United States Department of the Interior

BUREAU OF LAND MANAGEMENT
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CERTIFIED MAIL – 7020-1810-0001-9180-9214
RETURN RECEIPT REQUESTED

Tom Davis Livestock
Paul Davis
46008 Alvord Ranch Lane
Princeton, OR 97721

NOTICE OF FINAL DECISION
To Accept an Allotment Management Plan (AMP), Issue a Grazing Permit,
Reinstate Suspended AUMs, and Construct and Maintain Range Developments

Dear Mr. Davis:

You are receiving this Final Decision because you are one of the grazing permit holders of record for the Alvord Allotment #6012.

BACKGROUND

The Andrews Field Office, Burns District Bureau of Land Management (BLM) has prepared the Alvord AMP Environmental Assessment (EA) (DOI-BLM-ORWA-B060-2014-0019-EA, which can be found at: https://eplanning.blm.gov/eplanning-ui/project/2014716/510) to analyze possible actions developed through Interdisciplinary Team (IDT) recommendations, public comments, and in coordination with you, the grazing permit holder, to aid in accomplishing allotment resource objectives and conform to (or continue conforming to) all Oregon and Washington Standards for Rangeland Health (further referred to as Standards) and Guidelines for Livestock Grazing Management (Further referred to as Guidelines; Standards and Guidelines together are referred to as S&Gs). Actions are grazing permit renewal with modified terms and conditions, including reinstatement of suspended AUMs, use on nonrenewable (NR) AUMs, range developments, including water developments, and approval of the Alvord AMP.

AUTHORITY AND COMPLIANCE

The alternatives are in conformance with the August 2005 Andrews Management Unit (AMU) Resource Management Plan (RMP)/Record of Decision (ROD) and Steens Mountain CMPA RMP and ROD, as amended by the 2015 Oregon Greater Sage-Grouse Approved Resource Management Plan Amendment (GRSG ARMPA)/ROD even though they are not specifically provided for, because they are consistent with the RMPs/RODs resource objectives and the GRSG ARMPA goals, objectives, and management decisions (MD) identified in Alvord AMP EA Appendix B: Resource Objectives.

The selected action has been designed to conform to the following documents which direct and provide the framework for management of BLM lands within Burns District:

- Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712), 1918
- Taylor Grazing Act (43 U.S.C. 315), 1934
- National Historic Preservation Act (16 U.S.C. 470 et seq.), 1966
- The National Environmental Policy Act (NEPA) (42 U.S.C. 4320–4347), 1970
- The Wild Free-Roaming Horses and Burros Act (Public Law 92-195), 1971
- Federal Land Policy Management Act (FLPMA) (43 U.S.C. 1701), 1976, as amended
- Public Rangelands Improvement Act (43 U.S.C. 1901), 1978
- Areas of Critical Environmental Concern (ACEC), Manual 1613, 1988
- S&Gs for Public Lands Administered by the BLM in the States of Oregon and Washington, August 12, 1997
- Steens Mountain Cooperative Management and Protection Act of 2000
- Maintenance of Range, Wildlife, and Wild Horse Improvements in Wilderness Study Areas in the Burns District (EA OR-020-05-080), 2005
- Oregon/Washington National Landscape Conservation System 3-year Strategy: Fiscal Years 2013-2015 (September 14, 2012)
- Management of Wilderness Study Areas, Manual 6330, 2012
- Management of Designated Wilderness Areas, Manual 6340, 2012
- USGS Report Conservation Buffer Distance Estimates for GRSG – A Review (Open File Report 2014-1239)
- Integrated Invasive Plant Management for the Burns District Revised EA (DOI-BLM-OR-B000-2011-0041-EA), 2015
- Greater Sage-Grouse Land Use Plan Implementation Guide, 2016
- Washington Office (WO) Instruction Memoranda (IM) 2016, 139–145
- Oregon Greater Sage-Grouse Approved Resource Management Plan Amendment, 2015
- Final OR/WA BLM Director's List of Special Status Species, 2019
- State, local, and tribal laws, regulations, and land use plans
- All other Federal laws that are relevant to this document, even if not specifically identified

FINAL DECISION

Having considered all alternatives and associated impacts based on analysis in DOI-BLM-ORWA-B060-2014-0019-EA, it is my decision to implement selected actions described below. The final decision selected is similar to Alternative B: Proposed Action - Permit Renewals, Management Changes, and Range Improvements, with some modifications, specifically in the *Reinstatement of Suspended Use AUMs to Active Use* section of the EA and related to the maintenance of the pipeline in the Desert #6 Pasture. In addition, additional requirements from the U.S. Fish and Wildlife Service's "Biological Opinion for Livestock Grazing on Alvord and Mann Lake Allotments, Burns District – Harney County, Oregon" have been added to the *Monitoring* section of the final decision.

The selected actions are: the approval of the AMP, grazing permit renewal for the Alvord Allotment with changes to mandatory terms and conditions, reinstatement of a portion of suspended use[1], new pasture establishment, changes to the grazing management, ability to utilize non-renewable (NR) AUMs, water hauling, fence construction and removal, seeding maintenance, development maintenance, well construction (including the construction of a road to one well location), road abandonment, and trough installation for all but one proposed trough[2] for Alvord Allotment.

Approval of the Alvord AMP

Upon issuance of a final decision, the final decision and all the components described below will become the AMP for the Alvord Allotment. While the entire AMP would become a term and condition of the Alvord Allotment grazing permit, only the components that are within the permittee's management ability would be the permittee's responsibility.

Grazing Permit Renewal

The selected action was developed by the BLM IDT in coordination with external requests from the permittee. The selected action conforms to all Guidelines including providing periodic growing season rest to all areas of the allotment.

The selected action renews the existing preference based 10-year livestock grazing permit #3602552 in the Alvord Allotment,[3] the extension of permitted season of use, and the reinstatement of a portion of the suspended AUMs (255 suspended AUMs will remain on the permit as suspended), as well as selected developments and AMP. Terms and conditions associated with this grazing permit are described below. Mandatory terms and conditions will include*:*

[1] This final decision is selecting to reinstate a reduced number of AUMs than what was analyzed under Alternative B.
[2] This final decision is selecting to maintain the existing pipeline how it was historically constructed where it drains into the existing reservoir within WSA. Therefore, the trough that was proposed to be placed at the end of the pipeline, just outside of wilderness is not selected in this decision.
[3] Any leases of this preference will meet all terms and conditions of this grazing permit and the associated AMP.

Table 1: Alternative B - Selected Grazing Authorizations within the Alvord Allotment

Authorization	Pasture	Livestock Number	Begin Date	End Date	% PL	Active AUMs
3602552	Desert #6 – Non-WSA	141	3/1	2/28	99%	1,415[4]
	All	109	3/1	2/28	97%	7,577
					TOTAL	**8,992**

Other terms and conditions will include:

1) The AMP is a term and condition of your permit as provided for in 43 CFR 4120(a) (1–4) (b).

2) This permit / lease is subject to modification if necessary to achieve compliance with the standards for rangeland health & guidelines for livestock grazing management (43 CFR 4180).

3) Actual livestock numbers may vary dependent on length of annually authorized grazing. AUMs are not allowed to be exceeded.

4) Annual period of use and AUMs (not to exceed the permitted amount) within each pasture can be adjusted for annual grazing, within the bounds of the grazing permit and AMP.

5) Actual use billing is authorized per the AMP. An actual use record will be submitted within 15 days after completion of annually authorized grazing per 4130.3-2(d) unless other arrangements are made with the BLM.

6) Percent public land (%PL) for billing will be dependent on best available estimates of forage production on BLM-managed land compared to that on land controlled by the permittee within each pasture. Pastures will be billed at these %PL under this authorization: Alvord Seeding North #1 – 100%, North Foothills #2 – 70%, South Foothills #3 – 60%, Table Mountain #4 – 100%, Desert #6 – 99%, Pike Creek #9 – 95%, Alvord Seeding South #11 – 99%, and Indian Creek #12 – 100%. If private property within these pastures increases or decreases, or more accurate estimates of forage production becomes available, these values would be recalculated as appropriate, and this term and condition updated.

7) There is a 50 percent utilization (as measured using the Ocular Landscape Appearance/Key Species Method) threshold on upland native key species and a 60 percent utilization threshold on upland desirable nonnative key species. The response of reaching this threshold would be the immediate removal of livestock, even if the number of annually authorized AUMs within the pasture has not been reached. The

[4] These AUMs would be reinstated suspended use and will be available only in the non-WSA portion of the Desert #6 Pasture. Of the previously suspended AUMs, 222 AUMs of suspended use will be assigned to the Indian Creek Pasture. This area was previously added to the allotment and authorized for grazing, but the associated AUMs were not added to the grazing permit at that time. Assigning those AUMs will correct this oversight. Those AUMs are included in the second row of the permit. The remaining 255 suspended AUMs will remain suspended on the grazing permit.

60 percent threshold on desirable nonnative species may be exceeded once every five years to allow upland vegetation management through the grazing of wolfy plants to reduce residual dry matter and fuel loading. This use must be authorized by the BLM in advance and be for ecologically based reasons. If utilization thresholds in the uplands are exceeded rest may be required during the next grazing season.

8) No salt or supplements will be permitted within 0.25-mile of a water source or within 1.2 miles of the perimeter of an occupied or pending lek.

