DETERMINATION OF NEPA ADEQUACY WORKSHEET

BLM Office: Grants Pass Field Office

NEPA No: BLM-OR-ORWA-M070-2022-0012-DNA

Lease/Serial/Case File No.: N/A

Proposed Action Title/Type: Late Mungers Vegetation Management Project

Location of the new Proposed Action: The Late Mungers Vegetation Management Project (Late Mungers) would be located on Bureau of Land Management (BLM) administered land in Josephine County, Oregon within two miles northwest of the unincorporated community and census-designated place of Williams. The Project Area would be contained within the following 5th field watersheds: Lower Applegate, Deer Creek, and Williams Creek. Treatments may occur within all Land Use Allocations (LUA), as analyzed in the Medford District Office Integrated Vegetation Management for Resilient Lands Environmental Assessment (IVM-RL EA). Primary LUAs included in the Late Mungers project are Late-Successional Reserve-Dry (LSR) and Riparian Reserve-Dry (RR). See Attachment 1 for maps.

Project legal locations:

- *Township 38 South, Range 05 West, Sections 05, 08, 17, 18, 19 & 31*
- *Township 38 South, Range 06 West, Sections 01, 13, 14, 15, 22, 25, 26 & 35*
- *Township 39 South, Range 06 West, Sections 01,03 & 04*

Applicant (if any): Bureau of Land Management

A. Description of the new Proposed Action and any applicable mitigation measures:

On March 2, 2022, the BLM Medford District published the final IVM-RL EA. Concurrently, the BLM approved a Finding of No Significant Impact (FONSI)(BLM 2022b) determining the program of work authorized does not require an Environmental Impact Statement (EIS). The BLM has also approved a programmatic Decision Record (DR) for the project. The BLM approved Alternative C, as modified, as the "Selected Alternative". The Selected Alternative consists of a program of work that would be performed by the BLM over a 10-year period (BLM 2022c, p. 1).

Conditions in southwestern Oregon are at high risk of large, severe wildfires that put HVRAs at risk. Scott and others (2018) identified nearly 25 communities in southwestern Oregon with the highest cumulative wildfire risk including the community of Williams which is adjacent to the Project Area (Map 1). Trends and forecasts suggest that wildfire would continue to be a major change agent affecting ecosystems, further increasing wildfire risk across Oregon (Mote et al. 2019; PRMP/FEIS Appendix D, pp. 1240-1242).

As noted in the IVM-RL EA and the 2016 Southwestern Oregon Record of Decision and Resource Management Plan (SWO ROD/RMP), the purpose of the new Proposed Action (Late Mungers) is to implement a suite of vegetation management actions that integrate differing natural resource objectives to promote and develop:

1. *Safe & Effective Wildfire Response*: Reduce fuels in strategic locations, including creating fuel breaks, to lower the potential for high-intensity/high-severity fire spread near areas where people live or in close

proximity to highly valued resources and assets (HRVAs) and to improve the opportunities for successful and safe fire response operations (BLM 2022a, pp. 4-5).

2. *Fire Resilient Lands:* Reduce vegetation to promote and develop variability at both large and small scales. At large scales, create conditions that are resilient to fire, insect, disease, and drought by restoring and maintaining a balance of open- and closed-canopy forest and non-forest patterns that better emulate the natural range of variability. At small scales, promote a mixture of clumpy and open vegetation with large, fire-tolerant trees (BLM 2022a, pp. 5-6).

3. *Habitat for Special Status Species & Unique Communities:* Reduce appropriate vegetation in ecologically appropriate locations to improve, maintain, or protect habitat for special status wildlife including the northern spotted owl (*Strix occidentalis caurina*) (NSO) and plant species in support of recovery and conservation; or to maintain and enhance the persistence of oak (*Quercus* spp.) communities, (BLM 2022a, pp. 7-8).

Approval of Alternative C, as modified, authorized a suite of treatments over a 10-year period within a 684,185-acre potential "Treatment Area" (BLM 2022a, p. 1). As the approved DR and supporting EA were "programmatic" in nature, they *did not identify the location, timing, and methods of treatments*. Identification of individual treatment units, the timing, and treatment methods are disclosed in this Determination of NEPA Adequacy (DNA) below.

The Grants Pass Field Office (GPFO) is proposing in the Late Mungers project to conduct vegetation management activities including prescribed fire and small diameter thinning (trees less than 8 inches diameter at breast height (DBH)), on approximately 7,435 acres of BLM-administered lands within the Project Area (Table 1). The BLM is also proposing approximately 55 miles of transportation management actions. All acreage in the Project Area is identified for fuels treatments, of which 6,637 acres would only have surface and ladder fuels reduction (fuels reduction) consisting of prescribed fire (e.g., handpile burning and underburning) and small diameter thinning (see Map 1 for project map or Late Mungers Appendix 1 for map book). The remaining 798 acres are proposed for commercial thinning, and selection harvests along with fuels reduction. This acreage represents 1.1 percent of the 684,185-acre potential Treatment Area considered in the EA (BLM 2022a, p. 1).

Table 1. Late Mungers Treatment by IVM-RL EA Theme.

IVM-RL EA Treatment Theme (BLM 2022a, pp 105-107)*	Percent of the Late Mungers Proposed Units	Acreage
Near Term NSO	2%	156
Long Term NSO	1%	63
Fuels Emphasis	1%	52
Ecosystem Resilience- Closed	0%	0
Ecosystem Resilience- Intermediate	1%	76
Ecosystem Resilience- Open	6%	451
Small diameter thinning and prescribed fire only	89%	6,637
Total acres treated		**7,435**

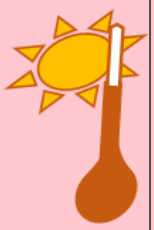
The interdisciplinary team's (IDT) primary objectives for this project focused on treatments in strategic locations for safe and effective wildfire response, improvement of northern spotted owl NSO nesting-roosting(NR) habitat, and extending treatments closer to adjacent private lands within the Oregon designated Communities at Risk from wildfire (CWPP 2019). Implementation of the new Proposed Action would contribute 7,435 acres toward the decadal prescribed fire limit (70,000 acres/10-years), small diameter thinning limit (60,000 acres/10-years) (BLM 2022c, p. 14), and 798 acres toward commercial treatment limit (4,000 acres/year) (BLM 2022c, pp. 3). The BLM anticipates the first phase of implementation of this project would occur in Fiscal Year 2023 and could take up to 10 years for fuels treatments depending on funding. The BLM

IDT estimated that annual fuels treatments would be 800 acres per year. Of the 798 acres of commercial treatments, the BLM estimates that these treatments would be completed in three to five years. The commercial treatments in Late Mungers would contribute up to approximately 20 percent toward the annual treatment acreage limit and 3.9 percent toward the decadal acreage limit. Annual tracking of implementation will occur for annual and decadal limits and be factored into every future decision tiered the IVM-RL EA.

"Proposed [commercial] thinning actions would use terrain and site productivity as a successional and environmental template to fit vegetation patterns characteristic of low-mixed fire severity regime to the landscape: re-balance open and closed seral stages and create and retain structurally-complex [threatened and endangered] T&E species habitat in places on the landscape where it has a high probability of persisting (i.e., areas of NSO habitat in High Relative Habitat Suitability)" (BLM 2022a, p. 105). The BLM adapted various restoration thinning Relative Density Index (RDI) targets of the Rogue Basin Strategy (RBS) (Metlen et al. 2021) to fit within the wider confines of the SWO ROD/RMP RDI ranges for LSR-Dry. As such, tree density targets for commercial thinning prescriptions vary by current NSO habitat conditions *NSO near-term* habitat (i.e., maintain or promote habitat), the potential for developing future NSO nesting-roosting habitat (*NSO long-term),* and proximity to Communities at Risk from wildfire (*Fuels emphasis).* Beyond a quarter mile from Communities at Risk and outside of NSO nesting-roosting habitat, commercial treatments would vary, depending on moist and dry forest type and abiotic factors (such as topographic or slope position and aspect), to create a range of open and closed conditions (*Ecosystem Resilience)*. (BLM 2022a, Appendix 1, pp. 105-106).

