning effort there would be no potential changes in environmental effects. An ungrazed reference for research would be retained.

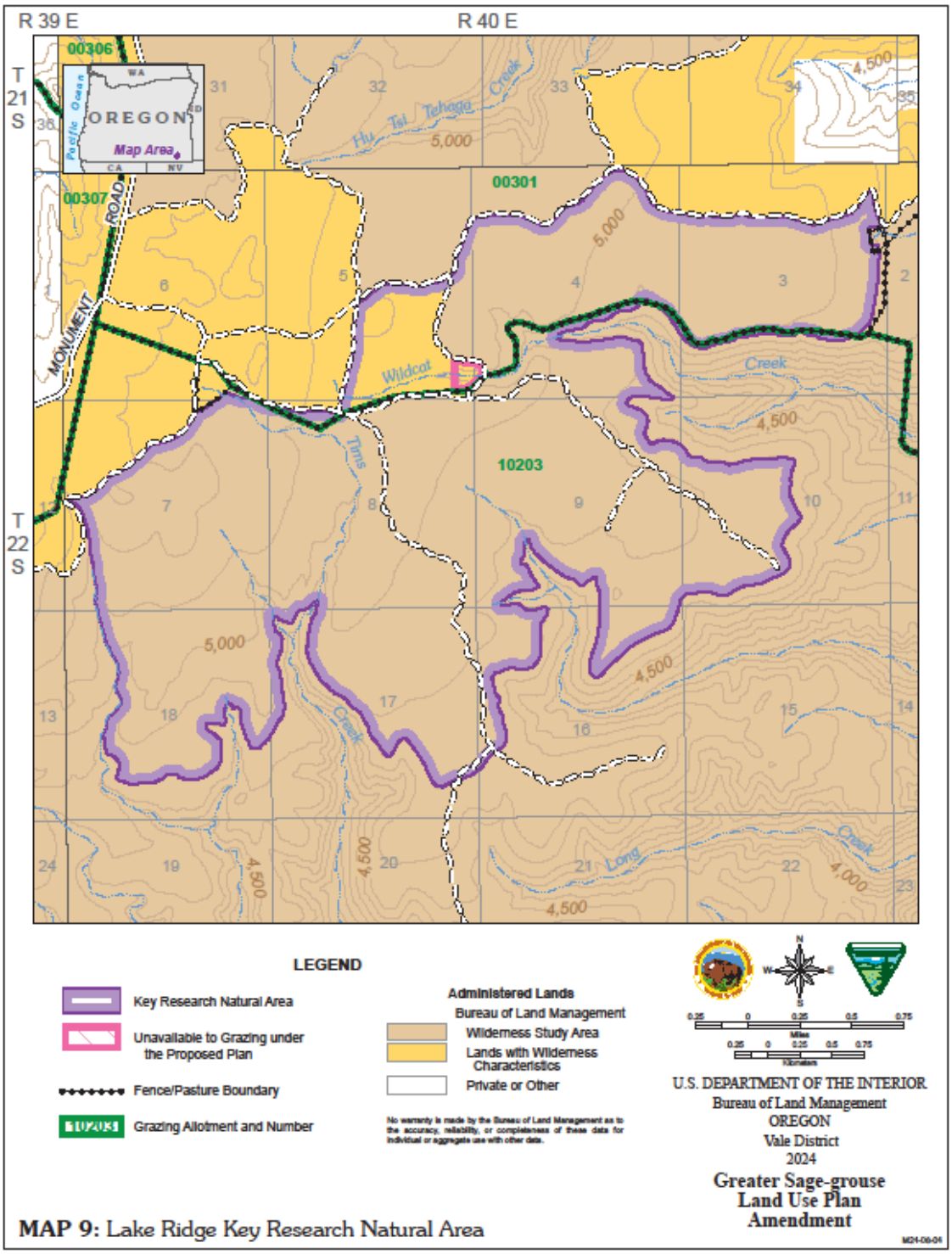
Lake Ridge (Vale)

Proposed RMP Amendment

BLM proposes no changes to the key RNA boundary, but has reduced the area allocated as unavailable for livestock grazing from 769 acres to 13 acres within the existing key RNA and to the west of the WSAs to reduce conflicts with other resources. The smaller exclosure would still maintain the vegetation

communities that are important to Greater Sage-grouse habitat. The proposed exclosure would be located in a Wilderness Characteristic unit that is prioritized for protection under the 2024 SEORMP Amendment ROD (BLM 2024a, Appendix A, p. A-4).

Map 9. Lake Ridge Key Research Natural Area



Affected Environment

The 3,857-acre Lake Ridge ACEC/RNA is located southeast of Juntura, Oregon, along Tim's Peak Road on a broad plateau dissected by steep canyons, with Tim's Peak rising to the north. A naturally occurring waterhole provides a perennial source of water. The ACEC/RNA is dominated by low sagebrush plant communities with both low sagebrush/bluebunch wheatgrass and low sagebrush/Idaho fescue present. Much of the ACEC/RNA is located in portions of both the Gold Creek and Camp Creek WSAs, where surface disturbing activities requiring reclamation are generally precluded until Congress makes a decision on Wilderness designation.

The key RNA and area allocated as unavailable for livestock grazing is in the Simmons Gulch pasture (55,402 acres) of the Harper allotment. There are six grazing authorizations (grazing permits) for the Harper allotment.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use is limited to existing roads and trails. Plant collecting requires a permit. The entire area is managed under VRM Class I. Road maintenance will be limited to the existing roadway, and shoulder/barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. Leasable minerals activities will be open with special stipulations subject to seasonal/timing restrictions, restricted or no uses in avoidance areas for sage-grouse. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if values will be maintained or enhanced. Existing livestock use allocations will be adjusted where adverse impacts are identified using a variety of methods, that could include, but is not limited to, fencing, reduction in livestock numbers, and changes in grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 SEORMP ACEC/RNA Designation

The relevant and important values identified in this ACEC/RNA are the low sagebrush/bluebunch wheatgrass community and low sagebrush/Idaho fescue community vegetation cells identified by ONHP.

2015 Greater Sage-grouse ARMPA

The Lake Ridge ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities represented in this ACEC/RNA include low sagebrush/bluebunch wheatgrass, low sagebrush/Idaho fescue, and silver sagebrush/Sandberg bluegrass plant associations.

Plant community types important for Greater Sage-grouse habitat continue to be present. These plant communities in this key RNA are low sagebrush/bluebunch wheatgrass, low sagebrush/Idaho fescue, and silver sagebrush/Sandberg bluegrass plant associations, and were observed to be present during site visits in 2023. These plant associations represent the Shallow-Dry Sagebrush community.

The Lake Ridge key RNA is within Greater Sage-grouse PHMA. The nearest active or pending active lek is 0.6 mile away. A total of four active or pending active leks are within 4 miles of the key RNA.

Other Resources or Issues

The visual resource management is Class I.

Most of the key RNA overlaps WSAs (3,677 acres). The remainder of the key RNA (approximately 180 acres) is located within an area identified by BLM as possessing wilderness characteristics. The 2024 SEORMP Amendment ROD prioritizes the protection of the Prava Peak wilderness characteristics unit, which is contiguous with two adjacent WSAs (BLM 2024a, Appendix A, p. A-4).

The proposed 13-acre exclosure is wholly within the Prava Peak lands with wilderness characteristics unit OR-034-042. This 20,654-acre unit possesses naturalness and is contiguous with three WSAs, and shares their outstanding opportunities to experience solitude, and primitive and unconfined recreation. Elevations range from about 4,140 to 5,690 feet (Monument Peak). Existing human imprints in the unit are: 14 earthen reservoirs, four developed springs, 23.2 miles of rangeland fence, one rangeland fenced enclosure, and 43.5 miles of 22 primitive route segments, all which appear substantially unnoticeable to the average visitor. Supplemental values in the unit include Greater Sage-grouse leks and their habitat. The Prava Peak OR-034-042 inventory documentation can be found at https://www.blm.gov/programs/planning-and-nepa/plans-in-development/oregon-washington/vale-wci.

The Camp Creek WSA consists of 19,200 acres. The northwestern portion of the WSA is characterized by tableland, while the rest of the WSA is dissected by steep canyons. The elevation ranges from 2,700 to 5,300 feet. The dominant vegetation on the tablelands is low sagebrush and bluebunch wheatgrass, with some bitterbrush and Idaho fescue. The canyon bottoms support pockets of riparian vegetation. The key RNA is within Greater Sage-grouse PHMA and four active leks are within 4 miles, two of which are within 1.2 miles of the key RNA.

The key RNA is utilized by mule deer during spring and summer, pronghorn year-round, and is designated as elk winter range.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated. The area continues to be in a desirable condition for the vegetative communities identified under the 2002 SEORMP and 2015 ARMPA; management will continue to protect the relevant and important values. Retaining the Lake Ridge key RNA would continue to allow natural processes to predominate and research and baseline data gathering on plant communities important for Greater Sage-grouse.

The key RNA as identified in the 2015 ARMPA is predominately comprised of low sagebrush communities that provide suitable nesting and winter habitat for Greater Sage-grouse.

Values associated with the Shallow-Dry vegetation type would be retained.

Rationale for Modifying the Area Allocated as Unavailable for Livestock Grazing

Active management of livestock to keep them out of the area allocated as unavailable for livestock grazing under the 2015 ARMPA is being undertaken. Construction of a fence to exclude cattle from this same area would require fence construction within a WSA. Fence construction within a WSA requires careful consideration. Developments that would "impair the suitability of WSAs for the preservation as wilderness"

cannot be permitted unless they were to meet one of the exception criteria described in BLM Manual 6330, Management of Wilderness Study Areas. "In determining whether a development meets the protecting or enhancing wilderness characteristics exception, the BLM will determine if the structure's benefits to the natural functioning of the ecosystem outweigh the increased presence of human developments and any loss of naturalness, or outstanding recreational opportunities caused by the new development" (BLM 2012, p. 1-17). However, developments that meet an exception criterion must still be carried out in the least impairing manner practical. Furthermore, if an impairing proposed development—even one that meets an exception—can be implemented outside of a WSA and accomplish the objectives identified in the purpose and need statement prepared under NEPA, the BLM should endeavor to ensure that the project is implemented outside the WSA (BLM 2012, p. 1-11).

An approximately 13-acre fenced exclosure area that would be allocated as unavailable for livestock use would be built outside of the WSA and within the key RNA. The proposed exclosure would be located and designed to avoid resource conflicts while still providing a baseline reference area for the plant communities present that would be undisturbed by livestock grazing. The exclosure would be located more than 1.2 miles from active or pending active Greater Sage-grouse leks.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

The current active management of livestock to keep them out of the key RNA impacts opportunities for solitude and primitive and unconfined recreation within the WSAs. In the future, should the decision be made to construct fence to keep livestock out of the area allocated as unavailable for livestock grazing, it would require fence construction within a WSA and within 1.2 miles of active or pending active leks. A conservation benefit to Greater Sage-grouse or important habitat is not expected from construction of a fence to eliminate livestock grazing due to the current condition of the vegetative communities prior to and after the removal of livestock from the area. There would be short-term and long-term impacts to the WSAs' wilderness characteristics of naturalness, solitude, and primitive and unconfined recreation. There could be short-term negative impacts to opportunities for solitude and primitive and unconfined recreation from construction activities as well as effects to naturalness caused by the soil surface and vegetative disturbance associated with fence construction. These impacts would be expected to fade within one to three years with new vegetation growth. Long-term negative impacts to naturalness would be the additional human imprint of the completed fence in the WSA. If no fence were constructed, there would be long-term impacts to opportunities for solitude and primitive and unconfined recreation from active management of livestock to keep them out of the key RNA.

Alternative 2

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative either short-term or long-term any more than it had been at the time that this unit was identified as one with wilderness characteristics. Fence-related conflicts would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). Wilderness characteristics of naturalness, opportunities for solitude, or primitive and unconfined recreation would not be impaired under this alternative, nor would there be any short-term disturbances to these characteristics caused by fence construction. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Alternatives 5, 6, and Proposed RMP Amendment

Relocating and reducing the size of the area allocated as unavailable for livestock grazing would eliminate any need to build fence to exclude livestock within WSAs. Fencing to create a 13-acre exclosure could be constructed outside of any WSA and would be designed to limit or avoid impacts to the Prava Peak protected unit. Low sagebrush/bluebunch wheatgrass and low sagebrush/Idaho fescue vegetative communities identified as important for greater sage-grouse as well as relative and important values at the time the RNA was designed are present within the exclosure. Although the silver sagebrush/Sandberg bluegrass plant community occurs within the key RNA, it is not represented in the proposed exclosure and was not identified as a relevant and important value for the RNA. Vegetation communities important to Sage-grouse within the proposed exclosure would be allowed to proceed through natural succession in the absence of livestock grazing.

If this 13-acre exclosure is fenced, such fencing would be located more than 1.2 miles from active/pending active leks, would not be considered a high risk for sage-grouse collisions, and would not negatively impact sage-grouse.

BLM monitoring indicates the habitat quality of the area within the key RNA and beyond the 13-acre exclosure is expected to remain in good ecological condition as it was before livestock grazing was made unavailable in this area (BLM. Monitoring data. 06/13/2017-06/15/2017; BLM. Monitoring data. 6/28/2020).

Due to limited livestock use occurring in the key RNA, prior to management agreements initiated annually since 2023, as well as limited presence as a result of annual agreements to manage livestock from accessing the area, vegetative communities that are important to Greater Sage-grouse habitat would continue to be relatively unaltered under both Alternatives 1 and 5. When compared to Alternative 1, impacts to wildlife, including sage-grouse, of reallocating 769 acres as available, and allocating 13 acres as unavailable, to livestock grazing under the Proposed RMP Amendment would eliminate the need for additional presence of livestock operators for managing livestock away from unfenced boundaries. This would benefit wildlife by reducing disturbance to individual animals caused by increased activity from livestock operators around unfenced boundaries.

These alternatives would reallocate portion of the WSAs in the key RNA as available for livestock grazing. Because the presence of livestock in the RNA has been low in the past, and the ecological condition has been good when grazing has been allowed, the effect from this reallocation on wilderness characteristics is expected to be negligible.

