Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Malheur National Forest | Prairie City and Emigrant Creek Ranger Districts | March 2022

CLIFF KNOX PROJECT

Draft Record of Decision

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Background

The Cliff Knox Project is proposed to improve forest resiliency and reduce the risk of uncharacteristic disturbances, while also improving unique habitats across the 40,300-acre planning area. It is proposed to foster forest and aquatic ecosystems resilient to a changing environment; restore ecosystems that are naturally adapted to wildland fire; provide social, economic, and environmental benefits from forest resources; and create jobs and opportunities for local communities. The Cliff Knox Project Final Environmental Impact Statement documents the analysis of two action alternatives to meet this need.

The Cliff Knox planning area is a diverse landscape with a variety of plant association groups but is predominately a dry forest ecosystem, altered from historical conditions. Effective fire suppression and past timber harvest have contributed to a shift in forest stand density and structure away from the range of variability historically associated with dry forests. In turn, this shift has altered the availability and distribution of habitat for wildlife species.

The Cliff Knox Project was developed in a collaborative setting with the Blue Mountains Forest Partners collaborative group, American Indian tribes, other agencies, and public stakeholders (see the Cliff Knox Project Final Environmental Impact Statement Chapter 1, Background and Public Involvement sections). An interdisciplinary team gathered information at a watershed scale and used that information to develop a suite of activities to improve the resource resiliency, processes, and functions of the Cliff Knox planning area. The team brought forward a variety of activities as potential actions that will move the planning area towards its desired future condition.

The Cliff Knox Project Final Environmental Impact Statement is incorporated by reference and documents and analyzes proposals to apply upland forest and unique habitat restoration activities; prescribed burning and unplanned ignitions; and road activities within the 40,300-acre planning area. Land treated within the 40,300 acres are those areas meeting criteria disclosed within the Cliff Knox Project Final Environmental Impact Statement. Approximately 68 percent of the planning area will receive mechanical restoration treatments, and up to 100 percent of the planning area will be treated with prescribed burning (these areas overlap).

Issues were identified during the project planning process, including impacts of the proposed action alternative on elk distribution/security, the naturalness and character of the Malheur River Inventoried Roadless Area and Wild and Scenic River Corridor, and connectivity corridors. These issues were thoroughly considered by myself and my interdisciplinary team, and alternative 3 was developed in response to scoping comments received on these issues. In addition to the no action alternative and two action alternatives, 9 alternatives were considered based on issues raised during project development but were eliminated from detailed study (see Cliff Knox Project Final Environmental Impact Statement Chapter 2, Alternatives Considered but Eliminated from Detailed Study, page 37).

This draft Record of Decision is based on a review of the Cliff Knox Project Final Environmental Impact Statement, specialist reports, scientific literature, the Malheur National Forest Land and Resource Management Plan (Malheur Forest Plan; USDA Forest Service 1990a), as amended, and public comments received during the July 20 to August 20, 2018, scoping period, and the August 27 to October 12, 2021, opportunity to comment on the Cliff Knox Project Draft Environmental Impact

Statement. The Cliff Knox Project Final Environmental Impact Statement is available for public review at the Malheur National Forest Supervisor's Office located in John Day, Oregon, the Prairie City Ranger District Office located in Prairie City, Oregon, and on the Malheur National Forest's website at: https://www.fs.usda.gov/project/?project=50433. The project record is available upon request, and contains information considered in the analysis and decision. The project record includes the Malheur Forest Plan, specialist reports, and other applicable guidance, data, and information.

Project Location

The Cliff Knox Project is located on the Malheur National Forest, Prairie City and Emigrant Creek Ranger Districts in Grant and Harney Counties, approximately 30 miles southeast of Prairie City, Oregon. The Cliff Knox planning area encompasses approximately 40,300 acres and is composed of the Bluebucket Creek subwatershed (10,980 acres) and the Cliff Creek-Malheur River subwatershed (29,340 acres), which includes the entire Malheur River Inventoried Roadless Area and a section of the Malheur Wild and Scenic River corridor (see Appendix B – Maps, Map 2 – Management Areas and inventoried Roadless Area). The legal description for the planning area is (township, range, sections): Township 17S, Range 33½E, sections 13, 22–27, and 35–36; Township 18S, Range 33½E, sections 1–2 and 12–13; Township 17S, Range 34E, sections 2–5 and 7–36; Township 18S, Range 34E, sections 1–5 and 17–18; Township 17S, Range 35E, sections 19 and 29–33; Township 18S, Range 35 E, sections 3–10, 14–15, and 17–18, Willamette Meridian.

Purpose and Need for Action

The purposes and need for the Cliff Knox Project were developed by comparing the management objectives and desired conditions in the Malheur Forest Plan to the existing conditions in the Cliff Knox planning area related to forest health resilience. Where plan information was not explicit, best available science and local research were utilized.

Specifically, there is a need in the project area to:

- Increase forest resilience to insect and disease outbreaks and uncharacteristic wildfires by moving the landscape toward a more historical range of variability for structure, density, and species composition.
- Enhance landscape resilience to wildfire by restoring fuel profiles to types primarily conducive to surface fire.
- Increase public and firefighter safety throughout and adjacent to the planning area, with special attention to lands adjacent to strategic roads and areas identified as wildland-urban interface.
- Restore and promote open stands dominated by large trees and fire-tolerant tree species, which were historically dominant across the project area.
- Maintain existing old forest structures, move them toward levels present historically, and promote old trees (greater than 150 years old) to increase their abundance over the long term.
- Restore and promote regeneration of hardwoods, including quaking aspen and mountain mahogany.
- Treat vegetation to improve characteristics of the Malheur River Inventoried Roadless Area as defined by the 2001 Roadless Area Conservation Rule (SS 294.11).

- Increase water availability for native vegetation by reestablishing historical openings and grasslands, thinning overstocked stands, and removing encroaching juniper and other conifers where they did not historically occur.
- Improve quantity and quality of forage for large ungulates, especially in big-game winter range management areas.
- Improve existing road networks to provide access to the forest while reducing road related impacts to aquatic and terrestrial habitat, and water quality.
- Capture the economic value of forest products and other resources to support local economies and provide employment opportunities.

See the Cliff Knox Project Final Environmental Impact Statement Chapter 1, Purpose and Need for Action, page 4, for a full description of the project's purpose and need, existing condition, and desired future condition.

Decision

This section of the draft Record of Decision documents my decision and rationale in the selection of management activities for the Cliff Knox Project described in the March 2022 Cliff Knox Project Final Environmental Impact Statement. I, the Malheur National Forest Supervisor, am the responsible official for this project. The scope of my decision is limited to the specific upland restoration activities; prescribed burning and unplanned ignitions; road activities; and forest plan amendments described in the Cliff Knox Project Final Environmental Impact Statement and this draft Record of Decision. On a landscape scale, this project works toward meeting Malheur Forest Plan goals and objectives by moving forest stands toward the historical range of variability and restoring forest resiliency by reestablishing and restoring forest structure and pattern and vegetation composition and diversity to conditions that are more resilient to natural disturbance processes. The decision I am making is for the site-specific Cliff Knox Project for the Cliff Knox planning area. This decision does not preclude the need for future decisions to help meet the desired conditions for the Cliff Knox planning area.

Based on my review of the Cliff Knox Project Final Environmental Impact Statement and comments received from the public, I have decided to authorize a combination of activities described in alternative 2 and alternative 3 as described below under each activity heading. I have decided to modify alternative 2 by reducing the miles of new road construction, and by closing selected roads included in alternative 3 to reduce the potential impacts to elk distribution/security. In addition to comments from the public, I considered the Silviculture; Fire, Fuels, and Air Quality; Soils; Watershed; Aquatic Resources; Wildlife; Botanical Resources; Range; Non-native Invasive Plants; Heritage; Recreation; Visuals; Economics; Roads; Climate Change, and Special Areas reports; and other environmental documents located in the Cliff Knox project record when making my decision. Table 1 provides a summary of the activities selected in this decision.

Table 1. Summary of activities authorized as part of the Cliff Knox Project

Project activity	Selected alternative
Dry pine restoration	14,720 acres commercial and small diameter thinning 2,010 acres small diameter thinning 1,500 acres non-commercial thinning
Mixed conifer restoration	470 acres commercial and small diameter thinning 20 acres non-commercial thinning

Project activity	Selected alternative
Pine savannah habitat restoration	760 acres commercial and small diameter thinning 30 acres non-commercial thinning
Old growth habitat and connectivity enhancement	1,930 acres commercial and small diameter thinning 330 acres small diameter thinning 900 acres non-commercial thinning
Aspen restoration	10 acres commercial thinning 380 acres commercial and small diameter thinning 10 acres small diameter thinning 190 acres non-commercial thinning (including 140 acres in RHCAs)
Riparian restoration	700 acres non-commercial thinning (additional riparian treatments occur within the other Habitat types)
Mountain mahogany restoration	300 acres commercial and small diameter thinning Additional as encountered within other harvest units and excluded from special areas
Shrub steppe restoration	1,130 acres small diameter thinning 710 acres non-commercial thinning
Meadow enhancement	140 acres small diameter thinning 30 acres non-commercial thinning
RHCA mechanical areas	80 acres that access 35 harvest units
Insect and disease harvest	Harvest of recently dead trees, < 20” d.b.h. Implementation may co-occur with commercial and small diameter thinning units, excluded from special areas
Strategic roads treatments (overlapping forest restoration and unique habitat restoration units)	1,420 acres overlapping small diameter and non-commercial thinning units, thinned to an evenly spaced 20 foot spacing 150-foot buffer along strategic roads
Strategic roads treatments (standalone units)	1,060 acres small diameter and non-commercial thinning units, thinned to an evenly spaced 20 foot spacing 150-foot buffer along strategic roads
Prescribed burning	40,250 acres in 4 burn blocks
Road maintenance for haul	224 miles
Rock sources for road maintenance	5 sources
Temporary road construction	14 miles (34 temporary road segments)
Re-open currently closed roads (maintenance level 1 to 2)	4.7 miles
Close currently open roads (maintenance level 2 to 1)	25.0 miles
Road decommissioning	11 miles
New road construction	3.0 miles
Confirm past administratively closed roads	19.8 miles
Wildlife connectivity corridors identified	2,922 acres
Forest plan amendments	Dedicated old growth unit changes, harvest within late and old structure stands, not maintain connectivity between all late and old structure and old growth stands, reduce summer and winter range cover below standards

Specifically, I have decided to select alternative 2 with the following modifications:

- Reduce the miles of new road construction from 3.2 to 3.0 miles.
    - I am no longer proposing new construction of 0.5 miles to accommodate the decommissioning of National Forest System (NFS) road 1647215.
    - The new construction for accommodating the decommission of NFS roads 1450511 and 1450509 has increased from 1.0 to 1.3 miles. The new road will be maintained as a maintenance level 1 (closed) road.
- Increase the secure areas for elk in and around the Malheur River Inventoried Roadless Area. This will be accomplished by closing an additional 27 roads for a total of 12.6 miles to reduce the impacts to elk security. More than half, about 58 percent or 7.25 miles of these new closures are roads that are self-decommissioned (vegetation has grown in roads making them undriveable) and have no apparent motorized use on the ground. These additional roads are proposed for closure to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and Oregon Department of Fish and Wildlife. The selected alternative will increase elk security from 9 to 13 percent by reducing the total open road miles (maintenance level 2) from 163.7 to 139.6 miles, within the planning area.

Upland Restoration Activities

Upland forest restoration objectives will be accomplished through commercial, small diameter, and non-commercial thinning treatments and fuels treatments. Treatments will:

- prioritize old trees for retention and recruitment;
- favor large, fire tolerant species where appropriate;
- consider appropriate species composition for the biophysical environment, topographical position, stand density, historical diameter distributions, and spatial arrangements within stands and across the landscape to develop stands that are resistant and resilient to disturbance;
- manipulate vegetative structure in a manner that moves it towards late and old structural conditions as appropriate to meet historical range of variability; and
- maintain open, park-like stand conditions where they occurred historically.

No large trees will be removed in the upland restoration activities. Large trees are defined as grand fir and white fir greater than or equal to 30 inches diameter or trees of any other species greater than or equal to 21 inches diameter (amended Eastside Screens, USDA Forest Service 2021). Individual upland restoration units are described in the Cliff Knox Project Draft Record of Decision, Appendix A – Activity Tables and displayed in Appendix B – Maps 3 and 4. Forest restoration activities and objectives specific to forest ecotypes and structures are outlined below.

Dry Pine Restoration

Variable-density thinning will be used to reduce stand density and improve forest health. Trees will be thinned from stands that have high tree densities and/or high proportions of late seral species that are less tolerant to disturbance such as drought, fire, and insects. Commercial thinning incorporates retaining single trees and clumps of trees and creates openings to replicate historical tree spatial patterns with a target of 35 to 55 square feet of basal area based on soil type, elevational gradients, and aspect. In the Warm Dry and Hot Dry plant association groups, tree species preference for retention is ponderosa pine and western larch. In the cooler, northern aspect plant association groups, western white pine and Douglas-fir trees are also preferred for retention. Diseased trees and those

with severe mistletoe infestations will be targeted for removal. No large trees as defined by the 2021 amended Eastside Screens will be removed. In stands with an abundance of regeneration (trees less than 9 inches diameter at breast height) which contribute to ladder fuels, small diameter thinning1, mastication, or non-commercial thinning2 will be used to adjust species composition, forest structure, and stand density. Where strategic roads treatments overlap dry pine restoration small diameter and non-commercial thinning units, remaining trees will be evenly spaced to reduce crown fire initiation. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Non-commercial thinning and small diameter thinning will be limited to 9 inches diameter at breast height. Within the dry pine restoration activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas: Approximately 460 acres will be non-commercially thinned. No treatments involving heavy mechanized equipment will occur within riparian habitat conservation areas.
- Malheur River Inventoried Roadless Area: Approximately 190 acres will be commercially, and small diameter thinned, and 560 acres non-commercially thinned.
- Malheur Potential Wilderness Area: Approximately 630 acres will be non-commercial thinned.
- Connectivity corridors: Portions of any commercial thinning units overlapping connectivity corridors will be identified as skips or leave areas in the silviculture prescription. Small diameter thinning and non-commercial thinning overlapping connectivity corridors will be targeted to a denser 220 trees per acre left and overlapping strategic roads treatments will leave remaining trees evenly spaced to reduce crown fire initiation. Approximately 30 acres of commercial and small diameter thinning, 30 acres of small diameter thinning, and 170 acres of non-commercial thinning overlap connectivity corridors.
- Malheur Wild and Scenic River corridor (Management Area 22B): Approximately 140 acres will be non-commercially thinned within the designated Scenic river segment. No treatment will occur within the designated Wild river segment. No treatments involving heavy mechanized equipment will occur within the Malheur Wild and Scenic River corridor.
- Old growth (Management Area 13): No dry pine restoration commercial, small diameter, or non-commercial thinning will occur within this area.

Areas treated: Approximately 14,720 acres of commercial and small diameter thinning[3], 2,010 acres of small diameter thinning, and 1,500 acres of non-commercial thinning.

Mixed Conifer Restoration

Treatment is proposed in stands where lodgepole pine has become the dominant species because it encroached on sites historically occupied by a more diverse assortment of conifer species. Commercial thinning of lodgepole pine will occur, with an emphasis on retaining western white pine,

[1] Small diameter thinning may be used to remove trees that are not large enough to have commercial sawlog value (sometimes referred to as biomass) and will follow the guidelines of the designated prescription. This material may be used for pulp chips, co-generation of electricity, commercial fuel pellets, posts and poles, and other similar uses. This material may be removed during logging operations by hand, or with ground-based equipment.
[2] Non-commercial thinning units will be treated by hand; no ground-based heavy machinery will be used.
[3] Commercial, small diameter, and non-commercial thinning treatments are being proposed in this project to meet the objectives of forest restoration treatments. These treatments are intended to reflect the multiple-use objectives of the Forest, by providing both restorative benefits to the forest and watershed as well as economic benefits to local communities.

ponderosa pine, western larch, and Douglas-fir with a target of 35 to 45 square feet of basal area. No large trees as defined by the 2021 amended Eastside Screens will be removed. Non-commercial sized lodgepole pine trees will be thinned or removed using small diameter thinning, non-commercial thinning, or mastication with an emphasis on retaining species other than lodgepole. Where strategic roads treatments overlap mixed conifer restoration small diameter and non-commercial thinning units, remaining trees will be evenly spaced to reduce crown fire initiation. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Dead and down lodgepole in excess of Malheur Forest Plan standards will be considered for commercial and small diameter removal. Within the mixed conifer restoration activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas: Approximately 20 acres of riparian habitat conservation areas will be non-commercially thinned. No treatments involving heavy mechanized equipment will occur within these areas.
- Malheur River Inventoried Roadless Area, Malheur Potential Wilderness Area, connectivity corridors, Malheur Wild and Scenic River corridor (Management Area 22B), and old growth (Management Area 13): No mixed conifer restoration commercial, small diameter, or non-commercial thinning will occur within these areas.

Areas treated: Approximately 470 acres of commercial and small diameter thinning, and 20 acres of non-commercial thinning.

Pine Savannah Habitat Restoration

Where soil types indicate a more open canopy and park-like condition in the past, trees will be commercially thinned to create openings for wildlife habitat enhancement. Proposed openings are in big game winter range, are adjacent to or include existing forest openings, or both. Stands will be treated to create up to five-acre openings, and conifer trees surrounding each opening will be thinned to an average of 20 square feet of basal area. No large trees as defined by the 2021 amended Eastside Screens will be removed. Small diameter thinning, non-commercial thinning, or mastication will be used to remove trees up to 9 inches diameter at breast height. Treatments will reduce competition for resources (for example: sunlight, water, soil nutrients) and enhance big game forage. Where strategic roads treatments overlap pine savannah habitat restoration small diameter and non-commercial thinning units, remaining trees will be evenly spaced to reduce crown fire initiation. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Some areas may be seeded and/or planted with native grasses, forbs, and shrubs to help reestablish browse species. Within the pine savannah habitat restoration activity areas, there are additional specifications for special areas:

- Malheur River Inventoried Roadless Area: Approximately 20 acres will be treated with non-commercial thinning. No treatments involving heavy mechanized equipment will occur within this area.
- Malheur Potential Wilderness Area: Approximately 30 acres will be treated with non-commercial thinning. No treatments involving heavy mechanized equipment will occur within this area.
- Riparian habitat conservation areas, connectivity corridors, Malheur Wild and Scenic River corridor (Management Area 22B), and old growth (Management Area 13): No pine savannah

habitat restoration commercial, small diameter, or non-commercial thinning will occur within these areas.

Areas treated: Approximately 760 acres of commercial and small diameter thinning, and 30 acres of non-commercial thinning.

Old Growth Habitat and Connectivity Enhancement

Treatments in designated old growth and replacement old growth habitats (Management Area 13) are proposed to increase forest resilience, maintain old forest structures, and promote old trees. Treatments in connectivity corridors will maintain and promote connectivity standards into the future. Trees will be non-commercially thinned in dedicated old growth, and commercially thinned in connectivity corridors and replacement old growth areas to retain a denser average basal area of 65 square feet, using variable density thinning ranging from 55 to 80 square feet. No large trees as defined by the 2021 amended Eastside Screens will be removed. Within connectivity corridors silvicultural prescriptions will maintain the stand within the top one-third of site potential as required by the Malheur Forest Plan, as amended. More than 80 percent of the vegetation type associated with connectivity corridors fall within the warm-dry and hot-dry forest types. In stands with an abundance of regeneration (trees 1 to 9 inches diameter at breast height) small diameter thinning, non-commercial thinning, or mastication will be used to reduce ladder fuels, and adjust forest structure and stand density to a denser target. Non-commercial thinning of trees up to 9 inches diameter at breast height will be used to increase forest health and resiliency in some designated old growth areas using hand-thinning and piling. Where strategic roads treatments overlap old growth habitat and connectivity enhancement small diameter and non-commercial thinning units, remaining trees will be evenly spaced to approximately 20-foot spacing to reduce crown fire initiation. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Within the old growth and connectivity enhancement activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas: Approximately 200 acres will be non-commercially thinned. No treatments involving heavy mechanized equipment will occur within this area.
- Malheur Potential Wilderness Area: Approximately 30 acres will be non-commercially thinned. No treatments involving heavy mechanized equipment will occur within this area.
- Connectivity corridors: Approximately 1,560 acres will be commercially, and small diameter thinned, 100 acres small diameter thinned, and 90 acres non-commercially thinned as described above.
- Old growth (Management Area 13): Approximately 330 acres of replacement old growth will be commercially, and small diameter thinned, 230 acres of replacement old growth will be small diameter thinned, and 800 acres of designated old growth and replacement old growth will be non-commercially thinned as described above.
- Malheur River Inventoried Roadless Area, and Malheur Wild and Scenic River corridor (Management Area 22B): no old growth habitat and connectivity enhancement commercial, small diameter, or non-commercial thinning will occur within these areas.

Areas treated: Approximately 1,930 acres of commercial and small diameter thinning, 330 acres of small diameter thinning only, and 900 acres of non-commercial thinning.

Unique Habitat Restoration

Unique habitat restoration objectives will be accomplished through commercial, small diameter, and non-commercial thinning treatments and fuels treatments. Treatments will:

- prioritize old trees for retention and recruitment,
- favor large, fire tolerant species where appropriate,
- consider appropriate species composition for the biophysical environment, topographical position, stand density, historical diameter distributions, and spatial arrangements within stands and across the landscape to develop stands that are resistant and resilient to disturbance,
- manipulate vegetative structure in a manner that moves it towards late and old structural conditions as appropriate to meet historical range of variability, and
- maintain open, park-like stand conditions where they occurred historically.

Where commercial thinning is proposed no large trees will be removed apart from specific aspen and mountain mahogany restoration units where young, large conifer trees are encroaching. Large trees are defined as grand fir and white fir greater than or equal to 30 inches diameter or trees of any other species greater than or equal to 21 inches diameter (amended Eastside Screens, USDA Forest Service 2021). Unique habitat restoration units are individually described in Appendix A – Activity Tables and displayed in Appendix B – Maps, Maps 3 and 4). Unique habitat restoration activities and objectives specific to forest ecotypes and structures are outlined below.

Aspen Restoration

Aspen restoration treatments will be used to remove conifer trees in and around identified aspen stands within 150 feet[4] of any aspen tree or sprout. Commercial, small diameter, and non-commercial thinning will remove most young conifer trees and reduce competition for sunlight and water to provide for increased aspen vigor and promote suckering. Large trees as defined by the 2021 amended Eastside Screens will be retained in most aspen restoration units except for six units (approximately 120 acres) which contain young, large conifers overtopping and shading existing aspen. No old trees will be removed. Some aspen stands within the Cliff Knox planning area have been treated through past projects, but desired conditions for aspen regeneration were not met and re-entry is proposed. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning.

Aspen protection measures may include fencing or modifying existing fence, depending on the success of aspen regeneration following restoration treatments. Monitoring aspen seedlings and saplings will indicate where fencing to reduce browse pressure may improve aspen regeneration success. Criteria by Swanson et al. 2010, Strong et al. 2010, and Seager 2013 will be used to inform post-treatment monitoring and adaptive management action as described in the Monitoring section of this chapter.

Within the aspen restoration activity areas, there are additional specifications for special areas:

[4] Best available science indicate aspen stands can expand through their sprouting zone (area around the stand) as far as 100 to 150 feet from the last mature stem during successful treatment (Shepperd 2001). Expansion of aspen stands makes them more resistant to disturbances, resilient to drought and climate change, and better meets the historical range of variation of aspen occurrence. See Blue Mountains Forest Partners Aspen Zones of Agreement, October 2017.

- Riparian habitat conservation areas: Approximately 140 acres of aspen within riparian habitat conservation areas will be non-commercially thinned. Conifer trees less than 21 inches diameter at breast height within 150 feet of any individual aspen tree or sprout will be hand-felled, apart from trees providing bank stabilization. To protect stream shade, no riparian hardwoods, aspen, or overstory conifers will be removed from the inner 50 feet of riparian habitat conservation area category 1 and 2 (perennial flowing) streams and within 25 feet of category 4 (intermittent) streams. Felled trees may be used as post and poles for aspen or riparian restoration fencing projects (including off-site restoration projects) to reduce browse pressure. No treatments involving heavy mechanized equipment will occur within this area.
- Malheur River Inventoried Roadless Area: Approximately 8 acres will be non-commercially thinned. Conifer trees less than 21 inches diameter at breast height within 150 feet of any individual aspen tree or sprout will be hand-felled. No treatments involving heavy mechanized equipment will occur within this area.
- Malheur Potential Wilderness Area: Approximately 30 acres will be non-commercially thinned. Conifer trees less than 21 inches diameter at breast height within 150 feet of any individual aspen tree or sprout will be hand-felled. No treatments involving heavy mechanized equipment will occur within this area.
- Connectivity corridors: Approximately 30 acres will be commercially, and small diameter thinned and 9 acres non-commercially thinned. Commercial thinning will retain a denser average basal area of 65 square feet left, using variable density thinning ranging from 55 to 80 square feet. Silvicultural prescriptions will maintain the stand within the top one-third of site potential as required by the Malheur Forest Plan, as amended. Ten to fifteen percent of areas within small diameter and non-commercial thinning units will leave patches of trees up to 9 inches diameter at breast height to provide wildlife hiding cover.
- Malheur Wild and Scenic River corridor (Management Area 22B) and old growth (Management Area 13): No aspen restoration commercial, small diameter, or non-commercial thinning will occur within these areas.