The new Proposed Action would promote legacy tree culturing and resilience within stands by utilizing commercial thinning and selection harvest within the LSR to increase stand heterogeneity and fire resiliency (BLM 2022a, pp. 103-105). The prescriptions are tailored to each site's condition (elevation, aspect, soil condition, and stand health) and tiered to the prescription themes in the IVM-RL EA (BLM 2022a, Table 1 p. 106). Gaps within units would be less than two acres and there would be a focus on increasing stand variability (BLM 2022a, Section A.1, p. 95). Skips would focus on retaining high quality late seral habitat. Commercial thinning, small dimeter thinning, and prescribed fire would be used within the RR Outer and Middle Riparian Zones. Fuels reduction treatments that would occur within 60 feet of the RR would leave tree boles greater than six inches in diameter on site for potential wood recruitment. Because this material would be left on site, fuel treatments are not expected to impact wood recruitment to streams. Commercial thinning and fuel treatments have Project Design Features (PDFs) that limit their proximity to streams, wetlands, and waterbodies (Late Mungers Appendix 2, pp. 6-7).

Table 2. Relative Density Index (RDI) Table with RDI Category Description, Corresponding RDI Target Range (BLM 2022a, p. 106).

RDI Category Description				RDI Target Range	Stand Conditions
Near-term NSO				Maintain NR(F)	Closed
Long-term NSO				≥30%	Intermediate
Fuels Emphasis				35-40%	
Ecosystem Resilience					
Potential Vegetation Type	**Seral**	**Insolation**		**RDI Target Range**	**Stand Conditions**
Douglas-fir - Dry	PIPO	Warm		20-30%	Open
Jeffrey pine	PIJE	Warm			
Oregon white oak	QUGA	Warm			
Ponderosa pine - Dry	PIPO	Warm			
Tanoak - Douglas-fir - Dry	PSME	Warm			
Tanoak - Douglas-fir - Moist	PSME	Warm			
Western hemlock - Hyperdry	PSME	Warm			
Western hemlock - Moist	PSME	Warm			
White fir - Intermediate	PSME	Warm			
Douglas-fir - Dry	PIPO	Cool		30-40%	Intermediate
Douglas-fir - Moist	PIPO	Warm			
Jeffrey pine	PIJE	Cool			
Oregon white oak	QUGA	Cool			
Tanoak - Douglas-fir - Dry	PSME	Cool			
Tanoak - Douglas-fir - Moist	PSME	Cool			
Western hemlock - Hyperdry	PSME	Cool			
Western hemlock - Moist	PSME	Cool			
White fir - Cool	ABMAS	Warm			
White fir - Intermediate	PSME	Cool			
Douglas-fir - Moist	PIPO	Cool		40-45%	Closed
Western hemlock - Intermediate	PSME	Cool			
Wesrtern hemlock - Intermediate	PSME	Warm			
White fir - Cool	ABMAS	Cool			

Fuel loading resulting from vegetation management activities would be reduced or altered through lop-and-scatter, pile and burn, or prescribed broadcast burning (BLM 2022a, pp. 90). Within the Project Area, there are 488 acres of hazardous fuels treatments done by the BLM within the past 20 years and are proposed for fuel reduction retreatment to maintain low-moderate loading surface fuel profiles.

Vegetation management could be accomplished through a combination of commercial timber sale contracts and/or service contracts. To facilitate vegetation management treatments this project would include landing construction, skid trails, yarding corridors, guyline, and tailhold trees.

The BLM is also proposing transportation management actions, including temporary road construction, road renovation/maintenance, timber haul and road decommissioning. Implementation of the new Proposed Action would contribute approximately 1.9 miles of new temporary roads and landings toward the annual limit (10 miles/year) and decadal limit (90 miles/10-years). Late Mungers would include approximately 55.4 miles of road maintenance, approximately 2.3 miles of renovation/maintenance of existing roads, and decommissioning of approximately 4 miles of road (Late Mungers Appendix 1) (BLM 2022a, pp. 93-94). Temporary route construction and reconstruction would occur in existing disturbance areas when possible and would include clearing, grubbing, removing, and disposing of vegetation and debris from within the identified existing footprint and clearing limits, . All temporary roads and reconstructed within the Project Area would be fully decommissioned after use. The total miles of decommissioned roads would be dependent on road surface type (e.g., natural or rocked).

The BLM has identified roads that would be available for wet season haul, depending on road surface type and current condition and applicable waivers. Temporary road construction and use would follow PDFs (Late Mungers Appendix 2, p and Best Management Practices (BMPs) during the wet season (generally October 15 – May 15). Mechanical felling and yarding, temporary route construction and decommissioning, and hauling on natural surface roads could occur when dry conditions are present with a waiver.

In the IVM-RL EA, Appendix 2 listed PDFs for each resource (BLM 2022a, pp. 111-126). For the new Proposed Action, the BLM would implement the PDFs which are included in Late Mungers Appendix 2 of this document.

B. Land Use Plan Conformance

Name of Land Use Plan (LUP): Southwestern Oregon Record of Decision and Resource Management Plan.
Date Approved/Amended: August 2016.

The new Proposed Action is in conformance with the applicable LUP because it is specifically provided for in the following SWO RMP/ROD decision(s):

- "Create fuel beds or fuel breaks that reduce the potential for high-intensity/high-severity fire spread within the wildland urban interface or in close proximity to highly valued resources." (BLM 2016a, p. 91; BLM 2016b, p. 78).

- "Treat both management activity fuels and natural hazardous fuels [to]….
    - Modify the fuel profile (e.g., raise canopy base heights or reduce surface and ladder fuels and crown bulk density)
    - Reduce potential fire behavior (e.g., crown fire activity, wildfire spread, and intensity)
    - Reduce potential fire severity
    - Improve effective fire management opportunities within the Wildland Urban Interface or in close proximity to other highly valued resources." (BLM 2016a, p. 91; BLM 2016b, p. 78).

- "Apply thinning or prescribed fire to forest stands as needed to achieve appropriate stocking and density levels." (BLM 2016a, p. 92; BLM 2016b, p. 79).

- "Conduct integrated vegetation management [to]…
    - Promote the development and retention of large, open grown trees and multi-cohort stands.
    - Develop diverse understory plant communities.
    - Increase or maintain vegetative species diversity.
    - Restore and maintain habitat for Bureau Special Status species.
    - Promote or enhance the development of structural complexity and heterogeneity
    - Create growing space for hardwood and pine persistence and regeneration
    - Create and maintain areas for hardwood and shrub dominance.
    - Adjust stand composition or dominance.
    - Reduce stand susceptibility to disturbances such as a fire, windstorm, disease, or insect infestation." (BLM 2016a, p. 72; BLM 2016b, p. 60).

- "Modify fuel beds to produce characteristic fire behavior and fire effects representative of the fire regime. Implement interim fuels treatments (e.g., hand pile and burn) in areas that are highly departed from natural conditions in order to facilitate prescribed fire in the future." (BLM 2016a, p. 75).

- "Apply prescribed fire in low/mixed severity or high-frequency fire regimes to emulate historic fire function and processes. Apply prescribed fire across the landscape to create a mosaic of spatial and temporal stand conditions and patterning (appropriate to the fire regime)" (BLM 2016a, p. 75).

- "Apply prescribed fire and mechanical or hand fuels treatments to reduce the potential for uncharacteristic wildfires. Apply maintenance treatments at appropriate intervals to retain or improve fire-resilient conditions" (BLM 2016a, p. 75).

- "…apply silvicultural treatments [in LSR] to speed the development of northern spotted owl nesting-roosting habitat or improve the quality of northern spotted owl nesting-roosting habitat in the stand or in the adjacent stand in the long-term. Limit such silvicultural treatments (other than forest pathogen treatments) to those that do not preclude or delay by 20 years or more the development of northern spotted owl nesting-roosting habitat in the stand and in adjacent stands, as compared to development without treatment. Allow silvicultural treatments that do not meet the above criteria if needed to treat infestations or reduce the spread of forest pathogens." (BLM 2016a, p. 72; BLM 2016b, p. 66).

- "Apply selection harvest or commercial thinning treatments to at least 17,000 acres per decade in the Medford District" in LSR-Dry (BLM 2016a, p. 74).

- "Maintain or restore natural processes, native species composition, and vegetation structure in natural communities through actions such as applying prescribed fire, thinning, removing encroaching vegetation [and] retaining legacy components (e.g., large trees, snags, and down logs)…" (BLM 2016a, p. 106; USDI BLM 2016b, p. 87).

- "Manage naturally occurring special habitats to maintain their ecological function, such as … natural meadows, …oak savannah/woodlands…" (BLM 2016a, p. 115; BLM 2016b, p. 95).

- "Manage habitat to maintain populations of ESA [Endangered Species Act]-listed, proposed, and candidate plant species." (BLM 2016a, p. 106; BLM 2016b, p. 106).