The proposed 13-acre exclosure that would continue to be allocated as unavailable for livestock grazing would be located in the Prava Peak wilderness characteristics unit which, under the 2024 SEORMP Amendment ROD (BLM 2024a, Appendix A, p. A-4) is prioritized for protection. Approximately one-half mile of new fence would be constructed in the Prava Peak wilderness inventory unit to create the 13-acre exclosure. This could result in short-term negative impacts to naturalness caused by the soil surface and vegetative disturbance associated with the construction. These impacts would be expected to fade within

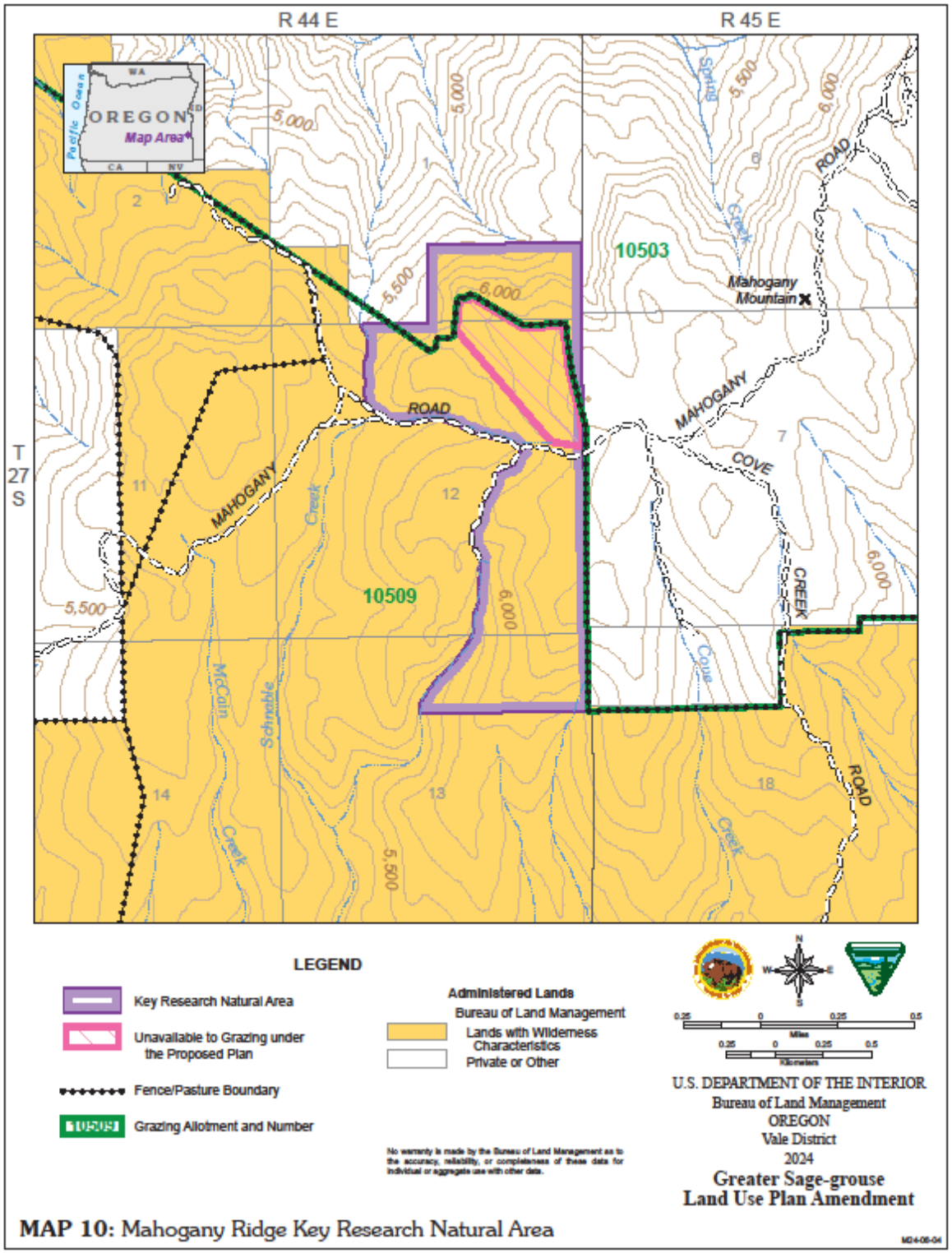
one to three years with new vegetation growth. Long-term negative impacts to naturalness would be the additional human imprint of the completed fence in the Prava Peak unit. However, design features to minimize impacts to lands with wilderness characteristics would be implemented. The addition of an exclosure fence would result in a minimal, long-term additional impact to the characteristic of naturalness within the Prava Peak unit. The extent of the additional fence —individually and collectively with the other existing human imprints present in the Prava Peak unit—would result in the Prava Peak unit, overall, still being affected primarily by the forces of nature with the imprint of human work being substantially unnoticeable to the average visitor.

Mahogany Ridge—South Unit Only (Vale)

Proposed RMP Amendment

Retain the Mahogany Ridge key RNA boundary. Clarify that the key RNA identification applies to only the southern portion of the ACEC/RNA (444 acres). Reduce the area allocated as unavailable for livestock grazing from 155 acres to 69 acres to reduce conflicts with other resources. The smaller exclosure would still maintain the vegetation communities that are important to Greater Sage-grouse habitat.

Map 10. Mahogany Ridge Key Research Natural Area



Affected Environment

The 682-acre Mahogany Ridge ACEC/RNA is comprised of two areas; the key RNA is limited to the southern unit (444 acres) and is located on the slope of Mahogany Mountain, west of U.S. Highway 95 and north of Jordan Valley, Oregon. The ACEC/RNA includes undisturbed stands of mountain mahogany on parcels of the northern and western slopes of Mahogany Ridge. It fills a vegetation cell need for mountain mahogany-sagebrush and mountain mahogany-Oregon grape complex identified by ONHP and includes a higher-elevation mountain big sagebrush mountain mahogany/slender wheatgrass-bluebunch wheatgrass community. The unit is bounded on the east and north by private land ownership.

The Mahogany Ridge ACEC/RNA is located within the East Mahogany pasture of the Mahogany Mountain Allotment.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use will be limited to designated roads and trails. Road maintenance will be limited to the existing roadway, and shoulder/barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. The area is VRM Class II. Plant collecting requires a permit. Development of leasable minerals is subject to the No Surface Occupancy stipulation. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing use, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if values will be maintained or enhanced. Where adverse impacts are identified, existing livestock use allocations will be managed using a variety of methods, including fencing, reduction in livestock numbers, and changes in livestock grazing season. Proposed projects will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 Southeastern Oregon RMP (SEORMP) ACEC/RNA Designation

The relevant and important values in the ACEC/RNA include habitat for the broad-tailed hummingbird and other neotropical migratory birds, a special status plant species (Owyhee clover), and the mountain mahogany-big sagebrush vegetation communities identified by ONHP.

2015 Greater Sage-grouse ARMPA

The Mahogany Ridge ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities represented in this key RNA, that are important to Greater Sage-grouse habitat, continue to be relatively unaltered. These communities are mountain big sagebrush/Idaho fescue associations. These communities represent the Cool-Moist sagebrush community.

The mountain mahogany/mountain big sagebrush woodland and lesser amounts of a mountain mahogany/Oregon grape (*Mahonia repens*) plant communities in this key RNA are not suitable habitat for sage-grouse because the dominant growth structure of mountain mahogany is more tree like, providing no understory cover and providing perch opportunities for predators. These represent the Mountain Shrub vegetation community.

The key RNA is within PHMA and is part of the Cow Lakes Priority Area of Conservation. It is included within the boundary of sage-grouse spring nesting, summer brood-rearing, and winter habitat. The nearest active or pending active lek and the only lek within 4 miles of the key RNA is approximately 3.4 miles away.

Other Resources or Issues

The visual resource management category of the key RNA is Class II.

With the exception of a boundary road between two wilderness characteristics units (The Tongue (OR-034-054) and Schnable Creek (OR-034-057)) the southern portion (444 acres) of the Mahogany Ridge key RNA is within an area possessing wilderness characteristics. The area allocated as unavailable for livestock grazing under the 2015 ARMPA is wholly in The Tongue wilderness characteristics unit. The wilderness characteristics of neither unit are prioritized for protection under the 2024 SEORMP Amendment ROD (BLM 2024a, Appendix A, p. A-4).

The Mahogany Ridge key RNA is located on the edge of bighorn sheep core herd range and is winter range for deer. It is utilized by deer and elk year-round. ODFW's Oregon Connectivity Assessment and Mapping Project (OCAMP) categorized this area as a Priority Wildlife Connectivity Area (PWCA) – Region. Regions are the top 1% of connectivity priorities and represent the highest-value habitat for facilitating species movement. In addition, this area has a priority Recommended Conservation Action of 'Protect', the strongest conservation measure for maintaining wildlife connectivity. Because of the limited number of mountain mahogany stands in southeast Oregon among an abundance of shrublands and grasslands, this key RNA is important nesting and migration habitat for neotropical migratory birds, as is highlighted in the relevant and important values identified in the 2002 ACEC/RNA designation.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated. The area continues to be in a desirable condition for the updated vegetative communities identified under the 2015 ARMPA. Management will continue to protect the relevant and important values. Retaining the Mahogany Ridge Bench key RNA would continue to allow natural processes to predominate and research and baseline data gathering on relatively unaltered plant communities important for Greater Sage-grouse.

Sagebrush communities of the key RNA provide for suitable nesting, brood-rearing, and winter habitat for Greater Sage-grouse.

Site visits indicate that the vegetation types identified for the key RNA in 2015 are present. The area retains the Cool-Moist Sagebrush and Mountain Shrub Vegetation Type.

Rationale for Modifying the Area Allocated as Unavailable for Livestock Grazing

In the 2024 Greater Sage-grouse DEIS, Alternative 5 proposed modifying the boundary of the area allocated as unavailable for livestock grazing from 155 acres to 140 acres. This was proposed to avoid or reduce conflicts between the fence location and wildlife movement, primarily big game species. The modified boundary proposed in the 2024 Greater Sage-grouse DEIS occurred partially within bighorn sheep habitat and passed through a major big game migration area, which would alter natural movement and potentially increase risks of fence collision and/or entanglement. The location of the fenceline was proposed to limit the number of gates by avoiding road crossings and to minimize disturbance to adjacent riparian resources.

Furthermore, the 2024 Greater Sage-grouse DEIS proposal would eliminate the administrative issue of relocating existing fence to avoid private lands and prevent the need to trail livestock through the key RNA.

Further review of the 2024 Greater Sage-grouse DEIS fenceline modification revealed the need for additional modification of the proposed fence location. A new location for the proposed fence was identified that would further minimize remaining issues and concerns identified in the 2024 Greater Sage-grouse DEIS. The Proposed RMP Amendment would result in a reduction from 140 acres to a 69-acre area that is allocated as unavailable for livestock grazing. This modification reduces wildlife conflicts and improves movement by relocating the fence to an area with less topography, requires less fence, and eliminates bighorn sheep habitat concerns. Additionally, this modification avoids potential impacts to riparian resources adjacent to the previously proposed fence by eliminating the travel and congregation of livestock and wildlife along fences near springs and riparian areas. The smaller exclosure would still maintain the vegetation communities consisting of mountain big sagebrush/Idaho fescue associations.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

Livestock grazing would not occur in the 155 acres allocated as unavailable for livestock grazing in the southern portion Mahogany Ridge key RNA. Livestock could be kept from this area through active livestock management or the construction of fencing along the border of the area allocated as unavailable for grazing.

Fence construction could disturb nesting sage-grouse if it occurs during the breeding season. Restricting activity during the breeding season to two hours after sunrise to two hours before sunset would minimize disturbance to any sage-grouse that may be present in the area. Sage-grouse-fence collisions are unlikely to occur as the nearest pending active or active lek is approximately 3.45 miles away, the key RNA is in a V-shaped valley with rock outcrops and mountain mahogany stands that present perching locations for raptors, decreasing security for sage-grouse, and abundant habitat to the south and west of the key RNA provides higher quality nesting and brood-rearing habitat, which is not represented in the key RNA.

A fence constructed on the boundary of the area allocated as unavailable for livestock grazing could create conflicts between the fence location and wildlife movement, primarily big game species. This would alter natural movement and potentially increase risks of fence collision and/or entanglement.

An ungrazed reference for research would be retained.

Alternative 2

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative either short-term or long-term any more than it had been at the time that this unit was identified as one with wilderness characteristics. Fence-related conflicts would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). Wilderness characteristics of naturalness, opportunities for

solitude, or primitive and unconfined recreation would not be impaired under this alternative, nor would there be any short-term disturbances to these characteristics caused by fence construction. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Alternatives 5 and 6

Fifteen acres would be reallocated as available for livestock grazing. Livestock could be kept from the 140 acres allocated as unavailable for livestock grazing through active livestock management or the construction of fencing along the border of the area allocated as unavailable for grazing. The minor deviations from Alternative 1 would reduce resource conflicts between the boundary location and wildlife movement, primarily big game species. The modified boundary occurs partially within bighorn sheep habitat and passes through a major big game migration area, which would alter natural movement and potentially increase risks of fence collision and/or entanglement. The deviations also help maintain fence integrity by limiting the number of gates and keeping the fence design as straight as possible given the topography of the landscape and allotment/pasture. Effects from fence construction would be the same as identified in Alternative 1, but occur to a lesser extent due to the reduced exclosure size.

Impacts to the wilderness characteristic of naturalness would occur, but be limited to near boundary roads or internal primitive trails. If management actions (e.g., herding) other than fence construction were employed to exclude livestock from the unavailable area, there would be no impact to naturalness. Outstanding opportunities for solitude would not be impacted as short-term impacts to solitude caused by fence construction and long-term impacts to solitude caused by active management to exclude livestock from key RNA would not occur.

Proposed RMP Amendment

Eighty-six acres would be reallocated as available for livestock grazing. Livestock could be kept from the 69 acres allocated as unavailable for livestock grazing through active livestock management or the construction of fencing along the border of the area allocated as unavailable for grazing. The deviations from Alternatives 1, 5, and 6 would further reduce resource conflicts. It reduces wildlife conflicts and improves movement by relocating the boundary to an area with less topography, eliminating bighorn sheep habitat concerns. Additionally, this modification avoids potential impacts to riparian resources adjacent to the previously proposed fence by eliminating the travel and congregation of livestock and wildlife along fences near springs and riparian areas. The smaller exclosure would still maintain the vegetation communities consisting of mountain big sagebrush/Idaho fescue associations. Effects from fence construction would otherwise be the same as identified in Alternative 1, but would occur to a lesser extent due to the reduced exclosure size.

Impacts to wilderness characteristics would be reduced with the smaller enclosure. Impacts to naturalness would occur, but be limited to near boundary roads or internal primitive trails. If management actions (e.g., herding) other than fence construction were employed to exclude livestock from the unavailable area, there would be no impact to naturalness. Outstanding opportunities for solitude would not be impacted as short-term impacts to solitude caused by fence construction and long-term impacts to solitude caused by active management to exclude livestock from key RNA would not occur.