Areas treated: Approximately 10 acres of commercial, 380 acres of commercial and small diameter thinning, 10 acres of small diameter thinning, and 190 acres (approximately 140 acres located in riparian habitat conservation areas) of non-commercial thinning.

Riparian Restoration

Riparian restoration is proposed to reduce stand densities and promote growing space for large, old, and early seral trees (ponderosa pine and western larch) where available. Non-commercial thinning will be used to fell or remove conifer trees up to 9 inches diameter at breast height along perennial and intermittently flowing streams with or without aquatic species habitat (category 1, 2, and 4 streams). Thinning will be focused on the outer riparian habitat conservation area (upland transition area) to protect stream shade and water quality. No riparian hardwoods, aspen, or overstory conifers will be removed from the inner 50 feet of riparian habitat conservation area category 1 and 2 (perennial flowing) streams and within 25 feet of category 4 (intermittent) streams. Felled trees may be added to the stream channel as part of restoration activities or used for post and poles for riparian or aspen fencing projects (including off-site restoration projects) to reduce grazing pressure from livestock and wildlife. Where strategic roads treatments overlap riparian restoration units, remaining trees will be evenly spaced or pruned to a 6-foot canopy-based height, to reduce crown fire initiation. Where strategic fuels treatments overlap riparian restoration units and are outside of riparian habitat conservation areas, remaining trees will be evenly spaced to approximately 20-foot spacing to reduce

crown fire initiation. Fuels treatments may include one or a combination of the following: hand-piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. No treatments involving heavy mechanized equipment will occur. Within the riparian restoration activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas: Approximately 630 acres will be non-commercially thinned as described above.
- Malheur River Inventoried Roadless Area: Approximately 50 acres will be non-commercially thinned as described above.
- Malheur Potential Wilderness Area: Approximately 50 acres will be non-commercially thinned as described above.
- Connectivity corridors: Approximately 230 acres will be non-commercially thinned as described above.
- Old growth (Management Area 13): Approximately 60 acres will be non-commercially thinned in designated and replacement old growth areas.
- Malheur Wild and Scenic River corridor (Management Area 22B): No riparian restoration commercial, small diameter, or non-commercial thinning will occur within this area.

Areas treated: After overlapping acres are adjusted for, approximately 700 acres of non-commercial thinning.

Mountain Mahogany Restoration

Old growth stands of mountain mahogany have been identified in the southeast corner of the Cliff Knox planning area within designated big game winter range and in dry meadows with juniper and pine encroachment. Commercial and small diameter thinning will remove conifer trees including large young conifer trees, to promote mountain mahogany regeneration. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Within the mountain mahogany restoration activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas, connectivity corridors, Malheur River Inventoried Roadless Area, Malheur Potential Wilderness Area, Malheur Wild and Scenic River corridor (Management Area 22B), and old growth (Management Area 13): no mountain mahogany restoration commercial, small diameter, or non-commercial thinning will occur within these areas.

In addition to the identified stands, mountain mahogany occurs in small pockets throughout the planning area. Most stands occur as shrublands; however, in some areas scattered junipers and pines have encroached, shading out mountain mahogany. Where mountain mahogany is encountered during implementation of forest restoration units, conifers not exhibiting old growth characteristics will be removed within 30 feet of any single mountain mahogany greater than three feet tall following the designated treatment specifications for that unit (commercial, small diameter, or non-commercial thinning). This buffer distance is equivalent to less than a tenth of an acre (0.06 acres) and may be implemented as gaps within the prescription up to a maximum of two acres total. No large trees as defined by the 2021 amended Eastside Screens will be removed.

Areas treated: Approximately 300 acres of commercial and small diameter thinning; additional mountain mahogany restoration as encountered in other forest restoration and unique habitat restoration commercial, small diameter, and non-commercial units.

Shrub Steppe Restoration

Conifer trees that have grown into grass-shrub and ponderosa-pine juniper scabland sites will be felled to restore these areas to open conditions. Conifers less than 9 inches diameter at breast height will be small diameter, non-commercially thinned, or masticated. Where strategic roads treatments overlap shrub steppe small diameter and non-commercial thinning units, remaining trees will be evenly spaced to reduce crown fire initiation. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Within the shrub steppe restoration activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas: Approximately 20 acres will be non-commercial thinned. No treatments involving heavy mechanized equipment will occur within this area.
- Malheur River Inventoried Roadless Area: Approximately 580 acres will be non-commercial thinned. No treatments involving heavy mechanized equipment will occur within this area.
- Malheur Potential Wilderness Area: Approximately 610 acres will be non-commercial thinned. No treatments involving heavy mechanized equipment will occur within this area.
- Connectivity corridors: Approximately 30 acres will be small diameter thinned to a denser target of 220 trees per acre left.
- Malheur Wild and Scenic River corridor (Management Area 22B), and old growth (Management Area 13): No shrub steppe restoration commercial, small diameter, or non-commercial thinning will occur within these areas.

Areas treated: Approximately 1,130 acres of small diameter thinning and 710 acres of non-commercial thinning.

Meadow Enhancement

Lodgepole pine and other conifer species have grown into areas where historically open meadows gradually transitioned to dry pine and mixed conifer forests, and shrub steppe areas. Commercial thinning to an average of 40 square feet of basal area, as well as small diameter and non-commercial thinning of non-commercial sized trees will be used to restore meadow and meadow-forest transition areas toward a more open condition. No large trees as defined by the 2021 amended Eastside Screens will be removed. Western white pine, ponderosa pine, western larch, and any trees presenting “old tree” characteristics will be preferred residual trees. Reseeding open areas with native grasses and planting or seeding of native shrub species is proposed to move meadow area toward historical species composition. Fuels treatments may include one or a combination of the following: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning. Dead and down lodgepole in excess of Malheur Forest Plan standards will be considered for commercial and small diameter removal. Within the meadow enhancement activity areas, there are additional specifications for special areas:

- Riparian habitat conservation areas: Approximately 30 acres will be non-commercially thinned. No treatments involving heavy mechanized equipment will occur within this area.

- Malheur River Inventoried Roadless Area, Malheur Potential Wilderness Area, connectivity corridors, Malheur Wild and Scenic River corridor (Management Area 22B), and old growth (Management Area 13): No meadow enhancement commercial, small diameter, or non-commercial thinning will occur in these areas.

Areas treated: Approximately 140 acres of commercial and small diameter and 30 acres of non-commercial thinning.

Other Forest Restoration and Unique Habitat Restoration Information

RHCA[5] **Mechanical Areas:** Ground-based skidding will occur within riparian habitat conservation areas in specific locations where temporary roads or skyline yarding will not be feasible. A total of 43 RHCA mechanical areas (approximately 80 acres) provide access to 35 upland commercial and small diameter units totaling 3,690 acres. Cut trees with commercial value will be transported from forest or unique habitat restoration harvest units through riparian habitat conservation areas to small decking areas upslope of roads, no closer than 50 feet from stream channels, and outside of the riparian zone[6]. Ground-based equipment may also traverse RHCA mechanical areas to access adjacent forest restoration units. No commercial or small diameter thinning, or mechanical fuels treatments will occur within RHCA mechanical areas.

Approximate locations of RHCA Mechanical Areas are displayed in Appendix B – Maps, Map 4; additional mitigation measures can be found in Cliff Knox Project Final Environmental Impact Statement Appendix C – Project Design Criteria.

Insect and disease harvest: Due to a combination of high levels of insect and disease activity and drought, large numbers of recently killed trees exist throughout the Cliff Knox planning area. Aerial imagery of the planning area shows approximately 1,500 acres of dead trees in concentrated areas up to approximately 90 acres in size. Harvest of recent insect and disease killed trees will reduce fuels and capture the economic value of dead trees in excess of other resource needs.

Where trees exhibit high levels of insect and disease mortality within commercial and small diameter thinning units, recently dead trees (retaining red needles) may be removed after Malheur Forest Plan standards for snags and down woody material are met. Only snags less than 20 inches diameter at breast height will be removed, consistent with the amended Eastside Screens snag standard and guideline (USDA Forest Service 2021). Implementation will co-occur with commercial and small diameter thinning of forest and unique habitat restoration units. Insect and disease harvest will not occur in the following special areas: riparian habitat conservation areas, Malheur Inventoried Roadless Area, Malheur Potential Wilderness Area, Malheur Wild and Scenic River Corridor (Management Area 22B), old growth (Management Area 13), or connectivity corridors. Mapped areas of known mortality will be used in unit specific silvicultural prescriptions.

Harvest Systems: Where trees targeted for removal have commercial value, various types of equipment will be used based on terrain and access constraints. Cut trees will be transported to

[5] RHCA – riparian habitat conservation area

[6] INFISH defines riparian zone as: Those terrestrial areas where the vegetation complex and microclimate conditions are products of the combined presence and influence of perennial and/or intermittent water, associated with high water tables, and soils that exhibit some wetness characteristics. “Riparian zone” is normally used to refer to the zone within which plants grow rooted in the water table of these rivers, streams, lakes, ponds, reservoirs, springs, marshes, seeps, bogs, and wet meadows.

landing zones via tractor[7] or skyline systems depending on topography and road access. Skyline yarding will be used on steep terrain. Tractor systems will be used on flat ground and slopes where erosion can be controlled (generally up to 35 percent or for limited distances up to 45 percent; see Cliff Knox Project Final Environmental Impact Statement Appendix C – Project Design Criteria for details). A combination of skyline and tractor systems will be used where slopes vary. Changing technologies such as tethered logging should be considered through adaptive management.

Skid trails and skyline corridor locations will be determined before logging and are subject to approval by the sale administrator. The areas proposed for commercial treatment (approximately 18,970 acres) are estimated to be harvested via tractor or skyline systems as follows (see Appendix A – Activity Tables for unit specific information):

- Tractor – 272 units; 16,800 acres
- Skyline – 14 units; 600 acres
- Combination of tractor and skyline – 15 units; 1,020 acres

Small diameter units, including strategic roads treatments described below, will be harvested via tractor systems (118 units; 4,330 acres). For units that are commercially harvested, the contractor, with Forest Service oversight, will be allowed to determine the most appropriate option for activity fuel treatment to meet contract specifications (for example project design criteria, such as tons per acre of fuel left). Options include whole tree yard; cut to length; and grapple pile and/or hand pile and burn.

Strategic Roads Treatments

Approximately 1,060 acres of strategic roads treatment units are proposed to improve access and egress for firefighters and the public when wildfires occur, and to create conditions for landscape restoration using unplanned ignitions in a cost-effective manner. Treatments will include small diameter and non-commercial thinning of conifer trees up to 9 inches diameter at breast height to approximately 20-by-20-foot tree spacing. Treatments are proposed within a 150-foot buffer along strategic roads. Individual strategic roads (fuels) units are displayed in Appendix B – Maps, Map 3. Approximately 1,420 acres of strategic roads treatments additionally overlap proposed forest and unique habitat restoration units where remaining trees in small diameter and non-commercial thinning units will be evenly spaced to approximately 20-by-20-foot tree spacing to reduce crown fire initiation. Activity and natural fuels exceeding resource needs may be treated using one or a combination of the following treatments: piling of activity and natural fuels, lop and scatter, chipping, pruning, burning of piled material, and underburning.

Prescribed Burning and Unplanned Ignitions

Prescribed burning and unplanned ignitions will be implemented in mechanically treated and untreated stands to reintroduce fire in the Cliff Knox planning area. Treated stands will see a combination of burning piled material and underburning. Stands not mechanically treated will be managed primarily using prescribed burning and unplanned ignitions. Prescribed burning will also be used to stimulate aspen and other fire-adapted vegetation.

[7] Tractor systems use ground-based, heavy machinery to fell and move trees or for fuels treatments. Specific equipment may include but is not limited to: rubber-tired skidder, tracked skidder, forwarder, masticator, grapple-piler, or feller-buncher.

As conditions and stand characteristics allow unplanned ignitions within the planning area will be used to meet the project purpose and need. Unplanned ignitions are fires started by natural causes (for example, lightning), or human causes (for example, unattended campfire or deliberate incendiary device). Human-caused fires are not managed on the landscape and require suppression tactics provided fire firefighter and public safety can be maintained. Unplanned ignitions will be used if certain prescription parameters are met. Fire managers consider many factors regarding unplanned ignitions, including but not limited to firefighter safety, current weather, long term weather forecasts, availability of resources to manage fire, impacts to private property, and resource concerns.

Prescribed burning is proposed in four prescribed fire burn blocks, which vary in size from approximately 8,560 to 11,770 acres and total 40,250 acres across the planning area. Boundaries are identified along strategic manmade and natural features, such as existing roads and ridgetops. See Appendix B – Maps, Map 5. Burn block size does not represent how much of the landscape will be burned or blackened. Within each burn block there will be unburned acres; examples include open scabby areas, wet riparian areas, and north-facing slopes. Much of the area where prescribed fire will carry is expected to burn in a mosaic pattern due to variations in fuel moisture, shading, grazing, lack of continuous fuelbeds, and other conditions. Additionally, project design criteria limit where active ignitions can occur and often reduce actual acres burned (see Cliff Knox Project Final Environmental Impact Statement Appendix C – Project Design Criteria). Depending on weather conditions, fuel characteristics, and project design criteria, the number of acres burned could vary from 50 to 80 percent of the proposed burn block size.

Road Activities

Road Use, Road Maintenance, and Temporary Road Construction

The following road activities will occur in support of implementing forest and unique habitat restoration and other proposed project activities.

Road maintenance (approximately 179 miles within the Cliff Knox planning area and 45 miles outside of the planning area): Road maintenance for haul routes will occur on open or closed roads (maintenance level 2 or administratively opened maintenance level 1 haul routes). Maintenance will be performed to provide safe access for haul and adequate drainage during and after use. In addition to regular road maintenance, some road reconstruction is proposed. Haul routes are identified by road segment in Appendix A – Activity Tables and displayed in Appendix B – Maps, Map 8. Road maintenance activities will be performed commensurate to use depending on existing road conditions, season of use, and other factors. The following work is anticipated for haul routes:

- Brushing roadside vegetation
- Felling danger trees
- Blading and shaping the roadbed, reshaping drain dips, and grade sags
- Cleaning ditches, culvert inlets and outlets, and removing slough and slide material
- Spot rocking soft spots in roadbed, placing aggregate, and/or asphalt surfacing
- Removing snow
- Minor realignment of road junctions
- Installation of additional drainage features

- Placement of rip rap embankments
- Repair of fill slopes
- Installing earth berms

Approximately 30 miles of closed roads (maintenance level 1) will be temporarily opened for haul, and then closed following implementation (27 miles within the planning area, 3.3 miles outside the planning area). The closure will remain consistent with the intent of the original closure, and water bars will be installed to reduce erosion of the road prism. These road miles are included above under road maintenance.

Reconstruction: Reconstruction of the road prism and associated road infrastructure is proposed, and work will include:

- Constructing wood pole or steel gate closure devices
- Replacing or installing new culverts
- Constructing low water fords at stream crossings
- Reconstructing major road failures

Several low water fords and steel gates are proposed in the Cliff Knox Project. No known major road failures are present in the planning area, but if any are encountered during implementation, coordination with District resource specialists will occur to prevent resource damage caused by the repair activities. No Malheur River low water fords will be used for log haul or heavy equipment crossing.

Rock sources for road maintenance: Three developed quarries in the Cliff Knox planning area, and two outside the planning area, will be used to source rip rap, pit run, and crushed aggregate for road maintenance, reconstruction, and construction activities. Non-native invasive plant species that occur in the rock pits proposed for use will be treated prior to use or flagged off for avoidance so as not to spread invasive species. The legal location of these quarries are described in the Cliff Knox Project Final Environmental Impact Statement Chapter 2, Table 2 and displayed in Appendix B – Maps, Map 8.

Disposal sites: Disposal of excess material from road maintenance and construction will be disposed of either off-Forest or at rock pit locations designated during implementation.

Temporary road construction (14 miles, 34 segments): Temporary road construction will be necessary to access some harvest units. Temporary roads will be rehabilitated after use. Rehabilitation will eliminate future use of the road with the objective of reducing soil compaction and restoring hydrological function. There will be no construction of temporary roads outside the planning area. Temporary roads are identified by segment in Appendix A – Activity Tables and displayed in Appendix B – Maps, Map 8.

Road System Changes

Road system changes proposed in the Cliff Knox Project were developed as a result of road system analysis and interdisciplinary team discussion. The selected alternative will reduce total open road miles (maintenance level 2) from 163.7 to 139.6 miles, within the planning area. The following changes will occur to update the road system in the planning area (see Appendix A – Activity Tables and Appendix B – Maps, Map 7).

Close currently open roads (25.0 miles): Road closures are proposed where there is no short-term management need for the road and closing the road is needed to address resource concerns. Maintenance level 1 (closed) roads will be placed in storage, basic custodial maintenance will be performed to prevent damage to adjacent resources and to perpetuate the road for future resource management needs. Closure may be accomplished by an earthen berm, pole or steel gate, or by signage. Road closure proposals address open road density in big-game winter and summer range, cultural resource protection, stream and water quality, and elk security.

Re-open currently closed roads (4.7 miles): Road opening is proposed on several roads that show signs of moderate to high use and have little potential for resource impacts; some provide access to dispersed camping, state of Oregon and Bureau of Land Management managed lands, or permittee grazing allotments. These roads will be maintained at maintenance level 2, assigned to roads open for high clearance vehicles. Passenger car traffic, user comfort, and user convenience are not considerations. Traffic is normally minor, usually consisting of one or a combination of administrative uses, permitted uses, dispersed recreation, or other specialized uses. In the Cliff Knox planning area these roads are concentrated in the southwestern part of the planning area.

Road decommissioning (11 miles): Decommissioned roads are roads permanently closed by official actions and will no longer appear on the Forest transportation map. These roads will be permanently removed from the National Forest System, either because there is no reasonably foreseeable need for the road or because continued use of the road is not compatible with Malheur Forest Plan Standards for water quality and aquatic habitat management. In locations where roads are needed for future management these roads will be relocated to better suited places on the landscape. Road decommissioning treatments are designed to improve hydrologic and ecologic function by the following levels of activities. For more information on the level of proposed decommissioning see Cliff Knox Final Environmental Impact Statement Chapter 3, Aquatic Species section.

- **Low level decommissioning**: Road has grown in with vegetation naturally, is hydrologically stable, and does not require any earth moving work to occur. Actions include removal of sign and removal of road segment from transportation system database.

New road construction (3.0 miles): New road construction is proposed to accommodate road decommissioning in areas that require road access for current and future management. These National Forest System (NFS) road relocations are described below:

> **NFS road 1450509/1450511 relocation** – the lower 0.2 miles of NFS road 1450509 and the entire 0.4 miles length of NFS road 1450511 will be relocated to restore hydrologic function to a small category 2 stream, (perennial, non-fish-bearing) that flows directly within the road prism. A new road prism will be constructed approximately 0.6 miles north of the current junction with NFS road 1450. The new construction will connect to the existing road network in this area providing access for management, while maintaining sufficient distance (greater than 300 feet) from the category 2 stream. New construction will be approximately 1.3 miles in length. The road will be placed in storage for future use and assigned a maintenance level of 1 (closed).
>
> **NFS road 1450505 relocation** – the first 0.05 miles of NFS road 1450505 will be decommissioned and relocated to the east side of the category 2 stream. Relocating this segment will eliminate the need to cross this category 2 stream during haul along NFS road 1450505. The new junction will be at mile 1.25 of NFS road 1450501, and the new

construction will be approximately 0.15 miles. The road will be placed in storage for future use and assigned a maintenance level of 1 (closed).

NFS road 1643212 relocation – NFS road 1643212 will be relocated to the south to an existing road that did not previously exist in the road system database. NFS road 1643212 is overgrown, un-drivable, has a washed out an intermittent stream crossing (category 4 stream), and lies within an aspen stand. To avoid reconstruction of the stream crossing this road will be relocated to the south, where an existing, drivable road provides access to the water development at the end of the road. The full length of NFS road 1643212 will be decommissioned. The new junction location is at mile post 0.65 of NFS road 1643122 and is approximately 0.15 miles long. The road will be placed in storage for future use and assigned a maintenance level of 1 (closed).

NFS road 1647449 relocation – NFS road 1647449 along Cliff Creek will be relocated upslope to an existing roadbed. The existing roadbed is a road that was decommissioned in 1993 (NFS road 1647243) but the road prism still exists on the landscape and will be about 1 mile. The road along Cliff Creek is grown in and disrupting stream function. The full length of NFS road 1647449 will be decommissioned and access will be maintained into the area via a ridge top road, which will be assigned a maintenance level of 1 (closed).

NFS road 1643146 relocation – The eastern segment of NFS road 1642146 will be relocated from its existing location within an intermittent stream (category 4 stream) to the southwest where it will lie outside of the riparian habitat conservation area and eliminate the need to cross the intermittent stream. The relocation will decommission NFS road 1642146 from mile post 0.08 to 0.4. The new construction will begin at mile post 0.08 and be approximately 0.5 miles in length, ending at milepost 0.06 of NFS road 1643214. The road will be maintained as an open road and assigned a maintenance level of 2 (open).

Confirm Past Administratively Closed Roads

There are 19.8 miles of road in the Cliff Knox planning area documented as maintenance level 1 (closed) roads in the road system database that were closed by previous administrative actions to address resource issues, but a comprehensive environmental analysis could no longer be found in Forest Service records. These roads were re-evaluated in the field and re-analyzed by the Cliff Knox interdisciplinary team to determine current use, future need, and impact to resources. A list of roads that will be confirmed for closure and those proposed to be re-opened are listed in Appendix A – Activity Tables and displayed in Appendix B – Maps, Map 7.

Wildlife Connectivity Corridors

Approximately 2,920 acres of wildlife connectivity corridors will be designated to connect Management Area 13 and late and old structure stands within the Cliff Knox planning area and to connectivity corridors, Management Area 13, and late and old structure stands designated within the adjacent Summit Creek, Elk 16, and Wolf Projects. See Appendix B – Maps, Map 6. Treatments designed to promote connectivity standards into the future and increase forest resilience will occur on approximately 1,750 acres and include commercial, non-commercial, and small diameter thinning as described in the Cliff Knox Final Environmental Impact Statement Chapter 2, Old Growth Habitat and Connectivity Enhancement. Also, within proposed connectivity corridors, commercial thinning to promote connectivity standards is proposed in aspen restoration units (30 acres). Overlapping portions of dry pine restoration commercial thinning units will be identified as skips or leave areas.

Silvicultural prescriptions will maintain stands within the top one-third of site potential as required by the Malheur Forest Plan, as amended. Small diameter and non-commercial thinning will occur within connectivity corridors in the following proposed activities: dry pine restoration (200 acres), aspen restoration (9 acres), riparian restoration (230 acres), shrub-steppe restoration (30 acres), and strategic roads treatments units (40 acres).

Forest Plan Amendments

The selected alternative will require the following amendments to the Malheur Forest Plan:

Dedicated Old Growth Area Changes

The selected alternative will alter boundaries of dedicated old growth areas in order to better align with existing stand boundaries and expand the current Management Area 13 network to include replacement old growth and pileated woodpecker feeding areas to meet Malheur Forest Plan standards. Overall, there will be a net gain of approximately 170 acres of replacement old growth, a 440-acre gain in pileated woodpecker feeding areas, and a slight reduction in designated old growth (pileated woodpecker reproducing areas) of 9 acres, however the acreages will better reflect conditions on the ground. Ultimately, there will be a net gain of approximately 162 acres of Management Area 13 and 600 acres of the dedicated old growth network. See Cliff Knox Project Final Environmental Impact Statement Chapter 3 – Wildlife section, Evaluation of Forest Plan Amendment section, and Appendix B – Maps, Map 6 for details and locations of the proposed old growth area changes.

Harvest Within Late and Old Structure Stands

The selected alternative will amend the Eastside Screens, standard 6(d), scenario A to allow approximately 900 acres of commercial and small diameter thinning within old forest single strata stands in the Warm Dry and Hot Dry plant association groups (which are currently below the historical range of variability), including five acres of aspen restoration. Thinning is proposed where high stand densities of mostly smaller trees (less than 16 inches diameter at breast height trees) are competing with larger trees. Thinning will promote larger, older trees and stands will continue to meet late and old structure definitions. This amendment will apply only for the duration of, and for those actions proposed in, the site-specific Cliff Knox Project.