- "Manage mixed conifer communities to maintain and enhance ponderosa (*Pinus ponderosa*), Jeffrey pine (*Pinus jeffreyi*), and sugar pine (*Pinus lambertiana*) persistence and structure by removing competing conifers, thinning, and applying prescribed fire, to the extent consistent with management direction for the land use allocation." (BLM 2016a, p. 107; BLM 2016b, p. 87).

- "Manage mixed hardwood/conifer communities to maintain and enhance [Oregon white] oak (*Quercus* [*garryana* and California black oak (*Quercus kelloggii*)] persistence and structure by removing competing conifers, thinning, and prescribed fire, to the extent consistent with management direction for the land use allocation." (BLM 2016a, p. 107; BLM 2016b, p. 87).

- "Manage ESA candidate and Bureau Sensitive species consistent with any conservation agreements or strategies including the protection and restoration of habitat…and other strategies designed to conserve populations of the species." (BLM 2016a, p. 106).

C. Identify applicable NEPA documents and other related documents that cover the new Proposed Action.

- Integrated Vegetation Management for Resilient Lands Environmental Assessment, Finding of No Significant Impact and Decision Record (DOI-BLM-ORWA-M000-2020-0001-EA) (March 2, 2022).

- Medford and Roseburg BLM Southwest Oregon Dry Forest Resilient Lands Biological Assessment (March 11, 2021).

- Resilient Lands Biological Assessment (BA) – Errata (March 16, 2021).

- Medford and Roseburg BLM Southwest Oregon Dry Forest Resilient Lands Biological Assessment Amendment (October 20, 2021).

- Formal Consultation on the Medford and Roseburg Districts of the Bureau of Land Management's Southwest Oregon Dry Forest Resilient Lands Activities (Reference Number 01EOFW00-2021-F-0597) (December 20, 2021).

- Assessment of Activities That May Affect the Federally Listed Plan Species Gentner's Fritillary and Cook's Lomatium, on the Medford District BLM, Biological Assessment (October 1, 2020).

- Informal Consultation the Medford District Bureau of Land Management's Proposed Activities on Federally Listed Plant Species and Designated Critical Habitat (#01EOFW00-2021-I-0017) (November 10, 2020).

- Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) (August 5, 2016).

- National Marine Fisheries Service (NMFS) Forest Management Programmatic Biological Opinion (WCR 2017-7574) (March 9, 2018).

D. NEPA Adequacy Criteria

1. Is the new Proposed Action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

The IVM-RL EA evaluated a 684,185-acre potential Treatment Area, which the Project Area for the new Proposed Action is located within. The geographic and resource conditions within the Project Area were considered in the IVM-RL EA. The IVM-RL EA evaluated potential effects eight resources or issues in detail, and potential effects to 51 other resources and issues not analyzed in detail (BLM 2022a).

Yes, the new Proposed Action to conduct fuels treatments, commercial thinning and road management activities was analyzed in the IVM-RL EA. The IVM-RL EA analyzed a No Action Alternative and three action alternatives, which included Alternative C. On March 2, 2022, the BLM approved the IVM-RL EA and authorized modified Alternative C. Activities authorized under a modified Alternative C included the following: commercial treatments, small diameter thinning, prescribed fire, and temporary road construction. The new Proposed Action includes the following elements which are described in detail below.

There are no new actions proposed in Late Mungers that were not analyzed in the IVM-RL EA. Late Mungers is approximately 7,435 acres (798 acres of commercial harvest) of the 684,185-acre potential Treatment Area (also known as the analysis area) analyzed for the IVM-RL EA. All treatments included for Late Mungers were analyzed under the IVM-RL EA. None of the conditions within the Project Area have changed substantially since the IVM-RL EA was approved on March 2, 2022.

The BLM Medford District prepared the IVM-RL EA to evaluate the effects of forest resiliency treatments on LSR LUA on BLM-administered lands. The BLM Medford District designed the IVM-RL EA to aid in *developing fire resilient lands, habitat for special status species & unique communities,* and *safe & effective wildfire response* in accordance with the SWO ROD/RMP. The IVM-RL EA proposed to conduct individual integrated vegetation management projects from a pool of approximately 684,185 acres on the BLM Medford District in order to meet the LSR 10-year treatment goals and mange lands for wildfire fire resiliency and species diversity. As detailed in the HVRA's within IVM-RL EA (BLM 2022a, pp 4-5), it was key to propose a large enough Project Area to implement effective fuels reduction for landscape resiliency.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new Proposed Action, given current environmental concerns, interests, and resource values?

Yes, the range of alternatives analyzed in the existing IVM-RL EA is appropriate with respect to the new Proposed Action. The Late Mungers IDT designed the new Proposed Action to conform with Alternative C of the IVM-RL EA. The IDT conducted surveys and field visits to the Project Area to ensure that current environmental issues, interests, and resource values are consistent with the IVM-RL EA. The IDT determined the environmental concerns in March 2022 (IVM-RL EA) are the same as they are today (April 2022).

The Late Mungers proposed actions would meet the actions analyzed for in Alternative C (BLM 2022a, p. 11). Alternative C strives to fully integrate protecting and promoting habitat for special status species, improving safe and effective wildfire response, and creating a balance of open and closed vegetation patterns at multiple scales to increase resilience to fire, insects, and drought. This would be accomplished in Late Mungers through treatment of LSR-designated lands within the Project Area which would provide for safe and effective wildfire response and reduce wildland fire risk to HRVAs by implementing 7,435 acres of fuels and commercial treatments adjacent to Communities at Risk and Potential Wildfire Operational Delineation (POD)(BLM 2022a, p. 22) boundaries. The commercial harvest treatments were designed and field verified by BLM wildlife biologist and silviculturist to ensure prescriptions would promote NSO habitat and variable vegetation patterns.

There are no new actions proposed for Late Mungers and the range of alternatives is still appropriate. The BLM released the IVM-RL EA in March of 2022. Current environmental concerns, interests, and resource values are the same that existed during the analysis provided in the March 2022 IVM-RL EA. The Late Mungers project would be the first project implemented by the BLM Medford District under the IVM-RL EA.

The range of alternatives analyzed in the IVM-RL EA are appropriate with respect to this project, given current environmental concerns, interests, and resource values. Late Mungers would implement a combination of actions described in Alternative C (BLM 2022a, pp. 11-12) and would include the incorporation of all applicable PDFs as described in the EA (BLM 2022a, Appendix 2, pp. 111-126) seen in Late Mungers Appendix 2. The PDFs are an integral part of the action alternatives and were developed to avoid or reduce the potential for adverse impacts to resources. Where applicable, PDFs reflect BMPs as outlined in the SWO ROD/RMP Appendix C (BLM 2016, p. 163) and standard operating procedures.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude the new information and new circumstances would not substantially change the analysis of the new Proposed Action?

Yes, the existing analysis is valid because there is no new information or circumstances since the analysis was completed in March of 2022. The IDT has reviewed the IVM-RL EA, the new Proposed Action and existing

environment and determined there is no other new information or other changed circumstances that would invalidate the existing analysis.

Under the existing IVM-RL EA, specific locations of treatment units had not been identified, therefore no project/site-specific biological and cultural surveys were completed during the preparation of the existing NEPA. Some treatments units within the Project Area may have existing cultural and/or biological survey information on file with the BLM that may lead a field office to conclude that no new cultural and/or biological surveys are warranted. Below details how the BLM determined whether new biological and/or cultural surveys were needed for the Project Area, what the conclusions of such surveys were, and how they were consistent with the analysis in the existing IVM-RL EA.

Cultural Resources

The BLM conducted a cultural resources literature review and inventory of the Project Area to comply with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended. As outlined in the 2015 State Protocol between the Oregon-Washington State Director of the BLM and the Oregon State Historic Preservation Office (SHPO), regarding the manner in which the BLM is to meet its responsibilities under the NHPA and the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers. The cultural resource inventory included an archive search to identify previously recorded sites within the Project Area as well as a pedestrian survey to identify sites that have not been recorded yet.

This cultural resource literature review identified nine cultural properties within the Project Area (BLM 2022f). Five of these sites have previously been identified as not eligible for the National Register of Historic Properties (NRHP), one site had been determined eligible for the NRHP, and three had not been evaluated for NRHP eligibility. The BLM has made determinations of eligibility for these three properties and will treat them as eligible and consult with the SHPO on the BLM's determinations. For the unevaluated sites, two were deemed not eligible for NRHP listing and the third was deemed eligible.