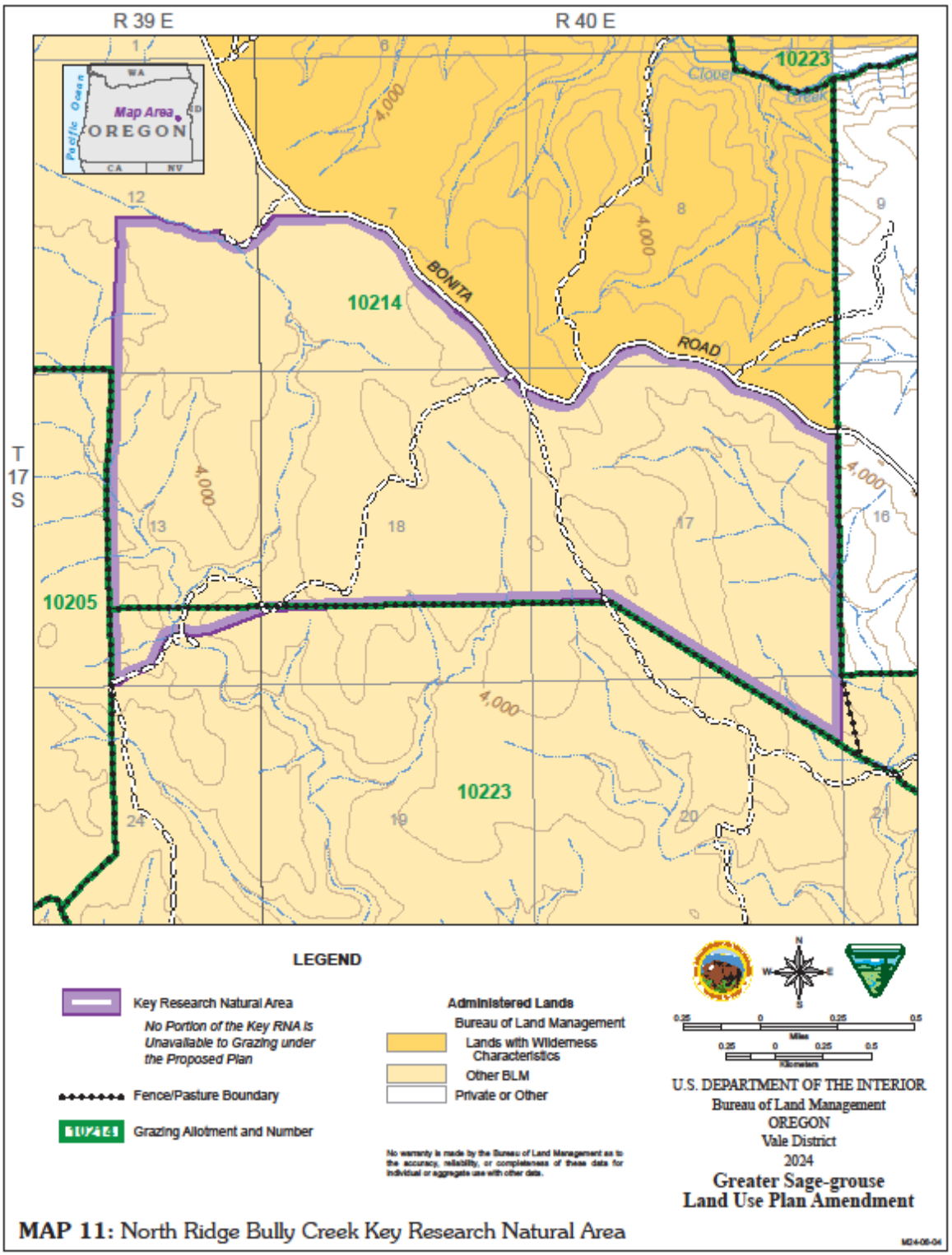
North Ridge Bully Creek (Vale)

Proposed RMP Amendment

Retain the area identified as a key RNA and reallocate the entire key RNA as available for livestock grazing. Construct a 5-acre or less exclosure that would remove livestock use and other permitted activities to allow for nonmanipulative research and baseline data gathering within the Key RNA or within close proximity to

the Key RNA to allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse within the North Ridge Bully Creek key RNA. The location, size, and design of the exclosure site would adhere to variations in lek buffers and required designed features as specified in Appendiees B and C of the Oregon 2015 GRSG Approved RMP Amendment.

Map 11. North Ridge Bully Creek Key Research Natural Area



Affected Environment

The 1,569-acre North Ridge Bully Creek ACEC/RNA is located west of Westfall, Oregon, along the ridge that separates Clover Creek drainage to the north and Bully Creek drainage to the south. The ACEC/RNA encompasses a number of grassland communities that occur both as distinct communities as well as intermixed within a larger mosaic of types.

A 164-acre area of the key RNA is allocated as unavailable for livestock grazing. The key RNA is wholly within the North Ridge pasture of the Richie Flat allotment. The key RNA is within Greater Sage-grouse PHMA and four active or pending active leks are within 1.2 miles of the key RNA boundary. There is one AIM plot within the area available for livestock grazing.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use is limited to existing roads and trails. Plant collecting requires a permit. The ACEC/RNA is VRM Class III. Road maintenance will be limited to the existing roadway, and shoulder/barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing outside of the current authorization, including time and intensity of use, would be analyzed through the appropriate process. Such analysis would evaluate impacts on the associated relevant and important values so that, if permitted, values would be maintained or enhanced. Existing livestock use allocations will be adjusted where adverse impacts are identified using a variety of methods, including, but not limited to, fencing, reduction in livestock numbers, and changes in grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 Southeastern Oregon RMP (SEORMP) ACEC/RNA Designation

The relevant and important values identified in this ACEC/RNA are the Wyoming big sagebrush/Thurber needlegrass community and big sagebrush-threetip sagebrush/Idaho fescue community vegetation cells identified by ONHP.

2015 Greater Sage-grouse ARMPA

The North Ridge Bully Creek ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Wyoming big sagebrush/Thurber's needlegrass, Wyoming big sagebrush/wild crab apple (*Peraphyllum ramosissimum*)/bluebunch wheatgrass, and threetip sagebrush/bluebunch wheatgrass are common plant communities throughout the RNA.

Vegetative communities in this key RNA that are important to Greater Sage-grouse habitat continue to be relatively unaltered. These are Wyoming big sagebrush/Thurber's needlegrass, Wyoming big sagebrush/wild crab apple (*Peraphyllum ramosissimum*)/bluebunch wheatgrass, and threetip sagebrush/bluebunch wheatgrass. These communities represent the Cool-Moist/Warm-Dry Sagebrush Communities. The key RNA is within Greater Sage-grouse PHMA and four active or pending active leks are within 1.2 miles of the key RNA boundary. The North Ridge Bully Creek ACEC/RNA burned in the 2012 Bonita Fire and the 2015 Bendire Fire removing much of the sagebrush present. The North Ridge Bully Creek ACEC/RNA was aerially sprayed with the preemergent herbicide imazapic in October 2015, after the Bendire Fire to reduce invasive annual grasses in the area.

Other Resources

The visual resource management is Class III.

The key RNA is utilized by deer during spring and summer, pronghorn year-round, and is designated as elk winter range.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The area continues to be in desirable condition for the vegetative communities identified for the purposes of providing vegetative communities that are important for Greater Sage-grouse habitat. Although the area burned in 2012 and 2015, the application of herbicide in 2015 prevented the increase of invasive annual grasses that often follow multiple fires. Management would continue to protect the relevant and important values, although shrub components have been impacted by past wildfires. However, in the long-term, shrub components are expected to return. Continued management would retain the Ecotone between Cool-Moist/Warm-Dry vegetation types.

Research opportunities continue to remain, with vegetative communities identified as relevant and important values that are important for Greater Sage-grouse. The area continues to recover and provides opportunities for research and baseline data gathering where post-fire ecological conditions occur. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated.

Rationale for Reallocating the Key RNA as Available for Livestock Grazing

Allocating the entire key RNA as available for livestock grazing removes the possibility of construction of an exclosure fence, reducing conflicts with lek buffers and reducing collision risk. Livestock management prior to the 2015 ARMPA (Alternative 1) did not have a negative impact on the relative and important values identified for the RNA (BLM. Monitoring data. 06/05/2013).

Livestock grazing within the key RNA is not expected to adversely impact current conditions, and conditions continue to exist as they were (excluding impacts from wildfire) at the time the RNA was designated under the 2002 SEORMP (see BLM, North Ridge Bully Creek RNA monitoring data). There is no indication that improper livestock grazing practices are occurring given the current conditions (Site visits, 06/05/2013; 05/30-31/2018; 06/26/2020).

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be present and provide life-cycle needs (such as nesting, brood rearing, and wintering) under all alternatives.

Alternatives 1 and 4

Presence, time, and resources for active management of livestock grazing would continue to be necessary. Vegetative conditions may witness slightly increased recovery with continued elimination of livestock use from the area. Due to the proximity and number of leks within the area and the risk of Greater Sage-grouse-fence collisions, fencing to exclude livestock from the area allocated as unavailable for livestock grazing is not feasible and could not conform with Required Design Features. As a fence within 1.2 miles of leks poses a collision hazard, and the area that would be protected from grazing had previously been properly grazed, which USFWS has said is compatible with GRSG conservation, there is no conservation benefit to

GRSG from placing a fence within 1.2 miles of a lek. While research in the ungrazed area could provide data and insights that could benefit GRSG habitat management, this benefit is not only difficult to measure but would not outweigh the fence collision risk for GRSG. Other wildlife noted to use the area may be negatively impacted, at least seasonally due to increased human presence when managing livestock from entering areas unavailable for livestock use.

Alternatives 2, 5, and 6

Under these alternatives, reallocating the entire key RNA as available for livestock grazing would allow for the resumption of management practices employed prior to 2023 throughout the North Ridge pasture of the Richie Flat allotment. Prior to the removal of grazing from this key RNA, livestock grazing management prescribed had not adversely impacted conditions of the vegetative communities that support wildlife habitat important to the area as well as the condition of the important vegetative communities identified for the Greater Sage-grouse (BLM. North Ridge Bully Creek RNA Monitoring data. 06/05/2013-06/06/2013; 5/30/2018-5/31/2018; 06/26/2020).

Current conditions of the vegetative communities are in a desirable state and are not expected to be adversely affected under proper livestock grazing management. The condition of the vegetative communities that were present when the 2002 SEORMP designated the RNA would continue. Livestock management prior to the 2015 ARMPA does not appear to have had a negative impact on the relative and important values identified for the key RNA (BLM. North Ridge Bully Creek RNA Monitoring data. 06/05/2013-06/06/2013; 5/30/2018-5/31/2018; 06/26/2020). As stated in the rationale for maintaining the key RNA status, the vegetative communities identified as important for Greater Sage-grouse in 2015 are still present post-fire with the exception of sagebrush.

The area continues to recover and provides opportunities for research and data gathering where post-fire ecological conditions occur.

Increased presence, time, and resources for active management to keep livestock from the area identified as unavailable for livestock grazing would not be necessary and impacts to wildlife, including sage-grouse, from these activities would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding), An ungrazed reference for research would be retained.

Proposed RMP Amendment

Under this alternative, reallocating the entire key RNA as available for livestock grazing would allow for the resumption of management practices employed prior to 2023 throughout the North Ridge pasture of the Richie Flat allotment. Prior to the removal of grazing from this key RNA, livestock grazing management prescribed had not adversely impacted conditions of the vegetative communities that support wildlife habitat important to the area as well as the condition of the important vegetative communities identified for the Greater Sage-grouse (BLM. North Ridge Bully Creek RNA Monitoring data. 06/05/2013-06/06/2013; 5/30/2018-5/31/2018; 06/26/2020).

Current conditions of the vegetative communities are in a desirable state and are not expected to be adversely affected under proper livestock grazing management. The condition of the vegetative communities that were present when the 2002 SEORMP designated the RNA would continue. Livestock management prior to the 2015 ARMPA does not appear to have had a negative impact on the relative and important

values identified for the key RNA (BLM. North Ridge Bully Creek RNA Monitoring data. 06/05/2013-06/06/2013; 5/30/2018-5/31/2018; 06/26/2020). As stated in the rationale for maintaining the key RNA status, the vegetative communities identified as important for Greater Sage-grouse in 2015 are still present post-fire with the exception of sagebrush.

Active and pending leks are currently documented to exist within less than 1.2 miles of the area identified for livestock removal in Alternatives 1 and 4. However, the construction of a 5-acre or less exclosure that would remove livestock use and other permitted activities would allow for nonmanipulative research and baseline data gathering within close proximity to the Key RNA. This would allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse within the North Ridge Bully Creek key RNA. The location, size, and design of the exclosure site would adhere to variations in lek buffers and required designed features as specified in Appendiees B and C of the Oregon 2015 GRSG Approved RMP Amendment. There would be at least short-term impacts from fence construction outside of, but near to, the key RNA.

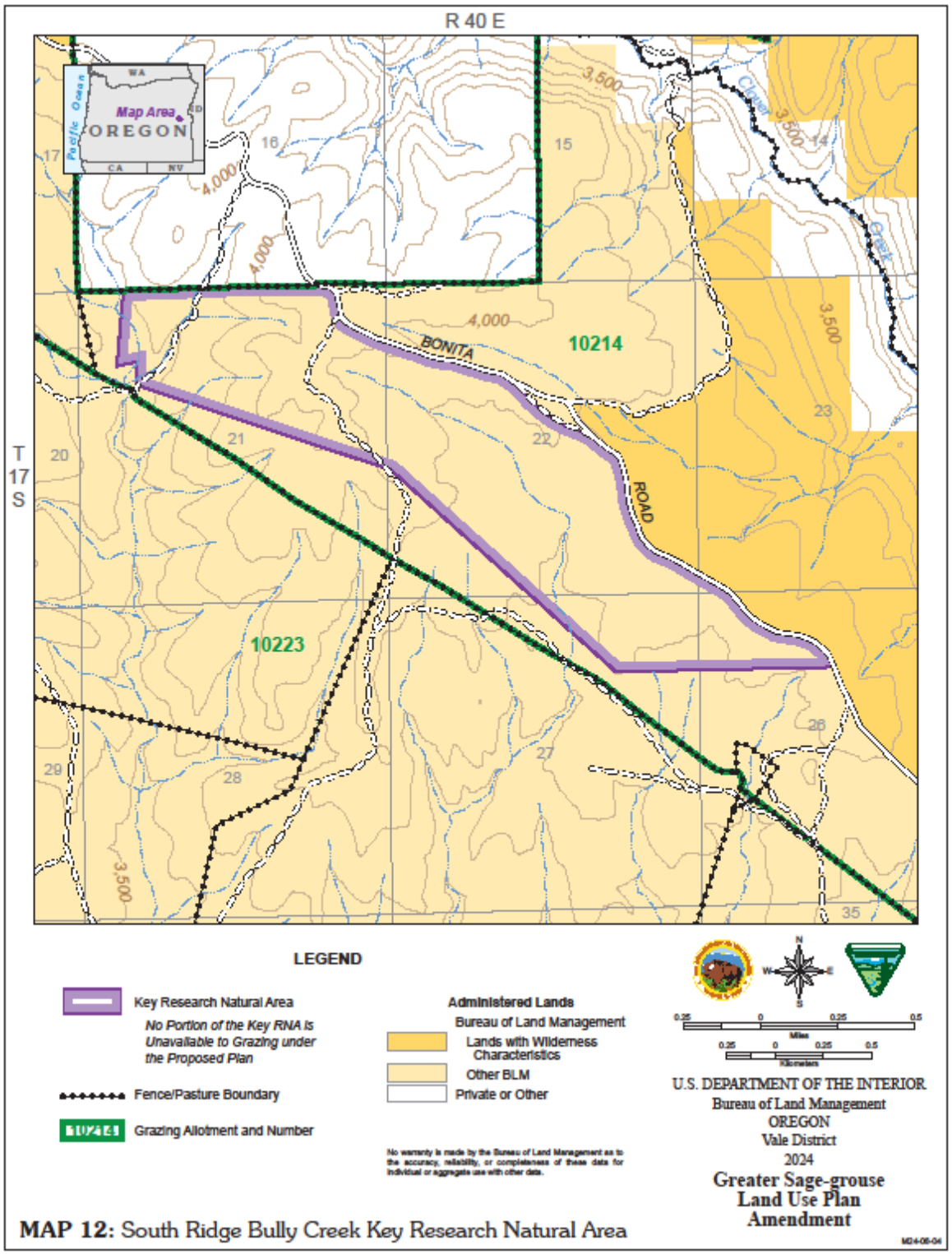
Increased presence, time, and resources for active management to keep livestock from the area identified as unavailable for livestock grazing would not be necessary and impacts to wildlife, including sage-grouse, from these activities would not occur.