Not Maintain Connectivity Between all Late and Old Structure and Old Growth Stands

The selected alternative will amend the Eastside Screens, standard 6(d)(3)(a) and not maintain or enhance the current level of connectivity between all late and old structure and old growth (Management Area 13) stands. Wildlife connectivity corridors will be designated between all Management Area 13 and some late and old structure stands within the planning area as well as to these same stand types within adjacent watersheds; however, connectivity will not be provided between all late and old structure stands. Connectivity corridors will not be designated in areas that are not sustainable as connectivity. Every effort was made to provide connectivity to adjacent Management Area 13 and late and old structure stands within the Cliff Knox planning area; however, links to adjacent connectivity may have been missed.

Approximately 2,920 acres of wildlife connectivity corridors will be designated as part of the Cliff Knox Project. See Appendix B – Maps, Map 6. The amendment will allow for areas between late and old structure stands to not maintain connectivity. This is needed to move the landscape closer to its

historical range of variability for structure, density, and species composition; restore fuel profile types; and reestablish historical openings and/or open stand structures.

Reduce Summer and Winter Range Cover below Malheur Forest Plan Standards

The selected alternative will amend the Malheur Forest Plan to reduce summer and/or winter range cover in the Bluebucket and Cliff Creek – Malheur River subwatersheds below standards. The alternative will meet the Malheur Forest Plan standards for habitat effectiveness index values for cover, cover quality, forage, and road densities. However, the alternative will reduce satisfactory, marginal, and total cover within the Bluebucket Creek subwatershed below Malheur Forest Plan standards in summer range and marginal and total cover below standards in winter range. Within the Cliff Creek-Malheur River subwatershed, the selected alternative will meet Malheur Forest Plan standards for satisfactory, marginal, and total cover within summer range, but will not meet marginal or total cover standards in winter range.

- Forest-wide Standard 28 for Malheur River summer range satisfactory cover (5 percent), marginal cover (5 percent), and total cover (20 percent) will be reduced in the Bluebucket subwatershed to 4 percent satisfactory cover, 4 percent marginal cover, and 8 percent total cover. See page IV-28 of the Malheur Forest Plan for standards (USDA Forest Service 1990a).
- Management Area 4A, standard 4 for Malheur River winter range marginal cover (10 percent), and total cover (20 percent) will be reduced in the both the Bluebucket and Cliff Creek-Malheur River subwatersheds to 7 percent marginal cover and 14 percent total cover. See pages IV-70 to IV-71 of the Malheur Forest Plan for standards (USDA Forest Service 1990a).

The proposed treatments are designed to transition the project area to more open dry pine, shrub steppe, and grassland habitats. Restoring the historical range of variability means that cover will be reduced under the selected alternative while forage will be increased. This amendment will apply only for the duration of, and for those actions proposed in, the site-specific Cliff Knox Project.

Project Design Criteria

All practicable means to avoid or minimize environmental harm from the selected alternative have been adopted. The Forest Service also developed design criteria and mitigation measures specifically for the project (see the Cliff Knox Project Final Environmental Impact Statement Appendix C – Project Design Criteria).

Monitoring

Monitoring will occur as described in the Cliff Knox Project Final Environmental Impact Statement Chapter 2, Monitoring and Adaptive Management section.

Rationale for Decision

My decision is based on a review of the Cliff Knox Project Final Environmental Impact Statement, specialist reports, scientific literature, the Malheur National Forest Land and Resource Management Plan (Malheur Forest Plan; USDA Forest Service 1990a), as amended, and the public comments received during the July 20 to August 20, 2018, scoping period, and the August 27 to October 12, 2021, opportunity to comment on the Cliff Knox Project Draft Environmental Impact Statement.

I believe my decision best meets the purpose and need for the project while balancing impacts to resources. I believe the short-term negative impacts will be offset by long-term beneficial impacts as described throughout the Cliff Knox Project Final Environmental Impact Statement Chapter 3.

Meeting the Purpose and Need for Action

In this section I will describe how I considered the main components of the Cliff Knox Project's purpose and need for action in making my decision.

Landscape Resiliency and Forest Composition, Stocking Levels, and Pattern

My decision will improve landscape resiliency and forest composition, stocking levels, and pattern in the Cliff Knox planning area. Approximately 68 percent of the planning area will receive upland restoration treatments designed to move the landscape toward a more historical range of variability for structure, density, and species composition. Specifically:

- Stand diversity will be increased through shifting species composition, density, and structure towards the historical range of variability. Late and old structure forest structure will increase over time from 31 percent to 55 percent. Old forest single stratum will increase over 40 years and move into historical range of variability (Cliff Knox Project Final Environmental Impact Statement, page 150).
- Stand densities will be reduced project wide. The percentage of stands above the management zone following treatments in the Hot Dry plant association group will be reduced from 90 to 60 percent and in the Warm Dry plant association group will be reduced from 86 to 33 percent (Cliff Knox Project Final Environmental Impact Statement, page 150-151).
- Treatments in the Cliff Knox planning area will complement the surrounding landscape (including previous planning areas). The actions within the Cliff Knox planning area, as well as the past, ongoing, and reasonably foreseeable actions combined will decrease stand density, shift species composition to a larger proportion of early seral species and move stand structure towards the historical range of variability to decrease the risk of large scale, stand-replacement fire and epidemic insect outbreaks. In addition, the Cliff Knox Project identifies connectivity corridors that connect to the adjacent Wolf, Elk 16, and Summit Creek project connectivity corridors where possible (Cliff Knox Project Final Environmental Impact Statement, page 31 and 547-550; Cliff Knox Project Draft Record of Decision Appendix B – Maps, Map 6).

Fire and Fuels

Landscape scale prescribed burning across 40,250 acres combined with upland restoration activities described above will promote forest conditions that allow for the reintroduction of fire upon the landscape, thereby creating conditions that are conducive for protecting firefighter safety, resource values, and adjacent private lands. Of the 40,300-acre planning area, approximately 68 percent of the area will be treated mechanically or manually to reduce or maintain fire behavior and severity. Up to 100 percent of the planning area will be treated with underburning at varying intensities across the landscape depending on the objectives and prescription. These treatments will break up the continuity of hazardous fuels across the planning area. Specifically:

- There will be a reduction of canopy, ladder, and surface fuels associated with mechanical and manual treatments and prescribed burning, which will contribute to the success of suppression and protection under most fire scenarios (Cliff Knox Project Final Environmental Impact Statement, pages 423-435).

- Fuel reduction treatments along strategic roads (National Forest System roads 14, 1450, 1540, 1643, 1647, and 1651) will provide safe travel for the public and suppression forces, as well as provide anchor points and better opportunities for stopping the spread of wildland fires (Cliff Knox Project Final Environmental Impact Statement, pages 423-435).

Habitat for Aquatic and Wildlife Species

My decision will improve aquatic resource conditions and wildlife habitat in the Cliff Knox planning area. Specifically:

- Total road miles in the RHCA and stream crossings will be reduced because of administrative roads decommissioning (7.2 miles and 13 stream crossings total in the planning area). Road decommissioning and maintenance in the RHCA will address and improve all 22 miles of road currently delivering sediment to streams. Road maintenance activities and log haul on up to 179 miles of road will utilize best management practices at all high-risk locations (stream crossings and road segments within 50 feet of a stream) (Cliff Knox Project Final Environmental Impact Statement, pages 109-115, and 121; Cliff Knox Project Draft Record of Decision Appendix A – Project Activity Tables).

- Approximately 140 acres of aspen restoration treatments in riparian habitat conservation areas will occur to improve aspen stands and allow for expansion where appropriate (Cliff Knox Project Final Environmental Impact Statement, page 21).

- Old Growth network (Management Area 13 and associated areas) will increase by 762 acres, to add acres to existing dedicated old growth areas, designate replacement old growth areas, and pileated woodpecker feeding areas. This will improve the agency's ability to manage habitat for pileated woodpecker and other late and old successional dependent species (Cliff Knox Project Final Environmental Impact Statement, pages 8, 31, 205, 292-294 and 542-545 and Appendix B – Maps, Map 6).

- Approximately 2,920 acres of wildlife connectivity corridors will be designated to connect Management Area 13 and late and old structure stands within the Cliff Knox planning area and to connectivity corridors, Management Area 13, and late and old structure stands designated within the adjacent Summit Creek, Elk 16, and Wolf Projects (Cliff Knox Project Final Environmental Impact Statement, pages 9, 31-32, and 552-545 and Appendix B – Maps, Map 6).

- Secure areas for elk will increase from 9 percent (current) to 13 percent through the closure of 25 miles of road. While this does not reflect research showing that at least 30 percent of a subwatershed should be in security areas to observe noticeable changes in elk distribution, it will provide secure areas for elk during times of high traffic volumes. Additionally, this increase in elk security is mostly centered around the Malheur Inventoried Roadless Area which improves the roadless area characteristic – Habitat for those species dependent on large undisturbed areas of land. Coupled with the increase of forage and patches of cover from restoration activities, habitat for elk will increase in the mid- to long-term (Cliff Knox Project Final Environmental Impact Statement, pages 12, 269-270, and 273-276).

Roadless Area Characteristics in the Malheur River Inventoried Roadless Area

I selected the upland restoration activities and prescribed burning analyzed in alternative 2 because the treatment of this material in addition to preventing uncharacteristic wildlife, will maintain or improve the following roadless area characteristics (§294.11, 2001):

- Diversity of Plant and Animal Communities.
    - Forest and unique habitat restoration activities will transition stands towards species composition and stand structure reflective of historical conditions, particularly in the drier forest types. These treatments will facilitate an increase in the growth and size of remaining trees, which in the long term could become late and old structure and eventually become large snags. Wildlife dependent on open mature pine-dominated habitat will benefit from increased stand health and increased forage (Cliff Knox Project Final Environmental Impact Statement, pages 150-158, and 526-527).
    - Shrub steppe restoration in the Malheur River Inventoried Roadless Area will remove encroaching juniper, ponderosa pine, and Douglas-fir which are shading out and competing with the native bunchgrass and shrub communities that provide important wildlife habitat utilized by many species. Shrub steppe restoration activities will restore or increase native bunchgrasses, mountain mahogany, and other forage and browse species that are important for a variety of wildlife species (including elk and deer) (Cliff Knox Project Final Environmental Impact Statement, pages 24, 155-157, and 526-527).
- Habitat for Those Species Dependent on Large, Undisturbed Areas of Land.
    - Effective road closures or decommissioning will secure potential habitat from vehicle access and disturbance. The selected alternative will increase elk security to 13 percent through the closure of an additional 12 miles of open roads above what the proposed action would close. Scarifying roadbeds and seeding with native seed will rehabilitate bare ground to forage in the short term and allow conifer recruitment in the mid to long term. Additionally, the restoration treatments described above combined with landscape scale prescribed burning will increase forage for big game (Cliff Knox Project Final Environmental Impact Statement, page 526-527).

Of the approximately 1,410 acres of treatment in the Malheur River Inventoried Roadless Area only 190 acres is a commercial treatment. The remaining 1,220 acres will be cut by hand, none of the material sold or removed; it will be either cut and left in place, scattered, or pile burned to reduce fuel loading (see Cliff Knox Project Final Environmental Impact Statement, pages 525-527).

Social Values and Opportunities

My decision will provide for a variety of social values and opportunities in the Cliff Knox planning area, including: a variety of wood products (including merchantable sawtimber, and biomass), forest management employment opportunities to help maintain community stability and infrastructure, and a road system that provides public access and responds to resource management objectives. Specifically:

- The project will generate approximately 134,000 CCF (66 MMBF) of timber volume. The economic analysis estimates that the selected alternative will generate approximately $10 million in direct, indirect, and induced local income; and will support approximately 363 jobs (both direct and indirect) over the next 2 years (Cliff Knox Project Final Environmental Impact Statement, pages 508-510). Employment opportunities will also be provided with non-commercial thinning, fuel treatments, and prescribed burning. Much of this work may be completed through contracts with local businesses.

- Additional biomass material may be removed from most silviculture treatment units, following the guidelines for the designated silviculture prescription of the unit (Cliff Knox Project Final Environmental Impact Statement, pages 17-32).

- The road system will be updated to close several roads (change the maintenance level from 2 to 1) that are causing water quality issues, are already effectively closed on the ground, or where there is no short-term management need for the road (25.0 miles). In addition, several roads (4.7 miles) will be opened to provide access in areas where roads are already open on the ground and are not causing resource damage, and 11 miles of road will be decommissioned to reduce sediment delivery to streams on roads not needed for future management (Cliff Knox Project Final Environmental Impact Statement, pages 27-31, 109-115, 121 and 447-451). Proposed road system changes will result in a reduction from 164 to 142.3 miles of open road (maintenance levels 2 and 3).

Consideration of Public and Other Agency Comments

This project was developed utilizing a collaborative process with Blue Mountains Forest Partners collaborative, public open houses, and standard public scoping and comment periods. All comments were considered during the development of this project. A summary of the comments that were received on the Cliff Knox Project and my responses to those comments can be found in the project record, response to scoping comments, and the Cliff Knox Project Final Environmental Impact Statement Appendix F – Public Comment Report. The original comment letters are included in the project record.

Comments received during the formal scoping period from July 20 to August 20, 2018, were used to modify the proposed action and develop an additional action alternative in the Cliff Knox Project Draft Environmental Impact Statement (DEIS). The comment period for Cliff Knox Project DEIS was from August 27 to October 12, 2021. I considered these comments when making my decision, and I find that the selected alternative responds to the issues and concerns that were brought forward by the public and other agencies.

Consideration of Issues and Concerns

I considered the comments and input of a variety of stakeholders in making my decision. The major issues and concerns identified in the comments received during the scoping and 45-day comment periods are summarized below.

Amended Screens and the Removal of Young, Large Trees

I received comments opposing the 2020 Forest Management Direction for Large Diameter Trees in Eastern Oregon and Southeastern Washington decision which amended the Eastside Screens to replace the 21-inch standard with a guideline that emphasizes recruitment of old trees and large trees. Old trees (>150 years of age) are prioritized for protection, and if there are not enough old trees to

develop late and old structure conditions, large trees are protected, favoring fire tolerant species where appropriate. Large trees are defined as grand fir and white fire ≥ 30 inches diameter at breast height or any other species ≥ 21 inches diameter at breast height. Refer to the Forest Management Direction for Large Diameter Trees in Eastern Oregon and Southeastern Washington environmental analysis: https://www.fs.usda.gov/project/?project=58050.

Opposition of the 2020 Forest Management Direction for Large Diameter Trees in Eastern Oregon and Southeastern Washington decision which amended the Eastside Screens is outside the scope of the Cliff Knox Project. This decision amended the Malheur Forest plan, and the Cliff Knox Project action alternatives are consistent with the intent of the updated Eastside Screens on a project level scale.

The selected alternative will remove young (less than 150 years old), relatively large (greater than or equal to 21 inches diameter at breast height) conifer trees from approximately 120 acres in aspen stands and from 290 acres in mountain mahogany stands. Selected young, large conifer trees will be removed from about 1 percent of the planning area and there will be no loss of late and old forest structure. These large trees will be removed where shade and moisture competition are considered detrimental to aspen and mountain mahogany survival. The selected alternative is consistent with the intent of the updated Eastside Screens, as amended by the Old and Large Tree Guideline on a project level scale. Project wide, late and old structure stand components will be maintained and/or enhanced in stands subject to timber harvest (Cliff Knox Final Environmental Impact Statement, pages 150-152).

Forest Plan Amendments

I received comments opposing forest plan amendments in general. I want to highlight that the regulation at 36 Code of Federal Regulation 219.13 allows for forest plans to be amended during project planning to keep plans current or respond to changing conditions. The Malheur Forest Plan was designed to be amended, where needed, to meet resource needs. In fact, Malheur Forest Plan Forest-wide Standard #3 states that *"If it is determined during project analysis that the best way to meet the management area goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve a nonsignificant amendment to that standard for that project; such exceptions and the rationale must be described in the project's documentation. These changes shall be considered an amendment to the Forest Plan and will be implemented only after appropriate public notification and satisfactory completion of all National Environmental Policy Act procedures"* (USDA Forest Service 1990a, page IV-25).

The selected alternative requires the following amendments to the Malheur Forest Plan:

Dedicated Old Growth Area Changes

The selected alternative will alter boundaries of dedicated old growth areas to better align with existing stand boundaries and expand the current Management Area 13 network to include replacement old growth and pileated woodpecker feeding areas to meet Malheur Forest Plan standards (Cliff Knox Final Environmental Impact Statement, page 8, 31, and 542-545).

Site-specificity and Uniqueness

Old growth validation surveys within the Cliff Knox planning area have identified the need to designate, correct, or expand suitable Management Area 13 areas to improve the Forest Service's ability to manage habitat for pileated woodpecker, and other late and old structure dependent species. Currently, all pileated woodpecker feeding areas within the planning area are below forest plan

standards for minimum acreages. Additionally, one pileated woodpecker dedicated old growth area does not have any associated replacement old growth or feeding areas. The selected alternative will alter boundaries of dedicated old growth areas to better align with existing stand boundaries and expand the current old growth area network to include replacement old growth and pileated woodpecker feeding areas to meet Malheur Forest Plan standards.

Harvest Within Late and Old Structure Stands

The selected alternative will allow approximately 900 acres of commercial and small diameter thinning within old forest single strata in the Warm Dry and Hot Dry plant association groups (which are currently below the historical range of variability), including five acres of aspen restoration. Thinning will occur where high stand densities of mostly smaller trees (less than 16 inches diameter at breast height trees) are competing with larger trees. Thinning will maintain these stands as old forest single strata by promoting larger, older trees and will continue to meet late and old structure definitions (Cliff Knox Final Environmental Impact Statement, page 8, 31-32, and 545-547).

Site-specificity and Uniqueness

Within the Warm Dry plant association group, historically the Cliff Knox planning area had between 15-55 percent old forest single stratum stands. Currently there are about 3 percent old forest single stratum stands. With the absence of disturbance, single stratum stands will naturally progress towards old forest multi stratum stands. This is evident in the Cliff Knox planning area as old forest multi stratum stands are above and old forest single stratum stands are below the historical range of variability. Not all old forest single stratum stands will be treated, only those that are above the management zone for healthy stands.

Not Maintain Connectivity Between all Late and Old Structure and Old Growth Stands

The selected alternative will not maintain or enhance the current level of connectivity between all late and old structure and old growth (Management Area 13) stands in areas where historically more open non-forested areas such as meadows and shrublands existed, including shrub steppe and mountain mahogany stands. This is needed to move the landscape closer to its historical range of variability for structure, density, and species composition; restore fuel profile types; and reestablish historical openings and/or open stand structures (Cliff Knox Final Environmental Impact Statement, page 9, 32, and 547-550).

Site-specificity and Uniqueness

This forest plan amendment is unique and site-specific because soil types called "Mollisols" are present on about 70 percent of the planning area and often indicate areas that were historically grasslands and shrublands. On the Malheur National Forest, some Mollisols occur in forested stands, probably because before fire suppression these forested areas supported open, park-like stands with abundant grasses and forbs between widely spaced trees. Although fire suppression and other activities have led to denser canopies, the Mollisols persist and may indicate pre-management vegetation. The selected alternative will designate connectivity corridors between all Management Area 13 and some (but not all within the Mollisols area) late and old structure stands within the planning area.

Reduce Summer and Winter Range Cover below Malheur Forest Plan Standards

The selected alternative will reduce summer and/or winter range cover in the Bluebucket and Cliff Creek – Malheur River subwatersheds below standards. The selected alternative is designed to transition the project area to more open dry pine, shrub steppe, and grassland habitats. Restoring the

historical range of variability means that cover will be reduced under the selected alternative while forage will be increased (Cliff Knox Final Environmental Impact Statement, page 9-10, 32, and 550-554).

Site-specificity and Uniqueness

This forest plan amendment is unique and site-specific because soil types called "Mollisols" are present on about 70 percent of the planning area and often indicate areas that were historically grasslands and shrublands. Additionally, Hot Dry and Warm Dry Upland Forests occupy approximately 80 percent of the planning area, and 98 percent of the upland forested acres. These areas were historically less dense than today's forests, dominated by ponderosa pine and western larch, and tended to have a single canopy layer. Non-forested lands make up approximately 15 percent of the total acres within the Cliff Knox planning area. The selected alternative is designed to transition the project area to more open dry pine, shrub steppe, and grassland habitats. Restoring the historical range of variability means that cover will be reduced while forage will be increased. The selected alternative will not reduce cover in all subwatersheds, only those where stands historically were less dense and where current stands are above the management zone for healthy stands.

Activities within the Malheur River Inventoried Roadless Area, Potential Wilderness Area and Wild and Scenic River Corridor

I received comments opposing the treatments within these special areas and comments suggesting I treat more of the areas. These three areas, the 7280-acre Malheur River Inventoried Roadless Area, the 5,790-acre Malheur River Potential Wilderness Area, and the 3,157-acre Malheur Wild and Scenic River all overlap for the most part, but not entirely. The selected alternative will treat portions of these areas, mainly with non-commercial (by hand, no heavy equipment) treatments and prescribed fire, to meet the purposes and need for the project while protecting other resource values. The selected alternative will commercially harvest and small diameter thin about 190 acres of the Malheur River Inventoried Roadless Area in an area that is adjacent to an open road.

No commercial treatments will occur within the potential wilderness area or the wild and scenic river corridor. Non-commercial treatments (by hand, no heavy equipment) and prescribed burning will have no impact on the eligibility of potential wilderness and thus the area could still be evaluated for possible wilderness recommendation during future forest planning. Felling of generally small diameter trees and prescribed burning or managing unplanned ignitions will not cause the area to no longer meet criteria for potential wilderness.

I feel the treatments in the Malheur River Inventoried Roadless Area, Malheur River Potential Wilderness Area, and the scenic portion of the Malheur Wild and Scenic River balance the need to treat these areas while minimizing the impacts to other resources.

Road Closures and Elk Security

I specifically modified my decision to provide more secure areas for big game species like the Rocky Mountain elk in and around the Malheur River Inventoried Roadless Area. I modified my decision because improving elk distribution/security areas also improves one of the 9 roadless area characteristics - habitat for those species dependent on large, undisturbed areas of land. I did this because the proposed action as designed would reduce elk security within the planning area. Alternative 3 was designed to address the impacts to elk security however I felt the impacts to motorized access were just too great.

I realize that some individuals will be upset with the additional road closures I added to my decision. I know the Forest has a backlog of road closures that were either failed to be implemented or the closures were breached over time. Adding additional roads to that backlog is not something I do lightly, however my decision will move us towards forest plan desired conditions, while providing much needed secure areas for elk. About 58 percent or 7.25 miles of these new closures are roads that are self-decommissioned and have no apparent motorized use on the ground, and therefore should have no impact on motorized access. Post treatment, open road miles within the planning area will be 139.6 miles, which is a reduction of about 21 miles from current levels.

Forest Plan Amendment Findings

Under the National Forest Management Act and its implementing regulations at 36 Code of Federal Regulations 219 (2012 Planning Rule), a plan may be amended at any time. Plan amendments may be broad or narrow, depending on the need for the change. I have the discretion to determine whether and how to amend the Malheur Forest Plan and to determine the scope and scale of any amendment.

Amend Consistent with Forest Service National Environmental Policy Act Procedures

The effects of the plan amendment are documented in the Cliff Knox Project Final Environmental Impact Statement following Forest Service National Environmental Policy Act procedures at 36 Code of Federal Regulations Part 220. Because this amendment applies to only this project, it is not considered a significant change to the plan for purposes of the National Forest Management Act (36 Code of Federal Regulations 219.13(b)(3)).

How the 2012 Planning Rule Applies to the Plan Amendment

I prepared this forest plan amendment under the 2012 Planning Rule to the Malheur Forest Plan. The 2012 Planning Rule has different provisions than the 1982 Planning Rule procedures that the Forest Service used to develop the existing plan.

Purpose of the Amendment (36 Code of Federal Regulations 219.13(b)(1)

The purpose of the amendment is described below for each component of the forest plan amendment (see the Cliff Knox Project Final Environmental Impact Statement Chapter 1, Purpose and Need for Action, Need for Amending the Malheur Forest Plan section for a full description):

Dedicated Old Growth Area Changes

My decision will require a forest plan amendment to alter boundaries of dedicated old growth areas in order to better align with existing stand boundaries and expand the current old growth area network to include replacement old growth and pileated woodpecker feeding areas to meet Malheur Forest Plan standards.

Harvest Within Late and Old Structure Stands

My decision will require a forest plan amendment to address the need to maintain and enhance existing old forest structures in selected old forest single stratum stands that are considered above the management zone (high tree density). Young conifer trees have encroached, adding competition for moisture and nutrients, and adding fuel ladder component to previously open stands. Thinning will promote healthy, more open, late and old forest structure. Old trees (Van Pelt 2008) or large trees as

defined by the 2021 amended Eastside Screens will not be thinned. Stands will continue to meet late and old structure definitions after treatment.