Additionally, the cultural resource inventory identified five newly recorded cultural properties. Four of these newly recorded properties were determined to be not eligible for the NRHP. One of the newly recorded sites lacks appropriate context for an NRHP determination and will remain unevaluated until such a time when additional information that can shed light on its contribution, or lack of, to history can be found. The site will be treated as eligible until a determination can be made.

As part of the cultural resource inventory, eligible and unevaluated sites were flagged for avoidance, and would not be adversely affected by the undertaking. Table 3 provides a summary of these findings.

Table 3. Results of Cultural Resource Inventory.

BLM Number	Name	Description	NRHP Status	Mgmt. Recommendations
Previously recorded archaeological sites updated for this project				
35HS11-136/ 35JO218	Humdinger Mine	Mining site with relatively intact stamp mill	Eligible	Will be avoided
35HS11-538/ 35JO219	Astral Cathedral Lode	Lode mines with adits and test pits	Unevaluated	Will be avoided
35HS11-541/35JO221	Taint Dunn Ditch	Ditch on BLM and Private Property	Unevaluated	Will be avoided
Newly recorded archaeological sites				
OR110-1983	Lone Scraper	Isolated tool	Not Eligible	None, not eligible
OR110-1984	Gallo Bottle	Isolated Bottle	Not Eligible	None, not eligible
OR110-2111	Bear Wallow Creek Can Dump	27 cans and one screw top jar	Not Eligible	None, not eligible

BLM Number	Name	Description	NRHP Status	Mgmt. Recommendations
OR110-2112	Lone Creek Can Dump	Estimated 200+ cans, bottles, and modern trash	Not Eligible	None, not eligible
OR110-1985	Munger's Creek Ditch	Ditch	Unevaluated	Will be avoided

IVM-RL mandates that all programs undertaken under the EA shall be compliant with Section 106 and the 2015 State Protocol between the BLM and SHPO. By completing this cultural resource inventory, avoiding eligible and unevaluated sites, and submitting the report summarizing the results of the inventory to SHPO, the BLM shall be complying with the 2015 protocol, Section 106 of the NHPA, and PDFs of the IVM RL EA(Late Mungers Appendix 2, pp. 1-2).

Tribal Consultation

On March 29, 2022 the BLM notified the Cow Creek Band of Umpqua Indians, Siletz, and Grand Rhonde Confederated Tribes of the new Proposed Action and asked for feedback and participation in the Late Mungers Project. Cultural survey results, project maps, and the draft DNA were shared with the Tribes. The BLM will document feedback received by the Tribes in the Decision Record.

Biological Resources

Botanical Resources

Surveys were conducted for T&E plant species and Bureau Sensitive species in the Project Area according to protocols and by professional botanists. and identified 16 sites of Bureau Sensitive plants have been documented in the treatment units (Table 4) (BLM 2022g). Because there are no Federally listed threatened or endangered plant species or designated Critical Habitat within the treatment units the proposed actions would have "no effect" to T&E plant species.

Table 4- Special Status Species populations within the Project Area.

Species	Common Name	Date Located	Number of Populations
Andreaea schofieldiana	Moss	2017	1
Chlorogalum angustifolium	Narrow Leaved Soapplant	2019	2
Cryptantha milo-bakeri	Milo Bakers Catseye	2019	1
Cyprepidium fasciculatum	Clustered Lady Slipper	2018	2
Eucephalus vialis	Wayside Aster	2018	1
Lotus stipularis	Balsam Birdsfoot Trefoil	2019	2
Otidea smithii		2016	1
Porella bolanderi	Bryophyte	2019	4
Solanum parishii	Parish's Nightshade	2019	2

While there are no known populations of Gentner's Fritillary (*Fritillaria gentneri*) in the Project Area, there is suitable habitat and is within its range. Surveys of the Project Area would be conducted prior to implementation. Any populations found and identified prior to or during implementation will be buffered and flagged for avoidance. PDFs would be applied to preserve the habitat quality within the range of Gentner's Fritillary. Fuels reduction on 238 acres of Gentner's fritillary habitat would contribute to the conservation of this species by creating openings and reducing canopy cover, (BLM 2022a, pp. 69-75).

The new Proposed Action is within what was analyzed for Special Status plants in the IVM-RL EA because surveys were conducted and sites would be protected with implementation of PDFs (Late Mungers Appendix 2

pp. 1 & 11-13); therefore, the proposed treatments would not result in any sensitive plant species trending toward listing.

The Project Area contains approximately 98 acres of suspected noxious weed infested areas, shown in Table 4 (BLM 2022g). The proposed inclusion of temporary roads and ground disturbance associated with project activities would have implemented botanical resources PDFs (Late Mungers Appendix 2, pp. 3-5) to minimize the risk or introduction of weed spread in this Project Area beyond the existing condition. Additionally, access roads to the Project Area and haul routes have known infestations that could increase the risks of noxious weed spread. "B Listed" weed species would be prioritized for treatment, and PDFs (Late Mungers Appendix 2) will be necessary to reduce the risk of introduction and spread of non-native invasive species.

Wildlife

NSO

NSO surveys were completed for the Project Area to meet the requirement in the IVM-RL EA (BLM 2022 p. 10) and the SWO RMP/ROD (BLM 2016b, p. 30; BLM 2016c, p. 30) to not have timber harvest that would result in the incidental take of NSO. NSO surveys were completed within 1.3 miles of all potential units for the last four consecutive survey seasons (2018-2022) to determine occupancy (BLM 2022d). Surveys for NSOs followed standard protocol procedures (FWS 2012) and included surveys of 12 historic sites within the Late Mungers Project Area, 3 sites had NSO pairs detected, the other 9 NSO sites were vacant (BLM 2022d). NSO Surveys are on-going and will continue until project implementation is complete in order to ensure that incidental take of NSO would not occur (FWS 2021, pp. 28-29).

Project specific habitat typing for Late Mungers project units was completed by BLM wildlife staff completing on-the-ground habitat evaluations (BLM 2020), and through Geographic Information Systems (GIS) data interpretation using various datasets reflecting forest conditions, LiDAR data, and aerial photo interpretation. Table 6 summarizes the acres of each NSO habitat type within all project units. Further details of the habitat types comprising each NSO home range and the related project effects will be included as part of the project compliance document under the Resilient Lands Biological Assessment (BLM 2021).

Table 5. Acres of NSO habitat type within Project Units.

Treatment types	Nesting Roosting	Foraging	Dispersal-Only	Capable/Non-Habitat	Total
Small Diameter Thinning / Prescribed Rx	725*	1,825	2,456	1,797	6,803
NSO Near Term	0	139	10	0	156
NSO long term	0	27	9	1	37
Fuels Emphasis	0	41	11	0	52
Ecosystem Resilience	0	291	248	14	553

* Up to 725 acres could be treated, as prescriptions for fuels units in nesting-roosting (NR) are developed by the BLM fuels specialist and wildlife biologist to ensure that key habitat features, such as complex structure and multi-layered canopy structure would be retained post-treatment. Some acres may be deferred from treatment when NR habitat cannot be maintained.

Approximately 91 acres of NSO non-NR habitat proposed with the intention and objective to develop NR habitat were modeled to represent RDI prescriptions within Late Mungers to ensure treatments were consistent with the IVM-RL EA (BLM 2022a, p. 57) and would not preclude or delay by 20 years compared to the development without treatment. These units were selected for modeling because they were specific to Late Mungers, compared to the stands modeled in the IVM-RL EA and these 91 acres were selected because habitat field evaluation and stand plot data were available.

Consultation with the U.S. Fish & Wildlife Service (FWS) has been initiated for this project. Site specific NSO assessment will be completed through consultation compliance under the Resilient Lands Biological

Assessment (BLM 2021). Additionally, as part of this consultation compliance process, the BLM will coordinate with the FWS to ensure activities at the project level would not lead to the incidental take of NSO sites occupied by a resident single or territorial pair (BLM 2022, p. 282). The BLM will include all recommendations or guidance received as part of the wildlife consultation for this project in the Decision Record.

Other Species

There are no new federal Endangered Species Act listings or proposed or final critical habitat designation since the final IVM-RL EA. Additionally, there have been no changes to the BLM Bureau Sensitive species (BSS) list since the final IVM-RL EA.