9) The permittee is required to maintain all improvements unless there is an agreement in place documenting an improvement as a BLM responsibility. Maintenance activities that involve ground-disturbing activities need to be approved by the BLM prior to beginning work.

10) Active trailing (actively moving with limited grazing) is allowed to occur through rested pastures. Trailing will be documented on actual use forms for each pasture and labelled as trailing.

11) The permittee will coordinate with the BLM to ensure required monitoring outlined in the AMP is completed in a timely manner.

12) Permittee may haul water to portable water troughs in predetermined locations within the pasture to distribute livestock when it is needed to meet management goals and distribute livestock.

13) Any supplements/salt placed in the Indian Creek Pasture will be on the opposite side of the pasture from the Pike Creek Pasture boundary to reduce livestock pressure on the pasture boundary.

14) When grazing the Indian Creek Pasture, livestock must be turned into the southern part of the pasture to minimize livestock pressure on the Pike Creek Pasture boundary.

15) Any livestock authorized in Indian Creek, that cross the pasture boundary into the Pike Creek Pasture and associated riparian area, must be pushed back into Indian Creek Pasture. If livestock are found within the Pike Creek Pasture a second time, livestock within the Indian Creek Pasture will be required to be fully removed within 7 days of notification. Any livestock found in Pike Creek after this would be considered to be in trespass.

16) When livestock start to congregate in any Lahontan Cutthroat Creek (LCT) streams, and observations and/or monitoring suggest use in the riparian area is moderate, the permittee will be notified that livestock must be removed from the pasture. If cattle are not fully removed within 7 days of notice, livestock will be in trespass. If livestock continue to use the riparian area, and utilization exceeds 50 percent in upland areas, the permittee will be required to rest the identified pasture containing

the specific LCT stream for an additional year (for a total of two years) before the pasture is grazed again.

17) BLM will follow all USFWS guidance in any BO or Letter of Concurrence. including reductions in season of use, AUMs, and/or complete removal of livestock.

Reinstatement of Suspended Use AUMs to Active Use

Under this alternative, 1,415 AUMs of suspended use will be reinstated onto the grazing authorization as active use. These AUMs have regularly been used by the permittee in the Desert #6 pasture as NR AUMs. This use will not be available until at least one selected well (see EA Section 2.3.3.4 Wells) is in place in T. 33 S., R. 37 E. of the non-WSA portion of the Desert #6 Pasture (see EA Appendix A Map 2: Land Status and Special Management Areas and Map 5: Alternative B), which would focus these active use AUMs in the interior of the non-WSA portion of the pasture. The BLM and the permittee will work together utilizing other tools such as supplementation or herding to encourage livestock to stay within the non-WSA portion of the allotment. Water developments are a known tool for controlling livestock distribution. Research has found that "[t]he location and number of watering points on grazing lands are important in controlling the movement, distribution and concentration of grazing animals" (Vallentine 2001).

If at least one selected well is successful in establishing water within the interior of the non-WSA portion[5] of the Desert #6 Pasture, these AUMs will begin to be authorized. Following the construction of each development, the BLM will model piospheres[6] and estimate AUMs that are available with the use of the new development(s). The number of AUMs available in the non-WSA portion of the pasture will be recalculated following construction of each water development. Authorized AUMs will be constrained by the piosphere calculations of AUM availability. Authorization of the reinstated AUMs will occur with a phased in approach. A gradual increase of authorized AUMs will begin with no more than 25 percent of AUMs in the first year, followed by 50 percent of the AUMs in the second year, and potentially 75 percent of AUMs in the third year of AMP implementation. The full number of reinstated AUMs may be expected to be authorized by the fourth year of grazing under the AMP if piosphere modeling shows all the reinstated AUMs are available. Increases in any given year will only occur if monitoring shows the next increase can occur without livestock use impairing wilderness character within the WSA.

For each increase in AUMs, the BLM will monitor livestock distribution and numbers, through use supervision and/or livestock counts, along with utilization along the WSA boundary. This monitoring effort will ensure that livestock turned out in the non-WSA area are generally grazing in that area and are not concentrated within the WSA. During monitoring, if the number of livestock outside the WSA portion of the pasture is found to be the same or higher than what was authorized, this will be evidence that the developments are holding authorized livestock use outside the WSA portion of the pasture and improving

[5] This would be one of three wells that are found more than 1.5 miles away from WSA in the largest portion of non-WSA managed land.
[6] A piosphere is a radiating zone of animal use centered around available stock water. Factors that are used to determine carrying capacity within a piosphere included slope, soils, current vegetation, and production. For more information on piospheres see EA Sections 3.1 and 3.6.

distribution pasture wide. This will ensure that no more AUMs are being utilized from the WSA portion of the pasture than what has been utilized historically. If fewer livestock are determined to be within the WSA than what was turned out (i.e., more animals moved into the WSA than out of it), the BLM will require the permittee to remove the number of animals that was assigned to the non-WSA portion of the pasture within two weeks of notification[7]. This monitoring will occur following turnout and at least once mid-grazing season, as staffing allows, until monitoring shows that use within the WSA is not greater than what historically occurred.

Additional annual utilization in the WSA and along the WSA boundaries, will also occur. If the BLM determines, through monitoring and observation, that utilization levels within the WSA are higher than what has historically occurred (on average over both wet and drought years), the BLM will not increase AUMs the next year, but will authorize the same number of AUMs in order to continue utilization monitoring of adjacent WSAs. This will occur for at least three consecutive years to account for annual variations. If monitoring is inconclusive, additional years of monitoring will be added prior to making a determination to ensure there is no permanent increase in livestock grazing within the WSA. If utilization monitoring continues to suggest that utilization in the WSAs is higher than historic levels, or remains inconclusive, AUMs at that rate would not be authorized again. A reduced number of AUMs based on previous monitoring could be allowed. However, full reinstatement of suspended AUMs will not be able to occur unless fencing along the WSA boundary is authorized by a separate decision, selected in a decision, and the non-WSA becomes managed as a separate pasture (Suspended Pasture #13). The BLM could then authorize all of the suspended AUMs within the non-WSA area. If completion of the fence is delayed due to cost, or if it is cost prohibitive, or not built for other reasons, the AUMs above what the non-WSA portion of the pasture can support, without use in the WSA increasing, would be formally removed from the grazing permit. These removed AUMs may be authorized within the pasture under NR annual authorization (see EA NR Authorization section).

Utilization within the use areas resulting from available water would continue to be limited to 50 percent even if not all AUMs are utilized.

Livestock Grazing Management

New Pasture Establishment

To implement the selected grazing system in Table 2, Alvord Seeding #1 will be divided into two pastures. The northern portion of the seeding will retain the name *Alvord Seeding #1* and the southern portion of the seeding will be named *Alvord South Seeding #11*. These pastures will be created with the construction of a new fence and the relocation of an existing fence (see EA Proposed Range Improvements Section).

Currently, the Pike Creek Pasture includes two use areas, the area around Pike Creek itself,

[7] It is expected that livestock will move both into and out of the WSA portion of the pasture, especially with the developments selected on the WSA boundary, throughout the grazing season. Livestock moving across the WSA boundary does not automatically mean additional AUMs are being removed from within the WSA, compared to what previously occurred. See EA Section 3.6.

including the lower elevations along the East Steens Road and the lower elevations of Indian Creek to the south, and the higher elevation Indian Creek Area which is largely separated from the rest of the pasture due to topography and existing gap fences. In some years, the higher elevation Indian Creek use area of the Pike Creek Pasture is not accessible in spring or early summer due to snow or saturated soil conditions. This action will officially designate the Indian Creek Use Area as the Indian Creek #12 Pasture. By separating this use area into a designated pasture, it will allow for management that will protect the Pike Creek riparian area by grazing early when upland vegetation is green and palatable in the Pike Creek Pasture, while utilizing the higher elevation Indian Creek Pasture later in the year when it is accessible. Due to the increase in elevation in the Indian Creek Pasture, vegetation in this pasture will be green and palatable later in the year (summer and fall). Existing gap fences and steep topography will continue to create the pasture boundary between the Indian Creek and Pike Creek pastures. In addition, the Indian Creek Pasture has off-creek water available for livestock, which will help keep livestock permitted in the Indian Creek Pasture from trespassing into Pike Creek Pasture (and the associated LCT area). The Indian Creek Pasture will not contain any streams with LCT. Since no AUMs were added to the grazing permit when the Indian Creek area was incorporated into the allotment, 222 AUMs[8] of suspended use will be reinstated within this area to cover the available AUMs within this pasture and correct the administrative error. The AUMs allocated to the Indian Creek pasture will be reactivated suspended non-use AUMs and not from the 700 AUMs typically used in the Pike Creek and South Foothills pastures.

Selected Grazing System

Livestock grazing management is designed to provide periodic growing season rest for plant species within each pasture. Use periods may vary annually, with the general grazing systems shown in Table 2. Livestock numbers may also vary annually as outlined under "Adaptive Management" (EA Section 2.1. Actions Common to All Grazing Alternatives); however, total permitted AUMs will not exceed those permitted on the allotment. Annual livestock grazing management is based on grazing treatments (i.e., early, graze, and defer; see EA Appendix D: Grazing Treatment Descriptions) that correspond with general dates. The general grazing treatments in this table are just guidelines as there can be a large variability of climatic conditions from year to year and in different parts of the allotment. This variation results in key forage species entering vegetative states on differing dates, annually. Using grazing treatments instead of specific dates allows for flexibility and adaptive management. Specific annual livestock use dates for the allotment will be determined on an annual basis during permittee meetings and annually authorized in a letter of authorization. Adaptive management may result in the grazing systems being modified, within the terms and conditions of the grazing permits, if periodic growing season rest occurs. Prior to authorizing grazing, monitoring data and current climatic conditions, such as drought, will be taken into consideration. This may result in changes to stocking levels and timing of grazing to best meet objectives. Any modifications to the grazing system will conform to the utilization threshold of 50 percent for native key forage species and 60 percent for desirable nonnative key forage species.