Not Maintain Connectivity Between all Late and Old Structure and Old Growth Stands

My decision will require a forest plan amendment because the selected alternative will not maintain or enhance the currently level of connectivity corridors between all late and old structure stands in areas where historically more open non-forested areas such as meadows and shrublands, including shrub steppe and mountain mahogany existed. Wildlife connectivity corridors will be designated between all Management Area 13 (old growth) stands but not all late and old structure stands within the planning area. This amendment will allow restoration activities necessary to meet the project purpose and need to increase forest resilience to disturbance, increase water availability for native vegetation, and increase public and firefighter safety. These needs can only be met through appropriate restoration objectives for the landscape including moving the landscape closer to its historical range of variability for structure and density; restoring fuel profile types; and reestablishing historical openings and/or open stand structures. These restoration activities limit the ability to connect all late and old structure stands as directed in the Eastside Screens.

Reduce Summer and Winter Range Cover below Malheur Forest Plan Standards

My decision will require a forest plan amendment to reduce cover in the Bluebucket and Cliff Creek – Malheur River subwatershed summer and winter range. This amendment will allow restoration activities necessary to meet the project purpose and need to increase forest resilience to disturbance, increase water availability for native vegetation, and increase public and firefighter safety. These needs can only be met through appropriate restoration objectives for the landscape including moving the landscape closer to its historical range of variability for structure and density; restoring fuel profile types; and reestablishing historical openings and/or open stand structures. These restoration activities limit the ability to meet cover standards as directed in the forest plan.

Compliance with the Rule's Procedural Provisions

As explained below, this amendment complies with the procedural provisions of the 2012 Planning Rule (36 Code of Federal Regulations Part 219.13(b)).

Using the Best Scientific Information to Inform the Planning Process (§219.3)

The Cliff Knox Project Final Environmental Impact Statement uses the best available scientific information to inform the planning process for the forest plan amendments.

- The best available scientific information used for reducing cover below forest plan standards, harvest within late and old structure stands, and not maintaining connectivity between all late and old structure and old growth stands amendments includes a combination of photo interpretation, formal timber stand exams (1999, 2001, 2002, 2005, 2013, and 2014) and walk-throughs in 2016-2018 in the Cliff Knox planning area, modeling results from FSVeg Spatial Data Analyzer and Forest Vegetation Simulator, site-specific research to the Malheur National Forest (Johnston 2017; Johnston et al. 2017), and an assessment of forest health by the Blue Mountains Forest Insect and Disease Service Center (Johnson and McWilliams 2016).

- The best available scientific information used for changing Management Area 13 (Old Growth) areas amendment includes a combination of photo interpretation, formal timber

stand exams (1999, 2001, 2002, 2005, 2013, and 2014) and walk-throughs in 2016-2018 in the Cliff Knox planning area, modeling results from FSVeg Spatial Data Analyzer and Forest Vegetation Simulator, and field-checking of current and proposed Management Area 13 areas for old growth conditions (Cliff Knox Project Final Environmental Impact Statement, pages 8, 31, 134-144, 287-293, and 542-545).

The information described is the best available scientific information because the data collected was collected within the Cliff Knox planning area.

The Cliff Knox Project was developed in a collaborative setting; the Blue Mountains Forest Partners collaborative provided science liaisons which shared current and developing science. The interdisciplinary team utilized this "best available science" provided by the Blue Mountains Forest Partners to aid in the development of alternatives and disclosing of effects.

Providing Opportunities for Public Participation (§219.4) and Providing Public Notice (§219.16; §219.13(b)(2))

Opportunities for public participation were provided during the scoping and 45-day comment periods (Cliff Knox Project Final Environmental Impact Statement, pages 10-11). Outreach included interested individuals and entities at local, regional, and national levels; private landowners whose lands are adjacent to the planning area; other federal agencies, states, counties, and local governments, affected federally recognized Indian Tribes; and the local collaborative group (Cliff Knox Project Final Environmental Impact Statement, pages 10-11). In addition, the Forest hosted public open houses, public fieldtrips in conjunction with the Blue Mountains Forest Partners, presented the project to the Grant and Harney County Courts, and interacted with stakeholders throughout project planning. The scoping documents, Draft Environmental Impact Statement, and draft specialist reports were made available on the Forest's webpage and included opportunities to comment. The Cliff Knox Project Final Environmental Impact Statement, Appendix F – Public Comment Report documents the comments and responses to comments received on the Cliff Knox Project Draft Environmental Impact Statement.

Comments were invited on the forest plan amendment during scoping and the 45-day comment period on the Draft Environmental Impact Statement. Since this forest plan amendment is approved in a decision document approving a project, and the amendment applies only to the project, the notification requirements of 36 Code of Federal Regulations part 218, subpart A, applies instead of this section (36 Code of Federal Regulations 219.16(b)). A 30-day public scoping period was provided starting on July 20, 2018, with publication of the notice of intent in the Federal Register. A 45-day public comment period was provided starting on August 27, 2021, with publication of the notice of availability in the Federal Register. Public notifications were also posted online.

Format for Plan Components (§219.13(b)(4); §219.7(e))

Because the change is limited to where existing plan direction applies in the plan area, the formatting was not changed, as permitted by the rule (§219.13(b)(4)). The Cliff Knox Forest Plan amendment will simply modify the area to which existing direction applies, thus I am retaining the existing formatting for that direction.

The Plan Amendment Process (§219.13)

As the responsible official, I have the discretion to determine whether and how to amend the Malheur Forest Plan. My decision includes changes to specific plan components for this planning area and the specific activities proposed. These plan amendments are based on a preliminary

identification of the need to change the plan (Cliff Knox Project Final Environmental Impact Statement, pages 7-10). The analysis prepared in the Cliff Knox Project Final Environmental Impact Statement for the project serves as the documentation of the need to amend the Malheur Forest Plan. The plan amendment process included opportunities for public participation (see discussion above) and public notification (see discussion following). The plan amendment follows Forest Service National Environmental Policy Act procedures (Cliff Knox Project Final Environmental Impact Statement, pages 7-10, 31-32, and 542-554; Cliff Knox Project Final Environmental Impact Statement, Appendix E – 36 Code of Federal Regulations 219.8 to 11 Applicability to Amendments to the 1990 Malheur Forest Plan, as Amended).

Objection Opportunity (36 Code of Federal Regulations 219.50 through 219.62)

A 45-day objection filing period will be provided on the Cliff Knox Project Final Environmental Impact Statement and draft Record of Decision (see 36 Code of Federal Regulations Part 218.26 Objection time periods), per 36 Code of Federal Regulations 219.59(b) which states that "when a plan amendment is approved in a decision document approving a project or activity and the amendment applies only to the project or activity, the administrative review process of 36 Code of Federal Regulations part 215 or part 218, subpart A, applies instead of the objection process established in this subpart." See the Administrative Review or Objection Opportunities section.

Effective Date (§219.17(a))

In accordance with 36 Code of Federal Regulations 219.17(a)(3) a plan amendment that applies to only one specific project or activity is effective on the date the project may be implemented in accordance with administrative review regulations at 36 Code of Federal Regulations part 218 (see 36 Code of Federal Regulations part 218.12 Timing of project decision). The effective date for amendments addressed in the Cliff Knox Project will correspond to the date of the signing of the Cliff Knox Project Record of Decision.

Documenting Compliance with the Rule's Applicable Substantive Provisions

The planning rule requires that those substantive rule provisions within 36 Code of Federal Regulations 219.8 through 219.11 that are directly related to the amendment are applicable to this amendment. The applicable substantive provisions apply only within the scope and scale of the amendment (36 Code of Federal Regulations 219.13(b)(5)).

As explained in the Cliff Knox Project Final Environmental Impact Statement, both the purpose and the effects of the amendment are such that some of the substantive rule provisions in §219.8 through 219.11 are directly related to the amendment (see Cliff Knox Project Final Environmental Impact Statement, Appendix E – 36 Code of Federal Regulations 219.8 to 11 Applicability to Amendments to the 1990 Malheur Forest Plan, as Amended). I have applied those provisions within the scope and scale of the amendment.

Additionally, each of the four components of the amendment, the scope and scale, and the rule provisions that are directly related to the amendment are fully described in the Cliff Knox Project Final Environmental Impact Statement, pages 7-10, 31-32, and 542-554 and Cliff Knox Project Final Environmental Impact Statement, Appendix E – 36 Code of Federal Regulations 219.8 to 11 Applicability to Amendments to the 1990 Malheur Forest Plan, as Amended.

Having applied those rule provisions directly related to the proposed amendment, I find that the proposed amendment will meet those requirements, and therefore no adjustment to the proposed amendment is necessary.

Project and Activity Consistency with the Plan

All future projects and activities must be consistent with the amended plan. The 2012 Planning Rule consistency provisions at §219.15(d) apply only to the plan component(s) added or modified under the 2012 Planning Rule. With respect to determinations of project consistency with other plan provisions, the Forest Service's prior interpretation of consistency (that the consistency requirement is applied only to plan standards and guidelines) applies. (Forest Service Handbook 1909.12, chapter 20, section 21.33.)

Findings Required by Other Laws and Regulations

To the best of my knowledge, my decision is consistent with all laws, regulations, and agency policy relevant to this project.

National Forest Management Act

Requirements of the National Forest Management Act of 1976 (Public Law 94-588), including amendments to the Forest and Range Renewable Resource Planning Act of 1974 (Public Law 93-378) will be met. Timber harvest will only occur on soils, slopes, or watershed conditions that will not be irreversibly damaged. Protection is provided for streams and streambanks from detrimental changes in water temperatures and deposits of sediment that will present serious and adverse effects to water conditions or fish habitat (Cliff Knox Project Final Environmental Impact Statement Chapter 3, Aquatic Species and Watershed Condition sections). Regeneration harvests, as defined by even-aged or uneven-aged silvicultural systems, are not specifically planned in the Cliff Knox Project, therefore reforestation is not required (Cliff Knox Project Final Environmental Impact Statement Chapter 3, Silviculture section). The selected alternative will not contribute to a negative trend in viability for any Management Indicator species (Cliff Knox Project Final Environmental Impact Statement Chapter 3, Aquatic Species, and Wildlife sections).

Multiple-Use Sustained Yield Act

The selected alternative meets the intent of the Multiple Use-Sustained Yield Act by providing timber products and service (renewable resources) from the national forest without impairment of the productivity of the land (Cliff Knox Project Final Environmental Impact Statement, page 4, 328, 463, and 554-555).

Malheur Forest Plan, as amended

I have reviewed the Malheur Forest Plan (USDA Forest Service 1990a), as amended, as well as the Final Environmental Impact Statement and Record of Decision (USDA Forest Service 1990b and 1990c). Implementing the selected alternative is consistent with the intent of the Malheur Forest Plan's goals and objectives listed on pages IV-1 to IV-24 (Cliff Knox Project Final Environmental Impact Statement Chapter 3).

Clean Air Act

My decision will comply with the Clean Air Act and the Oregon State Smoke Management Plan. Prescribed burning in Oregon is managed by the Oregon Department of Forestry under the Oregon

Smoke Management Plan (Oregon Administrative Rule 629-048-0130-3). (Cliff Knox Project Final Environmental Impact Statement, page 4, 328, and Air Quality section starting on page 409).

Clean Water Act

Compliance with the Clean Water Act is discussed in the Cliff Knox Project Final Environmental Impact Statement, page 4, within the Watershed section starting on page 62, and 403. Based on the analysis, and adherence to Best Management Practices, my decision will protect soil and water resources, and meets the requirements of the Clean Water Act.

Executive Order 11988 (Floodplains) and Executive Order 11990 (Wetlands)

Executive Order 11988 says that Federal agencies shall avoid direct adverse effects to floodplains or minimize potential harm. Floodplains several feet wide occur along much of the Malheur River and its tributaries within the aquatic analysis area. The floodplains are well within riparian habitat conservation areas, and so all alternatives avoid adverse effects to the floodplains, and thus are consistent with Executive Order 11988. My decision to implement the selected alternative will have no impact on floodplains or wetlands as described in Executive Orders 11988 and 11990 (Cliff Knox Project Final Environmental Impact Statement, page 402).

Endangered Species Act, Region 6 Sensitive Species, and Executive Order 13443 (Facilitation of Hunting Heritage and Wildlife Conservation)

The Cliff Knox Project interdisciplinary team's fisheries biologist, botanist, and wildlife biologist evaluated the selected alternative regarding effects to threatened and endangered fish, plants, and wildlife, respectively (Cliff Knox Project Final Environmental Impact Statement, pages 167, 206, and 349).

The Malheur National Forest has completed Endangered Species Act section 7 consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service on the actions proposed as part of the Cliff Knox Project and have provided the regulatory agencies with a biological assessment regarding the effects of the project to threatened Upper Snake River bull trout and designated critical habitat. A letter of concurrence from the U.S. Fish and Wildlife Service was received March 3, 2021 (FWS reference 01EOFW00-2021-I-0196). The project may affect but is not likely to adversely affect the Upper Snake River bull trout, and the respective designated critical habitats of this species.

As there are no threatened or endangered plant or terrestrial wildlife species known to occur within the Cliff Knox planning area, consultation was not required, and biological assessments were not prepared. Biological evaluations for Region 6 Sensitive plant and terrestrial animal species were prepared and are incorporated into the Rare Plants and Wildlife Resources analyses in the Cliff Knox Project Final Environmental Impact Statement (pages 167 and 206).

The purpose of Executive Order 13443 (Facilitation of Hunting Heritage and Wildlife Conservation) is to direct federal agencies that have activities that have a measurable affect to public land management to facilitate the expansion and enhancement of hunting opportunities for the public. With implementation of the selected alternative there will be no adverse effects to hunting opportunities or seasons (Cliff Knox Project Final Environmental Impact Statement, pages 479-483).

Migratory Bird Treaty Act and Executive Order 13186

I believe the selected alternative provides adequate conservation measures for migratory birds. Overall, impacts on migratory birds are expected to be minimal and are not expected to impact species viability (Cliff Knox Project Final Environmental Impact Statement, pages 192, 319-322).

National Historic Preservation Act

Qualified Heritage professionals completed a cultural resource inventory survey meeting current methodological standards (Thomas 1991) for the Cliff Knox planning area. All documentation and data related to this fieldwork are incorporated into a Cultural Resource Inventory Report to be submitted to Oregon State Historic Preservation Office for review and concurrence, in compliance with the Historic Preservation Act. The activities in the selected alternative have been designed to avoid and minimize effects to cultural resource sites through both protection and avoidance (Cliff Knox Project Final Environmental Impact Statement, pages 453-462 and 555; Appendix C – Project Design Criteria).

Roadless Area Conservation Rule

My decision will comply with the 2001 Roadless Area Conservation rule (Cliff Knox Project Final Environmental Impact Statement, pages 518-533).

Roads Analysis

A Forest-wide Roads Analysis was completed in December 2004 on the Malheur National Forest. The selected alternative road determinations were based on the guidelines included in the Malheur National Forest Roads Analysis Report (USDA Forest Service 2004) (Cliff Knox Project Final Environmental Impact Statement, pages 439-453).

Environmental Justice and Civil Rights

My decision will comply with Executive Order 12898 on environmental justice which requires federal agencies to identify and address any disproportionately high and adverse human health or environmental effects on minority and low-income populations. (Cliff Knox Project Final Environmental Impact Statement, pages 511-514).

Administrative Procedures Act and County Plans

This project is consistent with the Administrative Procedures Act, the Grant and Harney Counties Comprehensive Land Use Plans, and other applicable county statutes. In addition, there are no known existing adjudicated RS 2477 roads in the planning area (Cliff Knox Project Final Environmental Impact Statement, page 555).

Other Required Findings and Disclosures

Prime Farmland, Range Land, and Forest Land – The selected alternative is in accordance with the Secretary of Agriculture Memorandum 1827 for prime farmland, range land, and forest land. "Prime" forest land is a term used only for non-Federal land, which will not be affected by proposed alternatives in this project. The Cliff Knox planning area also does not contain any prime farmland or range land. National Forest System lands will be managed with sensitivity to adjacent private and public lands (Cliff Knox Project Final Environmental Impact Statement, page 555).

Municipal Watersheds – There are no municipal watersheds in the Cliff Knox planning area.

Energy Requirements **–** Energy (fuel) will be required to perform management activities authorized with this decision, including but not limited to harvesting and transportation of timber products, conducting fuels treatments such as piling, implementing prescribed burning activities, road reconstruction activities, and road decommissioning and storage. Because there is no unusual expenditure of energy and the energy requirements are minor, the project activities do not lend themselves to particular energy conservation measures. Activities for the project involve a short-term and non-significant expenditure of energy (Cliff Knox Project Final Environmental Impact Statement, page 555).

Public Health and Safety **–** Public health and safety will be improved with implementation of the selected alternative (Cliff Knox Project Final Environmental Impact Statement, pages IV, 4, 9, 27, 203, 242, 426-436).

Conflicts with Plans, Policies, or Other Jurisdictions **–** There are no known conflicts with plans or policies of other jurisdictions associated with implementation of the selected alternative (Cliff Knox Project Final Environmental Impact Statement, page 555).

Other Alternatives Considered

In addition to the selected alternative, I considered three other alternatives, which are summarized below. A more detailed comparison of these alternatives can be found in the Final Environmental Chapter 2, starting on page 17.

Alternative 1 – No Action

Under the no action alternative, no management activities would occur, current management plans would continue to guide management of the planning area. Alternative 1 is designed to represent the existing condition and is analyzed for projected future conditions if no activities proposed in any of the alternatives are authorized. It serves as the baseline to compare and describe the differences and effects between taking no action and implementing one of the other alternatives.

Alternative 2 – Proposed Action

The proposed action (alternative 2) was developed thru a collaborative process involving the public, the Blue Mountains Forest Partners collaborative group, and Malheur National Forest staff. Alternative 2 proposes vegetation restoration activities and road related activities project wide to meet the purpose of the project. Forest restoration objectives would be accomplished through commercial, small diameter, and non-commercial thinning treatments and fuels treatments across 27,000 acres. Prescribe burning is proposed throughout the 40,000-acre project area. Alternative 2 would also authorize 224 miles of road maintenance, 14 miles of temporary road construction, 4.7 miles of road re-opening, 12.4 miles of road closure, 11 miles of road decommissioning, 3.2 miles of road relocation, and 19.8 miles of confirmation of past administratively closed roads. This alternative also includes a forest plan amendment to change dedicated old growth areas (Management Area 13), harvest within late and old structure stands, not maintain connectivity between all late and old structure and old growth stands and reduce summer and winter range cover. Treatment acres by activity descriptions are outlined in the Final Environmental Impact Statement Chapter 2, Table 3, page 40.

Alternative 3

Alternative 3 was developed to meet the purpose and need for the Cliff Knox Project, while addressing the issues identified in chapter 1 and comments. This alternative was developed in response to specific comments received regarding the effects of roads on elk security, effects of proposed activities on the naturalness and character of the Malheur River Inventoried Roadless Area and the Malheur Wild and Scenic River Corridor, and the effects of commercial harvest and strategic roads treatments on connectivity corridors. Forest restoration objectives would be accomplished through commercial, small diameter, and non-commercial thinning treatments and fuels treatments across 26,450 acres. Prescribe burning is proposed on about 32,900 acres. Alternative 3 would also authorize 223 miles of road maintenance, 14 miles of temporary road construction, 4.7 miles of road re-opening, 44.1 miles of road closure, 11 miles of road decommissioning, 3.2 miles of road relocation, and 19.8 miles of confirmation of past administratively closed roads. This alternative also includes a forest plan amendment to change dedicated old growth areas (Management Area 13), harvest within late and old structure stands, not maintain connectivity between all late and old structure and old growth stands and reduce summer and winter range cover. Treatment acres by activity descriptions are outlined in the Final Environmental Impact Statement Chapter 2, Table 3, page 40.

Environmental Preferred Alternative

Under the National Environmental Policy Act, the agency is required to identify the environmentally preferable alternative (40 Code of Federal Regulations 1505.2(b)). This is interpreted to mean the alternative that will cause the least damage to the biological and physical components of the environment, and which best protects, preserves, and enhances historic, cultural, and natural resources (Council on Environmental Quality, Forty Most Asked Questions Concerning Council on Environmental Quality's National Environmental Policy Act Regulations, 46 Federal Register 18026). Factors considered in identifying this alternative include: (1) fulfilling the responsibility of this generation as trustee of the environment for future generations; (2) providing for a productive and aesthetically pleasing environment; (3) attaining the widest range of beneficial uses of the environment without degradation; (4) preserving important natural components of the environment, including biodiversity; (5) balancing population needs and resource use; and (6) enhancing the quality of renewable resources. An agency may discuss preferences among alternatives based on relevant factors, including economic and technical considerations and statutory missions (40 Code of Federal Regulations 1505.2(b)).

Based upon my examination of the Cliff Knox Project Final Environmental Impact Statement, discussions with the project's interdisciplinary team, and consideration of comments received from agencies and the public, I have concluded that the selected alternative is the environmentally preferable alternative. The selected alternative will maintain and improve landscape resiliency; manage for diverse forest composition, stocking levels, and pattern to maintain healthy ecological function and process; promote forest conditions that allow for the reintroduction of fire upon the landscape; improve wildlife habitat; improve one or more of the nine roadless area characteristics within the Malheur River Inventoried Roadless Areas; and contribute to the social and economic health of those enjoying multiple uses in the Cliff Knox planning area. These positive outcomes are achieved without significant differences in effects to the environment when compared with the other action alternatives.

Public Involvement and Consultation with Government Agencies and Tribes

The Malheur National Forest sought to involve the pubic, American Indian tribes, and other government agencies throughout the planning process (Cliff Knox Final Environmental Impact Statement, page 10). The Cliff Knox Project was first listed in the Malheur National Forest Schedule of Proposed Actions beginning in January 2017 and has been listed in subsequent quarterly schedule of proposed actions. This document is mailed to individuals and is available on the internet (http://www.fs.fed.us/sopa/forest-level.php?110604) for those who are interested in activities proposed on the Malheur National Forest.

Collaboration

The project was developed through a collaborative process involving the public, the Blue Mountains Forest Partners collaborative, and Malheur National Forest staff. Beginning in 2017, meetings and fieldtrips were held with the public and Blue Mountains Forest Partners collaborative group to discuss the existing and desired conditions of the Cliff Knox planning area, and a potential suite of activities to achieve those desired conditions.

The Cliff Knox interdisciplinary team announced pre-scoping public involvement opportunities on November 2, 2017, with a Forest news release and letters or emails sent to the project mailing list (approximately 200 individuals and groups). Public open houses were held on November 14, 2017, in Hines and Prairie City, Oregon. Project pre-scoping was also presented to Harney County Restoration Collaborative and the Blue Mountain Forest Partners collaborative group in April 2018. The interdisciplinary team shared information on the planning area that included information on the existing conditions, landscape challenges, desired conditions, and potential types of projects the Forest Service was considering in the planning area.

Public Scoping

A 30-day public comment scoping period for the Cliff Knox Project began on July 20, 2018, with publication of a notice of intent to prepare an environmental impact statement in the Federal Register. In addition, the Forest issued a news release; published a legal notice in the Blue Mountain Eagle; made presentations to the Harney County Court on August 1, 2018, and the Grant County Court on August 8, 2018; and held public open houses on August 14, 2018, in Prairie City, Oregon and on August 15, 2018, in Hines, Oregon. Letters or emails were sent to the project mailing list (approximately 250 individuals and groups). The Cliff Knox Project scoping package was made available on the Malheur National Forest website at: https://www.fs.usda.gov/project/?project=50433. The 30-day public comment period ended on August 20, 2018.

The Forest Service response to the comment letters received during the scoping period and public meeting notes can be found in the Cliff Knox Project record on file at the Prairie City Ranger District. Using comments from the public, other agencies, and tribes, the interdisciplinary team developed a list of issues to address.

Public Comment Period

The notice of availability was published in the Federal Register on August 27, 2021, and the 45-day public comment period for the Cliff Knox Project Draft Environmental Impact Statement (DEIS) ended on October 12, 2021. A presentation of the DEIS was made to the Grant County Court in

September of 2021. Legal notices were published in the Blue Mountain Eagle and Burns Times Herald, and letters or emails were sent to approximately 250 individuals or groups summarizing the alternatives and included directions to the Forest's website for more information. The Cliff Knox Project DEIS was made available on the Malheur National Forest website at: https://www.fs.usda.gov/project/?project=50433.

Comments were received from 17 commenters in the form of emails and letter comments on the Cliff Knox Project DEIS before the 45-day public comment period ended. Comments were received from both individuals and organizations. Each letter was assigned a reference number and a response to comments was included in the Final Environmental Impact Statement, Appendix F.

Tribal Government and State Historic Preservation Office Consultation

Following the terms of the individual Memorandums of Understanding between the Malheur National Forest and the Burns Paiute Tribe, Confederated Tribes of the Umatilla Reservation, and Confederated Tribes of the Warm Springs, each tribe was notified of the project proposals throughout the planning process.

Qualified Heritage professionals completed a cultural resource inventory survey meeting current methodological standards (Thomas 1991) for the Cliff Knox planning area. All documentation and data related to this fieldwork are incorporated into a Cultural Resource Inventory Report to be submitted to Oregon State Historic Preservation Office for review and concurrence, in compliance with the Historic Preservation Act. The activities in the selected alternative have been designed to avoid and minimize effects to cultural resource sites through both protection and avoidance (Cliff Knox Project Final Environmental Impact Statement, pages 457-466; Appendix C – Project Design Criteria).