Aquatic Resources Fisheries

The Project Area provides habitat for special status species, including Southern Oregon Northern California Coast (SONCC) Coho salmon (*Oncorhynchus kisutch)* and Klamath Mountain Province (KMP) steelhead (*O. mykiss*). In addition, resident Coastal cutthroat trout *(O. clarkii*) and Pacific lamprey (*Entosphenus tridentatus)* are present. Current fish distribution is based on sources of information that include historical surveys, Oregon Department of Fish and Wildlife (ODFW) Aquatic Inventory Observations, Streamnet, and the associated watershed analyses for Williams Creek (BLM 1996) and Deer Creek (BLM 1997), and the Applegate Subbasin Water Quality Restoration Plan (BLM, USFS 2005).

The KMP steelhead and SONCC Coho salmon are Bureau Sensitive Species which are present within the Project Area, notably in Powell, Murphy, and Munger creeks. SONCC Coho is a federally listed threatened species with designated critical habitat that overlaps KMP steelhead presence. Resident cutthroat trout distribution extends the furthest upstream in the Project Area streams. Where access is not blocked by manmade or natural barriers, cutthroat trout presence is also associated with the upper extent of perennial streams.

There are no new federal Endangered Species Act listings or proposed or final critical habitat designations since the IVM-RL EA was approved on March 2, 2022. Additionally, there have been no changes to the BLM Bureau Sensitive species (BSS) list.

The National Marine Fisheries Service (NMFS) Forest Management Programmatic Biological Opinion (WCR 2017-7574 March 9, 2018) includes the procedure for consultation on forest management actions which may affect SONCC Coho salmon and their designated critical habitat. The new Proposed Action is consistent with the appropriate management direction and BMPs described as project design criteria for the IVM-RL EA. After pre-consultation with BLM and reviewing the notification materials, the National Oceanic and Atmospheric Administration (NOAA) will verify whether the new Proposed Action is consistent with the design criteria of the NMFS Programmatic Biological Opinion (WCR 2017-7574). After reviewing notification materials, NOAA may request information or make recommendations to be included in the Proposed Action. The BLM will include any recommendations or guidance received as part of the fisheries consultation in the Decision Record.

Hydrology and Water Quality

A GIS review of the Project Area determined that proposed vegetation treatments are outside wild or scenic rivers; sole or principal drinking water aquifers; wetlands; and floodplains. Water features within and near treatment areas, such as streams and wetlands, were identified with BLM field surveys in 2017-2022, and were used to determine buffers for treatments and evaluate watershed parameters that might be influenced by the proposed actions. Units in the new Proposed Action have PDFs (Late Mungers Appendix 2) that limit their proximity to streams, wetlands, and waterbodies. Commercial thinning units, temporary roads, landings, and other actions were quantified by watershed metrics like road density and equivalent clear-cut areas to evaluate watershed hydrology. Fuel reduction treatments would occur in the RR and are designed to reduce the risk of future stand replacing canopy fires. The Hydrology Baseline Study concluded that the new Proposed Action is

within the impacts identified and analyzed in the IVM-RL EA (BLM 2022a, pp. 223-230) for hydrology and water quality (BLM 2022h).

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new Proposed Action similar (both quantitatively and qualitatively) to those analyzed in the exiting NEPA document?

Yes, all of the effects that would result from this action are similar to those analyzed in Chapter 3 of the IVM-RL EA (BLM 2022a, p. 15). The new Proposed Action is similar to that analyzed in the IVM-RL EA and there are no other actions that would have different cumulative effects with the proposed action than those described in the IVM-RL EA. The IDT reviewed the project design and site-specific conditions and determined the project methods and activities are consistent with the activities analyzed in the IVM-RL EA. Where site-specific conditions and resource issues warranted, the team incorporated appropriate PDFs, described above in Late Mungers Appendix 2, to ensure project effects remained within those identified in the IVM-RL EA.

The IVM-RL EA evaluated potential effects to eight resources or issues in detail, and potential effects to 51 other resources and issues not analyzed in detail (BLM 2022a). The project is consistent with the IVM-RL EA analysis and conclusions for all wildlife and botanical federally T&E listed species and Bureau Sensitive species potentially located within the Project Area (BLM 2022, pp. 268-292). Detailed below is a comparison of the new Proposed Action to the eight resources analyzed in detail.

Effect of Landscape Scale Resiliency in Terms of Successional Class Distribution (i.e., Distribution of Open and Closed Forest Conditions) **in the Dry Forest?** (IVM- RL EA Issue 3.2).

From the IVM-RL EA analysis in Issue 3.2, Alternative C has the most opportunity to increase open forest conditions across the Treatment Area and decrease the overabundance of closed forest conditions; however, other objectives under the IVM-RL EA (e.g., increasing heterogeneity, maintaining NSO habitat, treating for fuels emphasis) would use prescriptions other than the open ecosystem resilience harvest prescriptions (Table 2) limiting the areas of open forest condition created. This is consistent with PRMP/FEIS analysis that concluded with implementation of the PRMP/FEIS and alternatives, there would only be modest shifts in seral stage distribution and there would continue to be an overabundance of mid-seral closed forest (BLM 2016a, pp. 236, 242; BLM 2022a, p. 129; BLM 2022c, p. 7).

The analysis in the IVM-RL EA for Alternative C assumes up to 20,000 acres per decade could be in the Ecosystem Resiliency: Open Treatment (BLM 2022a, p, 19). This would be the maximum amount possible in open treatments under the IVM-RL EA, which the Late Mungers project would contribute to. Alternative C includes a variety of prescriptions to apply either an open, intermediate, or closed forest prescription type (Table 2), as indicated by site conditions (such as potential vegetation type, slope position and insolation) and treatment objectives (such as maintain NSO habitat, fuels emphasis prescription and ecosystem resilience, etc.). Under Alternative C, the relative abundance of open and closed forest conditions within the Treatment Area would differ from the relative abundance under the No Action Alternative by up to 3.1 percent across all successional classes, and 4.4 percent of the mid-closed successional class if this were to be the exclusive focus (BLM 2022a, pp. 19-20).

For the purpose of Late Mungers, the amount of open treatment types would below the amount analyzed in Alternative C because there is a variety of prescription types and the acreage treated would be within the annual and decadal maximum acreages for commercial treatments. The Late Mungers project is proposing 451 acres in Ecosystem Resilience-Open Treatment. Relative to the IVM- RL EA analysis which used the Alternative C treatment area of 684,185 acres (BLM 2022a, p. 20), the Late Mungers project would differ from the relative abundance under the No Action Alternative by zero percent (0.0007%) across all successional classes. This

result is well within the framework of analysis and within the impacts evaluated in the IVM-RL EA (BLM 2022a, pp. 15-20), and therefore is consistent with the IVM-RL EA.

Stand Level Fire Resistance (stand-resistance rating, fuel heterogeneity, and large trees) (IVM-RL EA Issue 3.3).

In general, stands with higher fire resistance have reduced surface fuel loading, lower tree density, large diameter trees of fire-resistant species, increased height to live crown (Brown et al. 2004; Peterson et al. 2005; USDI BLM 2008a), and discontinuous horizontal and vertical fuels" (BLM 2016a, p. 243). In these fire-resistant stands, it is more likely that a "…wildfire can burn through …. without substantially altering its structure, composition, or function (Franklin et al. 2013)." (BLM 2016a, p. 242).

Consistent with the IVM-RL EA, the combined direct effect of the new Proposed Action to reduce surface fuels, ladder fuels, and canopy fuels, via small diameter thinning, prescribed fire, and commercial harvest would result in *High* relative resistance to stand replacement fire for 98 percent of Late Mungers Project Area acreage (BLM 2022a, pp. 28-29). For two percent of the new proposed actions, habitat function would be maintained along with relatively high canopy cover and light surface and ladder reductions, providing some fuel connectivity, and result in *Moderate* relative resistance to stand replacement fire (BLM 2022a, p. 29).

The proposed commercial actions would have variable sized openings (or gaps) of two acres or less. These openings would introduce heterogeneity reflective of fuel loadings and arrangements comparable to low and mixed severity fire regimes, where gaps were variable in size, typically less than two acres. Gaps would alter patterns of litter fall and surface fuel accumulation, disrupting vertical and horizontal fuel continuity and improve stand-level fire resistance and the ability to respond to other disturbances and climatic influences (BLM 2022a, p. 31). Additionally, the commercial prescriptions, which vary by moist and dry forest types, tree species, and abiotic factors (slope and aspect), could promote species diversity and provide multiple pathways for individual species to adapt to future disturbance or changing climate. Large trees (generally greater than 24 DBH) would be retained and thinned around. Thinning would increase diameter growth, thus improving resistance to stand-replacing fire, as thinned stands with remaining large trees have been shown to have less severe fire effects when intersected by wildfires (BLM 2022a, p. 29).