[8] This number was determined by looking at historic actual use and utilization levels for the identified area.

Table 2: **Alternative B – Selected General Grazing System**

PASTURE	YEAR 1	YEAR 2	YEAR 3
Alvord Seeding #1	Winter-Early-Graze	Winter-Early-Graze	Winter-Early
North Foothills #2	Rest	Early-Graze	N/A (2-Year Rotation)
South Foothills #3	Early-Graze	Rest	N/A (2-Year Rotation)
Table Mountain #4	Early-Graze	Early-Graze	Defer-Winter
Desert #6	Winter-Early-Graze	Winter-Early	Winter-Early-Graze
Pike Creek #9	Early-Graze	Rest	N/A (2-Year Rotation)
Alvord South Seeding #11	Winter-Early-Graze	Winter-Early	Winter-Early-Graze
Indian Creek #12	Graze-Defer	Rest	N/A (2-Year Rotation)

The Pike Creek Pasture is at a lower elevation than the Indian Creek Pasture; therefore, the grazing rotation in this pasture will be early-graze treatments followed by a complete year of rest. Grazing management will encourage livestock use of the uplands, with green vegetation pulling them away from the riparian areas. The Indian Creek Pasture will be grazed separately from the Pike Creek Pasture (as was done in 2013, 2016 and 2020) in the same year as the rest of the Pike Creek Pasture. This use in the Indian Creek Pasture will be later in the grazing season due to snow or wet conditions at the higher elevations during the Pike Creek Pasture grazing treatment. Within Indian Creek Pasture 222 AUMs of suspended use will be reinstated within this area to cover the available AUMs within this pasture and correct the administrative error that failed to add these AUMs onto the Alvord Allotment grazing permit when the area was added into the allotment.

The South Foothills Pasture and the Pike Creek Pasture will be used concurrently with approximately 700 AUMs. In alternating years, these AUMs will be used within the North Foothills Pasture, as these pastures will follow a 2-year rest rotation (see Table 2). Use in these pastures will be prior to and during the growing season, when upland vegetation is green and highly palatable, air temperatures are low/moderate, and upland grasses have a high-water content. This will facilitate livestock distribution in the uplands and minimize use in riparian areas.

Grazing within the LCT pastures will be dependent upon livestock utilizing the uplands for much of their forage needs and accessing riparian areas for water. The BLM will monitor riparian areas, as staffing allows, to determine if use is occurring in riparian areas accessible to cattle and check use on willows and streambank alteration. Due to the presence of a trail along Pike Creek (not present along the other creeks), increased monitoring (within the first three weeks of authorized use and monthly during authorized grazing) will occur by the BLM, within the Pike Creek drainage when livestock are present in the Pike Creek Pasture, and to a lesser extent when in the Indian Creek Pasture, to observe livestock use in the Pike Creek drainage. If BLM monitoring begins to see livestock use within the Pike Creek area resulting in increased use on willows (over 35% browse) and streambank alteration nearing 20%, prior to full AUMs being utilized, the permittee will be given an opportunity to actively herd livestock out of the Pike Creek area. If monitoring suggest herding is being effective in limiting livestock use within the Pike Creek drainage, the permittee will be allowed to continue grazing until all permitted AUMs are removed or utilization levels reached, whichever comes first. If herding is found not to be effective, livestock will be removed.

Specific grazing terms and conditions will be implemented to manage livestock use in pastures with LCT streams (see Other Terms and Conditions).

Within the Alvord Seeding #1 and Alvord South Seeding #11, when the BLM determines the desirable non-native plants are becoming wolfy with buildup of residual vegetation accumulating in the crown of the plant, the BLM may authorize additional grazing, during a period when grasses are dormant, to reduce this build up, thus reducing the fuel loading and shading, resulting in healthier and more vigorous plants.

Non-Renewable (NR) Authorization

NR AUMs may be authorized on an annual basis if utilization level after active use is found to be below the 50 percent utilization level, key species are showing vigor, and water is available. NR grazing is allowed under 43 CFR 4110.3-1(a) and 4130.6-2. NR grazing will only be available after the permittee utilized all permitted AUMs[9] and would have the following terms and conditions:

- NR grazing will not be authorized in pastures that contain wilderness or LCT, specifically it will not be authorized in the North Foothills #2, South Foothills #3, Pike Creek #9, or Indian Creek #12 pastures. NR grazing could be authorized in any other pastures in the allotment, including WSA areas, as it is a temporary use.

- NR grazing will be allowed when native grasses are dormant, typically from November 15 to March 15 (defer/winter grazing treatment).

- NR grazing will only be authorized following use of all permitted AUMs authorized within that pasture.

- NR grazing will only be authorized up to the appropriate utilization threshold, including permitted use, wild horse use, and wildlife use. Overall use will be limited to 50 percent on natives and 60 percent on desirable non-natives.

- When NR grazing reaches the appropriate utilization threshold, the response will be that livestock will be required to be removed immediately.

- Water hauling and supplementations could be utilized to better distribute livestock to meet management goals. Water can be hauled, and salt placed, to any site that shows disturbance, such as existing water developments, salting locations, and roads as described in the EA *Water Hauling Section 2.3.3.4*.

Water Hauling

Water hauling will be authorized within the allotment if needed to promote proper livestock distribution and ensure permitted AUMs are available when water in that area is limited.

[9] A NR grazing authorization is separate from the regular grazing permit as it would allow for use of AUMs that exceed what is permitted.

Water could be hauled to existing disturbed areas such as troughs or reservoirs or historic salting locations along roads. Existing water developments are identified in EA Appendix A: Map 3 – Existing Range Improvements. If any selected developments are completed, they will also be considered water hauling locations if needed. At these sites, temporary troughs will be placed in the disturbed area to reduce water loss through absorption. Portable water troughs must be temporary in nature and removed at the end of the grazing season. Water hauling will only be authorized in years when drought is limiting water availability and will be used as a tool to improve management of livestock. Any water hauling will be approved before occurring by the BLM, with specific hauling locations identified.

Selected Range Improvements

Fence Construction

Alvord Seeding #1 will be divided using a 1.7-mile-long division fence (EA Appendix A: Map 5 – Alternative B). The fence will likely be constructed within T. 33 S., R. 34 E., Section 13 and T. 33 S., R. 35 E., Section 8. However, the placement and design will be based off the most suitable location to allow a better distribution of livestock in the northern part of the pasture and the specific location may vary. The fence will not be located in WSA or wilderness and will be located in an area predominantly seeded with crested wheatgrass.

The pasture boundary fence between the Alvord Seeding South #11 and the Desert #6 Pasture will be relocated further south, to follow the Mickey-Alvord Wells Road from private property to the east (T. 33 S., R. 35 E., Section 20, NWNW to T. 33 S., R. 35 E., Section 15, SESW). The fence will then turn to the north, leaving the road for approximately 0.25 miles, then following Sulfur Spring – Mickey Road to the allotment boundary fence (T. 33 S., R. 35 E., Section 15, SESW to T. 33 S, R. 35 E., Section 16, NENE). This new fence will be approximately 7.2 miles long. The 1.05 miles of existing pasture boundary fence will be removed. An additional approximately 1,154 acres of the Desert #6 Pasture will be added to the Alvord Seeding. This fence will not be located within WSA.

Seeding Maintenance

Alvord Seeding #1 and Alvord South Seeding #11 will be brush beat to remove sagebrush encroaching into the seeding. Brush beating will occur in strips or mosaics, no larger than 25 acres each. Brush beating will occur using heavy equipment, such as a tractor with rubber tires or a bulldozer with metal tracks pulling a mower. In areas that have become dominated by annual grasses, they will be sprayed with an herbicide. The seeding will be reseeded as necessary utilizing desirable non-native species to compete with annual grasses, meeting site-specific resource objectives of the crested wheatgrass seeding. Seeding will be completed using heavy equipment, such as a tractor with rubber tires or a bulldozer with metal tracks pulling rangeland drills. Seeded areas will be rested from grazing for two growing seasons.

Periodically, the 60 percent utilization threshold may be exceeded, no more than once every five years, to allow vegetation management through the grazing of wolfy plants to reduce residual dry matter and fuel loading. Supplementation will be strategically placed in areas

with the most wolfy plants to encourage livestock utilization in those areas. By maintaining this seeding and creating a site with abundant forage, livestock will be able to use it in case of a wildfire, if a vegetation treatment takes place somewhere else in the allotment, or to help address resource concerns in other locations. In these situations, this seeding may be used at a higher stocking level to offset the loss of AUMs from those pastures that were affected. This will only be a temporary use and will cease once those affected areas are rehabilitated. This use must be authorized by the BLM in advance and be for ecologically based reasons. Periodic growing season rest will still occur.