Listed Species Consultation

The selected alternative is consistent with the Endangered Species Act. Biological evaluations have been completed for all Region 6 sensitive plant and terrestrial wildlife species and candidate species for federal listing (Cliff Knox Project Final Environmental Impact Statement, pages 167, 206, and 349).

The Endangered Species Act requires the Forest Service to manage for the recovery of threatened and endangered species and the ecosystems upon which they depend. Forests are required to consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service if a proposed activity may affect the population or habitat of a listed species. Federally listed fish species and their designated critical habitats in the planning area subject to consultation include Upper Snake River bull trout, and the respective designated critical habitats of this species (Cliff Knox Project Final Environmental Impact Statement, pages 399-403). A letter of concurrence from the U.S. Fish and Wildlife Service was received March 3, 2021 (FWS reference 01EOFW00-2021-I-0196). The completed biological assessment and consultations are in the project record.

State and County Government

Letters were sent to state and Grant County governments, inviting input and participation throughout the planning process. The Cliff Knox Project was presented to the Harney and Grant County Courts in August 2018, the Grant County Court again in September 2021, and is planned to be presented again during the 45-day objection filing period (depending on the Court's schedule).

Administrative Review or Objection Opportunities

This draft Record of Decision is subject to objection pursuant to 36 Code of Federal Regulations 218. The objection must be filed by way of regular mail, e-mail, hand-delivery, or express delivery with the Objection Review Officer: Regional Forester, Objection Reviewing Officer, Pacific Northwest Region, USDA Forest Service, Attn: 1570 Objections, P.O. Box 3623, Portland, OR 97208-3623. Please include in the subject line: Regional Forester, Attn: 1570 Objections.

Specific directions on how to file an objection are provided in 36 Code of Federal Regulations 218.8 (http://www.ecfr.gov). A printed copy is available upon request.

For those planning to hand-deliver your objection to the Regional Office, you must contact Debbie Anderson (debra.anderson@usda.gov) to schedule a time to deliver your objection. Electronic appeals must be submitted in a format such as an e-mail message, plain text (.txt), rich text format (.rtf), or Word (.doc) to: objections-pnw-regional-office@usda.gov with Subject: Cliff Knox Objection. In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

Objections, including attachments, must be filed within 45 days from the publication date of the legal notice in the Blue Mountain Eagle, the newspaper of record. Attachments received after the 45-day objection filing period will not be considered. The publication date in the newspaper of record is the exclusive means for calculating the time to file an objection. Those wishing to object to this project should not rely upon dates or timeframe information provided by any other source.

The objection must contain the minimum content requirements specified in §218.8(d) and incorporation of documents by reference is permitted only as provided in §218.8(b). It is the objector's responsibility to ensure timely filing of a written objection with the reviewing officer pursuant to §218.9. All objections are available for public inspection during and after the objection process.

The objection process may include an opportunity for the objector to meet with the reviewing officer and the responsible official, with the objective of resolving the concerns expressed in the objection.

Objections will only be accepted from individuals and entities as defined in 36 Code of Federal Regulations 218.2 who have previously submitted specific written comments regarding the proposed project during scoping or other designated opportunity for public comment in accordance with 36 Code of Federal Regulations 218.5(a). Issues raised in objections must be based on previously submitted timely, specific written comments regarding the proposed project unless based on new information arising after the designated comment opportunities.

Implementation

The responsible official cannot sign the final decision until the reviewing officer has responded in writing to all pending objections, and the decision must be consistent with any instructions issued by the reviewing officer. After the objection process concludes there will be no additional opportunity for administrative review. The final decision will be the final administrative decision by the agency.

Implementation of the selected alternative is expected to begin in 2022. I reviewed the Cliff Knox Project Final Environmental Impact Statement, associated appendices, and project record, and I believe there is adequate information within these documents to provide a reasoned choice of action. Implementing the selected alternative will cause no unacceptable impact to any resource.

Minor changes may be needed during implementation to better meet on-site resource management and protection objectives. In determining whether and what kind of further National Environmental Policy Act action is required, we will consider the criteria at Forest Service Handbook 1909.15, section 18.

Connected or interrelated proposed changes regarding particular areas or specific activities will be considered together in making this determination. The cumulative impacts of these changes will also be considered.

Minor adjustments to unit boundaries may be needed during final layout for resource protection, to improve logging system efficiency, and to better meet the intent of our decision. Many of these minor changes will not present sufficient potential impacts to require any specific documentation or action to comply with applicable laws.

Contact Person

For additional information concerning this decision or the Forest Service objection process, contact Lori Bailey, Planner, Malheur National Forest – Emigrant Creek Ranger District, 265 Hwy 20 South, Hines, OR 97738, 541-573-4300, lori.bailey@usda.gov; or Shilo Burton-Harper, Writer/Editor, Malheur National Forest – Prairie City Ranger District, 327 SW Front St, P.O. Box 337, Prairie City, OR 97869, 541-820-3807, shilo.burton-harper@usda.gov.

Responsible Official

Reserved for final decision

CRAIG TRULOCK
Forest Supervisor
Malheur National Forest

[DATE]

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Cliff Knox Project
Draft Record of Decision

Appendix A – Activity Tables

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List of Tables

Forest Restoration, Unique Habitat Restoration, and Strategic Roads Treatment Activities

Vegetation treatment activities include proposed commercial, small diameter, and non-commercial treatments as described in Chapter 2 of the Cliff Knox Project Draft Environmental Impact Statement.

Table A-1 displays the details of the selected alternative vegetation treatment activities by unit. See Record of Decision, Appendix B – Maps for the locations of the units in the planning area. Acres are approximate and subject to change during implementation.

The vegetation treatment activity types proposed are:

- COM: commercial thinning
- NCT: noncommercial thinning
- SD: small diameter thinning, potential commercial product removal (such as biomass). Less than 9 inches diameter at breast height, average 20-foot spacing, variable density

The harvest system types proposed are:

- T: tractor harvest system
- S: skyline harvest system
- T/S: unit with both tractor and skyline harvest systems
- Manual: areas to be treated by hand; no mechanical or ground-based, heavy equipment

The activity fuels treatment types proposed are:

- WTY: whole tree yarding
- CTL: cut to length
- GP: grapple pile
- BU: burn
- HP: hand pile
- LS: lop and scatter