Table 6. Late Mungers Contribution Toward Stand-Level Fire Resistance, Relative to IVM-RL analytic effects.

IVM-RL EA Treatment Type and Commercial Theme	Short-term Stand-Level Fire Resistance Rating	Percent of Late Mungers Proposed Acreage	Proposed Action Acreage	Percent of IVM-RL EA Treatment Area
Small diameter thinning and prescribed fire treatments only	High	89%	6,637	1.0%
Fuels Emphasis	High	1%	52	0.0%
Near Term NSO	Moderate	2%	156	0.0%
Long Term NSO	High	1%	63	0.0%
Ecosystem Resilience- Closed	High	0%	0	0.0%
Ecosystem Resilience- Intermediate	High	1%	76	0.0%
Ecosystem Resilience- Open	High	6%	451	0.1%

Without frequent maintenance disturbance, understory fuels re-grow (including natural or artificial regeneration), vegetation dies, and surface and ladder fuels would re-accumulate. A portion (488 acres) of the small-diameter and prescribed fire only acreage stands in the new Proposed Action were previously treated for surface fuel reduction within the last 20 years and are in need of maintenance actions and consistent with maintenance timelines of 10 to 30 years to maintain low-moderate loading surface fuel profiles, considered in the IVM-RL EA cumulative effects (BLM 2022a, p. 32). These maintenance actions, such as low intensity

prescribed underburning, or thinning and handpile burning, would contribute toward maintaining high stand-level fire resistance and return stand-resistance to short-term conditions. As each stage is completed, the stand's resistance to fire would increase and reflect short-term effects (BLM 2022a, p. 32). Actions implemented under this project would similarly need maintenance disturbance every 10 to 30 years to maintain low-moderate loading surface fuel profiles.

Safe and Effective Wildfire Response and Wildfire Risk Reduction (IVM-RL EA Issue 3.4).

Treating all fuels across an entire landscape is practically impossible, due to many limitations. There are two general strategies for treatments intended to modify landscape-level fire growth and behavior, and thus reduce landscape wildfire risk: 1) linear fuel breaks intended to aid in fire containment and limit fire size or acres burned (Agee et al. 2000, Weatherspoon 1996); and 2) area-based treatments that modify fire behavior (Finney 2001). In either scenario, proactive treatments would not eliminate fire from the landscape. The IVM-RL identified potential wildfire POD boundaries, which are geographic features that *could* aid in wildfire containment and limit large fire growth (Thompson et al. 2016, Stratton 2020) as the extent of the "linear feature" fuel break strategy. The IVM-RL EA identified two "area based" extents: 1) a local scale focused on a component of the Wildland Urban Interface, represented by a ¼ mile buffer around Communities at Risk (RVI CWPP, 2019); and 2) a broader landscape scale (e.g., the remaining IVM-RL EA Treatment Area) (BLM 2022a, p. 36).

Consistent with the IVM-RL EA and described above, the new Proposed Action would reduce the potential for stand-replacing crown fire (i.e., stand level hazard) creating post-treatment conditions that set stands up to better receive fire (prescribed or wildfire). Where implemented, proposed actions would indirectly improve opportunities for safe and effective wildfire response (Moghaddas and Craggs 2008) and containment (Salis et al. 2016; BLM 2016a, p. 271). The reduced flame lengths, resulting from proposed actions, would indirectly improve safe and effective wildfire response and improve opportunities for direct attack of a wildfire, as indicated in Fuel Treatment Effectiveness Monitoring between 2013-2018 (BLM 2022a, p. 39). There are six PODs which Late Mungers proposed actions fall within (see Late Mungers Appendix 1 for POD boundaries). The BLM used GIS to calculate the PODs total 28,619 acres and BLM-administered lands comprise 64 percent of the POD acreage (Table 8). Within theses PODs, the new Proposed Action would occur on four percent of the strategic "linear feature" (e.g., POD boundary) wildfire risk reduction extent and within two percent of the local "area-based" (e.g., ¼ mile around Communities at Risk) risk reduction extent. Proposed actions in these areas would contribute toward strategic, safe, and effective wildfire response. The remaining acres would contribute toward landscape area risk reduction. The Late Mungers project design provides the opportunity to tie strategic "linear feature" treatments into "area based" treatments grouped together and extends to adjacent private lands, meeting neighbors at their fence. This approach provides greater influence to modify fire behavior and slow fire spread (Finney 2001), and create safer opportunities to limit large fire growth; thus protecting resources, among those trees, T&E species habitat, and communities (Ager et al., 2007; Finney, 2007; and Metlen et al., 2017; Metlen et al., 2021, etc.). Additionally, these adjacent treatments provide more opportunities to conduct prescribed underburning as a future maintenance action (BLM 2022a, p. 42).

Table 7 – Late Mungers Contribution Toward IVM-RL Risk Reduction Strategy Extents.

IVM-RL EA Risk Reduction Strategy Extent	BLM-administered lands within Late Mungers PODs (%)	Late Mungers Proposed Action acres within PODs	Late Mungers Proposed Action proportion of BLM-administered Lands within PODs (%)	Late Mungers Proposed Action relative to IVM-RL Treatment Area (%)	Potential Maximum 10-year Implementation of IVM-RL Treatment Area (%)
BLM-Administered lands	64%	7,435	40%	1%	10%

IVM-RL EA Risk Reduction Strategy Extent	BLM-administered lands within Late Mungers PODs (%)	Late Mungers Proposed Action acres within PODs	Late Mungers Proposed Action proportion of BLM-administered Lands within PODs (%)	Late Mungers Proposed Action relative to IVM-RL Treatment Area (%)	Potential Maximum 10-year Implementation of IVM-RL Treatment Area (%)
"Linear features" [POD Boundaries] (300ft width)	9%	454	2%	0%	3.9%
Local "Area-based" [¼ Mile Around Communities at Risk]	6%	818	4%	0%	15%
Landscape "Area based" [PODs area]	91%	6,163	34%	1%	35%

Proposed Forest Treatments and Road Construction's Affect on NSO Habitat? (IVM-RL EA Issue 3.5).

The Late Mungers project is consistent with the IVM-RL EA analysis and conclusions for this issue because as described above, the project is following the IVM-RL EA prescriptions. Additionally, as described below, the effects from the new Proposed Action are within the estimated range in the IVM-RL EA.

Table 9. Late Mungers NSO Habitat Effects with comparison to the IVM-RL EA (BLM 2022, Table 19, p. 51).

Alternative/ Activity Type	Removed		Downgrade		Modify		Dispersal-only Removal (acres)	Dispersal-only Modify (acres)	Treatment in Capable or Non- Habitat (acres)
	NR (acres)	F (acres)	NR (acres)	F (acres)	NR (acres)	F (acres)			
	(% of IVM-RL EA analyzed acreage)								
Small Diameter Thinning	0	0	0	0	738 (18%)	2,204 (22%)	0	2,682 (11%)	1,810 (8%)
Understory/ Hand pile Burning	0	0	0	0	738 (18%)	2,204 (18%)	0	2,682 (10%)	1,810 (6%)
Commercial Thinning	0	25 (1%)	0	301 (8%)	0	137 (6%)	41	233 (5%)	0
Road and Landing Construction	1 (1%)	6 (3%)	0	0	0	0	8 (2%)	0	3 (2%)
TOTAL	***1***	***31***	***0***	***301***	***738***	***2,341***	***49***	***2,915***	***1,813***

*There are an additional 61 acres of skip treatments not included in this table, skip treatments would be NR (10 acres), foraging (42 acres) and dispersal (9 acres).

**Duplicate acres of small diameter thinning and understory/ hand pile burning would be fuels reduction treatments on the same footprint.

The proposed removal of NR habitat in Late Mungers is consistent with the IVM-RL EA because it would only occur from road and landing construction (BLM 2022a, pp. 54). The new Proposed Action would reduce 0.001 percent of nesting-roosting, and 0.1 percent of foraging habitat, and increase 0.2 percent of dispersal-only habitat within the IVM-RL EA NSO Analysis Area, which is well below the predicted reduction of 0.4 percent of nesting-roosting, 2.9 percent of foraging habitat, and 2.5 percent increase of dispersal-only habitat within the IVM-RL EA analysis (BLM 2022a, pp. 46).