South Ridge Bully Creek (Vale)

Proposed RMP Amendment

Retain the area identified as a key RNA and reallocate all portions of the key RNA as available for livestock grazing. Construct a 5-acre or less exclosure that would remove livestock use and other permitted activities to allow for nonmanipulative research and baseline data gathering within the Key RNA or within close proximity to the Key RNA to allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse within the South Ridge Bully Creek key RNA. The location, size, and design of the exclosure site would adhere to variations in lek buffers and required designed features as specified in Appendices B and C of the Oregon 2015 GRSG Approved RMP Amendment.

Map 12. South Ridge Bully Creek Key Research Natural Area



Affected Environment

The 621-acre South Ridge Bully Creek ACEC/RNA is located west of Westfall, Oregon, along the ridge that separates Clover Creek drainage to the north and Bully Creek drainage to the south. The ACEC/RNA encompasses a number of grassland communities that occur as distinct entities intermixed within a larger mosaic of types in excellent ecological condition.

The South Ridge Bully Creek key RNA and 397-acre area allocated as unavailable for livestock grazing occurs within the South Ridge pasture of the Richie Flat allotment. The key RNA is adjacent to the North Ridge Bully Creek key RNA and North Ridge Bully Creek pasture. The key RNA is within Greater Sage-grouse PHMA and two active or pending active leks are within 1.2 miles of the key RNA boundary. There is one AIM plot within the area available for livestock grazing.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use will be limited to existing roads and trails. Plant collecting requires a permit. The ACEC/RNA is managed as VRM Class III. Road maintenance will be limited to the existing roadway, and shoulder/barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if values will be maintained or enhanced. Where adverse impacts are identified, existing livestock use allocations will be adjusted using a variety of methods that could include fencing, reduction in livestock numbers, and changes in grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 Southeastern Oregon RMP (SEORMP) ACEC/RNA Designation

The relevant and important values of the ACEC/RNA are the Wyoming big sagebrush/Thurber needlegrass community and Wyoming big sagebrush- wild crab apple (*Peraphyllum ramosissimum*)/Idaho fescue community vegetation cells identified by ONHP.

2015 Greater Sage-grouse ARMPA

The South Ridge Bully Creek ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities represented in this key RNA include Wyoming big sagebrush/Thurber's needlegrass, a Wyoming big sagebrush/wild crab apple/Idaho fescue, and threetip sagebrush/blue bunch wheatgrass (Idaho fescue) plant association.

Vegetative communities in this key RNA that are important to Greater Sage-grouse habitat continue to be relatively unaltered. These are Wyoming big sagebrush/Thurber's needlegrass, a Wyoming big sagebrush/wild crab apple/Idaho fescue, and threetip sagebrush/blue bunch wheatgrass (Idaho fescue) plant association. These communities represent the Cool-Moist/Warm-Dry Sagebrush Communities. The key RNA is within Greater Sage-grouse PHMA and two active or pending active leks are within 1.2 miles of the key RNA boundary. The South Ridge Bully Creek ACEC/RNA burned in the 2012 Bonita Fire and the 2015 Bendire Fire removing much of the sagebrush present. The South Ridge Bully Creek ACEC/RNA was aerially sprayed with the preemergent herbicide imazapic in October 2015 after the Bendire Fire to reduce invasive annual grasses in the area.

Other Resources

The visual resource management is Class III.

The key RNA is utilized by deer during spring and summer, pronghorn year-round, and is designated as elk winter range.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under all Alternatives

The area continues to be in a desirable condition for the vegetative communities identified. Although the area burned in 2012 and 2015, the application of herbicide in 2015 prevented the increase of invasive annual grasses that often follow multiple fires. Management would continue to protect the relevant and important values, although shrub components have been impacted by past wildfires. In the long-term, shrub components are expected to return. Research opportunities continue to remain with vegetative communities identified as relevant and important values. The area continues to recover and provides opportunities for research and baseline data gathering where post-fire ecological conditions occur. The key RNA retains the following vegetation types important for Greater Sage-grouse: Ecotone between cool-moist and warm-dry sagebrush, shallow-Dry Sagebrush, and Riparian-Wetlands.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

Allocating the entire key RNA as available for livestock grazing removes the possibility of construction of an exclosure fence, reducing conflicts with lek buffers and reducing collision risk. Livestock management prior to the 2015 ARMPA (Alternative 1) did not have a negative impact on the relative and important values identified for the RNA (BLM. South Ridge Bully Creek RNA Monitoring data. 06/05/2013; 05/30-31/2018; 06/26/2020).

Livestock grazing within the key RNA is not expected to adversely impact current conditions, and conditions continue to exist (excluding impacts from wildfire) as they were at the time the RNA was designated under the 2002 SEORMP (BLM. South Ridge Bully Creek RNA Monitoring data. 06/05/2013; 05/30-31/2018; 06/26/2020). There is no indication that improper livestock grazing practices are occurring given the current conditions (BLM. South Ridge Bully Creek RNA Monitoring data. 06/05/2013; 05/30-31/2018; 06/26/2020).

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be present and provide life-cycle needs (such as nesting, brood rearing, and wintering) under all alternatives.

Alternatives 1 and 4

Presence, time, and resources for active management of livestock grazing would continue to be necessary. Vegetative and soil conditions are recovering post-wildfire and as expected for the vegetative communities present prior to eliminating livestock from the area allocated as unavailable for livestock use under the 2015 ARMPA ROD. Vegetative conditions may witness slightly increased recovery with the elimination of livestock use from the area. Due to the proximity and number of leks within the area and the risk of Greater Sage-grouse- fence collisions, fencing to exclude livestock from the area allocated as unavailable for livestock grazing is not feasible and could not conform with Required Design Features. As a fence within 1.2 miles of leks poses a collision hazard, and the area that would be protected from grazing had previously been properly grazed, which USFWS has said is compatible with GRSG conservation, there is no conservation benefit to GRSG from placing a fence within 1.2 miles of a lek. While research in the ungrazed area could provide data

and insights that could benefit GRSG habitat management, this benefit is not only difficult to measure but would not outweigh the fence collision risk for GRSG. Other wildlife noted to use the area may be impacted, at least seasonally due to increased human presence when managing livestock from entering areas unavailable for livestock use.

Alternatives 2, 5, and 6

Under these alternatives, reallocating the entire key RNA as available for livestock grazing would allow for the resumption of management practices employed prior to 2023 throughout the South Ridge pasture of the Richie Flat allotment, while continuing to allow for research opportunities. Prior to the removal of grazing from this key RNA, livestock grazing management prescribed had not adversely impacted conditions of the vegetative communities that support wildlife habitat important to the area as well as the condition of the important vegetative communities identified for the Greater Sage-grouse. There is no indication that earlier grazing management practices had negative impacts to Greater Sage-grouse habitat within the key RNA.

Current conditions of the vegetative communities are in a desirable state and are not expected to be adversely affected under proper livestock grazing management. The condition of the vegetative communities that were present when the 2002 SEORMP designated the RNA while retaining livestock grazing use would continue. Livestock management prior to the 2015 ARMPA does not appear to have had a negative impact on the relative and important values identified for the key RNA. As stated in the rationale for maintaining the key RNA status, the vegetative communities identified as important for Greater Sage-grouse in 2015 are still present post-fire with the exception of sagebrush.

The area continues to recover and provides opportunities for research and data gathering where post-fire ecological conditions occur.

Increased presence, time, and resources for active management to keep livestock from the area identified as unavailable for livestock grazing would not be necessary and impacts to wildlife, including sage-grouse, from these activities would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding), An ungrazed reference for research would be retained.

Proposed RMP Amendment

Under this alternative, reallocating the entire key RNA as available for livestock grazing would allow for the resumption of management practices employed prior to 2023 throughout the South Ridge pasture of the Richie Flat allotment. Prior to the removal of grazing from this key RNA, livestock grazing management prescribed had not adversely impacted conditions of the vegetative communities that support wildlife habitat important to the area as well as the condition of the important vegetative communities identified for the Greater Sage-grouse.

Current conditions of the vegetative communities are in a desirable state and are not expected to be adversely affected under proper livestock grazing management. The condition of the vegetative communities that were present when the 2002 SEORMP designated the RNA would continue. Livestock management prior to the 2015 ARMPA does not appear to have had a negative impact on the relative and important values identified for the key RNA. As stated in the rationale for maintaining the key RNA status, the

vegetative communities identified as important for Greater Sage-grouse in 2015 are still present post-fire with the exception of sagebrush.

Active and pending leks are currently documented to exist within less than 1.2 miles of the area identified for livestock removal in Alternatives 1 and 4. However, the construction of a 5-acre or less exclosure that would remove livestock use and other permitted activities would allow for nonmanipulative research and baseline data gathering within close proximity to the Key RNA. This would allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse within the South Ridge Bully Creek key RNA. The location, size, and design of the exclosure site would adhere to variations in lek buffers and required designed features as specified in Appendices B and C of the Oregon 2015 GRSG Approved RMP Amendment. There would be at least short-term impacts from fence construction outside of, but near to, the key RNA.

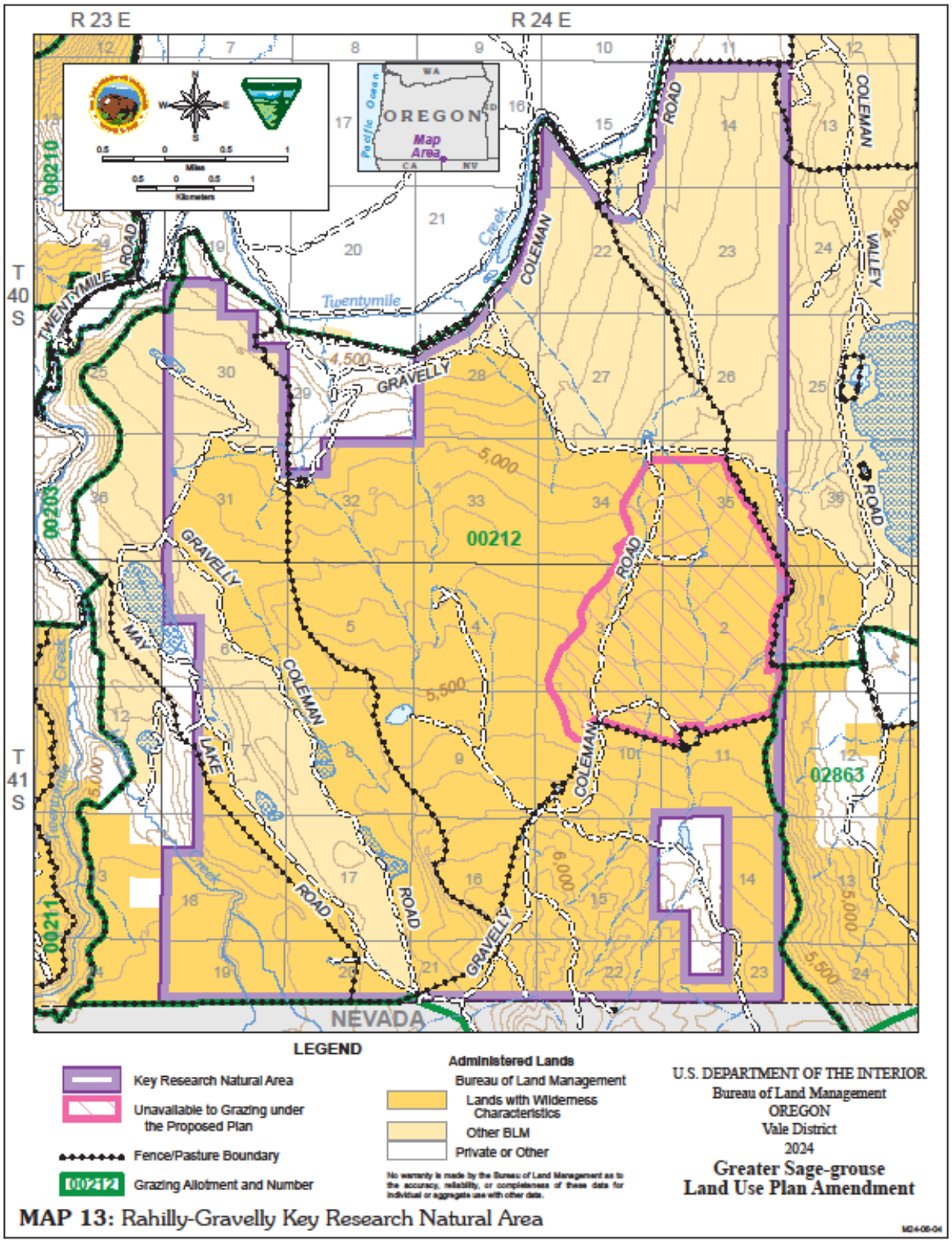
Increased presence, time, and resources for active management to keep livestock from the area identified as unavailable for livestock grazing would not be necessary and impacts to wildlife, including sage-grouse, from these activities would not occur.

Rahilly-Gravelly (Lakeview)

Proposed RMP Amendment

Retain the area identified as a key RNA and reduce the area allocated as unavailable for livestock grazing from 8,282 to 2,025 acres within a portion of the Sucker Creek Pasture (Rahilly-Gravelly Allotment) that contains low sagebrush/Sandberg's bluegrass grassland and Wyoming big sagebrush/bluebunch wheatgrass grassland plant communities.

Map 13. Rahilly-Gravelly Key Research Natural Area



Affected Environment

The 18,734-acre Rahilly-Gravelly ACEC/RNA is located about 24 miles southeast of Lakeview.