Development Maintenance

Within the Alvord Seeding #1 and Alvord South Seeding #11 pastures, 1.7 miles of existing, non-functional pipeline will be reconstructed. New pipe will be laid in the same location as the existing pipelines in T. 33 S., R. 35 E., Section 8, SW¼SW¼ to T. 33 S., R. 35 E., Section 18, NE¼SE¼ and in T. 33 S., R. 35 E., Section 8, SW¼SW¼ to Section 6, SE¼SW¼. This pipe will be laid using heavy equipment such as a backhoe with rubber tires or a bulldozer with metal tracks. Pipelines will be buried 18 inches below ground level, when rocks do not limit trench depth. Soil disturbed during pipe placement will be hand or utility terrain vehicle (UTV) seeded with a desirable non-native species as site potential is low and success with native species will be expected to be minimal.

A 3.1-mile currently non-functioning pipeline in the Desert #6 Pasture will be repaired. This pipeline begins in T. 34 S., R. 36., Section 9, NE¼SE¼ at Pipeline Well and travels south parallel to the Mickey-Alvord Well Loop Road where it ends in T. 34 S., R. 36 E., Section 28 NE¼SW¼, draining into the existing reservoir just inside the WSA boundary (approximately 100 feet located in T. 34 S., R. 36 E., Section 28, SWNE), as it did after initial construction. Repairs and restoration will be conducted in the same manner as described above.

In addition to pipelines, all other water developments will be maintained to ensure continued functionality. Machinery, such as dozers or excavators, will be used to clean water developments. These are transported with a truck and lowboy as close to the worksite as they can be then driven cross-country to the actual location to do the work. Maintenance activities will result in surface disturbance at the site; however, this will be no greater than the disturbance caused during the initial construction of the development.

Wells

Seven new wells will be constructed in the Desert #6 Pasture (EA Map 5: Alternative B). These wells are located on non-WSA designated land. Two wells are in the northwestern part of the pasture in T. 31 S., R. 35 E., Section 25, SW¼ and T. 31 S., R. 36 E., Section 32, NW¼. Two other wells are located in non-WSA near the WSA boundary. One of them will be located in T. 33 S., R. 36 E., Section 10, NE¼, just east of the Nowhere Mickey Road. The seventh well will be located in T. 34 S., R. 36 E., Section 5, NW¼. The main purpose of these four wells is to improve overall livestock distribution within the Desert #6 Pasture.

These wells, if drilling them results in water[10], will help increase the available use area for all livestock, and will not increase the number of AUMs taken from WSA-managed lands, but will spread where those AUMs are being taken from into currently inaccessible areas with the goal of decreasing use in currently used areas and increasing use in areas currently receiving little to no use. Three of the wells are located off the Mickey-Alvord Wells Road in T. 33 S., R. 37 E., Sections 9 (NW¼), 14 (NW¼), and 17 (SE¼). A road will be constructed to the well in Section 14 (see Roads Section) to allow access for a drilling rig and maintenance of the development. At least one of these three wells will be required to be functional prior to reinstating any suspended AUMs on the ground. The main purpose of these wells will be to "hold" livestock in the non-WSA portion of the pasture.

Access for well-drilling equipment will use the following roads: Mickey-Alvord Wells Loop Road, Nowhere Mickey Road, Sulfur Springs-Mickey Road, and the Table Mountain Well Road, as well as the new road. The only off-road travel will be at the actual well site and will be no more than 500 feet from an existing road. Any materials needed for well drilling will be hauled in with a dump truck and/or trailer.

The well site will consist of an area disturbed during construction of approximately 0.2 acre, within approximately 500 feet of a route. Following seeding/rehabilitation of the disturbed site, the permanent footprint will be no more than 0.01 acre (see rehabilitation seeding project design element (PDE)). Only native species will be seeded at these disturbed sites.

In general, an 8- to 12-inch-diameter hole will be drilled at the well site to accommodate 6-inch casing (pipe). Casing will be used for the entire depth of the hole unless solid rock was encountered. Pump size will be dependent upon depth of well and location of storage tank (if needed).

Wells will be powered by a generator, or by solar power with the ability to connect a fuel generator as a secondary power source, if needed. A generator will be hauled to the well site on a trailer. Panels for solar energy will be installed using a tractor with an auger. Poles will be concreted in the ground with solar panels mounted upon the poles. Pole height will be as low as possible, while still allowing panels to clear vegetation. Solar panels vary in size from 16 to 40 inches in length by 40 to 70 inches in width. The number of panels needed would depend on the characteristics of each well. Vegetative and topographic screening will be utilized as much as possible to minimize visual disturbance.

The well and power source will be fenced, enclosing the minimum area needed to protect the well and energy source, with a maximum perimeter of 0.1 mile, following the fencing PDE. If a barbed wire fence is not effective at keeping livestock and wild horses from causing damage, metal fence panels may be used.

[10] The Alvord Basin is part of the larger tectonic geomorphic Basin and Range province, a region of alternating narrow faulted mountains and flat arid valleys with abrupt elevation changes. This structure, along with lithology, are the principal control on the occurrence and movement of groundwater in Basin and Range aquifers (Robson and Banta, 1995). Faults can act as aquitards, with the fault core creating less permeable zones incapable of transmitting useful quantities of water (Turndage, et.al., 2018), this further isolates the sequences and distinct volcanic strata that undelay the Alvord Basin. In the Alvord Basin this occurs beneath 100 to 275 meters of unconsolidated Pliocene alluvium (Cleary, 1976). This makes predicting groundwater patterns and flows difficult as it is a challenge to find the isolated aquifers beneath the Alvord Basin area.

If well production is low enough that a storage tank is required to store water, it will be at most 8 feet in height by 28 feet in length and hold 10,000 gallons of water. Tank size will be based on water production of the well (a higher producing well will require a smaller storage tank than described above and may eliminate the need completely). The storage tank will be placed aboveground, with perch deterrents, and painted to blend in with the surrounding landscape. The color will be chosen from the BLM Standard Environmental Color Chart and will be approved by BLM prior to painting. Equipment for installation may include an excavator or backhoe and a low-boy truck and trailer to haul the tank.

Wells will primarily be used to distribute livestock and will not regularly be turned on for wild horses.

Troughs

Within the Alvord Seeding #1 and Alvord South Seeding #11 two troughs will be installed on the maintained pipeline to replace two existing metal 4x10 troughs at T. 33 S., R. 35 E., Section 18, NE¼SE¼ and T. 33 S., R. 35 E., Section 6, SE¼SW¼. These troughs will be placed outside of the WSA.

Within the Desert #6 Pasture, one new trough will be placed on the maintained pipeline. It will be in T 34 S., R. 36 E., Section 15, SWSW. In addition to these troughs, a new trough will be installed at each well location. Troughs will be up to a 30-foot round bottomless trough, though a smaller bottomless trough, a tire trough, or a smaller rectangular galvanized trough may be used. The disturbance for these smaller troughs will always be less than for the 30-foot bottomless trough. Bottomless troughs are circular, with a 4- to 6-inch concrete bottom and a 2- to 4-foot concrete apron to aid in erosion control. The sides of the trough will be 2-feet high and constructed of galvanized metal. A tractor will be used to scrape dirt to level the area for a trough within approximately 30 feet of an existing route. A concrete truck will haul concrete to the site to construct the apron and concrete bottom. The area disturbed during installation of the trough will be approximately 0.2 acre. This trough will also act to store water, and may eliminate the need for a storage tank, though that determination will be dependent on the rate of water produced by the well. The trough will have floats installed to prevent water from overflowing, as well as an overflow pipe to protect the site in the event the float valve is damaged, and water continuously flows into the trough. Bird escape ramps will be installed in all troughs. Water troughs will have coarse rock placed around them to reduce soil compaction by livestock and assist in blending the site with the surrounding area.

Roads

A new road will be constructed to the well site in T. 33 S., R. 37 E., Section 14 (see Map 5: Alternative B). This road will be approximately 2 miles long and will primarily be constructed by the passage of vehicles. If a portion of this road is too rough to be constructed by vehicle passage, a tractor with a blade will be used to clear rough areas to ensure a well drilling rig could access the site.

The road will have a minimum 12-foot-wide driving surface. There will also be an up to 4-foot-wide berm on either side of the road in areas where a tractor is needed to construct the road, from the material cleared off the road surface. In steep areas, ditches approximately 4 feet wide will need to be built to address any anticipated drainage issues. The maintenance level of this road will be assigned as level 1. According to BLM Manual 9113 Roads (2015b), a maintenance level 1 road is defined as a route where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion, and route surface and other physical features are not maintained for regular traffic. Maintenance of the road will occur as needed to ensure the road remains passible for vehicles needed to maintenance and operation.

To ensure a net decrease in the total miles of roads within the Alvord Allotment, approximately 5.9 miles of existing roads will be abandoned (see Map 5: Alternative B), and reclamation will occur where needed to allow the roads to ecologically recover, following Instruction Memorandum OR-2011-074, Incorporating Road and Sediment Delivery Best Management Practices into Resource Management Plans. Road closed signs will be placed at the road entrances.

General Project Design Elements (PDEs)

PDEs were developed to aid in meeting project goals and objectives. These features are nonexclusive and are subject to modification based on site-specific terrain characteristics (topography and vegetation). All range improvements will follow the PDEs outlined below. The locations of all selected range improvements are estimated locations. Exact, on-the-ground locations of any selected range improvements will be determined by those responsible for constructing the selected developments and may be modified based on clearances. Generally, all range improvements will occur within 0.25 mile of the current planned location. Changes to selected locations will be made through coordination between appropriate BLM specialists and the grazing permittee and approved by the field manager.