The Late Mungers project would also modify, but maintain NR, foraging, and dispersal-only habitat function. Approximately 0.6 percent of NR, 1.1 percent of foraging, and 1.8 percent of dispersal-only of the habitat within the IVM-RL EA NSO Analysis Area would be impacted, which is less than the IVM-RL EA analysis by 9 percent in NR, 11 percent in foraging, and 35 percent in dispersal-only habitat (BLM 2022a, p. 55). The Late Mungers project is consistent with the IVM-RL EA because no NR in *high*-RHS/late closed is proposed for treatment (BLM 2022a, pp. 55, 107).

As described in the IVM-RL EA, the proposed commercial treatments in the LSR would result in short-term adverse effects for long-term benefits. These benefits include developing non-nesting-roosting habitat into NR habitat (BLM 2022a, pp. 52, 55). Late Mungers would improve and develop NR habitat on approximately 176 acres of non-NR habitat in areas with lower RDI targets, which would increase the ability for stands to maximize regeneration, layering, and stand complexity (BLM 2022a, p. 55). Additionally, approximately 86 acres have the greatest potential for habitat persistence based on their landscape location (BLM 2022a, p. 47). Another long-term benefit of the new Proposed Action consistent with the IVM-RL EA, would be creating resilient and resistant stands, especially in treatments in the Ecosystem Resilience-Open Theme. These treatments would provide potential protection to adjacent NSO habitat, as well as making NSO habitat more resistant in some areas. The Late Mungers project would reduce the wildfire potential in 1.3 percent of the NSO habitat within the IVM-RL EA NSO Analysis Area which is less than the 18 percent benefit identified in the IVM-RL EA (BLM 2022a, p. 55).

Table 9 – Late Mungers NSO Critical Habitat Effects (December 2021) with comparison to the IVM-RL EA (BLM 2022, Table 56, p. 186).

Alternative/ Activity Type	Removed		Downgrade		Modify		Dispersal -only Removal (acres)	Dispersal -only Modify (acres)
	NR (acres)	F (acres)	NR (acres)	F (acres)	NR (acres)	F (acres)		
	(% of IVM-RL EA analyzed acreage)							
Small Diameter Thinning	0	0	0	0	694 (28%)	2,130 (33%)	0	2,453 (16%)
Understory/ Hand pile Burning	0	0	0	0	694 (28%)	2,130 (28%)	0	2,453 (15%)
Commercial Thinning	0	25 (2%)	0	301 (12%)	0	137 (9%)	41 (2%)	233 (8%)
Road and Landing Construction	1 (1%)	6 (4%)	0	0	0	0	8 (3%)	0

*Values in parentheses indicate the percentage value of the proposed treatment types in Late Mungers to the acres analysed for all IVM EA treatments (project compared to lifetime of programmatic).

**Duplicate acres of small diameter thinning and understory/ hand pile burning would be fuels reduction treatments on the same footprint.

The Late Mungers project is within NSO critical habitat unit Klamath West and Subunit KLW4 (FWS 2021). The new Proposed Action would result in a 0.2 percent reduction of NRF and a 0.03 percent decrease of dispersal quality habitat (NRF + dispersal-only) within critical habitat in the IVM-RL EA NSO Analysis Area. This is well below the predicted 2.7 percent reduction in NRF and a 1.3 percent decrease of dispersal quality habitat within the IVM-RL EA analysis (BLM, 2022c, p. 13). Additionally, consistent with the IVM-RL EA, the proposed removal and downgrade of NR and foraging habitat and removal of dispersal-only habitat would not alter the intended function of providing connectivity within and between subunits because only 0.05 percent of the dispersal quality habitat would be reduced at the entire KLW-4 sub-unit scales (BLM Medford District lands only). These changes are immeasurable at the sub-unit scale and therefore, would not affect the dispersal of NSO between sub-units.

The cumulative effects from the Late Mungers project are consistent with the IVM-RL EA because these acres were considered under the proposed actions in the IVM-RL EA and no additional projects are proposed in the Project Area that were not considered in the IVM-RL EA cumulative effects analysis in Section 3.5 (BLM 2022a, pp. 55-56).

Forest Management Treatments in the LSR's ability to Speed or Delay by 20 Years or More the Development of NSO Nesting/Roosting Habitat? (IVM-RL EA Issue 3-6).

The Late Mungers project is consistent with the IVM-RL EA analysis and conclusions for this issue because as described above, the project is following the IVM-RL EA prescriptions. The IDT reached this conclusion after a review of the new Proposed Action, modeling site-specific representative stands of the project, and comparing the results with the IVM-RL EA analysis.

As noted above, 91 acres of NSO non-NR habitat proposed with the objective to develop NR habitat were modeled to review that the effects of the treatments would not preclude or delay by 20 years compared to the development without treatment. Plot data for these selected units were processed and modeled in ORGANON, a tree growth and yield simulator. Growth for each representative stand was modeled through time under a no treatment scenario and three treatment scenarios based on the new Proposed Action. The metrics for NR habitat (BLM 2022a, pp. 176) were used to determine when these stands reached NR conditions when modeled into the future because this specific management direction is about achieving NR habitat (BLM 2016b, p. 72).

The Late Mungers specific representative stand modeling results were consistent with the IVM-RL EA and demonstrated that habitat elements (layering, large trees, moderate canopy cover, higher basal area, etc.) would still be present in the stands under all treatment prescriptions (at varying levels) and the proposed treatments would not eliminate these habitat features from the stand. Additionally, based on the diameter distribution, the stands would develop multi-layering conditions. The prescriptions would also improve habitat conditions for NSO in the long-term (30 or more years) by accelerating the development of structural complexity, biological diversity, and NR habitat. The increased tree growth would help develop other suitable wildlife habitat characteristics, such as large limbs and crowns. Consistent with the IVM-RL EA, the Late Mungers commercial prescriptions would promote and retain large trees, increase or maintain species diversity, create and maintain hardwoods, retain coarse woody material, and retain and create snags, which would prevent the delay of nesting-roosting habitat development by more than 20 years (BLM 2022a, p. 62).

The effects for this issue are considered at the stand scale and consistent with the IVM-RL EA, no additional treatments are proposed in the commercial units designed to develop NR habitat. Additional small diameter thinning or burning under the Late Mungers project would not occur because those treatments would affect the lower canopy layers and multi-layered structure intended to develop under the commercial harvest entry (BLM 2022a, pp. 57, 64).

Proposed Treatments Affect to the Pacific Marten (IVM-RL EA Issue 3.7)

There would be no effects to Pacific martens (*Martes caurina*) or their proposed critical habitat from this project because the project is not within any known Extant Population Areas or within proposed critical habitat. Additionally, no Pacific martens have been observed in the Project Area.

New Proposed Action Promotion and Development of Plant Habitat (Special Status Habitat, Native Plant Communities and ACECs) (IVM-RL EA, Issues 3.8 and 3.9).

"Thinning to reduce tree densities and surface and ladder fuels, burning slash piles, and underburning would reduce the risk of stand replacement events from wildfire, which would improve habitat for Special Status plants that grow in conifer stands. It would reduce the risk of loss of host trees and damage to above or below ground plant parts, mycorrhizae, roots, or seeds during high severity wildfire. Thinning stands would reduce canopy cover and create openings for species that require more light. Thinning trees and shrubs and applying prescribed fire in non-conifer habitats, where wildfire exclusion has led to encroachment of woody vegetation and succession to closed canopy communities, would restore these habitats to more open canopy conditions in which several Special Status species evolved. Reducing tree and shrub densities would remove competing vegetation and improve habitat by creating space and light and freeing up water and nutrients for Special Status

plants and other native understory vegetation. Prescribed burning would remove the buildup of thatch and fine fuels and kill smaller conifers that have encroached into Special Status plant habitat." (BLM 2022a, Section 3.8 and 3.9)

The Project Area consists of approximately 7,435 acres of vegetation treatments and would include surface and ladder fuels reduction including prescribed fire and small diameter thinning. Within the Project Area, approximately 798 acres of commercial thin and selective harvest treatments are proposed. The new Proposed Action Project Area includes conifer and non-conifer habitat both of which were analyzed in detail in the IVM-RL EA. The new Proposed Action would not exceed the direct, indirect, and cumulative effects to native plant communities analyzed in the IVM-RL EA, because the actions are the same as those analyzed and the proposed acres treated do not exceed the annual and decadal acres analyzed.

Botanical surveys have been conducted for the Project Area and a review of the existing populations has been completed. With the protection of existing and known populations through implementation of PDFs, the new Proposed Action to reduce fuels and improve fire resiliency would benefit sensitive species habitat on short- and long-term temporal scales in conifer and non-conifer dominated vegetation types in accordance with the IVM-RL EA. Effects to Special Status plant species and their habitats would not exceed those analyzed in the IVM-RL EA because the new Proposed Action is similar to those analyzed in the EA and the proposed acres are within the annual and decadal limits analyzed.