Specific management under the Lakeview RMP/ROD

OHV use is limited to existing roads and trails.

Summary of key RNA and Relevant and Important values evaluated for ACEC/RNA designation

Lakeview RMP/ROD

The 18,734-acre Rahilly-Gravelly ACEC/RNA was designated in the Lakeview RMP/ROD to protect relevant/important natural system (plant communities) and cultural resource values (BLM 2000a, pp. II-9, III-37; 2001a, p. A-247; 2003b, p. 68).

During the development of the Lakeview Resource Management Plan and Record of Decision, the BLM expanded the Rahilly-Gravelly ACEC/RNA (from the original 1,400-acre proposal to over 18,700 acres) to include significant cultural values in the added acreage (BLM 2000a, p. III-33). These site types included stone rings, rock art, lithic scatters, rock cairns, hunting blinds, and occupation sites (BLM 2000a, p. III-33 to III-34, III-37; 2003a, p. 2-58).

2015 Greater Sage-grouse ARMPA

The Proposed RMPA/Final EIS described the plant communities of the Rahilly-Gravelly ACEC/RNA as containing important sage-grouse plant communities including western juniper/Wyoming big sagebrush-bitterbrush woodland and some unusual shrublands described by the Oregon Biodiversity Information Center (ORBIC), such as a mountain big sagebrush/bitterbrush/wild crab apple and a mountain big sagebrush/bitterbrush/mountain snowberry/Thurber's needlegrass shrubland. The ACEC/RNA also contains Wyoming big sagebrush/bunchgrass, bluebunch wheatgrass, Thurber's needlegrass, and Sandberg's bluegrass associations, as well as areas of low sagebrush/grassland vegetation types (BLM 2015a, p. 3-142).

Updated Vegetation Communities

Approximately 1,400 acres of this ACEC/RNA contains the plant communities identified in the 2015 ARMPA and they are located within the Nevada Pasture (Vander Schaaf 1992, pp. 15-16 including map; BLM 2000a), not within the original (Alternative 1) exclosure area in the Sucker Creek Pasture. The Sucker Creek Pasture is the portion of the RNA with Greater Sage-grouse habitat and documented Greater Sage-grouse use.

Based on ESI data, the most dominant vegetation communities in the Rahilly-Gravelly ACEC/RNA include low sagebrush/Sandberg bluegrass, big sagebrush/cheatgrass, big sagebrush/Sandberg bluegrass, big sagebrush with no understory, and mountain big sagebrush/bluegrass. However, no mountain big sagebrush/bitterbrush/mountain snowberry/Thurber's needlegrass shrubland communities are present. In addition, western juniper is encroaching into, and degrading the habitat quality of the Wyoming big sagebrush/bitterbrush, big sagebrush, and some of the low sagebrush communities within the ACEC/RNA.

There are some cocklebur species (*Xanthium* sp.) and Canada thistle located around spring and water developments in the Rahilly-Gravelly key RNA. Many of these sites are located in areas that already exclude livestock grazing. This RNA also has a documented site of Mediterranean sage *(Mediterranean sage)* that is a high management priority for containment/control.

The BLM sensitive plant species, Cooper's goldflower (*Hymenoxys cooperi* var *canescens ~ H. lemmonii*), occurs in four places within the ACEC/RNA (BLM 2000a, p. III-26). Cooper's goldflower grows in rocky soils in arid

regions from southern California to New Mexico, north as far as Idaho and Oregon. Not much is known about the life history requirements of this species.

Other Resources

Small riparian/wetland areas occur around Terry Spring, Spearpoint Spring, several livestock water developments, and short reaches of Sucker Creek (BLM 2024b, p. 28).

The Rahilly-Gravelly key RNA lies within the Warner-Meizner mid-scale HAF, and the Warner fine-scale HAF boundaries, but is part of the Beaty PAC. The entire RNA is classified as PHMA and nearly all the area is mapped as seasonal breeding, summer, and winter sage-grouse habitat. Telemetry data collected across several years has documented spring, summer, and winter use within much of the key RNA including the Sucker Creek Pasture (unpublished data). As of 2022 lek surveys, there were 3 active and 4 inactive leks within the Sucker Creek Pasture.

Juniper areas provide habitat for woodland nesting species and cover for big game, while the shrubland/grassland areas provide habitat and forage for sage-steppe associated species. The area includes mule deer winter range, bighorn sheep occupied habitat, and pronghorn winter range and migration (BLM 2024b, p. 51).

The Twelvemile-Horse Creek (OR-015-157 and CA-020-1005; 24,081 acres) and Sucker Creek (OR-015-120A; 7,118 acres) wilderness characteristics units overlap portions of the key RNA.

The Rahilly Gravelly ACEC/RNA is managed as VRM Class III.

The Rahilly-Gravelly ACEC/RNA falls within the 33,571-acre Rahilly-Gravelly (00212) Allotment.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The vegetative communities identified as important for Greater Sage-grouse habitat within the key RNA continue to be in good condition. Management would continue to protect the relevant and important values of the RNA.

The key RNA retains the following vegetation types important for Greater Sage-grouse: cool-moist sagebrush, warm-dry sagebrush, shallow-dry sagebrush, and mountain brush.

Opportunities for nonmanipulative research and baseline data gathering on relatively unaltered plant community types continue to remain, along with vegetative communities identified as important for greater sage-grouse, due to the remote and rugged nature of the area. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to these vegetative communities or the relevant and important values for which the RNA was designated.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

Portions of the original boundary of the area allocated as unavailable for livestock grazing (Alternative 1) were based on property lines that traversed terrain/topography (e.g., steep slopes, rocky surfaces) where the BLM determined, based on further analysis and field inventory, it would be difficult to construct fencing. The modified exclosure boundary would take advantage of existing topographic barriers (e.g. steep rims) and reduce the amount of fencing needed within sage-grouse habitat from an estimated 4.7 miles (under Alternative 1) to about 2.5 miles and move fencing approximately 0.2 miles further from two active leks.

The mountain big sagebrush/ bitterbrush/mountain snowberry/Thurber's needlegrass shrubland plant community was described as occurring in the key RNA by the 2015 ARMPA, however, the BLM has no documentation that this plant community exists within the key RNA. The proposed area to be unavailable for livestock grazing in the Sucker Creek Pasture contains Wyoming big sagebrush and low sagebrush plant communities.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

Livestock are currently being kept out of areas allocated as unavailable for grazing through active management (herding, adjustment of turnout dates, removal of nearby water developments, and/or placement of salt or other supplements). Leaving 8,282 acres of the Rahilly-Gravelly ACEC/RNA unavailable for livestock grazing use could eliminate soil and vegetation disturbance from livestock in a portion of the key RNA. This would allow natural succession processes to occur in the absence of most human-caused disturbances and provide an area for future baseline monitoring and research purposes. An ungrazed reference for research would be retained.

If the area were to be made unavailable for livestock grazing using fencing, the new fencing would result in additional cattle trampling/trailing along the fenceline within an area that has been relatively undisturbed in the past. Native plant communities and soils would be impacted. There would be an increased potential risk of introducing new noxious weeds/invasive species into native communities during fence construction. The new disturbance would represent an area of potential cheatgrass invasion/expansion that could potentially impact the Cooper's goldflower over the long-term. A fence would negatively affect existing visual quality, but would meet VRM Class III objectives

Four existing livestock water sources located in areas unavailable for livestock grazing would not be available under these alternatives.

Alternative 2

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative, either short-term or long-term, any more than it had been at the time that this unit was identified as one with wilderness characteristics. Fence-related conflicts would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). Wilderness characteristics of naturalness, opportunities for solitude, or primitive and unconfined recreation would not be impaired under this alternative, nor would there be any short-term disturbances to these characteristics caused by fence construction. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Alternatives 5, 6, and Proposed RMP Amendment

Under these alternatives 6,257 acres would be reallocated as available for livestock grazing. An ungrazed 2,025 acre reference area for research would be retained.

If access to the 2,025 acres unavailable for livestock grazing were to be limited by using fencing, the new fencing would result in additional cattle trampling/trailing along the fenceline within an area that has been relatively undisturbed in the past. Native plant communities and soils would be impacted. There would be an increased potential risk of introducing new noxious weeds/invasive species into native communities during fence construction. The new disturbance would represent an area of potential cheatgrass invasion/expansion that could potentially impact the Cooper's goldflower over the long-term. Because there would be less fence construction than under Alternative 1 as portions of natural rim rock would be used as part of the barrier, there would be fewer associated wildlife impacts than under Alternative 1. The western and northern portions of the fence would be moved further away from two active leks and the western fence would not be located in open terrain. These design measures would decrease the risk of collision by sage-grouse when compared to Alternative 1. A fence would negatively affect existing visual quality, but would meet VRM Class III objectives.

These alternatives would reverse negative economic effects to affected livestock operators that arose from making 8,282 acres unavailable for livestock grazing. Under these alternatives, 6,257 acres would be reallocated as available for livestock grazing (approximately 442 AUMs). Compared to Alternative 1 the permittee would not experience as much additional forage costs.

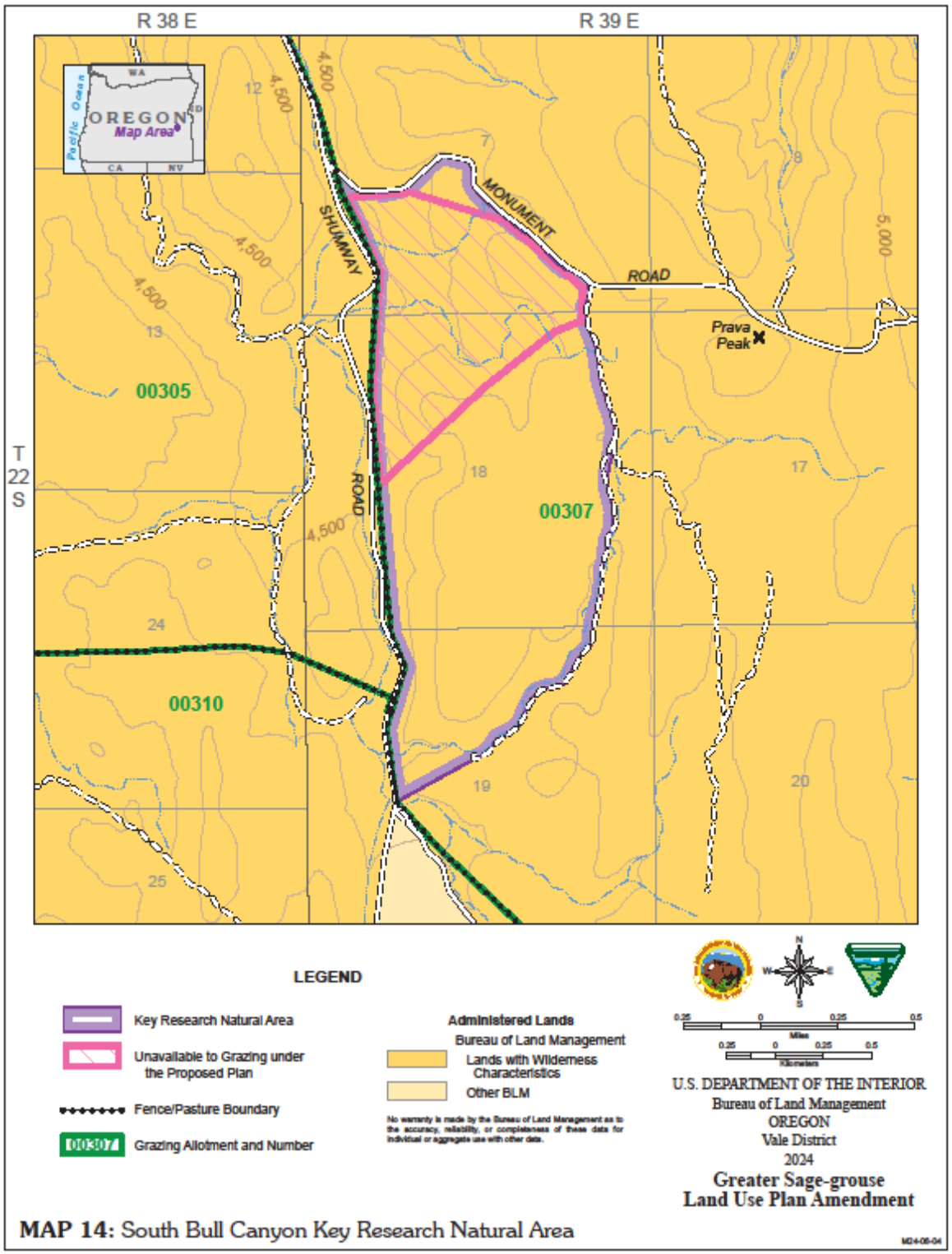
Four existing livestock water sources would be available for livestock grazing that would not be available under alternatives 1 and 4. This would reduce the need to mitigate for lost livestock watering sites when compared to Alternative 1 (BLM, 2024b, p. 17).

South Bull Canyon (Vale)

Proposed RMP Amendment

BLM proposes no changes to the key RNA boundary, but has reduced the area allocated as unavailable for livestock grazing from 749 acres to 257 acres to reduce conflicts with other resources. The smaller exclosure would still maintain the vegetation communities that are important to Greater Sage-grouse habitat.

Map 14. South Bull Canyon Key Research Natural Area



Affected Environment

The 770-acre South Bull Canyon ACEC/RNA is located south of the Malheur River, approximately six miles to the southeast of Juntura, Oregon, along the road that leads to Creston and Turnbull lakebeds. The landscape consists of a series of small drainages off of a low north-south ridge with relatively deep soils and large surface rocks. The gently sloped hills are covered by a mix of plant communities in generally late seral conditions. The ACEC/RNA includes a range of vegetation communities and their subtle variations across the landscape. The key RNA is located wholly within the 20,315-acre Prava Peak wilderness characteristics unit that is identified for prioritized protection of those wilderness values under 2024 SEORMP Amendment ROD (BLM 2024a, Appendix A, p. A-4). South Bull Canyon ACEC/RNA is managed for visual resources as VRM Class II (BLM 2024, p. ARMPA-2).

The South Bull Canyon key RNA and 749-acre area[2] allocated as unavailable for livestock grazing occurs within the Upper Field pasture of the Boney Basin allotment. The terrain in the South Bull Canyon key RNA has a number of hills and drainage features scattered throughout the 749 acres. There are two livestock watering developments within this area, and another three water developments bordering on or directly adjacent to that unavailable area.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use will be limited to designated roads and trails. Road maintenance will be limited to the existing roadway, and shoulder/barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. The area will be closed to saleable minerals development, while remaining open for leasable and locatable minerals. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if values will be maintained or enhanced. Existing livestock use allocations will be adjusted where adverse impacts are identified using a variety of methods, including but is not limited to, fencing, reduction in livestock numbers, and changes in grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 SEORMP ACEC/RNA Designation

The relevant and important value of the ACEC/RNA is the big sagebrush-antelope bitterbrush/Idaho fescue vegetation cell as identified by ONHP.