Table A-1. Selected alternative vegetation treatment activities by unit

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0101	Mixed Conifer Restoration	68	COM/SD	T	WTY/CTL/GP/HP/BU
0102	Mixed Conifer Restoration	23	NCT	Manual	HP/LS/BU
0103	Mixed Conifer Restoration	101	COM/SD	T	WTY/CTL/GP/HP/BU
0107	Mixed Conifer Restoration	29	COM/SD	T	WTY/CTL/GP/HP/BU
0113	Mixed Conifer Restoration	29	COM/SD	T	WTY/CTL/GP/HP/BU
0115	Mixed Conifer Restoration	125	COM/SD	T	WTY/CTL/GP/HP/BU
0116	Dry Pine Restoration	82	COM/SD	T	WTY/CTL/GP/HP/BU
0117	Dry Pine Restoration	313	SD	T	WTY/CTL/GP/HP/BU
0118	Dry Pine Restoration	46	NCT	T	WTY/CTL/GP/HP/BU
0119	Dry Pine Restoration	81	COM/SD	T	WTY/CTL/GP/HP/BU
0120	Dry Pine Restoration	38	SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0121	Dry Pine Restoration	102	COM/SD	T/S	WTY/CTL/GP/HP/BU
0122	Mixed Conifer Restoration	27	COM/SD	T	WTY/CTL/GP/HP/BU
0123	Meadow Enhancement	67	COM/SD	T	WTY/CTL/GP/HP/BU
0124	Meadow Enhancement	70	COM/SD	T	WTY/CTL/GP/HP/BU
0125	Mixed Conifer Restoration	74	COM/SD	T	WTY/CTL/GP/HP/BU
0126	Dry Pine Restoration	18	COM/SD	T	WTY/CTL/GP/HP/BU
0127	Dry Pine Restoration	34	SD	T	WTY/CTL/GP/HP/BU
0128	Dry Pine Restoration	34	SD	T	WTY/CTL/GP/HP/BU
0129	Dry Pine Restoration	26	SD	T	WTY/CTL/GP/HP/BU
0130	Dry Pine Restoration	38	COM/SD	T	WTY/CTL/GP/HP/BU
0131	Dry Pine Restoration	126	COM/SD	T	WTY/CTL/GP/HP/BU
0132	Dry Pine Restoration	207	COM/SD	T	WTY/CTL/GP/HP/BU
0134	Dry Pine Restoration	65	SD	T	WTY/CTL/GP/HP/BU
0135	Old Growth / Connectivity	212	COM/SD	T	WTY/CTL/GP/HP/BU
0136	Old Growth / Connectivity	60	COM/SD	T	WTY/CTL/GP/HP/BU
0137	Meadow Enhancement	29	NCT	Manual	HP/LS/BU
0138	Dry Pine Restoration	28	SD	T	WTY/CTL/GP/HP/BU
0139	Dry Pine Restoration	248	COM/SD	T	WTY/CTL/GP/HP/BU
0141	Riparian Restoration	14	NCT	Manual	HP/LS/BU
0143	Dry Pine Restoration	57	COM/SD	T	WTY/CTL/GP/HP/BU
0145	Dry Pine Restoration	71	COM/SD	T	WTY/CTL/GP/HP/BU
0147	Dry Pine Restoration	97	COM/SD	T	WTY/CTL/GP/HP/BU
0149	Dry Pine Restoration	223	COM/SD	T	WTY/CTL/GP/HP/BU
0151	Dry Pine Restoration	45	COM/SD	T	WTY/CTL/GP/HP/BU
0153	Dry Pine Restoration	29	COM/SD	T	WTY/CTL/GP/HP/BU
0158	Dry Pine Restoration	61	COM/SD	T	WTY/CTL/GP/HP/BU
0159	Dry Pine Restoration	33	COM/SD	T	WTY/CTL/GP/HP/BU
0162	Dry Pine Restoration	41	SD	T	WTY/CTL/GP/HP/BU
0163	Dry Pine Restoration	49	COM/SD	T	WTY/CTL/GP/HP/BU
0164	Dry Pine Restoration	37	COM/SD	T	WTY/CTL/GP/HP/BU
0165	Dry Pine Restoration	20	COM/SD	T	WTY/CTL/GP/HP/BU
0167	Dry Pine Restoration	63	COM/SD	T	WTY/CTL/GP/HP/BU
0169	Old Growth / Connectivity	76	COM/SD	T	WTY/CTL/GP/HP/BU
0170	Riparian Restoration	6	NCT	Manual	HP/LS/BU
0173	Dry Pine Restoration	157	COM/SD	T	WTY/CTL/GP/HP/BU
0175	Dry Pine Restoration	16	COM/SD	T	WTY/CTL/GP/HP/BU
0177	Old Growth / Connectivity	23	SD	T	WTY/CTL/GP/HP/BU
0178	Riparian Restoration	23	NCT	Manual	HP/LS/BU
0179	Dry Pine Restoration	133	COM/SD	T	WTY/CTL/GP/HP/BU
0181	Dry Pine Restoration	78	COM/SD	T	WTY/CTL/GP/HP/BU
0183	Dry Pine Restoration	84	COM/SD	S	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0184	Dry Pine Restoration	12	NCT	Manual	HP/LS/BU
0185	Dry Pine Restoration	68	COM/SD	T	WTY/CTL/GP/HP/BU
0187	Dry Pine Restoration	218	COM/SD	T	WTY/CTL/GP/HP/BU
0189	Dry Pine Restoration	18	NCT	Manual	HP/LS/BU
0190	Dry Pine Restoration	14	NCT	Manual	HP/LS/BU
0191	Dry Pine Restoration	28	COM/SD	S	WTY/CTL/GP/HP/BU
0192	Dry Pine Restoration	13	NCT	Manual	HP/LS/BU
0193	Dry Pine Restoration	9	NCT	Manual	HP/LS/BU
0194	Old Growth / Connectivity	9	COM/SD	S	WTY/CTL/GP/HP/BU
0195	Dry Pine Restoration	107	COM/SD	T/S	WTY/CTL/GP/HP/BU
0196	Pine Savannah Habitat Restoration	82	COM/SD	T	WTY/CTL/GP/HP/BU
0197	Dry Pine Restoration	11	COM/SD	T	WTY/CTL/GP/HP/BU
0198	Old Growth / Connectivity	20	COM/SD	S	WTY/CTL/GP/HP/BU
0199	Old Growth / Connectivity	55	NCT	Manual	HP/LS/BU
0200	Dry Pine Restoration	128	COM/SD	S	WTY/CTL/GP/HP/BU
0201	Dry Pine Restoration	11	NCT	Manual	HP/LS/BU
0202	Dry Pine Restoration	21	COM/SD	T/S	WTY/CTL/GP/HP/BU
0203	Dry Pine Restoration	29	COM/SD	S	WTY/CTL/GP/HP/BU
0210	Pine Savannah Habitat Restoration	54	COM/SD	T	WTY/CTL/GP/HP/BU
0215	Old Growth / Connectivity	1	NCT	Manual	HP/LS/BU
0216	Old Growth / Connectivity	2	NCT	Manual	HP/LS/BU
0222	Dry Pine Restoration	74	NCT	Manual	HP/LS/BU
0223	Dry Pine Restoration	9	NCT	Manual	HP/LS/BU
0234	Shrub Steppe	5	NCT	Manual	HP/LS/BU
0237	Dry Pine Restoration	27	NCT	Manual	HP/LS/BU
0238	Dry Pine Restoration	3	NCT	Manual	HP/LS/BU
0239	Dry Pine Restoration	19	COM/SD	T	WTY/CTL/GP/HP/BU
0240	Dry Pine Restoration	5	NCT	Manual	HP/LS/BU
0241	Dry Pine Restoration	107	COM/SD	S	WTY/CTL/GP/HP/BU
0243	Dry Pine Restoration	189	COM/SD	T	WTY/CTL/GP/HP/BU
0244	Dry Pine Restoration	47	COM/SD	T/S	WTY/CTL/GP/HP/BU
0245	Dry Pine Restoration	85	COM/SD	T	WTY/CTL/GP/HP/BU
0246	Dry Pine Restoration	71	COM/SD	T	WTY/CTL/GP/HP/BU
0247	Dry Pine Restoration	175	COM/SD	T	WTY/CTL/GP/HP/BU
0249	Shrub Steppe	78	SD	T	WTY/CTL/GP/HP/BU
0255	Dry Pine Restoration	155	COM/SD	T/S	WTY/CTL/GP/HP/BU
0256	Dry Pine Restoration	31	COM/SD	T	WTY/CTL/GP/HP/BU
0257	Shrub Steppe	115	SD	T	WTY/CTL/GP/HP/BU
0259	Dry Pine Restoration	113	COM/SD	T	WTY/CTL/GP/HP/BU
0261	Dry Pine Restoration	213	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0263	Dry Pine Restoration	136	COM/SD	T	WTY/CTL/GP/HP/BU
0265	Dry Pine Restoration	222	COM/SD	T	WTY/CTL/GP/HP/BU
0269	Dry Pine Restoration	151	COM/SD	T	WTY/CTL/GP/HP/BU
0270	Dry Pine Restoration	12	NCT	Manual	HP/LS/BU
0271	Dry Pine Restoration	22	COM/SD	T	WTY/CTL/GP/HP/BU
0272	Dry Pine Restoration	4	NCT	Manual	HP/LS/BU
0273	Dry Pine Restoration	8	COM/SD	T	WTY/CTL/GP/HP/BU
0274	Riparian Restoration	54	NCT	Manual	HP/LS/BU
0275	Dry Pine Restoration	84	COM/SD	T	WTY/CTL/GP/HP/BU
0276	Dry Pine Restoration	32	COM/SD	T	WTY/CTL/GP/HP/BU
0277	Dry Pine Restoration	114	COM/SD	T	WTY/CTL/GP/HP/BU
0278	Dry Pine Restoration	74	COM/SD	T	WTY/CTL/GP/HP/BU
0279	Dry Pine Restoration	10	COM/SD	T	WTY/CTL/GP/HP/BU
0280	Riparian Restoration	23	NCT	Manual	HP/LS/BU
0281	Dry Pine Restoration	183	COM/SD	T	WTY/CTL/GP/HP/BU
0282	Dry Pine Restoration	51	COM/SD	T	WTY/CTL/GP/HP/BU
0283	Dry Pine Restoration	146	COM/SD	T	WTY/CTL/GP/HP/BU
0284	Shrub Steppe	4	NCT	Manual	HP/LS/BU
0285	Shrub Steppe	25	NCT	Manual	HP/LS/BU
0286	Dry Pine Restoration	7	NCT	Manual	HP/LS/BU
0291	Pine Savannah Habitat Restoration	33	NCT	Manual	HP/LS/BU
0293	Dry Pine Restoration	23	NCT	Manual	HP/LS/BU
0297	Dry Pine Restoration	9	COM/SD	S	WTY/CTL/GP/HP/BU
0299	Dry Pine Restoration	38	COM/SD	S	WTY/CTL/GP/HP/BU
0302	Dry Pine Restoration	25	NCT	Manual	HP/LS/BU
0303	Dry Pine Restoration	69	COM/SD	T	WTY/CTL/GP/HP/BU
0304	Dry Pine Restoration	32	NCT	Manual	HP/LS/BU
0305	Dry Pine Restoration	103	COM/SD	T	WTY/CTL/GP/HP/BU
0306	Dry Pine Restoration	77	NCT	Manual	HP/LS/BU
0307	Dry Pine Restoration	225	COM/SD	T	WTY/CTL/GP/HP/BU
0309	Dry Pine Restoration	56	COM/SD	T	WTY/CTL/GP/HP/BU
0311	Dry Pine Restoration	10	COM/SD	T	WTY/CTL/GP/HP/BU
0318	Pine Savannah Habitat Restoration	49	COM/SD	T	WTY/CTL/GP/HP/BU
0319	Pine Savannah Habitat Restoration	28	COM/SD	T	WTY/CTL/GP/HP/BU
0321	Pine Savannah Habitat Restoration	65	COM/SD	T	WTY/CTL/GP/HP/BU
0324	Dry Pine Restoration	2	NCT	Manual	HP/LS/BU
0325	Dry Pine Restoration	66	COM/SD	T	WTY/CTL/GP/HP/BU
0326	Dry Pine Restoration	143	COM/SD	T	WTY/CTL/GP/HP/BU
0331	Dry Pine Restoration	401	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0332	Riparian Restoration	7	NCT	Manual	HP/LS/BU
0333	Dry Pine Restoration	218	COM/SD	T	WTY/CTL/GP/HP/BU
0336	Dry Pine Restoration	28	COM/SD	T	WTY/CTL/GP/HP/BU
0337	Dry Pine Restoration	30	COM/SD	T	WTY/CTL/GP/HP/BU
0338	Dry Pine Restoration	92	COM/SD	T	WTY/CTL/GP/HP/BU
0340	Riparian Restoration	1	NCT	Manual	HP/LS/BU
0341	Shrub Steppe	326	SD	T	WTY/CTL/GP/HP/BU
0342	Riparian Restoration	5	NCT	Manual	HP/LS/BU
0343	Dry Pine Restoration	261	COM/SD	T/S	WTY/CTL/GP/HP/BU
0344	Dry Pine Restoration	56	COM/SD	T/S	WTY/CTL/GP/HP/BU
0345	Dry Pine Restoration	62	COM/SD	T/S	WTY/CTL/GP/HP/BU
0347	Dry Pine Restoration	114	COM/SD	T	WTY/CTL/GP/HP/BU
0349	Dry Pine Restoration	115	COM/SD	T	WTY/CTL/GP/HP/BU
0350	Riparian Restoration	3	NCT	Manual	HP/LS/BU
0351	Dry Pine Restoration	149	COM/SD	T	WTY/CTL/GP/HP/BU
0352	Dry Pine Restoration	13	NCT	Manual	HP/LS/BU
0353	Dry Pine Restoration	8	COM/SD	T	WTY/CTL/GP/HP/BU
0354	Dry Pine Restoration	5	SD	T	WTY/CTL/GP/HP/BU
0355	Dry Pine Restoration	41	SD	T	WTY/CTL/GP/HP/BU
0357	Mtn Mahogany	37	COM/SD	T	WTY/CTL/GP/HP/BU
0358	Shrub Steppe	35	SD	T	WTY/CTL/GP/HP/BU
0359	Dry Pine Restoration	10	COM/SD	T	WTY/CTL/GP/HP/BU
0361	Dry Pine Restoration	20	COM/SD	T	WTY/CTL/GP/HP/BU
0362	Dry Pine Restoration	22	COM/SD	T	WTY/CTL/GP/HP/BU
0363	Mtn Mahogany	196	COM/SD	T	WTY/CTL/GP/HP/BU
0364	Mtn Mahogany	27	COM/SD	T	WTY/CTL/GP/HP/BU
0365	Shrub Steppe	10	SD	T	WTY/CTL/GP/HP/BU
0367	Shrub Steppe	10	SD	T	WTY/CTL/GP/HP/BU
0369	Mtn Mahogany	15	COM/SD	T	WTY/CTL/GP/HP/BU
0370	Old Growth / Connectivity	61	NCT	Manual	HP/LS/BU
0371	Mtn Mahogany	21	COM/SD	T	WTY/CTL/GP/HP/BU
0372	Old Growth / Connectivity	40	COM/SD	T	WTY/CTL/GP/HP/BU
0373	Dry Pine Restoration	18	NCT	Manual	HP/LS/BU
0374	Shrub Steppe	22	NCT	Manual	HP/LS/BU
0375	Riparian Restoration	3	NCT	Manual	HP/LS/BU
0376	Old Growth / Connectivity	11	COM/SD	T	WTY/CTL/GP/HP/BU
0377	Old Growth / Connectivity	35	COM/SD	T	WTY/CTL/GP/HP/BU
0378	Dry Pine Restoration	149	COM/SD	T	WTY/CTL/GP/HP/BU
0379	Pine Savannah Habitat Restoration	32	COM/SD	T	WTY/CTL/GP/HP/BU
0380	Dry Pine Restoration	27	COM/SD	T	WTY/CTL/GP/HP/BU
0381	Old Growth / Connectivity	85	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0382	Dry Pine Restoration	2	COM/SD	T	WTY/CTL/GP/HP/BU
0383	Riparian Restoration	2	NCT	Manual	HP/LS/BU
0384	Dry Pine Restoration	28	COM/SD	T	WTY/CTL/GP/HP/BU
0385	Dry Pine Restoration	44	SD	T	WTY/CTL/GP/HP/BU
0386	Dry Pine Restoration	147	COM/SD	T	WTY/CTL/GP/HP/BU
0387	Old Growth / Connectivity	64	COM/SD	T	WTY/CTL/GP/HP/BU
0388	Pine Savannah Habitat Restoration	22	COM/SD	T	WTY/CTL/GP/HP/BU
0389	Old Growth / Connectivity	56	COM/SD	T	WTY/CTL/GP/HP/BU
0390	Old Growth / Connectivity	73	COM/SD	T	WTY/CTL/GP/HP/BU
0391	Old Growth / Connectivity	122	COM/SD	T	WTY/CTL/GP/HP/BU
0392	Old Growth / Connectivity	103	COM/SD	T	WTY/CTL/GP/HP/BU
0393	Riparian Restoration	46	NCT	Manual	HP/LS/BU
0394	Dry Pine Restoration	28	COM/SD	T	WTY/CTL/GP/HP/BU
0395	Dry Pine Restoration	80	COM/SD	T	WTY/CTL/GP/HP/BU
0396	Riparian Restoration	5	NCT	Manual	HP/LS/BU
0397	Old Growth / Connectivity	250	NCT	Manual	HP/LS/BU
0398	Old Growth / Connectivity	26	COM/SD	T	WTY/CTL/GP/HP/BU
0399	Dry Pine Restoration	12	NCT	Manual	HP/LS/BU
0400	Shrub Steppe	14	SD		WTY/CTL/GP/HP/BU
0401	Dry Pine Restoration	77	NCT	Manual	HP/LS/BU
0402	Riparian Restoration	36	NCT	Manual	HP/LS/BU
0403	Dry Pine Restoration	1	NCT	Manual	HP/LS/BU
0404	Riparian Restoration	24	NCT	Manual	HP/LS/BU
0405	Dry Pine Restoration	27	NCT	Manual	HP/LS/BU
0406	Dry Pine Restoration	2	NCT	Manual	HP/LS/BU
0407	Dry Pine Restoration	8	NCT	Manual	HP/LS/BU
0409	Dry Pine Restoration	49	NCT	Manual	HP/LS/BU
0411	Dry Pine Restoration	17	NCT	Manual	HP/LS/BU
0413	Dry Pine Restoration	36	NCT	Manual	HP/LS/BU
0415	Dry Pine Restoration	8	NCT	Manual	HP/LS/BU
0416	Shrub Steppe	160	NCT	Manual	HP/LS/BU
0417	Dry Pine Restoration	30	NCT	Manual	HP/LS/BU
0418	Shrub Steppe	64	NCT	Manual	HP/LS/BU
0419	Shrub Steppe	85	NCT	Manual	HP/LS/BU
0420	Shrub Steppe	2	NCT	Manual	HP/LS/BU
0421	Dry Pine Restoration	12	NCT	Manual	HP/LS/BU
0423	Dry Pine Restoration	10	NCT	Manual	HP/LS/BU
0425	Dry Pine Restoration	44	NCT	Manual	HP/LS/BU
0427	Shrub Steppe	8	NCT	Manual	HP/LS/BU
0428	Shrub Steppe	64	NCT	Manual	HP/LS/BU
0429	Shrub Steppe	41	NCT	Manual	HP/LS/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0432	Dry Pine Restoration	4	NCT	Manual	HP/LS/BU
0433	Dry Pine Restoration	59	NCT	Manual	HP/LS/BU
0434	Shrub Steppe	9	NCT	Manual	HP/LS/BU
0436	Riparian Restoration	15	NCT	Manual	HP/LS/BU
0437	Dry Pine Restoration	103	COM/SD	T	WTY/CTL/GP/HP/BU
0438	Dry Pine Restoration	22	NCT	Manual	HP/LS/BU
0439	Dry Pine Restoration	63	COM/SD	T	WTY/CTL/GP/HP/BU
0453	Pine Savannah Habitat Restoration	11	COM/SD	T	WTY/CTL/GP/HP/BU
0454	Pine Savannah Habitat Restoration	52	COM/SD	T	WTY/CTL/GP/HP/BU
0455	Pine Savannah Habitat Restoration	29	COM/SD	T	WTY/CTL/GP/HP/BU
0457	Pine Savannah Habitat Restoration	7	COM/SD	T	WTY/CTL/GP/HP/BU
0459	Shrub Steppe	38	SD	T	WTY/CTL/GP/HP/BU
0501	Dry Pine Restoration	47	COM/SD	T	WTY/CTL/GP/HP/BU
0502	Dry Pine Restoration	4	NCT	Manual	HP/LS/BU
0503	Dry Pine Restoration	97	COM/SD	T	WTY/CTL/GP/HP/BU
0504	Dry Pine Restoration	35	NCT	Manual	HP/LS/BU
0505	Dry Pine Restoration	50	COM/SD	T/S	WTY/CTL/GP/HP/BU
0507	Dry Pine Restoration	105	COM/SD	T	WTY/CTL/GP/HP/BU
0508	Old Growth / Connectivity	57	SD	T	WTY/CTL/GP/HP/BU
0509	Dry Pine Restoration	199	COM/SD	T	WTY/CTL/GP/HP/BU
0510	Riparian Restoration	58	NCT	Manual	HP/LS/BU
0511	Old Growth / Connectivity	8	NCT	Manual	HP/LS/BU
0512	Dry Pine Restoration	3	NCT	Manual	HP/LS/BU
0513	Dry Pine Restoration	115	COM/SD	T	WTY/CTL/GP/HP/BU
0515	Dry Pine Restoration	36	COM/SD	T	WTY/CTL/GP/HP/BU
0516	Dry Pine Restoration	81	COM/SD	T	WTY/CTL/GP/HP/BU
0517	Dry Pine Restoration	70	COM/SD	T	WTY/CTL/GP/HP/BU
0518	Dry Pine Restoration	8	COM/SD	T	WTY/CTL/GP/HP/BU
0519	Dry Pine Restoration	17	COM/SD	T	WTY/CTL/GP/HP/BU
0520	Dry Pine Restoration	30	COM/SD	T	WTY/CTL/GP/HP/BU
0521	Dry Pine Restoration	102	COM/SD	T	WTY/CTL/GP/HP/BU
0523	Dry Pine Restoration	34	COM/SD	T	WTY/CTL/GP/HP/BU
0524	Old Growth / Connectivity	228	SD	T	WTY/CTL/GP/HP/BU
0525	Dry Pine Restoration	112	COM/SD	T	WTY/CTL/GP/HP/BU
0526	Dry Pine Restoration	28	COM/SD	T	WTY/CTL/GP/HP/BU
0527	Dry Pine Restoration	26	COM/SD	T	WTY/CTL/GP/HP/BU
0601	Riparian Restoration	49	NCT	Manual	HP/LS/BU
0602	Dry Pine Restoration	56	NCT	Manual	HP/LS/BU
0603	Dry Pine Restoration	161	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0604	Dry Pine Restoration	83	SD	T	WTY/CTL/GP/HP/BU
0606	Dry Pine Restoration	30	SD	T	WTY/CTL/GP/HP/BU
0607	Dry Pine Restoration	52	COM/SD	T	WTY/CTL/GP/HP/BU
0608	Dry Pine Restoration	90	SD	T	WTY/CTL/GP/HP/BU
0609	Dry Pine Restoration	82	COM/SD	T/S	WTY/CTL/GP/HP/BU
0610	Shrub Steppe	92	SD	T	WTY/CTL/GP/HP/BU
0611	Dry Pine Restoration	106	COM/SD	T	WTY/CTL/GP/HP/BU
0612	Dry Pine Restoration	25	SD	T	WTY/CTL/GP/HP/BU
0613	Dry Pine Restoration	47	COM/SD	T	WTY/CTL/GP/HP/BU
0615	Dry Pine Restoration	54	COM/SD	T	WTY/CTL/GP/HP/BU
0616	Dry Pine Restoration	9	NCT	Manual	HP/LS/BU
0617	Dry Pine Restoration	190	COM/SD	T	WTY/CTL/GP/HP/BU
0619	Dry Pine Restoration	125	COM/SD	T	WTY/CTL/GP/HP/BU
0620	Dry Pine Restoration	10	NCT	Manual	HP/LS/BU
0621	Dry Pine Restoration	87	COM/SD	T	WTY/CTL/GP/HP/BU
0622	Old Growth / Connectivity	5	COM/SD	T	WTY/CTL/GP/HP/BU
0623	Dry Pine Restoration	14	COM/SD	T	WTY/CTL/GP/HP/BU
0624	Shrub Steppe	57	SD	T	WTY/CTL/GP/HP/BU
0625	Dry Pine Restoration	4	NCT	Manual	HP/LS/BU
0626	Dry Pine Restoration	125	COM/SD	T	WTY/CTL/GP/HP/BU
0627	Old Growth / Connectivity	50	COM/SD	T	WTY/CTL/GP/HP/BU
0628	Shrub Steppe	68	SD	T	WTY/CTL/GP/HP/BU
0629	Old Growth / Connectivity	6	COM/SD	T	WTY/CTL/GP/HP/BU
0630	Old Growth / Connectivity	114	COM/SD	T	WTY/CTL/GP/HP/BU
0631	Dry Pine Restoration	47	COM/SD	T	WTY/CTL/GP/HP/BU
0632	Old Growth / Connectivity	72	COM/SD	T	WTY/CTL/GP/HP/BU
0633	Old Growth / Connectivity	2	COM/SD	T	WTY/CTL/GP/HP/BU
0634	Old Growth / Connectivity	47	COM/SD	T	WTY/CTL/GP/HP/BU
0635	Old Growth / Connectivity	114	COM/SD	T	WTY/CTL/GP/HP/BU
0636	Old Growth / Connectivity	4	COM/SD	T	WTY/CTL/GP/HP/BU
0637	Dry Pine Restoration	79	COM/SD	T	WTY/CTL/GP/HP/BU
0638	Old Growth / Connectivity	26	COM/SD	T	WTY/CTL/GP/HP/BU
0639	Dry Pine Restoration	270	COM/SD	T	WTY/CTL/GP/HP/BU
0640	Old Growth / Connectivity	88	NCT	Manual	HP/LS/BU
0641	Shrub Steppe	7	SD	T	WTY/CTL/GP/HP/BU
0642	Dry Pine Restoration	75	NCT	Manual	HP/LS/BU
0643	Dry Pine Restoration	146	COM/SD	T	WTY/CTL/GP/HP/BU
0644	Shrub Steppe	49	NCT	Manual	HP/LS/BU
0645	Dry Pine Restoration	26	COM/SD	T	WTY/CTL/GP/HP/BU
0646	Old Growth / Connectivity	402	NCT	Manual	HP/LS/BU
0648	Dry Pine Restoration	36	SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0649	Dry Pine Restoration	3	NCT	Manual	HP/LS/BU
0650	Dry Pine Restoration	20	COM/SD	T	WTY/CTL/GP/HP/BU
0651	Dry Pine Restoration	189	COM/SD	T	WTY/CTL/GP/HP/BU
0652	Old Growth / Connectivity	12	COM/SD	T	WTY/CTL/GP/HP/BU
0653	Dry Pine Restoration	45	COM/SD	T	WTY/CTL/GP/HP/BU
0654	Riparian Restoration	10	NCT	Manual	HP/LS/BU
0656	Shrub Steppe	12	SD	T	WTY/CTL/GP/HP/BU
0657	Dry Pine Restoration	31	COM/SD	T	WTY/CTL/GP/HP/BU
0658	Dry Pine Restoration	33	NCT	Manual	HP/LS/BU
0659	Dry Pine Restoration	14	COM/SD	T	WTY/CTL/GP/HP/BU
0660	Dry Pine Restoration	31	NCT	Manual	HP/LS/BU
0661	Dry Pine Restoration	192	COM/SD	T	WTY/CTL/GP/HP/BU
0663	Dry Pine Restoration	225	COM/SD	T	WTY/CTL/GP/HP/BU
0664	Dry Pine Restoration	17	SD	T	WTY/CTL/GP/HP/BU
0665	Dry Pine Restoration	62	NCT	Manual	HP/LS/BU
0667	Dry Pine Restoration	31	COM/SD	T	WTY/CTL/GP/HP/BU
0669	Dry Pine Restoration	13	NCT	Manual	HP/LS/BU
0671	Dry Pine Restoration	13	NCT	Manual	HP/LS/BU
0675	Shrub Steppe	18	NCT	Manual	HP/LS/BU
0677	Dry Pine Restoration	9	NCT	Manual	HP/LS/BU
0679	Pine Savannah Habitat Restoration	277	COM/SD	T	WTY/CTL/GP/HP/BU
0680	Dry Pine Restoration	10	NCT	Manual	HP/LS/BU
0681	Pine Savannah Habitat Restoration	49	COM/SD	T	WTY/CTL/GP/HP/BU
0701	Dry Pine Restoration	23	NCT	Manual	HP/LS/BU
0702	Dry Pine Restoration	7	NCT	Manual	HP/LS/BU
0703	Dry Pine Restoration	78	SD	T	WTY/CTL/GP/HP/BU
0705	Dry Pine Restoration	244	SD	T	WTY/CTL/GP/HP/BU
0706	Dry Pine Restoration	27	SD	T	WTY/CTL/GP/HP/BU
0707	Dry Pine Restoration	91	SD	T	WTY/CTL/GP/HP/BU
0711	Dry Pine Restoration	63	SD	T	WTY/CTL/GP/HP/BU
0713	Old Growth / Connectivity	81	COM/SD	T	WTY/CTL/GP/HP/BU
0715	Dry Pine Restoration	47	SD	T	WTY/CTL/GP/HP/BU
0716	Dry Pine Restoration	6	NCT	Manual	HP/LS/BU
0717	Riparian Restoration	23	NCT	Manual	HP/LS/BU
0718	Dry Pine Restoration	25	COM/SD	T	WTY/CTL/GP/HP/BU
0719	Dry Pine Restoration	41	SD	T	WTY/CTL/GP/HP/BU
0720	Dry Pine Restoration	2	NCT	Manual	HP/LS/BU
0721	Dry Pine Restoration	45	SD	T	WTY/CTL/GP/HP/BU
0722	Shrub Steppe	4	NCT	Manual	HP/LS/BU
0723	Dry Pine Restoration	37	NCT	Manual	HP/LS/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0724	Riparian Restoration	32	NCT	Manual	HP/LS/BU
0725	Riparian Restoration	4	NCT	Manual	HP/LS/BU
0727	Dry Pine Restoration	39	SD	T	WTY/CTL/GP/HP/BU
0729	Shrub Steppe	36	SD	T	WTY/CTL/GP/HP/BU
0731	Shrub Steppe	47	NCT	Manual	HP/LS/BU
0733	Dry Pine Restoration	30	SD	T	WTY/CTL/GP/HP/BU
0737	Dry Pine Restoration	2	NCT	Manual	HP/LS/BU
0738	Dry Pine Restoration	5	NCT	Manual	HP/LS/BU
0739	Dry Pine Restoration	24	SD	T	WTY/CTL/GP/HP/BU
0743	Dry Pine Restoration	33	NCT	Manual	HP/LS/BU
0747	Dry Pine Restoration	3	NCT	Manual	HP/LS/BU
0748	Dry Pine Restoration	12	SD	T	WTY/CTL/GP/HP/BU
0749	Dry Pine Restoration	109	SD	T	WTY/CTL/GP/HP/BU
0755	Dry Pine Restoration	11	SD	T	WTY/CTL/GP/HP/BU
0757	Shrub Steppe	21	NCT	Manual	HP/LS/BU
0761	Dry Pine Restoration	9	NCT	Manual	HP/LS/BU
0763	Dry Pine Restoration	45	SD	T	WTY/CTL/GP/HP/BU
0767	Shrub Steppe	6	SD	T	WTY/CTL/GP/HP/BU
0769	Shrub Steppe	11	NCT	Manual	HP/LS/BU
0771	Shrub Steppe	4	NCT	Manual	HP/LS/BU
0773	Shrub Steppe	2	NCT	Manual	HP/LS/BU
0775	Shrub Steppe	142	SD	T	WTY/CTL/GP/HP/BU
0799	Old Growth / Connectivity	11	NCT	Manual	HP/LS/BU
0800	Old Growth / Connectivity	20	NCT	Manual	HP/LS/BU
0801	Old Growth / Connectivity	126	COM/SD	T	WTY/CTL/GP/HP/BU
0802	Dry Pine Restoration	21	SD	T	WTY/CTL/GP/HP/BU
0803	Dry Pine Restoration	133	COM/SD	T	WTY/CTL/GP/HP/BU
0804	Shrub Steppe	5	SD	T	WTY/CTL/GP/HP/BU
0805	Dry Pine Restoration	311	COM/SD	T	WTY/CTL/GP/HP/BU
0806	Shrub Steppe	8	SD	T	WTY/CTL/GP/HP/BU
0807	Shrub Steppe	4	NCT	Manual	HP/LS/BU
0809	Dry Pine Restoration	150	COM/SD	T	WTY/CTL/GP/HP/BU
0810	Dry Pine Restoration	37	COM/SD	T	WTY/CTL/GP/HP/BU
0811	Shrub Steppe	4	SD	T	WTY/CTL/GP/HP/BU
0812	Riparian Restoration	36	NCT	Manual	HP/LS/BU
0813	Dry Pine Restoration	83	COM/SD	T	WTY/CTL/GP/HP/BU
0814	Shrub Steppe	11	SD	T	WTY/CTL/GP/HP/BU
0815	Dry Pine Restoration	26	SD	T	WTY/CTL/GP/HP/BU
0816	Shrub Steppe	6	SD	T	WTY/CTL/GP/HP/BU
0817	Shrub Steppe	2	SD	T	WTY/CTL/GP/HP/BU
0818	Pine Savannah Habitat Restoration	3	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0819	Pine Savannah Habitat Restoration	3	COM/SD	T	WTY/CTL/GP/HP/BU
0820	Dry Pine Restoration	3	SD	T	WTY/CTL/GP/HP/BU
0821	Dry Pine Restoration	175	COM/SD	T	WTY/CTL/GP/HP/BU
0822	Shrub Steppe	41	NCT	Manual	HP/LS/BU
0823	Shrub Steppe	11	SD	T	WTY/CTL/GP/HP/BU
0824	Mixed Conifer Restoration	15	COM/SD	T	WTY/CTL/GP/HP/BU
0825	Dry Pine Restoration	29	COM/SD	T	WTY/CTL/GP/HP/BU
0826	Dry Pine Restoration	9	NCT	Manual	HP/LS/BU
0827	Dry Pine Restoration	38	COM/SD	S	WTY/CTL/GP/HP/BU
0828	Dry Pine Restoration	5	SD	T	WTY/CTL/GP/HP/BU
0829	Dry Pine Restoration	102	COM/SD	T	WTY/CTL/GP/HP/BU
0830	Shrub Steppe	4	NCT	Manual	HP/LS/BU
0831	Dry Pine Restoration	63	COM/SD	T	WTY/CTL/GP/HP/BU
0832	Dry Pine Restoration	136	COM/SD	T	WTY/CTL/GP/HP/BU
0833	Dry Pine Restoration	60	COM/SD	S	WTY/CTL/GP/HP/BU
0834	Dry Pine Restoration	44	COM/SD	T	WTY/CTL/GP/HP/BU
0835	Shrub Steppe	17	NCT	Manual	HP/LS/BU
0836	Shrub Steppe	15	SD	T	WTY/CTL/GP/HP/BU
0837	Dry Pine Restoration	32	NCT	Manual	HP/LS/BU
0838	Dry Pine Restoration	12	COM/SD	T/S	WTY/CTL/GP/HP/BU
0839	Dry Pine Restoration	29	SD	T	WTY/CTL/GP/HP/BU
0840	Dry Pine Restoration	14	COM/SD	S	WTY/CTL/GP/HP/BU
0841	Old Growth / Connectivity	266	COM/SD	T	WTY/CTL/GP/HP/BU
0842	Riparian Restoration	126	NCT	Manual	HP/LS/BU
0843	Dry Pine Restoration	19	NCT	Manual	HP/LS/BU
0844	Dry Pine Restoration	39	SD	T	WTY/CTL/GP/HP/BU
0845	Riparian Restoration	3	NCT	Manual	HP/LS/BU
0846	Shrub Steppe	2	NCT	Manual	HP/LS/BU
0847	Dry Pine Restoration	36	COM/SD	T	WTY/CTL/GP/HP/BU
0848	Shrub Steppe	19	SD	T	WTY/CTL/GP/HP/BU
0849	Dry Pine Restoration	6	COM/SD	T	WTY/CTL/GP/HP/BU
0850	Dry Pine Restoration	106	COM/SD	T	WTY/CTL/GP/HP/BU
0851	Dry Pine Restoration	2	NCT	Manual	HP/LS/BU
0853	Riparian Restoration	20	NCT	Manual	HP/LS/BU
0854	Old Growth / Connectivity	18	SD	T	WTY/CTL/GP/HP/BU
0855	Dry Pine Restoration	157	COM/SD	T	WTY/CTL/GP/HP/BU
0856	Riparian Restoration	21	NCT	Manual	HP/LS/BU
0859	Dry Pine Restoration	106	COM/SD	T	WTY/CTL/GP/HP/BU
0861	Dry Pine Restoration	71	COM/SD	T	WTY/CTL/GP/HP/BU
0863	Dry Pine Restoration	87	COM/SD	T	WTY/CTL/GP/HP/BU
0864	Dry Pine Restoration	10	NCT		HP/LS/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
0865	Dry Pine Restoration	166	COM/SD	T	WTY/CTL/GP/HP/BU
0866	Dry Pine Restoration	22	COM/SD	T/S	WTY/CTL/GP/HP/BU
0867	Dry Pine Restoration	27	COM/SD	T/S	WTY/CTL/GP/HP/BU
0868	Dry Pine Restoration	13	COM/SD	T/S	WTY/CTL/GP/HP/BU
0870	Dry Pine Restoration	30	COM/SD	T	WTY/CTL/GP/HP/BU
0871	Dry Pine Restoration	142	COM/SD	T	WTY/CTL/GP/HP/BU
0872	Old Growth / Connectivity	12	COM/SD	S	WTY/CTL/GP/HP/BU
0873	Dry Pine Restoration	175	COM/SD	T	WTY/CTL/GP/HP/BU
0875	Dry Pine Restoration	83	COM/SD	T	WTY/CTL/GP/HP/BU
0878	Dry Pine Restoration	155	COM/SD	T	WTY/CTL/GP/HP/BU
0879	Dry Pine Restoration	22	COM/SD	S	WTY/CTL/GP/HP/BU
0880	Dry Pine Restoration	35	NCT	Manual	HP/LS/BU
0881	Dry Pine Restoration	43	COM/SD	T	WTY/CTL/GP/HP/BU
0882	Dry Pine Restoration	5	NCT	Manual	HP/LS/BU
0883	Dry Pine Restoration	17	NCT	Manual	HP/LS/BU
0884	Riparian Restoration	48	NCT	Manual	HP/LS/BU
0885	Dry Pine Restoration	37	COM/SD	T	WTY/CTL/GP/HP/BU
0886	Dry Pine Restoration	74	COM/SD	T	WTY/CTL/GP/HP/BU
0887	Dry Pine Restoration	34	SD	T	WTY/CTL/GP/HP/BU
0891	Dry Pine Restoration	98	COM/SD	T	WTY/CTL/GP/HP/BU
1001	Strategic Fuels	16.9899	SD		WTY/CTL/GP/HP/BU
1002	Strategic Fuels	26.0405	SD		WTY/CTL/GP/HP/BU
1003	Strategic Fuels	62.6443	SD		WTY/CTL/GP/HP/BU
1004	Strategic Fuels	102.049	SD		WTY/CTL/GP/HP/BU
1005	Strategic Fuels	61.6358	SD		WTY/CTL/GP/HP/BU
1006	Strategic Fuels	7.88775	SD		WTY/CTL/GP/HP/BU
1007	Strategic Fuels	111.677	SD		WTY/CTL/GP/HP/BU
1008	Strategic Fuels	37.6607	SD		WTY/CTL/GP/HP/BU
1009	Strategic Fuels	15.9492	SD		WTY/CTL/GP/HP/BU
1010	Strategic Fuels	16.8437	SD		WTY/CTL/GP/HP/BU
1012	Strategic Fuels	5.73607	NCT	Manual	HP/LS/BU
1013	Strategic Fuels	2.39743	NCT	Manual	HP/LS/BU
1014	Strategic Fuels	6.55839	SD		WTY/CTL/GP/HP/BU
1015	Strategic Fuels	17.3253	SD		WTY/CTL/GP/HP/BU
1016	Strategic Fuels	14.6625	NCT	Manual	HP/LS/BU
1017	Strategic Fuels	1.32947	SD		WTY/CTL/GP/HP/BU
1018	Strategic Fuels	3.51859	SD		WTY/CTL/GP/HP/BU
1019	Strategic Fuels	12.8714	SD		WTY/CTL/GP/HP/BU
1020	Strategic Fuels	17.5288	SD		WTY/CTL/GP/HP/BU
1021	Strategic Fuels	14.8822	NCT	Manual	HP/LS/BU
1022	Strategic Fuels	6.07418	SD		WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
1023	Strategic Fuels	11.8231	NCT	Manual	HP/LS/BU
1024	Strategic Fuels	11.948	SD		WTY/CTL/GP/HP/BU
1025	Strategic Fuels	3.03178	NCT	Manual	HP/LS/BU
1026	Strategic Fuels	15.5827	SD		WTY/CTL/GP/HP/BU
1027	Strategic Fuels	39.9934	SD		WTY/CTL/GP/HP/BU
1028	Strategic Fuels	6.77818	NCT	Manual	HP/LS/BU
1029	Strategic Fuels	1.60275	SD	Manual	HP/LS/BU
1030	Strategic Fuels	17.2615	SD		WTY/CTL/GP/HP/BU
1031	Strategic Fuels	1.78576	NCT	Manual	HP/LS/BU
1032	Strategic Fuels	5.88813	SD		WTY/CTL/GP/HP/BU
1033	Strategic Fuels	6.23337	SD		WTY/CTL/GP/HP/BU
1034	Strategic Fuels	21.1798	SD		WTY/CTL/GP/HP/BU
1035	Strategic Fuels	2.42848	NCT	Manual	HP/LS/BU
1036	Strategic Fuels	3.17315	NCT	Manual	HP/LS/BU
1037	Strategic Fuels	24.405	NCT	Manual	HP/LS/BU
1038	Strategic Fuels	26.1752	NCT	Manual	HP/LS/BU
1039	Strategic Fuels	32.3733	SD		WTY/CTL/GP/HP/BU
1040	Strategic Fuels	63.1495	SD		WTY/CTL/GP/HP/BU
1041	Strategic Fuels	18.9454	SD		WTY/CTL/GP/HP/BU
1043	Strategic Fuels	3.24307	SD		WTY/CTL/GP/HP/BU
1045	Strategic Fuels	7.53097	SD		WTY/CTL/GP/HP/BU
1047	Strategic Fuels	13.9875	SD		WTY/CTL/GP/HP/BU
1048	Strategic Fuels	2.08107	SD		WTY/CTL/GP/HP/BU
1049	Strategic Fuels	4.92704	SD		HP/LS/BU
1050	Strategic Fuels	0.44845	SD		WTY/CTL/GP/HP/BU
1051	Strategic Fuels	1.65856	NCT	Manual	HP/LS/BU
1052	Strategic Fuels	0.9792	SD		WTY/CTL/GP/HP/BU
1053	Strategic Fuels	1.1853	SD		WTY/CTL/GP/HP/BU
1054	Strategic Fuels	1.67775	SD		WTY/CTL/GP/HP/BU
1058	Strategic Fuels	6.87351	SD		WTY/CTL/GP/HP/BU
1059	Strategic Fuels	2.30203	SD		WTY/CTL/GP/HP/BU
1061	Strategic Fuels	1.41193	SD		WTY/CTL/GP/HP/BU
1062	Strategic Fuels	2.48648	SD		WTY/CTL/GP/HP/BU
1063	Strategic Fuels	1E-05	SD		WTY/CTL/GP/HP/BU
1065	Strategic Fuels	13.2881	SD		WTY/CTL/GP/HP/BU
1067	Strategic Fuels	10.0783	SD		WTY/CTL/GP/HP/BU
1068	Strategic Fuels	18.3495	NCT	Manual	HP/LS/BU
1069	Strategic Fuels	0.48322	SD		WTY/CTL/GP/HP/BU
1070	Strategic Fuels	0.98837	SD		WTY/CTL/GP/HP/BU
1071	Strategic Fuels	12.0416	SD		WTY/CTL/GP/HP/BU
1072	Strategic Fuels	0.99023	SD		WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
1074	Strategic Fuels	17.6296	SD		WTY/CTL/GP/HP/BU
1075	Strategic Fuels	3.35821	NCT	Manual	HP/LS/BU
1076	Strategic Fuels	0.45375	SD		WTY/CTL/GP/HP/BU
1082	Strategic Fuels	1.35987	NCT	Manual	HP/LS/BU
1083	Strategic Fuels	3.33054	NCT	Manual	HP/LS/BU
1085	Strategic Fuels	0.77805	NCT	Manual	HP/LS/BU
1087	Strategic Fuels	1.14071	NCT	Manual	HP/LS/BU
1088	Strategic Fuels	0.5763	NCT	Manual	HP/LS/BU
1091	Strategic Fuels	0.57065	NCT	Manual	HP/LS/BU
1092	Strategic Fuels	1.40467	NCT	Manual	HP/LS/BU
1095	Strategic Fuels	0.8289	NCT	Manual	HP/LS/BU
1096	Strategic Fuels	0.74896	NCT	Manual	HP/LS/BU
1097	Strategic Fuels	6.16438	NCT	Manual	HP/LS/BU
1098	Strategic Fuels	6.00138	NCT	Manual	HP/LS/BU
1099	Strategic Fuels	13.5412	NCT	Manual	HP/LS/BU
1106	Strategic Fuels	1.16664	NCT	Manual	HP/LS/BU
1107	Strategic Fuels	1.01938	NCT	Manual	HP/LS/BU
1108	Strategic Fuels	14.7642	SD		WTY/CTL/GP/HP/BU
1109	Strategic Fuels	0.32065	SD	Manual	HP/LS/BU
A001	Aspen Restoration-Conifer Removal	4	SD	T	WTY/CTL/GP/HP/BU
A002	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A003	Aspen Restoration-Conifer Removal	2	SD	Manual	HP/LS/BU
A004	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A005	Aspen Restoration-Conifer Removal	2	SD	T	WTY/CTL/GP/HP/BU
A006	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A009	Aspen Restoration-Conifer Removal	8	COM/SD	T	WTY/CTL/GP/HP/BU
A010	Aspen Restoration-Conifer Removal	1	SD	T	WTY/CTL/GP/HP/BU
A011	Aspen Restoration - Conifer Removal >21	15	COM/SD	T	WTY/CTL/GP/HP/BU
A012	Aspen Restoration-Conifer Removal	5	COM/SD	T	WTY/CTL/GP/HP/BU
A013	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A014	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A015	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
A016	Aspen Restoration-Conifer Removal	8	COM/SD	T	WTY/CTL/GP/HP/BU
A017	Aspen Restoration-Conifer Removal	5	COM/SD	T	WTY/CTL/GP/HP/BU
A018	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A019	Aspen Restoration-Conifer Removal	5	NCT	Manual	HP/LS/BU
A020	Aspen Restoration-Conifer Removal	10	NCT	Manual	HP/LS/BU
A021	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A022	Aspen Restoration-Conifer Removal	3	COM	T	WTY/CTL/GP/HP/BU
A023	Aspen Restoration-Conifer Removal	13	NCT	Manual	HP/LS/BU
A024	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A025	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A027	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A028	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A029	Aspen Restoration-Conifer Removal	6	COM/SD	T	WTY/CTL/GP/HP/BU
A030	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A031	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A032	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A033	Aspen Restoration-Conifer Removal	19	COM/SD	T	WTY/CTL/GP/HP/BU
A034	Aspen Restoration-Conifer Removal	5	COM/SD	T	WTY/CTL/GP/HP/BU
A035	Aspen Restoration-Conifer Removal	12	COM/SD	T	WTY/CTL/GP/HP/BU
A036	Aspen Restoration-Conifer Removal	24	COM/SD	T	WTY/CTL/GP/HP/BU
A037	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A038	Aspen Restoration-Conifer Removal	6	NCT	Manual	HP/LS/BU
A039	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A040	Aspen Restoration-Conifer Removal	7	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
A041	Aspen Restoration - Conifer Removal >21	3	COM/SD	T	WTY/CTL/GP/HP/BU
A042	Aspen Restoration - Conifer Removal >21	7	COM/SD	T	WTY/CTL/GP/HP/BU
A043	Aspen Restoration - Conifer Removal >21	74	COM/SD	T	WTY/CTL/GP/HP/BU
A045	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A046	Aspen Restoration - Conifer Removal >21	13	COM/SD	T	WTY/CTL/GP/HP/BU
A047	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A048	Aspen Restoration-Conifer Removal	6	COM/SD	T	WTY/CTL/GP/HP/BU
A049	Aspen Restoration-Conifer Removal	1	SD	T	WTY/CTL/GP/HP/BU
A050	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A051	Aspen Restoration-Conifer Removal	5	COM/SD	T	WTY/CTL/GP/HP/BU
A052	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A053	Aspen Restoration-Conifer Removal	7	COM/SD	T	WTY/CTL/GP/HP/BU
A054	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A055	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A056	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A057	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A058	Aspen Restoration-Conifer Removal	6	COM/SD	T	WTY/CTL/GP/HP/BU
A059	Aspen Restoration-Conifer Removal	6	COM/SD	T	WTY/CTL/GP/HP/BU
A060	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A061	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A062	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A064	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A066	Aspen Restoration-Conifer Removal	8	COM	T	WTY/CTL/GP/HP/BU
A067	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
A068	Aspen Restoration - Conifer Removal >21	5	COM/SD	T	WTY/CTL/GP/HP/BU
A070	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A071	Aspen Restoration-Conifer Removal	5	COM/SD	T	WTY/CTL/GP/HP/BU
A072	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A073	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A075	Aspen Restoration-Conifer Removal	1	SD	T	WTY/CTL/GP/HP/BU
A076	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A077	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A078	Aspen Restoration-Conifer Removal	1	COM/SD	T/S	WTY/CTL/GP/HP/BU
A079	Aspen Restoration-Conifer Removal	2	SD	T	WTY/CTL/GP/HP/BU
A080	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A081	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A082	Aspen Restoration-Conifer Removal	8	COM/SD	T	WTY/CTL/GP/HP/BU
A083	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A084	Aspen Restoration-Conifer Removal	9	COM/SD	T	WTY/CTL/GP/HP/BU
A085	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A086	Aspen Restoration-Conifer Removal	3	COM/SD	T	WTY/CTL/GP/HP/BU
A087	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A088	Aspen Restoration-Conifer Removal	4	COM/SD	T	WTY/CTL/GP/HP/BU
A089	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A090	Aspen Restoration-Conifer Removal	1	COM/SD	T	WTY/CTL/GP/HP/BU
A091	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A097	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU
A099	Aspen Restoration-Conifer Removal	2	COM/SD	T	WTY/CTL/GP/HP/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
A950	Aspen Restoration-Conifer Removal	5	NCT	Manual	HP/LS/BU
A958	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A959	Aspen Restoration-Conifer Removal	2	NCT	Manual	HP/LS/BU
A960	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A961	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A962	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A963	Aspen Restoration-Conifer Removal	6	NCT	Manual	HP/LS/BU
A964	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A965	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A966	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A967	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A968	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A969	Aspen Restoration-Conifer Removal	2	NCT	Manual	HP/LS/BU
A970	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A971	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A972	Aspen Restoration-Conifer Removal	2	NCT	Manual	HP/LS/BU
A974	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A975	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A976	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A977	Aspen Restoration-Conifer Removal	2	NCT	Manual	HP/LS/BU
A978	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A979	Aspen Restoration-Conifer Removal	6	NCT	Manual	HP/LS/BU
A980	Aspen Restoration-Conifer Removal	8	NCT	Manual	HP/LS/BU
A981	Aspen Restoration-Conifer Removal	2	NCT	Manual	HP/LS/BU