- Maintenance on all range improvements and roads would be done to ensure the continued functioning of the improvements. Maintenance activities would be the minimum necessary to ensure continued functionality of the improvement and would not exceed the original disturbance footprint of the improvement.

- Upon affirmative final decision to implement selected range improvements, and prior to development, Cooperative Range Improvement Agreements (Form 4120-6) between the Alvord Allotment permittee and BLM Burns District would be completed to address each partner's responsibilities for labor, construction, maintenance, and/or supplies.

- The Industrial Fire Precaution Levels (IFPL) would be followed during construction.

- Selected rangeland improvement sites, including sites of temporary range improvements, would be surveyed for cultural values prior to implementation. Where cultural sites are

found, developments would be relocated, and site condition and National Register of Historic Places (NRHP) eligibility would be evaluated. If sites are determined to be NRHP eligible and under threat of damage, mitigation measures to protect cultural materials would be determined. Mitigation plans would be developed in consultation with the Oregon State Historic Preservation Office (SHPO) and the appropriate Indian tribes, as necessary. Mitigation measures could include protective fencing, surface collection and mapping of artifacts, subsurface testing, and complete data recovery (full-scale excavation).

- Selected rangeland improvement sites, including temporary sites, would be surveyed for plant SSS prior to implementation. Plant SSS sites would be avoided.

- Selected range improvement sites, including temporary sites, would be surveyed for noxious weed populations prior to implementation. Weed populations identified in or adjacent to the selected projects would be treated using the most appropriate methods, in accordance with the Integrated Invasive Plant Management for the Burns District Revised EA (DOI-BLM-OR-B000-2011-0041-EA) (2015d), which this document is tiered to, or subsequent decision.

- Selected range improvement sites, including temporary sites, would be surveyed by a BLM wildlife biologist, as needed, to identify occupied nest sites within the work area prior to construction in order to avoid harm to nests, eggs, and nestlings. Should nests be located on the site, construction would either be delayed until nesting is complete or nest sites would be identified and avoided.

- Fences would be constructed to BLM specifications for a 4-strand, barbed wire fence. Post spacing would be up to 22 feet and the maximum fence height would be 42 inches. Wire spacing would be 16 inches, 22 inches, 30 inches, and 42 inches up from the ground, with a smooth bottom wire. As many as two metal stays would be used in each section of fence. Posts would be standard metal posts and solid green in color. Green, brown, or gray steel braces and stretch panels would be used, instead of wood braces and rock cribs, when they would not affect the structural integrity of the fence. Spot removal of rocks or vegetation would only occur when necessary, during construction. Pickups or UTVs would be used in fence construction; off-road travel would occur to haul materials. Anti-strike markers would be used as described under “Required Design Features” from the GRSG ARMPA. The grazing permittee would be responsible for all fence maintenance.

- To minimize impacts to visual resources, chemical treatment or vinegar would be used to reduce sheen on troughs if needed; non-reflective material would be used for solar panels if available.

- Disturbed areas would be seeded with native, or desirable nonnative species outside of WSAs, where the site is at immediate risk of annual grass invasion to increase the rate of recovery. Seeding would be completed using a UTV to broadcast seed, pulling chains to cover the seed, or by hand with a whirlybird seeder, depending on the size of the

disturbed area. Reseeding would occur if monitoring suggested it was not successful. Seeding would occur in the fall or winter.

Required Design Features (RDF) from the GRSG ARMPA[11]

- Restrict the construction of fences and tall structures to the minimum number and amount needed (GRSG ARMPA, Appendix C, Common to All RDF 3, p. C-1).

- Remove, modify, or mark fences identified as high risk for collisions, generally within 1.2 miles of occupied or pending leks (GRSG ARMPA, MD LG 9, p. 2-20). Refer to the model by Bryan Stevens (2011) to identify fences that pose a threat to GRSG. Remove any unneeded or unused fences and mark needed fences with anti-strike markers if they pose a threat to the GRSG. Remove or mark fences within 1.2 miles of newly discovered leks that were not included in the model. Update the model when new leks are found (PHMA only) (GRSG ARMPA, Appendix C, Common to All RDF 5, p. C-2).

- Power wash all vehicles and equipment involved in land and resource management activities prior to allowing them to enter the project area to minimize the introduction and spread of invasive plant species (GRSG ARMPA, Common to All RDF 11, p. C-2).

- Use native plant species, locally sourced where available, recognizing that use of nonnative species may be necessary, depending on the availability of native seed and prevailing site conditions (GRSG ARMPA, Common to All RDF 12, p. C-2).

- Ensure selected sagebrush treatments are planned with interdisciplinary input from the BLM or state wildlife agency biologist and promote use by GRSG (GRSG ARMPA, Common to All RDF 13, p. C-2).

- There will be no disruptive activities two hours before sunset to two hours after sunrise from March 1 through June 30 within 1.0 mile of the perimeter of occupied leks, unless brief occupancy is essential for routine ranch activities (e.g., herding, or trailing livestock into or out of an area at the beginning or end of the grazing season). Disruptive activities are those that are likely to alter GRSG behavior or displace birds such that reproductive success is negatively affected or an individual's physiological ability to cope with environmental stress is compromised. Examples of disruptive activities are noise, human foot or vehicle traffic, or other human presence (GRSG ARMPA, Common to All RDF 19, p. C-3).

- Restore disturbed areas at final reclamation and duplicate roads to the pre-disturbance landforms and desired plant community (GRSG ARMPA, Reclamation RDF 2, p. C-3).

[11] These are the most relevant RDFs and BMPs from the GRSG ARMPA, however, all RDF and BMPs that are applicable would be applied, even if not specifically listed here.

- Use native plant species, locally sourced where available, recognizing that use of nonnative species may be necessary to achieve site-specific management objectives (GRSG ARMPA, Vegetation and Fuels Management RDF 4, p. C-4).

- Do not place salt or mineral supplements within 1.2 miles of the perimeter of an occupied lek (GRSG ARMPA, Livestock Grazing RDF 1, p. C-6).

- Do not concentrate livestock in nesting habitat or leks from March 1 through June 30. The timing and location of livestock turnout and trailing should not contribute to livestock concentrations on leks during the GRSG breeding season (GRSG ARMPA, Livestock Grazing RDF 2, p. C-6).

- Locate new or relocate existing livestock water developments within GRSG habitat to maintain or enhance habitat quality (GRSG ARMPA, Livestock Grazing RDF 3, p. C-6).

- Ensure wildlife accessibility to water and install escape ramps in all new and existing water troughs (GRSG ARMPA, Livestock Grazing RDF 6, p. C-7). Ramps would be installed in each trough, including temporary troughs. Escape ramps would be fabricated of metal or may be a pile of rocks in one part of the trough.

- Construct new livestock facilities, such as livestock troughs, fences, corrals, handling facilities, and "dusting bags," at least 1.2 miles from leks or other important areas of GRSG habitat (i.e., wintering and brood-rearing areas) to avoid concentrating livestock, collision hazards to flying birds, or avian predator perches (GRSG ARMPA, Livestock Grazing RDF 7, p. C-7).

Best Management Practices (BMP) from the GRSG ARMPA

- Use ecological site descriptions to determine appropriate seed mixes. Seed mixes should include a diversity of forbs that maximize blooming times when pollinators are most active and include nectar and pollen-producing plants (GRSG ARMPA, Post-Fire and Restoration Seeding BMP 1, p. C-9).

- When using nonnative grasses, do not mix crested wheatgrass (*Agropyron cristatum* or *A. desertorum*) with native perennial grass species. If crested wheatgrass is needed to compete with invasive annual grasses, use a nonnative grass mix (GRSG ARMPA, Post-Fire and Restoration Seeding BMP 3, p. C-9).

- Prefer minimum-till and standard drill seeding to aerial or broadcast seeding, particularly to control invasive annual grasses. Where possible, prefer minimum-till drill seeding to standard drill seeding (GRSG ARMPA, Post-Fire and Restoration Seeding BMP 4, p. C-10).

- Rest seeded and planted areas from grazing by livestock for at least two growing seasons. When possible, exclude seeded or planted areas from wild horses and burros as well.

Grazing should not resume until vegetation objectives have been met. Plans must clearly describe the vegetation objectives and how attainment will be measured and determined. (GRSG ARMPA, Post-Fire and Restoration Seeding BMP 12, p. C-10).

Goals and Objectives for the Alvord Allotment[12]

- *Goal:* Manage the rangelands of the Alvord Allotment for the next 10 years in a manner that promotes native forage species and rangeland health. *Objective:* Increase or maintain current abundance of native forage species such as bottlebrush squirreltail, bluebunch wheatgrass, and needle and thread grass, along with shadscale and winterfat. *Measure:* Utilization, Pace 180°, and photo monitoring.

- *Goal:* Manage desirable nonnative forage species in a way that promotes sustainability and a long-term forage base. *Objective:* Increase or maintain crested wheatgrass abundance and vigor in the Alvord Seeding. *Measure:* Utilization, Pace 180°, and photo monitoring.

- *Goal:* Maintain utilization levels at 50 percent for native forage species. *Objective:* Adjust the number of AUMs authorized annually in order to stay at or below the 50 percent utilization level. *Measure:* Utilization. During years of low precipitation available forage would be assessed on the Desert #6 Pasture by inspecting established utilization points, and areas in between, that livestock have access to. Available water would also be checked in order to determine where livestock can access forage.