2015 Greater Sage-grouse ARMPA

The South Bull Canyon ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

[2] The South Bull Canyon ACEC/RNA was originally identified in the 2002 SEORMP ROD as containing 792 acres of public lands in the Malheur Field Office; the entire RNA was identified in the 2015 ARMPA as a Key RNA, of which 747 acres were allocated as unavailable for livestock grazing. The original boundary was updated on the west to the existing pasture boundary (fenceline) and on the north and east to the existing primitive route. This adjustment reduced the total acres in the ACEC/RNA to 770 acres. The adjustment also increased by two acres to 749 the area allocated as unavailable for livestock grazing.

Updated Vegetation Communities and Sage-Grouse Habitats

Wyoming big sagebrush-antelope bitterbrush/Idaho fescue plant association is represented in the South Bull Canyon ACEC/RNA.

Vegetative communities in this key RNA that are important to Greater Sage-grouse habitat continue to be relatively unaltered. These are Wyoming big sagebrush-antelope bitterbrush/Idaho fescue plant association. This community represents the Cool-Moist Sagebrush community. The southern portion of the South Bull Canyon ACEC/RNA burned in the 2016 Sheep Rock Fire. Due to the reduced abundance of these species following the Juntura Complex Fires in 2016, 176 acres in the burned area were planted in the fall of 2017 with sagebrush and bitterbrush seedlings during Emergency Stabilization and Rehabilitation efforts (BLM Vale District Office. 2016. BLM Oregon Post-Fire Recovery Plan: Emergency Stabilization and Burned Area Rehabilitation Juntura Complex Fire). The entire South Bull Canyon ACEC/RNA was aerially treated with the preemergent herbicide imazapic in 2022 to reduce invasive annual grasses in the area.

The key RNA is within PHMA and is in the Crowley Priority Area of Conservation. There are two active leks within 1.2 miles of the key RNA; seven active leks within two miles; and nine active and one pending active lek within four miles of the key RNA.

Other Resources

The South Bull Canyon key RNA is wholly within the Prava Peak (OR-034-042) lands with wilderness characteristics unit and is located in the northwest corner of the Prava Peak unit. The 20,654-acre Prava Peak unit possesses naturalness and is contiguous with three WSAs, and shares their outstanding opportunities to experience solitude, and primitive and unconfined recreation. Elevations range from about 4,140 to 5,690 feet (Monument Peak). Existing human imprints in the unit are: 14 earthen reservoirs, four developed springs, 23.2 miles of rangeland fence, one rangeland fenced enclosure, and 43.5 miles of 22 primitive route segments, all of which appear substantially unnoticeable to the average visitor. Supplemental values in the unit include Greater Sage-grouse leks and their habitat.

The key RNA is utilized by mule deer during spring and summer, pronghorn year-round, and is designated as elk winter range. This area is not classified as an ODFW PWCA. Many migratory birds nest in the area, including many sagebrush obligates such as Brewer's sparrow and sagebrush sparrow, as well as other sagebrush-associated species such as golden eagles and loggerhead shrikes. Many more bird species move through the area during migration. Although habitat potential exists for pygmy rabbits, no known populations exist here.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The area continues to be in a desirable condition for the vegetative communities identified (BLM. Monitoring data. 05/31/2017;BLM. Monitoring data. 06/28/2020). Although the area burned in 2012 and 2015, the application of herbicide in 2015 prevented the increase of invasive annual grasses that often follow multiple fires. Management would continue to protect the relevant and important values. Herbaceous vegetative communities important to Greater Sage-grouse are present throughout the key RNA, although shrub components have been impacted by past wildfires in the southern portion of the area. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated.

Management would retain the ONHP-identified vegetation communities identified as relevant and important and the cool/moist vegetation communities identified under the 2015 ARMPA that are important for sage-grouse and for research purposes. Sagebrush communities of the key RNA provide for suitable nesting, brood-rearing, and winter habitat for Greater Sage-grouse.

Rationale for Modifying the Area Allocated as Unavailable for Livestock Grazing

The proposed, 257-acre livestock exclosure, still within the key RNA, would locate fencing greater than 1.2 miles from active or pending active Greater Sage-grouse leks. This fencing would be constructed by hand.

Reallocating livestock grazing to the remaining, unexclosed area of the key RNA would reduce the impacts to wilderness characteristics from non-infrastructure methods (e.g., decisions that direct the permittee actively manage livestock to avoid incursion). The exclosure would enable the BLM to retain opportunities for research that includes control areas ungrazed by livestock. Relevant and important vegetative communities identified for the key RNA as important for Greater Sage-grouse are relatively unaltered within the excluded area.

The smaller exclosure excludes the portion of the key RNA that burned in 2016 and which was planted with bitterbrush and sagebrush. The seed source for the plants is not from the vegetation within or directly adjacent to the key RNA. The genetics are therefore different and may not represent the local genetics and could impact a research study. This key RNA has one vegetation community present: Wyoming big sagebrush-antelope bitterbrush/Idaho fescue plant association; this community is present in the smaller exclosure area.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

Keeping livestock out of the area allocated as unavailable for livestock grazing would require the additional presence and resources of the grazing operator or construction of an exclosure fence. There could be long-term impacts to solitude and primitive and unconfined recreation caused by active management to exclude livestock from the key RNA. Constructing fences to keep livestock out would not conform with the 2015 ARMPA (Management Direction MD LG 10 and RDF Livestock Grazing No. 7). Two leks with "active" or "pending active" status occur less than 1.2 mile from the area boundary with the closest lek occurring approximately 0.5 miles away. A conservation benefit to Greater Sage-grouse or important habitat is not expected from construction of a fence to eliminate livestock grazing due to the current condition of the vegetative communities prior to and after the removal of livestock from the area. Other wildlife noted to use the area may be negatively impacted, at least seasonally due to increased human presence when managing livestock from entering areas unavailable for livestock use, or in the short-term (1-3 years) due to construction of new fence to exclude livestock from these areas. Additionally, there are no allowed variations to the RDF that would fall within the requirements described in Appendix C,. As a fence within 1.2 miles of leks poses a collision hazard, and the area that would be protected from grazing had previously been properly grazed, which USFWS has said is compatible with GRSG conservation, there is no conservation benefit to GRSG from placing a fence within 1.2 miles of a lek. While research in a fenced, ungrazed area could provide data and insights that could benefit GRSG habitat management, this benefit is not only difficult to measure but would not outweigh the fence collision risk for GRSG.

Alternative 2

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness would not be impaired under this alternative, either short-term or long-term, any more than it had been at the time that this unit was identified as one with wilderness characteristics. Fence-related conflicts would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness would not be impaired under this alternative either short-term or long-term. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Alternatives 5, 6, and Proposed RMP Amendment

Allocating the southern portion of the key RNA as available for livestock grazing would allow livestock grazing to return to 513 acres of the key RNA which contains the majority of reliable water sources for the Upper Field of the Boney Basin allotment. If the area is not fenced, additional presence and resources of the grazing operator would be required for active management in order to keep livestock out of the unfenced area.

If the 257-acre area allocated as unavailable for livestock grazing is fenced, impacts to livestock management would be minimized as available water sources would remain available for use throughout the remaining portions of the Upper Field pasture. A fence surrounding the area allocated as unavailable for livestock grazing would have minor effects on the movement of big game through the area. The Oregon Conservation Assessment Mapping Program did not consider this area a high priority for wildlife movement, and therefore it was not designated as a Priority Wildlife Connectivity Area. The risk to big game movement would be minimized by using wildlife-friendly fence design, as big game would be able to move more easily under, over, and through the fence.

Constructing the fence would cause temporary disturbance to migratory bird habitat. Minor damage to sagebrush within the disturbance area could destroy nesting habitat, but fence construction by hand – particularly where the new fence construction is along the existing boundary road for the key RNA - generally doesn't damage much vegetation. If constructed during nesting season, some individuals could be displaced at the time, but the effects of temporary minor habitat disturbance to the overall population of migratory birds would be negligible.

Similar to migratory birds, if a fence is constructed during breeding or nesting season it could disturb sage-grouse nesting habitat or temporarily displace nesting sage-grouse. Minor damage to sagebrush could occur but fence construction by hand generally doesn't damage much vegetation. Restricting activity during those months to two hours after sunrise to two hours before sunset would minimize this disturbance. A fence is this area is not modeled as high collision risk for sage-grouse. However, if monitoring suggests collisions could occur, anti-strike fence markers could reduce the risk.

Returning livestock grazing to the remaining 513 acres of the key RNA would not cause measurable impacts to big game or migratory birds.

Outstanding opportunities for solitude and unconfined and primitive recreation would be impacted in the short-term by fence construction. The long-term negative effects to naturalness caused by the addition of fencing would be the additional structures in the Prava Peak wilderness characteristics unit. If encounters

with visitors occur during construction of the proposed fence, they may be temporarily disruptive to visitors who may be in the proximity, but this adverse impact would be brief.

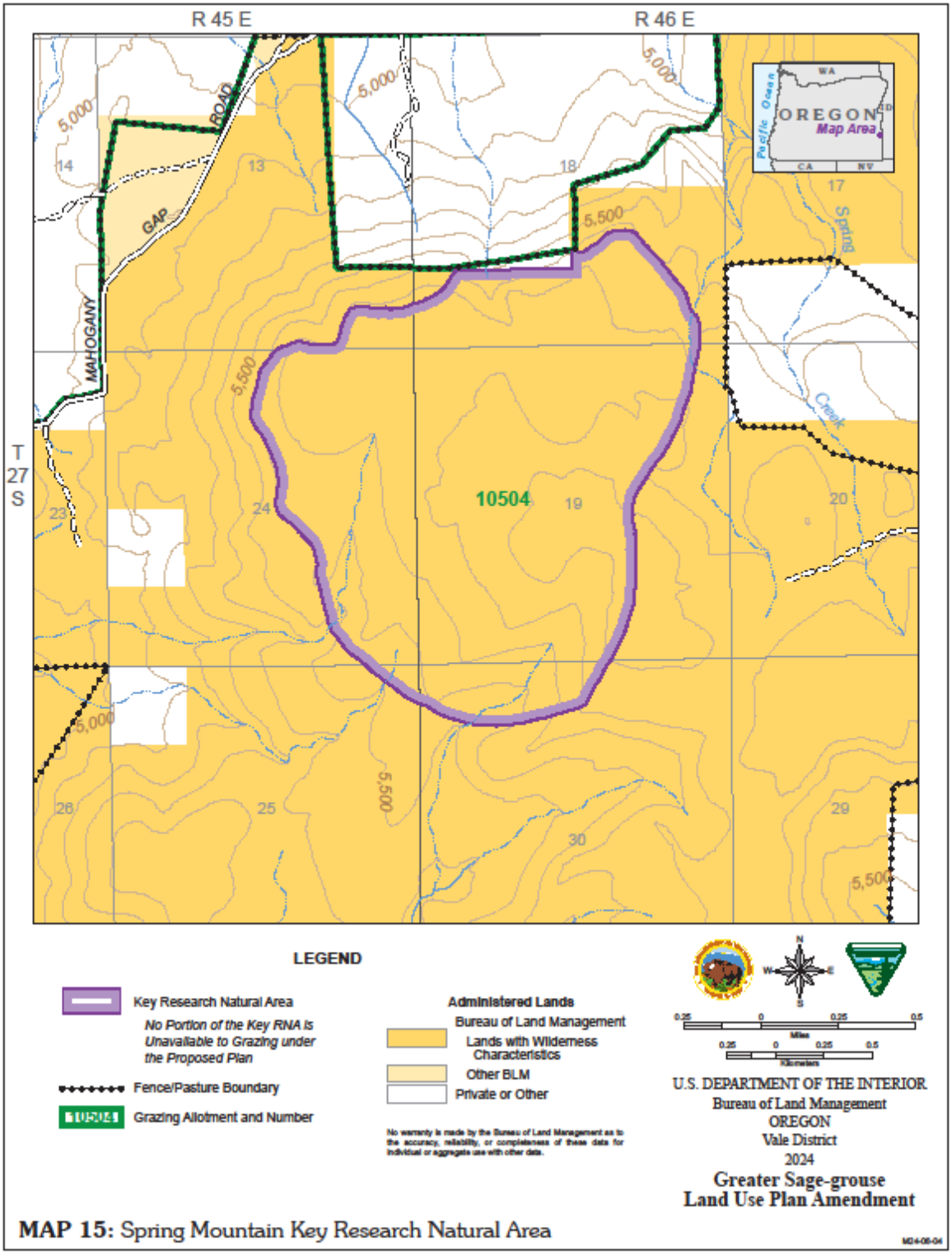
The VRM in the project area is Class II. A fence would affect the existing visual quality within the area, but would meet the existing visual resource management objectives for the surrounding area.

Spring Mountain (Vale)

Proposed RMP Amendment

Retain the area identified as a key RNA and reallocate the entire key RNA as available for livestock grazing. Construct a 5-acre or less exclosure that would remove livestock use and other permitted activities to allow for nonmanipulative research and baseline data gathering within the key RNA or within close proximity to the key RNA to allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse within the Spring Mountain key RNA. The location, size, and design of the exclosure site would adhere to variations in lek buffers and required designed features as specified in Appendices B and C of the Oregon 2015 GRSG Approved RMP Amendment.

Map 15. Spring Mountain Key Research Natural Area



Affected Environment

The 996-acre Spring Mountain ACEC/RNA is located west of U.S. Highway 95 and north of Jordan Valley, covering a portion of the top of Spring Mountain east of Mahogany Mountain. The top of the mountain is a mix of mountain big sagebrush/Idaho fescue steppe in areas with deep soils. The northern portion of the ACEC/RNA is composed of steep, talus scree. This area supports stands of western chokecherry, whortleleaf snowberry, Saskatoon serviceberry, and Lewis' mock orange. The scree tops out to a larger, relatively flat tableland dominated by diverse, large low sagebrush scablands.

The Spring Mountain key RNA is located in the Spring Mountain Native Range pasture of the Spring Mountain allotment. This area contains the majority of the access routes for livestock from one side of the pasture to the other in the upper elevations. The developed Aspen Grove Spring is a critical water source along these routes for livestock. Steep and extremely rocky slopes descend over 1000 feet in elevation to the lower pasture boundaries. Access and travel along the steep rocky slopes are limited to livestock/wildlife and are extremely difficult. The north and east sides of the pasture have fenced private land inholdings that are either partially or entirely within the pasture boundary, further compounding access and travel issues. The key RNA is centrally located in the northern portion of the "top" of Spring Mountain, creating numerous issues with access and travel routes for livestock. There is one AIM plot within the area available for livestock grazing.