Unit number	Activity	Acres	Treatment	Harvest system	Activity fuels treatments
A982	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A983	Aspen Restoration-Conifer Removal	8	NCT	Manual	HP/LS/BU
A984	Aspen Restoration-Conifer Removal	5	NCT	Manual	HP/LS/BU
A985	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A986	Aspen Restoration-Conifer Removal	5	NCT	Manual	HP/LS/BU
A987	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A988	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A989	Aspen Restoration-Conifer Removal	5	NCT	Manual	HP/LS/BU
A990	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A991	Aspen Restoration-Conifer Removal	4	NCT	Manual	HP/LS/BU
A992	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A993	Aspen Restoration-Conifer Removal	24	NCT	Manual	HP/LS/BU
A994	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A995	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A996	Aspen Restoration-Conifer Removal	1	NCT	Manual	HP/LS/BU
A997	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU
A998	Aspen Restoration-Conifer Removal	2	NCT	Manual	HP/LS/BU
A999	Aspen Restoration-Conifer Removal	3	NCT	Manual	HP/LS/BU

Prescribed Burning and Unplanned Ignitions

Table A-2 display the selected alternative prescribed burn block details. See Record of Decision, Appendix B – Maps for mapped locations of the burn blocks in the planning area. Acres are approximate and subject to change during implementation.

Table A-2. Selected alternative prescribed burn blocks

Burn block	Acres	Ignition type	Comments
1	11,770	Unplanned ignitions and prescribed burning	3,345 acres are in the Malheur River Inventoried Roadless Area.
2	8,560	Unplanned ignitions and prescribed burning	2,920 acres are in the Malheur River Inventoried Roadless Area.
3	8,720	Unplanned ignitions and prescribed burning	--
4	11,210	Unplanned ignitions and prescribed burning	1,020 acres are in the Malheur River Inventoried Roadless Area.

Roads Activities

This section displays the details of the proposed road activities by road segment.

Surface type:

AC – Asphalt

AGG – Crushed aggregate or gravel

IMP – Improved native material

NAT – Native material

Current objective maintenance level:

1 – maintenance level 1 (closed) road – basic custodial maintenance

2 – maintenance level 2 (open) road – high clearance vehicles

3 – maintenance level 3 (open) road – suitable for passenger cars

P – private road

Haul Routes

Table A-3 displays the details of the selected alternative haul routes by road segment. See Record of Decision, Appendix B – Maps for the approximate locations of the haul routes in the planning area.

Table A-3. Selected alternative haul routes

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1400000	0.00	7.90	7.90	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.
1400000	8.00	8.50	0.50	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.
1400000	8.52	9.27	0.75	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.
1400000	9.20	9.90	0.70	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.
1400000	9.94	11.60	1.66	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.
1400000	11.60	12.60	1.00	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1400000	12.60	15.12	2.52	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance. Rocked stream crossing at milepost 14.6, 50' north and 25' south. Second rocked stream crossing at milepost 15.0, 50' each side.
1400048	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade and add water bars. Roadside brushing needed. Regular maintenance.
1400278	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Effectively closed with barbed wire fence.
1400282	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs roadside brushing and blading. Regular maintenance needed.
1400282	0.20	1.00	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs roadside brushing and blading. Regular maintenance needed.
1400305	1.27	1.40	0.13	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1400507	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Improve stream crossings and add water bars. Construct a hardened crossing at milepost 0.2. Brush and Blade road. Clear road surface. Regular maintenance needed.
1400515	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance, ML1 road lacks barrier. Add barrier at 1400282 junction to close road.
1400521	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance, install rolling dips or other drainage feature to address surface erosion.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1400525	0.00	0.80	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing, blading, and add water bars. Regular maintenance needed
1400525	0.80	1.50	0.70	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing, blading, and add water bars. Regular maintenance needed
1400528	0.00	1.60	1.60	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed. Add water bars. Construct hardened crossing at milepost 0.7. Brush and Blade road.
1400532	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed. Add water bars. Rock stream crossings. Brush and Blade road.
1400532	0.50	1.30	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed. Add water bars. Rock stream crossings. Brush and Blade road.
1400548	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1400548	0.10	0.50	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1400548	0.50	0.70	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1400555	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Add water bars. Brush and blade road. Regular maintenance needed. Road access private land to the south.
1400567	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade and brush road past fence

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1400575	0.00	0.60	0.60	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading due to revegetation. Spot rock existing ford at milepost 0.04.
1400580	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road is effectively closed with an earth berm.
1400583	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend closure or DEC due to no use and already closed on ground. No need for future management
1400585	0.00	1.10	1.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1400590	0.00	1.20	1.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Add water bars. Brush and blade road. Regular maintenance needed.
1400710	0.00	1.30	1.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading due to revegetation. Effective earth berm closure.
1400941	0.00	0.45	0.45	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1400941	0.45	0.61	0.16	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1450000	0.30	3.75	3.45	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1450000	3.76	11.33	7.57	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1450000	11.33	15.73	4.40	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1450050	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade and brush road. Regular maintenance needed.
1450051	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend decommissioning or closing road due to no use and road is naturally closed with vegetation overgrowth on the ground
1450052	0.00	0.80	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade and brush road. Heavy maintenance needed to maintain.
1450053	0.00	0.40	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1450054	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading due to revegetation. Road lacks closure device.
1450206	0.00	0.87	0.87	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1450329	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Roadside brushing needed. Blading needed. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1450329	0.20	0.50	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1450347	0.00	3.00	3.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing and ditches cleared. Regular maintenance needed.
1450348	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1450391	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Little to no maintenance needed.
1450424	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs clearing. Regular maintenance needed.
1450428	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend DEC
1450431	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1450436	0.00	0.90	0.90	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Roadside brushing needed. Blading needed. Add drainage features. Regular maintenance needed.
1450448	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade road and add drainage. Roadside brushing needed. Regular maintenance needed.
1450450	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Add water bars. Clear ditches. Brush and blade road. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1450452	0.00	0.48	0.48	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Brush road and clean ditches. Add water bars. Regular maintenance needed.
1450452	0.84	1.30	0.46	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Brush road and clean ditches. Add water bars. Regular maintenance needed.
1450454	0.00	0.90	0.90	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs blading, brushing, spot rocking, and to add water bars. Regular maintenance.
1450454	0.90	1.90	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs blading, brushing, spot rocking, and to add water bars. Regular maintenance.
1450456	0.00	1.20	1.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy blading and brushing needed.
1450457	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clear roadway and brush road. Regular maintenance needed.
1450458	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend closing road or DEC due to no use and closed on ground with natural vegetation.
1450470	0.00	0.08	0.08	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend closing road or DEC due to no use and closed on ground with natural vegetation.
1450472	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs to be bladed and brushed. Add drainage features. Regular maintenance needed.
1450475	0.00	2.00	2.00	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1450477	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance, earth berm barrier at entrance.
1450480	0.00	0.50	0.50	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading due to revegetation in roadbed. Road lacks closure device.
1450482	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading due to revegetation in roadbed. Road lacks closure device.
1450490	0.00	1.52	1.52	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs ditches cleaned, brushing, and blading. Regular maintenance needed.
1450491	0.00	0.90	0.90	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing, blading, and clearing. Regular maintenance needed
1450501	0.00	1.30	1.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs clearing, roadside brushing, and blading. Drainage features need to be added. Regular maintenance needed.
1450503	0.00	1.30	1.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade, brush and clear road surface. Clean ditches and re-shape some water bars. Regular maintenance needed. Construct hardened crossing at milepost 0.25.
1450505	0.05	0.90	0.85	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Heavy brushing and blading needed to remove trees growing in road.
1450509	0.25	0.30	0.05	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1450513	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1450550	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Improve/Add drainage features. Clean culverts and re-shape water bars. Brush and Blade road. Heavy maintenance needed.
1450550	1.00	1.70	0.70	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Replace culvert or remove and construct hardened crossing at milepost 1.7.
1450561	0.00	0.40	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Heavy brushing and blading due to revegetation with 4-6" conifers.
1540000	10.98	12.31	1.33	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1540000	12.31	12.87	0.56	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance needed
1540000	12.87	13.46	0.59	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1540110	0.00	0.80	0.80	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Ineffective pole gate barrier.
1540112	0.00	0.23	0.23	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance needed

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1540112	0.24	0.46	0.21	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1540114	0.00	0.49	0.49	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Improve drainage features on the road. Regular maintenance needed.
1540114	0.49	2.89	2.39	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1540115	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading due to 1-2" conifers growing in roadbed.
1540116	0.00	0.35	0.35	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Ditch needs clearing. Drainage features needs to be added and re-construct current features. Regular maintenance needed.
1540118	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed
1540120	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade road and slope to ditch. Clean ditch and armor drainage features. Regular maintenance needed.
1540581	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Add drainage features and Rock the road to use for haul. Heavy maintenance needed.
1540601	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Western 0.5 miles would require moderate to heavy brushing and blading due to conifer revegetation of the roadbed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1540601	1.00	2.10	1.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reconstruct approach to access 602 rd. Heavy blading and brushing needed for haul. Heavy maintenance needed to maintain open.
1540602	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Culverts need cleaning and heavy brushing and blading needed for haul.
1540610	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Road would require extensive maintenance for use. Potential for non-use by contractor. Large boulders and trees in roadbed. Likely would require reconstruction.
1540724	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove conifers growing in roadbed.
1643000	0.00	8.66	8.66	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance needed
1643000	8.67	10.48	1.81	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1643000	10.48	11.19	0.71	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance needed
1643000	11.19	14.53	3.35	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1643000	14.53	15.40	0.87	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1643058	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1643075	0.00	0.15	0.15	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643075	0.15	0.40	0.25	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643122	0.00	0.66	0.66	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Replace failed culvert with hardened crossing at milepost 0.59. Fix drainage features. Blade and Brush road. Heavy maintenance needed.
1643122	0.97	1.40	0.43	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Remove culvert after haul at milepost 1.01. Fix drainage features. Blade and Brush road. Heavy maintenance needed.
1643123	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clean culverts. Reconstruct water bars. Blade and brush road.
1643124	0.00	1.34	1.34	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Ditches need cleared. Add water bars. Blade, Brush and spot rock road. Road has native surface and is in good condition. Shows signs of use
1643125	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Moderate to heavy brushing and blading required to remove 4-6" conifers growing in roadbed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1643126	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643127	0.00	0.90	0.90	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Improve drainage features. Blade and clear road. Regular maintenance needed.
1643130	0.00	0.96	0.96	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs heavy brushing ad needs to add water bars. Clear ditches. Regular maintenance needed. Possible culvert replacement at milepost 0.13.
1643131	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	No sign of designed roadway. Decommission road.
1643132	0.00	1.30	1.30	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance needed.
1643132	1.30	2.13	0.83	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1643132	2.13	2.20	0.07	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blading and spot rocking needed.
1643132	2.20	3.32	1.12	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Possible culvert replacement at milepost 3.03
1643132	3.32	3.46	0.14	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643132	3.46	3.81	0.35	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1643134	0.00	0.50	0.50	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading to remove 2-4" conifers growing in roadbed.
1643135	0.00	0.70	0.70	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading to remove 2-4" conifers growing in roadbed.
1643142	0.00	1.33	1.33	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	No	Regular maintenance.
1643148	0.00	1.20	1.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643152	0.00	0.50	0.50	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance, pole gate barrier.
1643156	0.00	0.60	0.60	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading to remove 2-4" conifers growing in roadbed.
1643160	0.00	1.70	1.70	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1643162	0.00	0.40	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1643200	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove conifers growing in roadbed.
1643216	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clear roadway surface. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1643284	0.00	1.20	1.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Ineffective pole gate barrier.
1643388	0.00	0.40	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1643389	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Road lacks closure device. Construct hardened crossing at milepost 0.0 on western end of road.
1643512	0.00	0.52	0.52	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Road lacks closure device.
1643512	0.52	1.50	0.98	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643514	0.00	0.66	0.66	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade road now! Add many drainage features. Brushing also needed. Heavy maintenance needed.
1643517	0.00	0.80	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs to reconstruct drainage. Add water bars. Blade and brush road. Construct hardened crossing at milepost 0.76, northern end of road.
1643519	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Spot blade and spot rock. Add water bars. Roadside brushing needed. Add rock in wet spot.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1643522	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1643530	0.00	0.35	0.35	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Blade and Brush road. Needs to add water bars. Regular maintenance needed.
1643537	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	No maintenance needed.
1643608	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clear ditches. Blade road would fix surface erosion. Roadside brushing needed. Clean culverts. Regular maintenance needed.
1643765	0.00	0.29	0.29	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Roadside brushing needed. Regular maintenance needed.
1643908	0.00	1.60	1.60	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Needs ditch cleaned and regular maintenance.
1643908	1.60	2.20	0.60	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643908	2.20	2.80	0.60	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1643909	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Road lacks closure device.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647000	0.00	7.30	7.30	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1647000	7.29	20.90	13.61	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1647000	20.90	21.80	0.90	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1647000	21.80	22.90	1.10	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1647000	22.90	23.88	0.98	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1647049	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Brushing and blading would be required to remove 1-2" conifers growing in roadbed. Road lacks closure device.
1647201	0.00	0.25	0.25	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Brushing and blading would be required to remove 1-2" conifers growing in roadbed. Road lacks closure device.
1647203	0.00	0.50	0.50	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Brushing and blading would be required to remove 1-2" conifers growing in roadbed. Road lacks closure device.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647205	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1647207	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs brushing and blading. Improve and add drainage features. Regular maintenance needed.
1647208	0.00	0.90	0.90	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Brush and blade road. Regular maintenance needed.
1647209	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs brushing and blading. Improve and add drainage features. Heavy maintenance needed.
1647212	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed.
1647214	0.00	0.80	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy brushing and blading needed. Re-construct water bars. Clear ditches. Regular maintenance needed.
1647217	0.00	0.34	0.34	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1647218	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 1-2" conifers growing in roadbed. Road lacks barrier device.
1647219	0.00	0.26	0.26	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Re-construct water bars. Clear ditches. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647219	0.26	0.80	0.54	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Re-construct water bars. Clear ditches. Regular maintenance needed.
1647220	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 1-2" conifers growing in roadbed. Earth berm barrier provides effective closure.
1647221	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed. Add water bars. Blade and brush road.
1647221	0.40	0.45	0.05	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647221	0.45	0.85	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1647221	0.85	0.86	0.02	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647221	0.86	1.20	0.34	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647223	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy brushing needed. Clean culverts and clear ditches. Regular maintenance needed.
1647225	0.00	1.10	1.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs heavy brushing and blading. Re-construct water bars. Clean ditches. Heavy maintenance needed.
1647227	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Cut open Blow down. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647229	0.00	0.60	0.60	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Add drainage features. Re-construct water bars. Blade road surface. Regular maintenance needed.
1647230	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed to open up road and maintain. Recommend closing or Decom
1647231	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs drainage features added. Needs clearing, brushing and blading. Heavy maintenance needed.
1647233	0.00	1.28	1.28	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Brush and blade road. Regular maintenance needed.
1647233	1.28	1.84	0.55	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading to remove 1-2" conifers growing in roadbed.
1647234	0.00	0.05	0.05	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading to remove 1-2" conifers growing in roadbed. Road lacks effective barrier.
1647235	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading to remove 1-2" conifers from roadbed. Effective rock berm barrier.
1647240	0.00	0.68	0.68	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Blade and Brush road. Regular maintenance needed.
1647241	0.00	0.70	0.70	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Brush road and reshape water bars. Regular maintenance needed