- *Goal:* Maintain WSAs and wilderness characteristics within the Alvord Allotment. *Objective:* Maintain Alvord Desert, East Alvord, Table Mountain, Wildcat Canyon, Winter Range, and High Steens WSAs, as outlined through FLPMA and Manual 6330 Management of Wilderness Study Areas. *Measure:* Site visits, patrol logs, surveillance reports, photographs, and observation. Includes on-the-ground surveillance conducted at a minimum of once per month during months the area is accessible to the public, depending on workload and budget. Surveillance can be initiated more frequently if potential use activities or resource conflicts indicate a need.

- *Goal:* Maintain or improve LCT habitat within the Alvord Allotment. *Objectives*: 1) Utilize monitoring to document the condition and direction of change (trend) of stream habitat and riparian areas. 2) Utilize monitoring to determine whether management practices are effective in maintaining or improving the structure and function of riparian habitat. 3) Change grazing management as needed to achieve management goals on occupied LCT habitat. *Measure*: MIM, PFC, Aquatic AIM (Assessment, Inventory, Monitoring), temperature thermographs, photo monitoring, greenline, streambank alteration, and browse alteration.

[12] These are goals and objectives that are in addition to goals and objectives already identified in the AMU and Steens Mountain CMPA RMPs and RODs, dated August 2005, as amended by the 2015 Oregon GRSG ARMPA/ROD.

Monitoring

Monitoring, by BLM staff[13] in coordination with the permittees, of the success in meeting resource objectives and goals will continue to occur in the allotment, no matter the outcome of the decision associated with this document. All monitoring within the AMU/Steens CMPA follows the direction provided in the AMU Monitoring Plan dated May 4, 2011 (or subsequent plan), and the 2005 AMU/Steens CMPA RMPs, as amended by the 2015 Oregon GRSG ARMPA/ROD.

Grazing management will be monitored following periods of grazing and will include utilization studies for each pasture grazed by livestock, along with use supervision reports and actual use reports. The modified Key Forage Plant Method will be used to measure utilization in each pasture (Utilization Studies and Residual Measurements (TR 1734-3), 1999). The target utilization levels for key forage plant species are no more than 50 percent utilization[14] on key native upland perennial species and 60 percent utilization on desirable nonnative species, such as crested wheatgrass (AMU/Steens CMPA RMPs 2005, p. 54). These utilization limits help to ensure that proper plant cover, litter, and distribution of bare ground are achieved in the uplands to maintain proper watershed function. Utilization limits also ensure that above-ground vegetation of plants is not removed to a detrimental level that will cause long-term ecological damage or decreased plant vigor, and that enough above-ground vegetation remains to meet wildlife habitat requirements. Utilization monitoring is typically performed along a route transect by vehicle, foot, and/or horseback, with utilization being calculated on a pasture average basis. When possible, utilization should be collected prior to livestock turnout to document wild horse use in the Desert Pasture. Upland trend will be monitored approximately every 5-10 years using Pace 180° methodology (Johnson and Sharp, 2012, TR 4400-4, 1985) and permanent photo points to measure the occurrence of key forbs, shrubs, and perennial grass species in order to assess trend in rangeland condition. Soil Surface Factor (SSF) methodology will be used to measure soil stability and Observed Apparent Trend (OAT) will be assessed at each upland trend plot. Currently, there are 18 upland trend monitoring plots within the Alvord Allotment.

Riparian assessment and trend data will be collected approximately every 5-10 years and methods may include using PFC (USDI 2015), MIM (BLM 2011), Aquatic AIM[15] (BLM 2017), photo monitoring, temperature thermographs (10-year intervals), and greenline monitoring. Water temperature monitoring will be conducted through deploying HOBO temperature probes for two to three years in LCT streams and will continue documenting that parameter for water quality purposes. Percent bare-ground will be monitored in meadows and spring sources within LCT pastures periodically as well, potentially utilizing on the ground and remote sensed data. This will occur on a rotational basis so all streams will be monitored at least once over a six-to-nine-year period, or as time and staffing allow. Additional annual monitoring by the BLM has been implemented in the riparian areas of Pike Creek (from the

[13] While monitoring will occur on the allotments, the extent and timeliness of it will depend on internal BLM factors such as funding and workforce and may not occur exactly when planned.
[14] BLM Burns District measures utilization percentage using an ocular method, not a weight method.
[15] Aquatic AIM field measurements include: pH, specific conductance, water temperature, total nitrogen and phosphorus, stream substrate, pool dimensions, bank stability/cover, stream width/depth, large woody debris, floodplain connectivity, canopy cover, riparian vegetation, and macroinvertebrates. Also included is the greenline component of MIM.

Pike Creek Trail) when cattle are present on the pasture. Monitoring of the Pike Creek drainage will occur at least once within the first 3 weeks of authorized grazing, and then at least monthly for the duration of use when livestock are in the Pike Creek and/or Indian Creek pastures, to monitor use in that drainage at locations accessible to livestock and to let the permittee know to remove livestock when observed in the drainage per terms and conditions described in Section 2.3 of the EA. In addition, the BLM will monitor LCT creeks for browse on willows and streambank alteration in areas accessible to livestock (where slope and vegetation don't limit access) after livestock are removed, dependent upon staff availability. The BLM will establish at least two long-term riparian utilization plots per pasture to monitor livestock use of riparian vegetation (willows, sedges, and rushes). This monitoring will be conducted as soon as possible after livestock removal from pastures with LCT streams. For all pastures, the end of season riparian objective is 35 percent riparian shrub (e.g. willow) use or less. At least two long-term streambank alteration transects will be established per pasture on LCT streams, in areas accessible to livestock, to document hoof action on streambanks after livestock have been removed, annually, or as staffing allows. For all pastures, the end of season riparian objective is 20 percent streambank alteration or less. Established long-term plots will be monitored annually through 2024 and every 3-5 years after 2024. Pre-season and mid-season compliance evaluations, including photos and observations will be completed annually in grazed pastures. In pastures that are not authorized for grazing in a given year, the BLM will complete compliance monitoring at least once during the grazing season to ensure unauthorized use is not occurring within LCT areas.

The BLM has completed a Biological Assessment for LCT within the Alvord Allotment (Dec. 1, 2021), and the USFWS provided the BLM with a Biological Opinion on March 29, 2022. The BLM has incorporated required components into this final decision. The BLM will conduct any additional compliance, implementation (year to year), and effectiveness (long-term/trend) monitoring that is required as a condition of consultation with USFWS and identified in the Biological Opinion on all three pastures containing streams with LCT (*Oncorhynchus clarki henshawi*). Implementation and effectiveness monitoring will be conducted in accordance with USFWS' Biological Opinion, in all LCT pastures where grazing occurs as described in the previous paragraph. The BLM will share the results of implementation and effectiveness monitoring with the USFWS annually, submitting monitoring reports (including implementation, effectiveness, and compliance information) for all pastures containing streams with LCT in Alvord Allotment by December 31 each year.

Other monitoring that includes the Alvord Allotment within a larger scale landscape will follow the GRSG Monitoring Framework (GRSG ARMPA, Appendix D, p. D-1). This includes an ongoing Terrestrial AIM project, which was initiated in 2016 within the Burns District in conformance with the monitoring framework. New AIM plots on the district continue to be added annually, and plots established in 2016 were re-monitored in 2021. AIM and Landscape Monitoring Framework (LMF) plots are used to support the findings of the Habitat Assessment Framework (HAF, BLM 2015c) reports, when available. AIM and LMF monitoring includes monitoring of many indicators including perennial grass height. There

are 15 AIM[16] plots and 42 LMF plots located within the Alvord Allotment[17]. During each allotment visit, monitoring for noxious weed establishment will occur as well as observation of overall rangeland condition.

Adaptive Management and Flexibility

Adaptive management is a system of management practices based on clearly identified objectives (identified in relevant RMPs and the AMP document) and monitoring to determine if management actions are meeting desired objectives and, if not, facilitating management changes that will best ensure objectives are met. Adaptive management recognizes knowledge about natural resource systems is sometimes uncertain and, in this context, adaptive management affords an opportunity for improved understanding. Due to the uncertainties inherent in managing for sustainable ecosystems, some changes in management may be authorized, which include (but are not limited to) *adjusting the rotation, timing, annual season of use of grazing, and livestock numbers* within the constraints of the grazing permit based on numerous factors including (but not limited to) the following:

- A finding that one or more standards are not being achieved and livestock are a causal factor;[18]
- The previous year's monitoring results, considering weather conditions (temperature and precipitation);
- The current year's forecasted weather conditions;
- Persistent drought causing reduced forage production and/or a lack of available water in areas originally scheduled to be used;
- Occurrence of wildfire; and
- To balance utilization levels.

Rangeland monitoring described above is a key component of adaptive management. As monitoring data indicates changes in grazing management are needed to meet resource objectives, changes are implemented in coordination with the grazing permittee. Flexibility in grazing management will be authorized, and changes in rotations will only be allowed as long as they continue to meet resource objectives. Flexibility is dependent upon the demonstrated stewardship and cooperation of the permittee and occurs within the confines of the grazing permit. Additional flexibility may occur within the terms and conditions of the grazing authorization.