The key RNA occurs within the highest elevations of the Spring Mountain Native Range pasture, and in an area where topography allows for feasible movement of livestock within and throughout the Spring Mountain Native Range pasture, as well as to other pastures within the Spring Mountain allotment. Fencing is expected to be difficult to construct due to the talus slopes and would also require above-normal (annual) maintenance by BLM due to weather conditions (evidence of natural snowbanks are common) as well as a result of anticipated damage by elk and other big game. The area is reported to have significant use by elk traveling between Oregon and Idaho ranges.

To achieve the orderly administration of livestock grazing management, throughout that season of use, livestock operators are authorized to move livestock through the key RNA, utilizing existing trailing routes. Trailing occurs to access to BLM pastures within both the Spring Mountain and adjacent allotments, as well as private lands within the Spring Mountain allotment boundary.

Specific Management under the 2002 SEORMP ROD, as Amended

The area is closed to OHV use. Plant collecting requires a permit. VRM class is Class III. Livestock use allocations will continue based on existing permit stipulations and approved AMP's, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if values will be maintained or enhanced. Existing livestock use allocations will be adjusted where adverse impacts are identified using a variety of methods, including but not limited to, fencing, reduction in livestock numbers, and changes in grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 SEORMP ACEC/RNA Designation

The relevant and important values of the ACEC/RNA are the mountain big sagebrush/Idaho fescue, low sagebrush/bluebunch wheatgrass, and riparian community dominated by peachleaf willow and coyote willow

with quaking aspen/whortleleaf snowberry vegetation cells identified by ONHP. There are several quaking aspen patches associated with springs and north-facing talus slopes within the ACEC/RNA.

2015 Greater Sage-grouse ARMPA

The Spring Mountain ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities represented in this key RNA include mountain big sagebrush/Idaho fescue community, mountain big sagebrush/mountain snowberry/Idaho fescue, mountain mahogany/chokecherry scrub (Prunus virginiana), and relatively flat tableland, dominated by low sagebrush/bunchgrass scabland community. Quaking aspen and bitter cherry communities dominate the springs.

Vegetation communities represented in this key RNA that are important to Greater Sage-grouse habitat continue to be provide life-cycle needs (such as nesting, brood rearing, wintering) despite being burned in a wildfire in 2007. Vegetative communities consist of mountain big sagebrush/Idaho fescue community, mountain big sagebrush/whortleleaf snowberry/Idaho fescue, chokecherry scrub (*Prunus virginiana*), and relatively flat tableland, dominated by low sagebrush/bunchgrass scabland community; however, sagebrush species are limited due to effects of wildfire. These communities represent the Cool-Moist Sagebrush, Dry-Shallow Sagebrush, and Riparian community types.

The chokecherry scrub (*Prunus virginiana*) plant community in this key RNA is not suitable habitat for sage-grouse because the growth structure of the dominant species is more tree like, providing no understory cover and providing perch opportunities for predators. This represents the Mountain Shrub community. The entirety of Spring Mountain ACEC/RNA burned in the 2007 Old Maid Fire. While there are some islands of sagebrush that did not burn in the fire, the majority of the ACEC/RNA lost the sagebrush component due to the fire. While some diverse vegetation communities important to Greater Sage-grouse habitat are still present within the key RNA, they are limited to unburned islands and riparian areas. The burned areas are now composed mainly of perennial bunchgrasses. Monitoring shows a strong component of native grasses and forbs present in the ACEC/RNA.

Other Resources

The Spring Mountain key RNA is wholly within the Spring Mountain lands with wilderness characteristics unit and is located in the northern portion of the Spring Mountain unit. The 18,311-acre Spring Mountain unit possesses naturalness, and outstanding opportunities to experience solitude. Elevations range from 4,565 to 5,987 feet within the unit. The unit contains the 5,987-foot tabletop mountain known as Spring Mountain. Existing human imprints in the unit include 10.9 miles of rangeland fence, 11.2 miles of 10 primitive routes,19 developed springs, 2 pipelines totaling 2.7 miles and an associated trough, all of which appears substantially unnoticeable to the average visitor. The BLM decided not to prioritize protection of the wilderness characteristics in the Spring Mountain unit (BLM 2024a, Appendix A, p. A-4).

The visual resource management is Class II.

The key RNA is within PHMA and is part of the Cow Lakes Priority Area of Concentration. It is included within the boundary of Greater Sage-grouse spring nesting, summer brood-rearing, and winter habitat. One site within the key RNA has been evaluated using the Greater Sage-grouse Habitat Assessment Framework (HAF). It had an abundance of perennial grasses but almost no sagebrush. The site was determined to be marginally suitable for spring nesting habitat and unsuitable for winter habitat. There are two pending active

leks approximately 1.2 miles from the key RNA boundary; and 11 active and 4 total pending active leks within 4 miles of the key RNA.

The Spring Mountain key RNA is essential year-round range for pronghorn. It is utilized by deer, elk, and pronghorn throughout the year. ODFW's Oregon Connectivity Assessment and Mapping Project (OCAMP) categorized this area as a Priority Wildlife Connectivity Area (PWCA) – Region. Regions are the top 1% of connectivity priorities and represent the highest-value habitat for facilitating species movement. In addition, this area has a priority Recommended Conservation Action of 'Protect,' the strongest conservation measure for maintaining wildlife connectivity.

Aspen Grove Spring is the only flowing spring within the key RNA. It is developed with a trough for livestock water. Outside the key RNA, the nearest springs include the following developed springs: Old Maid Spring to the southeast, Gap Spring the northwest, and Lunch and Chukar Spring to the northeast. Several undeveloped springs occur in the vicinity as well, most notably the undeveloped Old Maids Basin Spring Complex just south of the key RNA. This spring complex was rated as Functioning-at-risk (FAR) using the Proper Functioning Condition protocol (PFC Assessment Form (Lentic) completed for the Old Maid Basin Spring Complex by Cloud, Dugan, Ketcham, and Wilson, 09/16/21), with the main compromising characteristics being hummocks in spring heads, eroded banks, and a large headcut in the lotic portion. Even though it is rated FAR, the Greater Sage-grouse HAF site-scale evaluation of the spring complex rated it as suitable late brood-rearing habitat based on a high diversity and abundance of sage-grouse preferred forbs, and high perennial herbaceous plant cover mixed with areas of sagebrush and other shrubs in the uplands for shelter.

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The area continues to be in a desirable condition, notwithstanding being burned by wildfire in 2007. The area continues to recover and provides opportunities for research where natural recovery post-fire is occurring.

The entire key RNA burned in 2007, eliminating the majority of the sagebrush within the area. However, the area continues to be in a desirable condition, notwithstanding being burned by wildfire in 2007. The area continues to recover and provides opportunities for research where natural recovery post-fire was allowed to occur. The area remains composed of diverse vegetation community types of native bunch grasses, snowberry, and riparian areas that are important to Greater Sage-grouse. In the long-term, and upon full recovery from the 2007 fire, some occurrence of vegetative communities including Cool-Moist Sagebrush, Shallow-Dry Sagebrush, and Mountain Shrub, and Riparian are expected to be represented. Use by Greater Sage-grouse within the key RNA has not been documented.

Management would continue to protect the relevant and important values of the RNA. Opportunities for nonmanipulative research and baseline data gathering on plant community types relatively unaltered by human activity continue to remain, along with vegetative communities identified as important for greater sage-grouse, due to the remote and rugged nature of the area. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated.

Rationale for Reallocating the Area as Available for Livestock Grazing under Proposed RMP Amendment

On-the-ground site specific visits revealed remote and rugged terrain that would be challenging for the construction of new fencing. Fencing is expected to be difficult to construct due to the talus slopes and would also require above-normal (annual) maintenance by BLM due to weather conditions (evidence of natural snowbanks are common) as well as anticipated damage by elk and other big game. The area is reported to have significant use by elk traveling between Oregon and Idaho ranges.

Excluding livestock from the area currently allocated as unavailable for livestock grazing without construction of new physical barriers would require higher levels of BLM and permittee management. Similarly constructing and maintaining new fencing in this area would require time and resources that would reduce BLM's ability to allocate resources to other projects and other areas.

Reallocation would eliminate increased commitments of management investments (time, materials, etc.) for BLM and the livestock operators in the key RNA and allotment. Both parties would have improved opportunities to allocate resources to higher priorities within the allotment such as range improvement projects and maintenance. Reallocation of livestock grazing would reduce socio-economic effects to livestock operators by eliminating the potential reduction of AUMs associated with Alternative 1.

The location of the area currently unavailable for livestock use (and under Alternative 1) impacts trailing routes used for moving livestock between other portions of the Spring Mountain Native Range pasture as well as other pastures within the Spring Mountain allotment.

Allocating the area as available for livestock grazing would eliminate the need for fencing or other management actions that impact feasible livestock movement and distribution due to the limited number of developed water sources in the area.

While some sagebrush communities are still present, the majority of the key RNA is now grassland. Livestock using the key RNA if it were reallocated as available for livestock grazing would concentrate in areas where the best forage is available, which would be the portions of the key RNA with high perennial grass cover. Thus, the livestock would not concentrate on the remaining islands of sage-grouse habitat.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

Under these alternatives, there would be either the construction of a fence or increased human presence needed to prevent livestock incursion into the key RNA. Either would disrupt wildlife, particularly big game such as elk that are known to occur within the Spring Mountain key RNA and associated Spring Mountain Native pasture.

Vegetative communities important to greater sage-grouse within the area where livestock are removed is expected to have a positive response. Due to the central location of the Key RNA within the pasture, shifts in grazing use to other portions of the pasture may have negative impacts if changes in grazing systems or management practices are not adjusted as a result of excluding livestock from the Key RNA, which is allocated as unavailable for livestock use in its entirety.

Aspen Grove spring would no longer be available as a livestock water source and, if permitted AUMs were not reduced or other adjustments to grazing systems did not occur, displaced livestock would need to find alternative water sources to replace it. The replacement of an existing water development with the construction of a new one would result in an increased level of disturbance in the short-term, including impacts to vegetation and soils, and long-term impacts to livestock management and upland and riparian resources due the water development itself and the resulting modified livestock grazing distribution. Short-term impacts would range between 1.79 and 3.04 acres, and long-term impacts would range between 0.76 and 1.53 acres, depending on the extent of new water development and/or existing water development replacement.

The need for management actions for livestock exclusion would result in disturbance to wildlife, including sage-grouse and large ungulates. The Oregon Department of Fish and Wildlife identified this area as important habitat for wildlife movement (Oregon Connectivity Assessment and Mapping Project. 2023. Oregon Department of Fish and Wildlife, Salem, OR. The addition of a fence or increased presence of livestock operators would hinder or alter wildlife movement although impacts are not expected to be significant if design features that reduce negative effects to wildlife are put in place. Additionally, there is the opportunity for fence related conflicts (e.g. bird collisions and entrapments).

Livestock crossing permits would need to be issued on an annual basis; these permits would be limited to a one-day crossing on identified routes for each requested application (up to an average of four times annually), depending on the annual livestock grazing schedule and rotation. These actions are not expected to cause additional impacts (negative or positive) to vegetation or soils due to the activity occurring primarily on existing roads or trails.

Unless AUMs were reduced, grazing rotations are adjusted, and/or additional infrastructure such as water developments and fences are constructed, livestock displaced from the key RNA would disperse to adjacent unburned sagebrush and abundant riparian areas, thus increasing livestock concentration in good quality sagebrush and riparian habitat. These activities may have impacts to other resource values as well, which would be determined through implementation-level analysis and additional monitoring to determine impacts to the portions of the pasture that remain available for livestock use.

The construction of fencing would decrease the sense of naturalness, a wilderness characteristic. Fence construction or the need for additional active livestock management (e.g., herding) would create short-term impacts to outstanding Opportunities for Solitude during fence construction or longer-term impacts caused by active management to exclude livestock from the key RNA.

Alternatives 2, 5, and 6

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing, active livestock management (herding), crossing permit authorizations, or water developments for livestock. Impacts to vegetative communities, riparian areas, or wildlife would not occur as infrastructure and/or increased human presence to deter livestock incursions within the Key RNA would not be required. Changes in livestock grazing management to address possible impacts to relative and important values within the Key RNA, if caused by livestock, would continue to be allowed. The wilderness characteristics of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative, either short-term or long-term, any more than it had been at the time that this unit was identified as one with wilderness characteristics.

Although research opportunities would remain, a designated area for non-manipulative research (aka control area) would not be established at this time. However, this does not prevent the opportunity to construct a 5-acre or less exclosure to remove livestock and other permitted activities to allow for non-manipulative research site or a control area, as long as the location of the infrastructure meets required specifications of Appendix B and C of the 2015 ARMPA.

These alternatives would allow livestock grazing to resume within the key RNA and would not require management actions to keep livestock from entering the Spring Mountain key RNA. Prior to grazing being removed from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated (BLM. Monitoring data. 05/31/2017; BLM. Monitoring data. 07/07/2020). Even with disturbance from fire, and with livestock use present, vegetative condition remained adequate to support studies of long-term natural processes, particularly recovery post-fire (BLM. Monitoring data. 05/31/2017; BLM. Monitoring data. 07/07/2020).

All existing water sources would be available for livestock and an additional water development elsewhere within the Spring Mountain Native pasture would not be necessary, resulting in no new disturbances to soils, vegetation, and associated wildlife habitats.

The wilderness characteristic of naturalness would not be impacted because new fence construction or increased presence of humans would not occur under the Proposed RMP Amendment. Outstanding opportunities for solitude would not be impacted as short-term impacts to solitude caused by fence construction would not occur. Long-term impacts to solitude caused by active management to exclude livestock from key RNA would also not occur. The return of livestock grazing to the area would not impact naturalness to the extent that it would no longer be present as cows were on the landscape when these wilderness characteristics were identified.

Livestock use occurring as a result of reallocating the key RNA as available for livestock grazing would likely be in the areas where the best forage species are available; this is the burned areas where there are abundant perennial bunchgrasses, rather than in the remaining islands of sagebrush where grasses may be present but are much more limited; such use would not be concentrated on the vegetative communities identified as important for greater sage-grouse.

Reallocating livestock grazing to the key RNA would eliminate the need for fencing or additional active livestock management (e.g., herding) to avoid livestock incursion into the key RNA. The reallocation of the area as available for livestock grazing would not impact the wilderness characteristic of naturalness beyond that which was present when this characteristic was identified. Further, naturalness would not be impacted by new fence construction or the additional presence of people. Outstanding opportunities for solitude would remain as short-term impacts to solitude caused by fence construction and long-term impacts to solitude caused by active management to exclude livestock from key RNA would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). Wilderness characteristics of naturalness, opportunities for solitude, or primitive and unconfined recreation would not be impaired under this alternative, nor would there be any short-term disturbances to these characteristics caused by fence construction. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Proposed RMP Amendment

The construction of a 5-acre or less exclosure that would remove livestock use and other permitted activities would allow for nonmanipulative research and baseline data gathering within close proximity to the key RNA. This would allow for ungrazed comparison areas for evaluating effects of livestock on those vegetative communities identified as important for greater sage-grouse within the Spring Mountain key RNA. The location, size, and design of the exclosure site would adhere to variations in lek buffers and required designed features as specified in Appendiees B and C of the Oregon 2015 GRSG Approved RMP Amendment. There would be at least short-term impacts from fence construction outside of, but near to, the key RNA which may affect wildlife and wilderness characteristics. However, in the long-term he wilderness characteristics of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative any more than they had been at the time that this unit was identified as one with wilderness characteristics.