5. Are the public involvement and interagency review associated with the existing NEPA document(s) adequate for the new Proposed Action?

Yes, public involvement and interagency review are adequate. The BLM conducted extensive public outreach between 2019 and 2020 on the IVM-RL EA ("existing NEPA document"). Public scoping started on July 3, 2019. Scoping notices were sent to individuals, organizations, and agencies via mail and email. A scoping notice was also provided to the following tribes on July 3, 2019 including the Karuk, Cow Creek, Klamath, Confederated Tribes of the Grande Ronde, Quartz Valley Indian Reservation, and Confederated Tribes of Siletz Indians. The scoping period ended on August 2, 2019 (BLM 2022c, p. 12-13).

On October 29, 2019 the BLM provided the opportunity for the public to provide input on a preliminary version of Chapters 1 and 2 of the EA. Notices were sent to individuals, organizations, and agencies via mail and email. Notifications were also made to the following tribes on October 30, 2019 including the Karuk, Cow Creek, Klamath, Confederated Tribes of the Grande Ronde, Quartz Valley Indian Reservation, and Confederated Tribes of Siletz Indians. The BLM also hosted meetings in Williams, Oregon on November 5, 2019, on November 13, 2019 in Applegate, Oregon, and a presentation before the Jackson County Board of Commissioners on December 10, 2019. The BLM also hosted a public open house at the Jackson County Expo on November 14, 2019 (BLM 2022c, pp. 12-13).

On August 19, 2020 the BLM initiated a 30-day public comment period on the completed EA. Notices were sent to individuals, organizations, and agencies via mail and email. Notifications were also made to the following tribes on August 25, 2020 including the Karuk, Cow Creek, Klamath, Confederated Tribes of the Grande Ronde, Quartz Valley Indian Reservation, and Confederated Tribes of Siletz Indians. The BLM hosted an informational webinar for the IVM-RL EA on August 27, 2020. The public comment period was extended from September 18, 2020 to October 19, 2020 (BLM 2022c, pp. 12-13).

On March 2, 2022, the BLM approved the IVM-RL EA. Notification via mail and email was made to approximately 1,340 individuals, organizations, and agencies of the approval of the project. Notifications of the project approval were also made on March 3, 2022 to the following tribes including the Karuk, Cow Creek, Klamath, Confederated Tribes of the Grande Ronde, Quartz Valley Indian Reservation, and Confederated

Tribes of Siletz Indians. In addition to notifications, the BLM also released a press release on March 2, 2022 with the announcement of the project approval.

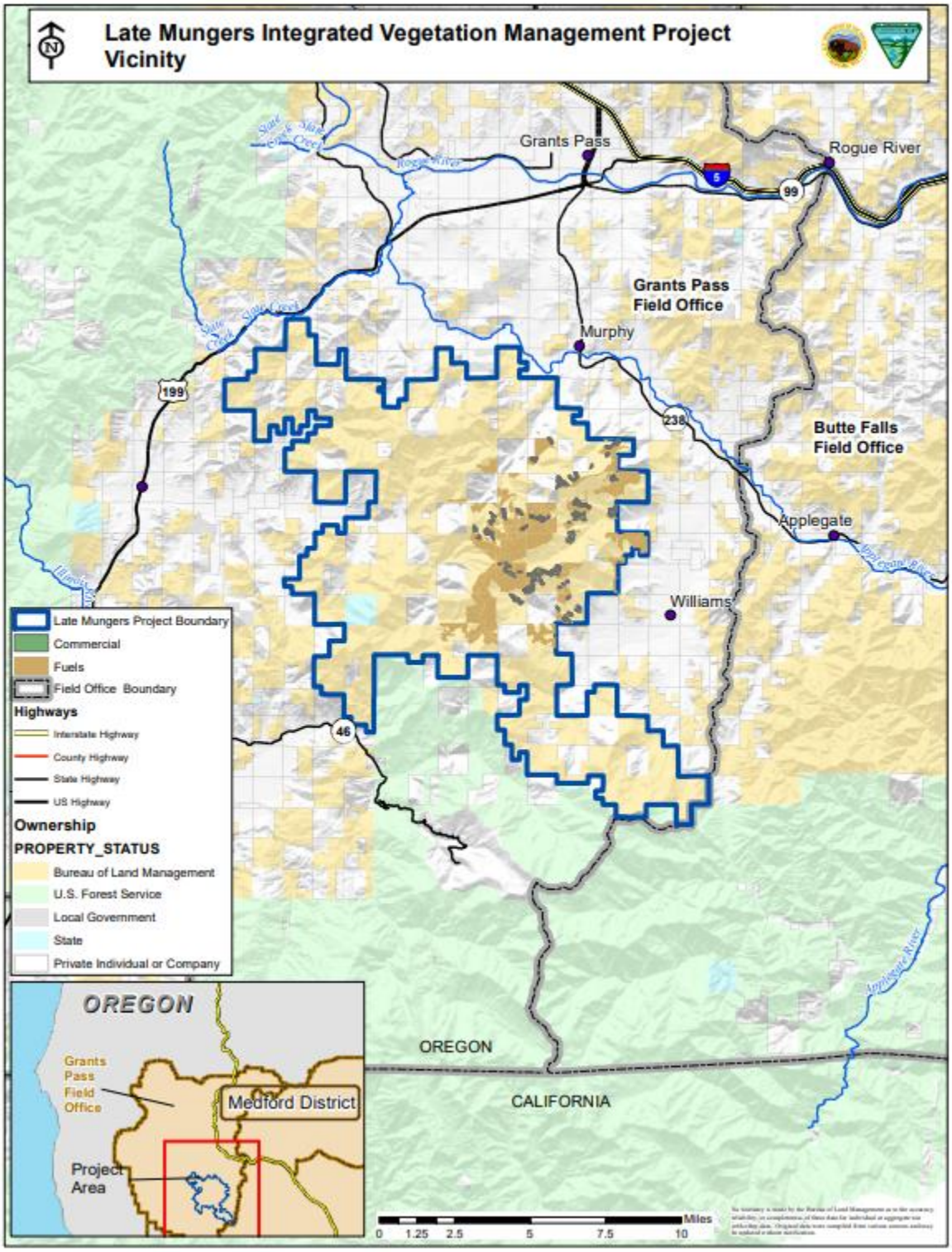
On April 28, 2022, the Grants Pass Field Office initiated a 30-day public review and comment period on this "draft"/unsigned DNA worksheet. The BLM notified approximately 270 individuals, organizations, and agencies on the project mailing list of this document's availability, along with maps of preliminary treatment units, and information on how to provide effective comments. Invitations to participate in project planning were sent to the Cow Creek Band of Umpqua Tribe of Indians, Confederated Tribes of the Grande Ronde and Confederated Tribes of Siletz Indians on April 28, 2022. The BLM will describe the results of this public participation period and how substantive comments are addressed in the Decision Record.

E. Persons/Agencies/BLM Staff Consulted

Resource	Name
Hydrology	Robert Lange
Fisheries	Jon Raybourn
Wildlife	Jason Reilly
Botany/Noxious Weeds	Amanda Snodgrass
Cultural	Tony Saunders
Engineering	Jeff Brown
NEPA Compliance	Emma McNeil
Forestry	Daniel Stephens
Silviculture	Amy Daley
Fuels	Trevor Wallace
Soils	Melissa Pingree

Note: refer to the EA for a complete list of the team members participating in the preparation of the original environmental analysis.

Late Mungers Project Map 1- see Appendix 1 for map book



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BLM 2022c. Decision Record for the Integrated Vegetation Management for Resilient Lands Environmental Assessment. Medford, Oregon. March.

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BLM 2022f. Cultural Report. Grants Pass Field Office, Medford District, OR: Bureau of Land Management.

BLM 2022g. Botany Report Grants Pass Field Office, Medford District, OR: Bureau of Land Management.

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Conclusion:

Based on the review documented above, I conclude that this proposal conforms to the applicable LUP and that the NEPA documentation fully covers the new Proposed Action and constitutes BLM's compliance with the requirements of NEPA.

Project Lead: _____
(Signature)

NEPA Coordinator: _____
(Signature)

Authorized Official/Date: _____
(Signature)

Name: William I. Dean
Title: Field Manager
Office: Grants Pass Field Office

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the authorization based on this DNA is subject to appeal under 43 Code of Federal Regulations Part 4 and the program-specific regulations.