Thresholds, or use indicators, and responses take time to develop and validate because short-term indicators of grazing use may or may not reflect the meeting of long-term management objectives. General thresholds and responses related to grazing management in this allotment will include those described in Table 3 and will be applied as described in the Monitoring section. These thresholds may adjust over time through adaptive management based on short- and long-term monitoring and assessment of objectives.

[16] AIM plots follow a random sample design and are not located within key areas. Therefore, an individual AIM plot cannot be extrapolated from in the same manner as a monitoring plot located within a key area.
[17] General habitat suitability determinations were made during the Standards and Guidelines Assessment using all data currently available.
[18] Currently (as with the previous S&G assessments) livestock is not a causal factor.

Table 3: Thresholds and Responses

Activity	Threshold/Indicators	Response
Wildfire	Over 25% of acres in pasture is burnt and severity is high enough to remove existing deep-rooted perennial vegetation and require seeding.	Remove livestock grazing from burned area, or temporarily fence burned area, to exclude livestock grazing for two growing seasons. BLM retains discretion to close areas of any size due to fire depending on resource concerns.
Upland Grazing	50% utilization level on key native upland perennial species.	If livestock are still present when monitoring shows the utilization threshold is met, permittee will be required to remove livestock in a timely manner. Adjust livestock timing and/or duration of use for the following season. Reduce AUMs the following year if utilization was over 50%[19]. If under 50%, consider increasing AUMs (within total permitted AUMs) or authorizing non-renewable grazing.
	60% utilization level on desirable non-native species (e.g., crested wheatgrass).	If livestock are still present when monitoring shows the utilization threshold is met, permittee will be required to remove livestock in a timely manner. Adjust livestock timing and/or duration of use for the following season. Reduce AUMs the following year if over 60% utilization. If under 60%, consider increasing AUMs (within total permitted AUMs) or authorizing non-renewable grazing.
Browse on Willows in Riparian Areas (LCT Pastures)	35% browse on willows.	For all pastures, the end of season riparian objective is 35 percent shrub use or less. If use is higher, an additional year of rest (two full years) will be required prior to resuming grazing in the pasture.
Streambank Alteration along LCT Creeks	20% streambank alteration.	Bank alteration transects in areas accessible to livestock will be used to document hoof action on streambanks after livestock have been removed, annually, or as staffing allows. If alteration is higher, an additional year of rest (two full years) will be required prior to resuming grazing in the pasture.

Billing

Actual use (after-the-fact) billing will be authorized as part of this AMP because of the variability in forage production from year to year, the unreliability of water sources, and a past record of paying bills on time. Annual grazing will be authorized with a letter of authorization prior to turnout. Accurate records will be kept, and an actual use grazing report will be submitted within 15 days after the authorized use is completed within the allotment, unless other arrangements are made with the BLM. Advanced billing will be allowed at the discretion of the BLM. If the terms and conditions of actual use billing are not met, actual use billing will no longer be allowed, and advanced billing will occur.

Grazing Preference

The permittee currently authorized under authorization #3602552 will continue to hold all grazing preference within the Alvord Allotment. The number of AUMs of preference will be adjusted to 8,992 AUMs of preference following this final decision.

[19] This should not occur often as BLM works with the permittee to monitor and livestock should be removed prior to hitting this threshold. This response is only in place if for unseen reasons, this does not occur.

Maintenance

Existing reservoirs and waterholes within the Alvord Allotment will be cleaned, in accordance with their ability to currently hold water and to help distribute livestock and wild horses. These will be cleaned and repaired in accordance with the AMU/Steens RMP, as amended, and the Maintenance of Range, Wildlife, and Wild Horse Improvements in Wilderness Study Areas in the Burns District EA (EA OR-05-020-080, 2005) and this document.

Gate Management for Wild Horses

A term and condition of the permit is gate management for wild horse movement. In the areas of the allotment that lay within a herd management area (HMA), permittees are required to open gates when livestock are not present on either side of the fence. Coordination with adjacent permittees will be required. This allows horses to move freely between water and forage within seasonal habitats.

Utilization Levels

Total utilization by grazing animals (e.g., domestic livestock, wild horses, and wildlife) in all native pastures should not exceed 50 percent of available current year forage in each pasture. In desirable non-native seedings, utilization should not exceed 60 percent of available current year forage.[20]

Desert #6 Pasture Wells

In the Desert #6 Pasture, Pipeline well and/or Ancient Lake well will be turned on to fill the associated troughs, in the absence of livestock, for use by wild horses and wildlife only during drought conditions when other water sources within the HMA are limited. The selected well will be turned on periodically to fill the trough and the overflow pond. The water level in these will be maintained by the BLM, in coordination with the permittee, as needed throughout the drought; the well will not continuously pump water or provide water to wild horses when other water sources are available. This will work to encourage wild horses to move throughout their HMA and not rely upon these two wells.

CHANGES IN THE ALVORD AMP EA FOLLOWING THE FEBRUARY 9, 2022 VERSION RELEASED FOR THE PROPOSED DECISION

- Updated information related to the completion of Section 7 Consultation with USFWS.
- Updated document formatting.
- Reduced main document length.
- Moved references section to an EA Appendix.

[20] Temporary and occasional use above this level when needed to address residual vegetation and wolf plants would occur as described in this decision. This is an authorized exception to utilization levels.

CHANGES IN THE ALVORD AMP EA FOLLOWING THE JULY 23, 2021 VERSION RELEASED FOR PUBLIC COMMENT

- Added *List of Acronyms.*
- Grammatical mistakes have been corrected throughout.
- Clarifications were made where needed; these did not change context.
- Improved document organization.
- Identified NLCS lands within the allotment in Table 1.
- Added Oregon/Washington National Landscape Conservation System 3-year Strategy: Fiscal Years 2013-2015 (September 14, 2012) to EA Section 1.5.
- Added an additional goal to EA Section 2.1.1.
- Updated Public Involvement Section 1.6 for Comment Period.
- Updated Monitoring Section 2.1.2 to include additional information about utilization, upland and riparian monitoring, as well as information about consultation with USFWS on LCT.
- Updated Table 5 with additional Thresholds and Responses.
- Updated Section 2.3.1 *Other Terms and Conditions*, including the addition of terms and conditions requested by the USFWS through consultation on LCT.
- Clarified Section 2.3.2 *Reinstatement of Suspended AUMS.*
- Clarified information about the proposed Indian Creek Pasture in Section 2.3.3.1
- Updated Section 2.3.3.2 *Proposed Grazing* to provide more discussion of the LCT areas and Indian creek per discussion with USFWS.
- Clarified Section 2.3.4.2 *Seeding Maintenance*.
- Clarified Section 2.3.4.2 *Troughs.*
- Updated Section 3.1.1 with additional information about cheatgrass, disturbance, moderate grazing, and grazing exclusion.
- Updated Section 3.1.1 description of existing water.
- Updated Section 3.2.1 Table 19 and creek data to include 2021 information.
- Updated Section 3.2.2 to include more information about LCT.
- Updated Section 3.3.1 to include information about connectivity and suitability, including the role of grass height.
- Updated Section 3.3.2 to include additional information about connectivity and seeding maintenance.
- Updated Section 3.6.1 to provide more information about livestock grazing use in the proposed Indian Creek Pasture and the Steens Act.
- Updated Section 3.6.1 to include additional information about Lands with Wilderness Character, including citizen proposed lands with wilderness character.
- Updated Section 3.6.2 to include fuller analysis of reinstated AUMs in the proposed action, including adding piosphere modelling data.
- Updated Section 4.1 with more current information about consultation with USFWS.
- Updated Section 5 with additional resources.
- Updated Section 6 Appendix A with Piosphere Use Area Modelling Maps (A6-8).
- Updated Section 8 Appendix C with additional information on ACEC/RNAs (provided more specific plan information), BSCs (updated disturbance calculations), Greenhouse

Gas Emissions and Climate Change (updated and added additional calculations), and Soils (updated disturbance calculations).

- Added riparian photos as EA Section 13 Appendix H.

RATIONALE

A Finding of No Significant Impact (FONSI) found Alternative B, including all parts of the final decision, components of which are analyzed in DOI-BLM-ORWA-B060-2014-0019-EA, did not constitute a major Federal action that would adversely impact the quality of the human environment. The FONSI determined an environmental impact statement is unnecessary and will not be prepared. The EA was made available for a 15-day protest period. The BLM received one email protest dated March 9, 2022. However, per the Proposed Decision dated February 9, 2022, "Any applicant, permittee, lessee, or other interested public may protest a proposed decision under 43 CFR 4160.1 and 4160.2, in person or in writing…within 15 days after receipt of such decision…A written protest electronically transmitted (e.g., email, facsimile, or social media) will not be accepted as a protest. A written protest must be on paper." As the protest was submitted through email only, and the Burns District BLM did not receive a protest on paper, the protest is not considered to be properly submitted and the Burns BLM will not consider the protest under 43 CFR 4160.2.

The EA was previously made available for 30-day comment period, ending on August 25, 2021. Four public comments were received with comments being incorporated into the EA and/or addressed in EA Appendix G: BLM Response to Public Comment.