Reallocating the entire key RNA as available for livestock grazing would allow for the resumption of management practices employed prior to 2023. Prior to the removal of grazing from this key RNA, livestock grazing management prescribed had not adversely impacted the important vegetative communities identified for the Greater Sage-grouse.

Because the entire key RNA would be allocated as available for livestock grazing, there would be no need for fencing, active livestock management (herding), crossing permit authorizations, or water developments for livestock. Impacts to vegetative communities, riparian areas, or wildlife would not occur as infrastructure and/or increased human presence to deter livestock incursions within the Key RNA would not be required. Changes in livestock grazing management to address possible impacts to relative and important values within the Key RNA, if caused by livestock, would continue to be allowed. The wilderness characteristics of naturalness, outstanding opportunities for solitude, and unconfined primitive recreation would not be impaired under this alternative, either short-term or long-term, any more than it had been at the time that this unit was identified as one with wilderness characteristics.

All existing water sources would be available for livestock and an additional water development elsewhere within the Spring Mountain Native pasture would not be necessary, resulting in no new disturbances to soils, vegetation, and associated wildlife habitats.

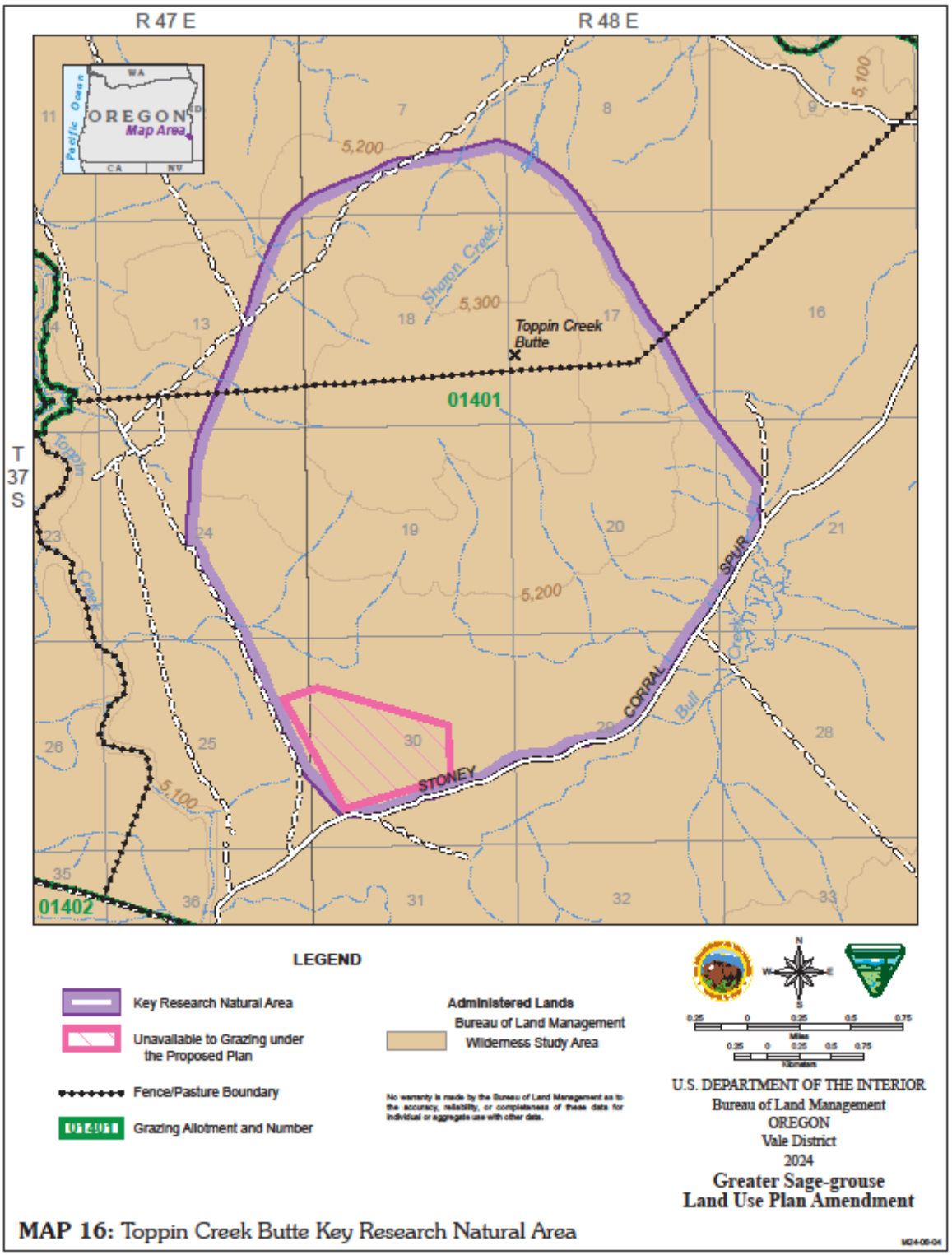
Livestock use occurring as a result of reallocating the key RNA as available for livestock grazing would likely be in the areas where the best forage species are available; this is the burned areas where there are abundant perennial bunchgrasses, rather than in the remaining islands of sagebrush where grasses may be present but are much more limited; such use would not be concentrated on the vegetative communities identified as important for greater sage-grouse.

Toppin Creek Butte (Vale)

Proposed RMP Amendment

BLM proposes no changes to the key RNA boundary, but has reduced the area allocated as unavailable for livestock grazing from 2,865 acres to 203 acres to reduce conflicts with other resources. The smaller exclosure would still maintain the vegetation communities that are important to Greater Sage-grouse habitat.

Map 16. Toppin Creek Butte Key Research Natural Area



Affected Environment

The 3,998-acre Toppin Butte ACEC/RNA is located 30 miles northeast of McDermitt, Nevada, and adjacent to the Idaho state line. The topography includes a gently sloping hill with a rapidly draining soil. Little water has been available for livestock on the Butte, and the topography still limits livestock use on the upper slopes. Two playas at the base of Toppin Butte contain a bare playa vegetation community and a silver sagebrush community. The key RNA is located in portions of Owyhee River Canyon WSA. The southern portion (2,865 acres) of the ACEC/RNA is allocated under the 2015 ARMPA as unavailable for livestock grazing.

Specific Management under the 2002 SEORMP ROD, as Amended

OHV use is limited to designated roads and trails. The area is VRM Class I. Plant collecting requires a permit. Road maintenance will be limited to the existing roadway, and shoulder/barrow ditch construction will be limited to that necessary to control runoff, minimize soil erosion, and ensure public safety and serviceability of the road. Surface-disturbance will be deferred while soils are wet, and any future rehabilitation will be with local source native plant species. Livestock use allocations will continue based on existing permit stipulations and approved AMPs, unless modified under subsequent land use planning. Any proposed changes in livestock grazing, including time and intensity of use, will be evaluated for impacts on the relevant and important values and will be permitted if the values will be maintained or enhanced. Existing livestock use allocations will be adjusted where adverse impacts are identified using a variety of methods, including, but not limited to, fencing, reduction in livestock numbers, and changes in grazing season. Proposed projects in the area will be evaluated for impacts and permitted where relevant and important values will be maintained or enhanced. Noxious weeds will be aggressively controlled using limited methods, such as backpack hand sprayers, focusing on roads and other disturbed areas in and adjacent to the ACEC/RNA.

Summary of Key RNA and Relevant and Important Values Evaluated for ACEC/RNA Designation

2002 SEORMP ACEC/RNA Designation

The relevant and important values of this ACEC/RNA are the low sagebrush/bluebunch wheatgrass community in excellent condition and low sagebrush/Idaho fescue plant community vegetation cells identified by the ONHP.

2015 Greater Sage-grouse ARMPA

The Toppin Creek Butte ACEC/RNA was identified as a key RNA for sagebrush plant communities that are important for Sage-grouse.

Updated Vegetation Communities and Sage-Grouse Habitats

Vegetation communities present in this key RNA include low sagebrush/Idaho fescue, low sagebrush/bluebunch wheatgrass, silver sagebrush/Sandberg's bluegrass plant communities. In addition, bare playa, Wyoming big sagebrush and basin big sagebrush communities are also present in the key RNA though not identified in the 2015 ARMPA.

Vegetation communities represented in this key RNA that are important to Greater Sage-grouse habitat continue to be relatively unaltered. These communities are low sagebrush/Idaho fescue, low sagebrush/bluebunch wheatgrass, silver sagebrush/Sandberg's bluegrass, and Wyoming sagebrush plant communities. These communities represent the Cool-moist/Warm-Dry Sagebrush, Shallow-Dry Sagebrush, and playa communities. The key RNA is within Greater Sage-grouse Priority Habitat Management Area (PHMA)); two pending active leks are within two miles of the key RNA boundary, one of which is located inside the key RNA. The western side of Toppin Creek Butte ACEC/RNA burned in the 2013 Sharon Creek Fire. In the burned area there are islands of sagebrush habitat which did not burn. Monitoring has indicated

invasion of cheatgrass post fire has occurred but is isolated and minimal (2018 Louse Canyon GMA Land Health Assessment and Evaluation).

Other Resources

Toppin Creek Butte key RNA is 3,998 acres and is located wholly within the Owyhee River Canyon WSA. The WSA's outstanding opportunities for solitude are attributed to the isolated, intimate seclusion of canyonlands and the vastness of seemingly undisturbed desert plateau lands and distant mountain ranges. The Main Owyhee River and West Little Owyhee River are designated portions of the National Wild and Scenic River System (NWSRS) and flow through the Owyhee River Canyon WSA. River running opportunities are of exceptionally high quality and considered nationally significant. The scenic natural features and diversity of rugged landforms attract people interested in hunting, fishing, backpacking, sightseeing, outdoor photography, and wildlife viewing.

There is one population of mesamint (*Pogogyne floribunda*), a Bureau sensitive plant, located at the eastern edge of the key RNA. This population straddles Stoney Corral Spur Road.

The key RNA is designated as bighorn sheep occupied habitat.

The visual resource management is Class II (BLM 2002, p. 71).

Rationale for Proposing Alternative that Modifies Key RNA Management

Rationale for Retaining the Key RNA under All Alternatives

The area continues to be in a desirable condition for the vegetative communities identified; management will continue to protect the relevant and important values. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing to the vegetative communities identified as important for Greater Sage-grouse or the relevant and important values for which the RNA was designated.

Existing management would retain the following vegetation types important to Greater Sage-grouse: Cool-Moist/Warm-Dry Sagebrush, Shallow-Dry Sagebrush, and Playa.

Rationale for Modifying the Area Allocated as Unavailable for Livestock Grazing

Exclosure fence construction in the WSA is an issue that would be addressed with the proposed modification for the area allocated as unavailable for livestock grazing. Developments that would "impair the suitability of WSAs for the preservation as wilderness" cannot be permitted unless they were to meet one of the exception criteria described in BLM Manual 6330, Management of Wilderness Study Areas. "In determining whether a development meets the protecting or enhancing wilderness characteristics exception, the BLM will determine if the structure's benefits to the natural functioning of the ecosystem outweigh the increased presence of human developments and any loss of naturalness, or outstanding recreational opportunities caused by the new development" (BLM 2012, p. 1-17). However, developments that meet an exception criterion must still be carried out in the least impairing manner practical.

The location of the 203-acre exclosure under this alternative is within intact sagebrush communities that were not impacted by wildfire. Making this area unavailable for livestock grazing would reduce the impacts of fencing or increased management presence in the Owyhee River Canyon WSA required to implement the closure. Disturbance in the WSA from fencing would be reduced compared to Alternative 1 with half of this distance occurring along the existing key RNA road boundary.

Environmental Consequences

Consequences Common to all Alternatives

Vegetative communities that are important to Greater Sage-grouse habitat would continue to be available for provide baseline data on relatively unaltered plant community types important to Greater Sage-grouse.

Alternatives 1 and 4

The current active management of livestock to keep them out of the key RNA impacts opportunities for solitude and primitive and unconfined recreation within the Owhyee River Canyon WSA. In the future, should the decision be made to construct fence to keep livestock out of the area allocated as unavailable for livestock grazing, it would require fence construction within a WSA. The fence would be located approximately 60 feet from the mesamint (*Pogogyne floribunda*) site, with the plant site being on the side of the fence that would retain livestock grazing. The proximity of the fence to the plant site could potentially directly impact the plants in the short- and long-term due to livestock walking along the fence line, disturbing the ground. There may be impacts to individual plants, but the population as a whole is expected to persist. The proposed fence location for the Proposed RMP Amendment is approximately 1.5 miles from the plant site and would have no impacts on individual plants or the population in the short- and long-term.

Alternative 2

Because the entire area would be allocated as available for livestock grazing, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness, outstanding opportunities for solitude, and primitive and unconfined recreation would not be impaired under this alternative either short-term or long-term any more than it had been at the time that this unit was identified as one with wilderness characteristics. Fence-related conflicts would not occur.

Alternative 3

Because livestock grazing would not occur in the vicinity of this key RNA, there would be no need for fencing or active livestock management (herding). The wilderness characteristic of naturalness, outstanding opportunities for solitude, and primitive and unconfined recreation would not be impaired under this alternative either short-term or long-term. Fence-related conflicts would not occur. An ungrazed reference for research would be retained.

Alternatives 5, 6, and Proposed RMP Amendment

The plant communities included in the 203-acre exclosure are the low sagebrush/Idaho fescue, low sagebrush/bluebunch wheatgrass, silver sagebrush/Sandberg's bluegrass plant communities. Prior to the removal of grazing from this key RNA, there was no indication of negative impacts from livestock grazing on these communities (BLM 2018b, p. 25).

These alternatives would reallocate as available for livestock grazing to 2,662 acres in the key RNA and reduce potential new fence length. Reducing the area that would be allocated as unavailable for livestock grazing would reduce the amount of fence needed and that would reduce the possibilities of wildlife-fence collisions.

A fence around the area allocated as unavailable for livestock grazing would be located approximately 1.5 miles from the mesamint (*Pogogyne floribunda*) site, and would have no impacts on individual plants or the population in the short- and long-term.

Livestock management under these alternatives would continue to allow for maintenance of recent conditions, which were found to be in desirable condition and near proper functioning condition under the 2017 Standards for Rangeland Health Assessment and Evaluation (BLM 2018b, p. 72-75).

There would be impacts to the wilderness characteristics of naturalness as well as outstanding opportunities for solitude, and primitive and unconfined recreation, although they would be less than under Alternative 1. Short-term impacts to solitude caused by fence construction and long-term impacts to solitude caused by active management to exclude livestock from key RNA would not be as extensive.

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