This final decision is based on public comments, discussions with the grazing permittee, interested parties, and consultation with other state and federal agencies, and conformance to applicable laws and regulations. The final decision meets the purpose to: respond to an external request by the permittee for renewal of a 10-year grazing permit and to implement changes in current grazing practices and related activities; respond to the permittee's request to analyze moving 1,892 suspended AUMs to active use AUMs within the Desert #6 Pasture as agreed upon in the 1967 AMP; improve livestock distribution to spread grazing effects on vegetation more evenly throughout the allotment and reduce catastrophic wildfire risk; and respond to the permittee's request to be allowed the use of the Indian Creek area at a later season of use with specifically allocated AUMs. The need for the action is: the BLM has a responsibility to respond to external requests for renewal of the grazing permits and modification of grazing management related activities; and continue to improve grazing management practices and related activities is consistent with the BLM's need to manage livestock grazing in the most ecologically sound manner in conformance with the S&Gs.

This final decision includes issuance of a grazing permit with additional AUMs from reinstated suspended use and modified terms and conditions, ability to use NR AUMs, seeding maintenance, development maintenance, fence removal and construction, well construction (including road construction), road abandonment, and trough installation (see attached Final Decision Map). This action is most similar to what was analyzed under Alternative B. This final decision would have less impacts compared to Alternative B since fewer suspended AUMs would be reinstated, with individual piosphere modelling to determine maximum AUMs to

reinstate at any given point, and one fewer trough would be constructed.

Utilization (with an annual utilization limit of 50 percent on natives and 60 percent on desirable nonnatives even if full use of authorized AUMs is not utilized and when suspended use AUMs were utilized as NR use) and other monitoring, as well as demonstrated permittee flexibility and sound decisions have helped to maintain ecological conditions in the past. These same management decisions will continue to protect the area from ecological damage as it has in the past.

The last grazing permit for Alvord Allotment that was fully processed expired on 02/28/2018. Since then, the grazing permit has been renewed without NEPA analysis under the authority of Section 402(C)(2) of FLPMA, 1976, as amended, with the same terms and conditions as the previous grazing permits. This final decision will allow for the grazing permit for Alvord Allotment to be renewed and fully processed with adequate NEPA analysis.

This final decision will allow the allotment to maintain or improve ecological processes within the allotment and continue to achieve Standards (or if not achieved livestock will continue not to be a causal factor) and ensure livestock grazing conforms to Guidelines.

The no action alternative was not selected as it will not result in livestock grazing being managed with increased flexibility allowing for improved grazing management practices within the allotment.

APPEAL PROCEDURES:

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal of the decision in accordance with 43 CFR § 4160.3(c), 4160.4, and 4.470. The appeal must be filed within 30 days following receipt of the final decision. The appeal may be accompanied by a petition for a stay of the decision in accordance with 43 CFR § 4.471. The appeal and petition for a stay must be filed in the office of the authorized officer, to: Don Rotell, Field Manager, Andrews/Steens Field Office, Burns District, 28910 Hwy 20 W., Hines, OR 97738.

In accordance with 43 CFR § 4160.4, "Appeals and petitions for stay of the decision shall be filed at the office of the authorized officer." As defined in 43 CFR § 4.22(a), "A document is filed in the office where the filing is required only when the document is received in that office during its regular business hours and by a person authorized to receive it. A document received after the office's regular business hours is considered filed on the next business day." Therefore, any notice of appeal and/or petition for stay must be sent or delivered in hard copy (paper) form to the office of the authorized officer by mail or personal delivery. BLM does not accept facsimile, email, or social media filing of notices of appeal or petitions for stay and does not accept electronic appeal documents (e.g., compact disks, thumb drive, etc.) due to the Federal Information Systems Security Awareness guidance.

Within 15 days of filing the appeal, the appellant must provide BLM with proof of service to the other persons named in the Copies Sent To section of this decision in accordance with 43 CFR §

4.470(a). A copy of the appeal must also be served to the Office of the Solicitor located at the address below in accordance with 43 CFR § 4.413(a).

Office of the Solicitor
U.S. Department of the Interior
601 SW 2nd Avenue, Suite 1950
Portland, Oregon 97204-3172

In accordance with 43 CFR § 4.413(b), failure to serve a notice of appeal will subject the appeal to summary dismissal as provided in 43 CFR § 4.402. The appeal shall state the reasons, clearly and concisely, why the appellant thinks the final decision is in error and otherwise complies with the provisions of 43 CFR § 4.470. Should you wish to file a petition for stay, see 43 C.F.R. § 4.471(a) and (b). In accordance with 43 C.F.R. § 4.471(c), a petition for stay must show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied;
(2) The likelihood of the appellant's success on the merits;
(3) The likelihood of immediate and irreparable harm if the stay is not granted; and
(4) Whether the public interest favors granting the stay.

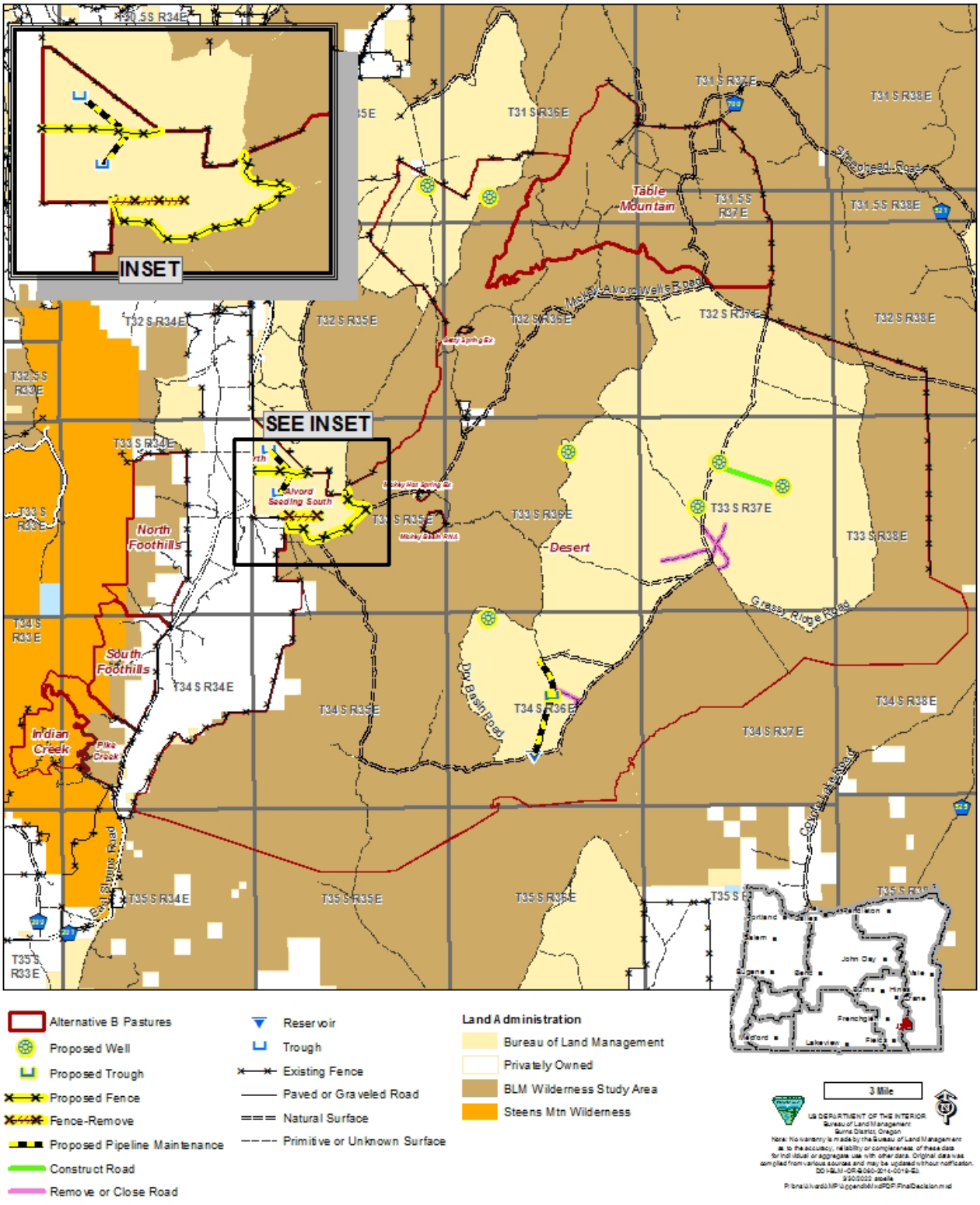
As noted above, the petition for stay must be filed in the office of the authorized officer and served in accordance with 43 C.F.R. § 4.471. Any person named in the decision that receives a copy of a petition for stay and/or an appeal is directed to 43 C.F.R. § 4.472(b) for procedures to follow if you wish to respond.

If you have any questions, please contact me at 541-573-4400.

Donald Rotell
Andrews/Steens Field Manager

3/31/2022
Date

ENCLOSURE (1)
Final Decision Map


INSET
SEE INSET
Table Mountain
Alvord Seeding South
North Foothills
South Foothills
Indian Creek
Pike Creek
Desert
Dry Basin Road
Grassy Ridge Road
Steens Mtn Wilderness
Alternative B Pastures
Proposed Well
Proposed Trough
Proposed Fence
Fence-Remove
Proposed Pipeline Maintenance
Construct Road
Remove or Close Road
Reservoir
Trough
Existing Fence
Paved or Graveled Road
Natural Surface
Primitive or Unknown Surface
Land Administration
Bureau of Land Management
Privately Owned
BLM Wilderness Study Area
Steens Mtn Wilderness
3 Mile