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647242	0.00	0.45	0.45	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Brush and blade road. Regular maintenance needed.
1647243	0.00	1.00	1.00	D - DECOMMISSION	NAT - NATIVE MATERIAL	Yes	Yes	New construction is proposed to provide access into the Cliff Creek area where road decommissioning is occurring. The new construction would be contained to an old roadbed that no longer is part of our road system. The new road would be maintained as a Level 1 road.
1647297	0.00	0.80	0.80	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed to open up road and maintain. Recommend closing or Decom
1647349	0.00	0.24	0.24	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Remove down tree. Brushing needed. Regular maintenance needed.
1647349	0.24	0.80	0.56	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Remove down tree. Brushing needed. Regular maintenance needed.
1647357	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs clearing and brushing. Remove down trees. Clear ditches and blade road surface. Heavy maintenance needed.
1647388	0.00	1.30	1.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clean ditches. Brush and heavily blade road surface. Add water bars. Heavy maintenance needed.
1647412	0.00	2.20	2.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Repair culvert and Blade road. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647430	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs heavy maintenance to maintain. Recommend closing road.
1647433	0.06	0.30	0.24	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend decommissioning or closing road due to no use and no maintenance.
1647435	0.00	0.54	0.54	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reconstruct existing hardened crossing at milepost 0.32, add 100' of spot rock in each direction. Recommend closing or decommissioning road.
1647441	0.00	2.00	2.00	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Remove / repair / replace culverts for better stream flow. Ditches need cleaning. Heavy maintenance needed.
1647443	0.00	0.60	0.60	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 1-2" conifers from roadbed. Road lacks effective barrier.
1647446	0.00	1.83	1.83	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clear ditches. Brush and blade road. Add water bars or drain dips. Regular maintenance needed.
1647447	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 1-2" conifers from roadbed. Road lacks effective barrier.
1647448	0.00	1.10	1.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs blading, brushing, and to add water bars. Regular maintenance needed.
1647450	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reshape water bars. Brush and blade road surface. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647450	1.00	1.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647450	1.20	1.90	0.70	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647451	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Recommend DEC
1647453	0.00	0.05	0.05	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing. Regular maintenance needed.
1647453	0.05	0.80	0.75	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing. Regular maintenance needed.
1647457	0.00	1.10	1.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing. Regular maintenance needed.
1647458	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reshape water bars. Brush and blade road surface. Regular maintenance needed.
1647459	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed.
1647460	0.00	0.40	0.40	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1647461	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Road lacks closure device.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647462	0.00	1.00	1.00	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs new road sign. Add water bars. Clean ditches. Brush and blade road surface. Heavy maintenance needed to maintain road.
1647466	0.00	0.72	0.72	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs new road sign. Add water bars. Clean ditches. Regular maintenance needed.
1647468	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed to maintain road. Recommend closing road. No use
1647471	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed to maintain road. Recommend closing road. No use
1647473	0.00	0.60	0.60	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed to maintain road. Recommend closing road. No use
1647475	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Heavy maintenance needed to maintain road. Recommend closing road. No use
1647483	0.00	0.60	0.60	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reshape water bars. Brush and blade road surface. Clear ditches and roadway. Regular maintenance needed.
1647492	0.00	1.30	1.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs brushing, blading, and clearing. Add drainage features, drain dips, spot rock, and rock dips. Heavy maintenance needed.
1647494	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	No maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647523	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clear ditches and reshape water bars. Brush and blade road surface. Regular maintenance needed.
1647524	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Effective earth berm barrier.
1647531	0.00	0.94	0.94	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Road needs to improve drainage features. Clearing needed and brushing. Regular maintenance needed.
1647531	1.58	1.80	0.22	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647538	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed.
1647552	0.00	1.30	1.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reshape water bars. Blade road where possible. Regular maintenance needed.
1647559	0.00	3.00	3.00	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Road needs blading, brushing, spot rocking, and clearing. Regular maintenance needed. Construct hardened crossing at milepost 1.4. Rocked stream crossings at milepost 2.51, 2.82, and 2.99 needs 25' of rock on each side.
1647560	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	No	Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647564	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647564	0.11	0.96	0.85	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647565	0.00	0.13	0.13	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Road lacks closure device.
1647569	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed
1647569	0.10	2.00	1.90	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1647571	0.00	0.40	0.40	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reshape water bars, blade and brush road. Regular maintenance needed.
1647572	0.00	0.30	0.30	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 2-4" conifers growing in roadbed. Road lacks closure device.
1647577	0.00	0.26	0.26	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clean ditches. Blade and brush road. Regular maintenance needed.
1647577	0.26	0.58	0.32	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Clean ditches. Blade and brush road. Regular maintenance needed.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1647578	0.00	0.30	0.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Reshape water bars. Clean ditches. Brush and Blade road. Regular maintenance needed.
1647579	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Needs new sign. Rebuild road where it turns into stream. Reshape water bars. Clean ditches. Brush and Blade road. Minor re-construction needed.
1647580	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	No maintenance needed.
1647585	0.00	0.10	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Moderate brushing and blading required to remove 0-1" conifers growing in roadbed. Road lacks closure device.
1647597	0.00	0.10	0.10	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed.
1647598	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed.
1651000	0.00	6.10	6.10	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1651000	6.10	6.73	0.63	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.
1651000	7.56	8.54	0.98	2 - HIGH CLEARANCE VEHICLES	AGG - CRUSHED AGGREGATE OR GRAVEL	Yes	Yes	Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1651303	0.00	0.20	0.20	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1651523	0.42	1.10	0.68	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Construct hardened crossing at milepost 0.81.
1651853	0.00	0.50	0.50	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance needed.
1663000	10.10	12.10	2.00	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663000	12.10	15.45	3.35	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663282	0.00	0.20	0.20	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Road lacks closure device.
1663528	0.00	0.70	0.70	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance. Construct hardened crossing at milepost 0.21.
1663534	0.04	0.95	0.91	2 - HIGH CLEARANCE VEHICLES	IMP - IMPROVED NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663539	0.00	0.70	0.70	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663539	0.70	1.39	0.69	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
1663539	1.39	1.49	0.10	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663573	0.00	0.26	0.26	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663573	0.26	0.40	0.14	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663577	0.00	0.50	0.50	1 - BASIC CUSTODIAL CARE (CLOSED)	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
1663577	0.70	2.00	1.30	2 - HIGH CLEARANCE VEHICLES	NAT - NATIVE MATERIAL	Yes	Yes	Regular maintenance.
TBD			0.15			Yes	Yes	Ground disturbing maintenance activities limited to road prism due to adjacent archaeological site
TBD			0.55			Yes	Yes	Proposed new construction confined to existing roadbed at southern end due to adjacent archaeological site. Tie into 1643216, P-Line needs field validation
TBD			0.13			Yes	Yes	New construction is proposed at this location to accommodate the decommissioning of the Category 2 stream crossing on the 1450505. The new road would be maintained as a Level 1 (closed) road.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Surface type	Alternative 2 haul routes	Alternative 3 haul routes	Maintenance
TBD			1.06			Yes	Yes	New construction is proposed at this location to accommodate the decommissioning of roads 1647206 and 1647215. The new road would be maintained as a Level 1 (closed) road.
TBD			0.48			Yes	Yes	New construction is proposed at this location to accommodate the decommissioning of roads 1647206 and 1647215. The new road would be maintained as a Level 1 (closed) road.

Temporary Road Construction

Table A-4 displays the details of the selected alternative temporary roads by road segment. See Record of Decision, Appendix B – Maps for the approximate locations of the temporary roads in the planning area.

Table A-4. Selected alternative temporary road construction

Temporary road number	Subwatershed	Length (miles)
T1	Bluebucket Creek	0.7
T3	Cliff Creek-Malheur River	0.8
T4	Bluebucket Creek	0.8
T5	Bluebucket Creek	0.5
T7	Bluebucket Creek	0.4
T8	Bluebucket Creek	0.3
T9	Bluebucket Creek	0.4
T10	Cliff Creek-Malheur River	0.5
T11	Cliff Creek-Malheur River	0.2
T12	Bluebucket Creek	1.0
T13	Cliff Creek-Malheur River	0.2
T14	Cliff Creek-Malheur River	0.7
T15	Cliff Creek-Malheur River	0.1
T16	Cliff Creek-Malheur River	0.3
T17	Cliff Creek-Malheur River	0.6
T18	Cliff Creek-Malheur River	0.3
T19	Cliff Creek-Malheur River	0.2
T20	Cliff Creek-Malheur River	0.3
T22	Cliff Creek-Malheur River	0.1
T23	Cliff Creek-Malheur River	0.2
T24	Cliff Creek-Malheur River	0.7
T25	Cliff Creek-Malheur River	0.6
T26	Cliff Creek-Malheur River	0.2
T27	Cliff Creek-Malheur River	0.4
T29	Bluebucket Creek	0.8
T32	Cliff Creek-Malheur River	0.3
T33	Bluebucket Creek	0.5
T35	Cliff Creek-Malheur River	0.3
T36	Cliff Creek-Malheur River	0.4
T40	Bluebucket Creek	0.6
T42	Cliff Creek-Malheur River	0.2
T43	Both	0.2
T44	Bluebucket Creek	0.6
T45	Cliff Creek-Malheur River	0.2

Road System Changes

Table A-5 display the details of the selected alternative road system changes by road segment. See Record of Decision, Appendix B – Maps for the locations of these roads in the planning area.

Selected Alternative Road System Changes

Table A-5. Selected alternative road system changes

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1400048	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan road density standards for winter range
1400280	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan road density standards for winter range
1400507	1	2.3	1.3	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan road density standards for winter range
1400583	0	0.1	0.1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan road density standards for winter range
1450452	0	0.482	0.482	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to protect stream and water quality. Segments of this native surface road are located in very close proximity to a stream. Poor drainage is causing sediment delivery to the stream. Stream would benefit from reduced traffic and conversion to vegetated surface. An effective closure would reduce on-going impacts to an important heritage resource associated with road use and recreation.
1450452	0.482	0.844	0.362	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to protect stream and water quality. Segments of this native surface road are located in very close proximity to a stream. Poor drainage is causing sediment delivery to the stream. Stream would benefit from reduced traffic and conversion to vegetated surface. An effective closure would reduce on-going impacts to an important heritage resource associated with road use and recreation.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1450452	0.844	1.3	0.456	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to protect stream and water quality. Segments of this native surface road are located in very close proximity to a stream. Poor drainage is causing sediment delivery to the stream. Stream would benefit from reduced traffic and conversion to vegetated surface. An effective closure would reduce on-going impacts to an important heritage resource associated with road use and recreation.
1450453	0	0.5	0.5	2 - HIGH CLEARANCE VEHICLES	Close	Proposed closed because access road 1450452, is proposed closed.
1450454	0.9	1.9	1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to protect stream and water quality. Segments of this native surface road are located in close proximity to a stream. Poor drainage is causing sediment production. Stream would benefit from reduced traffic and conversion to vegetated surface.
1450457	0	0.4	0.4	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan open road density standards.
1450458	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan open road density standards.
1450470	0	0.082	0.082	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1450470	0.082	0.4	0.318	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1450472	0	0.4	0.4	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1450491	0	0.9	0.9	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan road density standards for winter range
1540581	0	0.5	0.5	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and Oregon Department of Fish and Wildlife (ODFW)

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1540601	0	1	1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to meet Malheur Forest Plan density standards for roads.
1643122	0.97	1.4	0.43	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to protect stream and water quality. Segments of this native surface road are located in close proximity to a stream. Poor drainage is causing sediment production. Stream would benefit from reduced traffic and conversion to vegetated surface.
1643123	0	0.4	0.4	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1643130	0	0.964	0.964	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1643514	0	0.662	0.662	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure to protect stream and water quality. Segments of this native surface road are located in close proximity to a stream. Poor drainage is causing sediment delivery to the stream. Stream would benefit from reduced traffic and conversion to vegetated surface.
1643530	0	0.566	0.566	2 - HIGH CLEARANCE VEHICLES	Close	The proposed closure would restrict traffic through an important heritage resource. An effective closure would reduce otherwise expected on-going impacts associated with road use and recreation.
1647207	0	1	1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647209	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647212	0	0.2	0.2	2 - HIGH CLEARANCE VEHICLES	Close	Proposed closed because access road 1647430, is proposed closed.
1647214	0	0.8	0.8	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1647219	0	0.26	0.26	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647219	0.26	0.8	0.54	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647223	0	0.1	0.1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647223	0.1	0.6	0.5	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647230	0	0.5	0.5	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647233	0	1.282	1.282	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647244	0	0.08	0.08	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647297	0	0.8	0.8	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647349	0.236	0.8	0.564	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647357	0	1	1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647430	0	0.4	0.4	2 - HIGH CLEARANCE VEHICLES	Close	Proposed closed to meet Malheur Forest Plan density standards for roads.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1647433	0.06	0.3	0.24	2 - HIGH CLEARANCE VEHICLES	Close	Proposed closed to meet Malheur Forest Plan density standards for roads.
1647451	0	0.2	0.2	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647462	0	1	1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647466	0	0.7229	0.7229	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647468	0	0.4	0.4	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647471	0	0.1	0.1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647473	0	0.6	0.6	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647475	0	0.1	0.1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647577	0.26	0.575	0.315	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647577	0.575	0.8	0.225	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647578	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1647579	0	0.5	0.5	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1647580	0	0.1	0.1	2 - HIGH CLEARANCE VEHICLES	Close	Proposed for closure in an effort to shift distribution of elk use onto public lands through the creation of elk security areas in a collaborative effort between the Malheur National Forest and ODFW
1400584	0	0.1	0.1	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Short, redundant connector is proposed for decommissioning due to impaired category 1 (fish-bearing) stream crossing. Road is grown in, not needed for current or future management, and haul is prohibited.
1450437	0	0.2	0.2	2 - HIGH CLEARANCE VEHICLES	Decommission	Proposed for decommissioning due to impaired category 4 (intermittent) stream crossing. Road is grown in, not needed for current or future management, and haul is prohibited. One culvert needs to be removed from the road at stream crossing.
1450490	1.588	2.5	0.912	2 - HIGH CLEARANCE VEHICLES	Decommission	Grown in portion of this road is located in very close proximity to a stream channel. Road is proposed for decommission to prevent road reconstruction, sediment delivery, and adverse effects to water quality downstream. Road is not needed for current or future management.
1450505	0	0.05	0.05	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Road prism is no longer distinguishable at a category 2 (non-fish-bearing) stream crossing. Proposed for decommission to prevent damage to aquatic resources. Haul is prohibited. New construction is proposed on the east side of the stream, outside the riparian habitat conservation area (RHCA), to provide access for current and future management.
1450509	0	0.2	0.2	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Stream is running down middle of road. Road is proposed for decommissioning t0 protect water quality. New construction to the north is proposed to provide access for management.
1450511	0	0.4	0.4	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Stream is running down middle of road. Road is proposed for decommissioning to protect water quality. New construction to the north is proposed to provide access for management.
1540116	0.35	0.6	0.25	2 - HIGH CLEARANCE VEHICLES	Decommission	Heavily rutted road is contributing sediment to category 4 (intermittent) stream. Road is proposed for decommission at the junction with 1540118 to project aquatic resources.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1643122	0.66	0.97	0.31	2 - HIGH CLEARANCE VEHICLES	Decommission	Road parallels category 4 (intermittent) stream and has multiple points of sediment delivery along the middle section that is proposed for decommissioning. Road was constructed unsuitably close to the stream channel, adverse effects cannot be fixed or mitigated. Haul is prohibited.
1643146	0.1	0.7	0.6	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Road is receiving high use and causing severe damage to the category 4 (intermittent) stream. New construction is proposed to the southwest of this road to provide access into the area for both management and public use. Haul is prohibited on this section of road.
1643212	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Decommission	Road is washed out at a category 4 (intermittent) stream crossing and impassable due to heavy vegetation. To protect aquatic resources from further damage the road is proposed for decommissioning. Haul is prohibited. To provide access to the range development and timber management new construction will be completed in a more suitable location and the road will be maintained as a maintenance level 2 (open) road.
1647206	0	0.065	0.065	2 - HIGH CLEARANCE VEHICLES	Decommission	Road is mapped alongside a category 4 (intermittent) stream, but the road prism is not distinguishable on the ground. Proposed for decommission to prevent damage to aquatic resources. Haul is prohibited. New construction is proposed on the north side of the stream, outside the RHCA, to provide management access to the area.
1647206	0.065	0.2	0.135	2 - HIGH CLEARANCE VEHICLES	Decommission	Road is mapped alongside a category 4 (intermittent) stream, but the road prism is not distinguishable on the ground. Proposed for decommission to prevent damage to aquatic resources. Haul is prohibited. New construction is proposed on the north side of the stream, outside the RHCA, to provide management access to the area.
1647213	0	0.5	0.5	2 - HIGH CLEARANCE VEHICLES	Decommission	Road is heavily vegetated and difficult to locate on the ground. Proposed for decommissioning, haul is prohibited, and access will be maintained by the adjacent 1647214 road.
1647215	0	0.3	0.3	2 - HIGH CLEARANCE VEHICLES	Decommission	Road is mapped alongside a category 4 (intermittent) stream, but the road prism is not distinguishable on the ground. Proposed for decommission to prevent damage to aquatic resources. Haul is prohibited. New construction is proposed on the north side of the stream, outside the RHCA, to provide management access to the area.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1647239	0	0.4	0.4	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Overgrown road is located in very close proximity to a category 4 (intermittent) stream. Road is proposed for decommission to protect aquatic resources by preventing road reconstruction, sediment delivery, and adverse effects to water quality. Road is not needed for current or future management.
1647433	0	0.06	0.06	2 - HIGH CLEARANCE VEHICLES	Decommission	Proposed for decommissioning to protect stream and water quality. Stream crossing was inadequately constructed and causing sediment production. Transportation planning for this portion of the planning area identified alternate routes that prevent the need for reconstruction.
1647438	0	1.1	1.1	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Overgrown road is located in very close proximity to a category 1 (fish-bearing) stream, Cliff Creek. Proposed for decommissioning to protect aquatic resources by preventing road reconstruction, sediment delivery, and adverse effects to water quality. Haul is prohibited.
1647449	0	2.4	2.4	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Grown in road along Cliff Creek is disrupting stream function. Proposed for decommissioning to protect aquatic resources. Haul is prohibited and access for management will be provided by nearby roads as well as a segment of new construction to the south.
1647478	0	0.2	0.2	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Heavily overgrown road is located within a category 4 (intermittent) stream. Road is proposed for decommission to protect aquatic resources by preventing road reconstruction, sediment delivery, and adverse effects to water quality. Road is not needed for current and future management.
1647481	0	0.2	0.2	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Heavily overgrown road is located within a category 4 (intermittent) stream. Road is proposed for decommission to protect aquatic resources by preventing road reconstruction, sediment delivery, and adverse effects to water quality. Road is not needed for management and haul is prohibited.
1647481	0.2	0.4	0.2	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Heavily overgrown road is located within a category 4 (intermittent) stream. Road is proposed for decommission to protect aquatic resources by preventing road reconstruction, sediment delivery, and adverse effects to water quality. Road is not needed for management and haul is prohibited.
1647532	0	0.5	0.5	1 - BASIC CUSTODIAL CARE (CLOSED)	Decommission	Redundant road along Lee Creek, a category 2 (non-fish-bearing) stream, is located directly in the stream and is proposed for decommissioning to protect stream function. Haul is prohibited.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1647760	0	1.4	1.4	2 - HIGH CLEARANCE VEHICLES	Decommission	Heavily overgrown road is located in the valley bottom, in close proximity to Black Canyon Creek. Road is proposed for decommission to prevent road reconstruction, sediment delivery, and adverse effects to water quality downstream. Road is not needed for management and haul is prohibited.
TBD	0	1	1	D - DECOMMISSION	New Construction	New construction is proposed to provide access into the Cliff Creek area where road decommissioning is occurring. The new construction will be contained to an old roadbed (National Forest System (NFS) road 1647243) that no longer is part of our road system. The new road will be maintained as a maintenance level 1 (closed) road.
TBD			0.1		New Construction	New construction is proposed to provide access into the Cliff Creek area where road decommissioning is occurring. The new construction will be contained to an old roadbed that no longer is part of our road system. The new road will be maintained as a maintenance level 2 (open) road.
TBD			0.5		New Construction	New construction is proposed at this location to accommodate the decommissioning of 1643146. This new route will provide access for land management and public use. The road will be maintained as a maintenance level 2 (open) road.
TBD			0.1		New Construction	New construction is proposed at this location to accommodate the decommissioning of the category 2 (non-fish-bearing) stream crossing on the 1450505. The new road will be maintained as a maintenance level 1 (closed) road.
TBD			1.3		New Construction	New construction is proposed at this location to accommodate the decommissioning of roads 1450511 and 1450509. The new road will be maintained as a maintenance level 1 (closed) road.
1643058	0	0.1	0.1	1 - BASIC CUSTODIAL CARE (CLOSED)	Re-Open	This road is proposed for re-opening based on the high use and access to BLM and state land to the south.
1643132	2.2	3.32	1.12	1 - BASIC CUSTODIAL CARE (CLOSED)	Re-Open	This road is proposed for re-opening based on the high use and access to BLM and state land to the south.
1643146	0	0.1	0.1	1 - BASIC CUSTODIAL CARE (CLOSED)	Re-Open	This road is proposed for re-opening to provide access in accordance with the proposed 1643146 decommissioning.

National Forest System road number	Beginning mile post	Ending mile post	Length	Objective maintenance level	Selected Alternative proposal	Rationale
1643148	0	1.2	1.2	1 - BASIC CUSTODIAL CARE (CLOSED)	Re-Open	This road is proposed for re-opening based on the high use and access to BLM and state land to the south.
1643160	0	1.7	1.7	1 - BASIC CUSTODIAL CARE (CLOSED)	Re-Open	This road is proposed for re-opening based on the high use and access to BLM and state land to the south.
1643162	0	0.4	0.4	1 - BASIC CUSTODIAL CARE (CLOSED)	Re-Open	This road is proposed for re-opening based on the high use and access to BLM and state land to the south.

Confirmation of Past Administratively Closed Roads

Table A-6 display the details of past administratively closed roads, re-analyzed by the Cliff Knox interdisciplinary team, and confirmed to remain closed under the selected alternative. See Record of Decision, Appendix B – Maps for the locations of these roads in the planning area.

Table A-6. Past administratively closed roads to be confirmed as closed under selected alternative

National Forest System road number	Beginning milepost	Ending milepost	Length (miles)	Rationale
1400278	0	0.3	0.3	Road is closed effectively with a barbed wire fence and overgrown vegetation. Road receives no use other than some light foot traffic.
1400575	0	0.6	0.6	Road is effectively closed with overgrown vegetation and shows no signs of use.
1400580	0	0.3	0.3	Road is effectively closed with a large earth berm and shows no sign of use. Road is almost completely overgrown and returning to a natural state.
1400710	0	1.3	1.3	Road is effectively closed with a berm and shows no signs of use.
1450053	0	0.4	0.4	Effective road closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions.
1450054	0	0.2	0.2	Road is effectively closed with small conifer trees and logs in the roadway. Road shows no signs of use.
1450206	0	0.87	0.87	Effective road closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions. Road closure would additionally contribute to elk security in alternative 3.
1450431	0	0.1	0.1	Road only has moderate use for the first 500 feet until it becomes too overgrown with conifer saplings.
1450473	0	0.3	0.3	Road is effectively closed by blowdowns and is overgrown and undrivable after the first 100 feet.
1450475	0	2	2	The southeast segment of road, adjacent to a category 4 stream, has stabilized due to low use. Closure would protect the stream from erosion caused by recreational use. The northwest road entrance receives high use for the first 0.5 miles, then is effectively closed with a barbed wire fence. Road closure would additionally contribute to elk security in alternative 3.
1450477	0	0.3	0.3	Road is effectively closed with an earth berm. The road grade is indistinguishable and has returned to a natural surface.
1450480	0	0.5	0.5	Road cannot be driven past the first 100 feet where it becomes too overgrown and has many downed trees.
1450482	0	0.3	0.3	Road is overgrown and shows no signs of use.
1450505	0.05	0.9	0.85	Road is effectively closed and has returned to a natural state where it is no longer distinguishable.
1450561	0	0.4	0.4	Road is effectively overgrown and shows no signs of use. Road is spur off of closed NFS road 1450505.
1540110	0	0.8	0.8	Effective road closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired

National Forest System road number	Beginning milepost	Ending milepost	Length (miles)	Rationale
				conditions. Road closure would additionally contribute to elk security in alternative 3.
1540115	0	0.2	0.2	Road is effectively closed with large boulders at entrance and shows no sign of use.
1540610	0	0.2	0.2	Road is effectively closed with large boulders and it is overgrown so much that it is difficult to find. No evidence of designed road prism.
1540724	0	0.3	0.3	Road is within network of NFS road 1540601 and is very overgrown and effectively closed. Road becomes very steep, climbing directly up the hillslope.
1643125	0	0.3	0.3	Road has an effective closure of overgrown vegetation and receives no use. No evidence of designed road prism.
1643126	0	0.2	0.2	Short spur road. Effective closure would reduce access to a designated old growth area and move Malheur Forest Plan summer range road density toward desired conditions.
1643131	0	0.1	0.1	Road is effectively closed because it is completely overgrown and sees no use. Short spur road.
1643134	0	0.5	0.5	Road is mostly overgrown and receives no use. West entrance shows signs of low use.
1643135	0	0.7	0.7	Road is effectively closed since it is very overgrown and not used.
1643136	0	0.4	0.4	Road disrupts stream and spring function. It is located in the Malheur River Inventoried Roadless Area.
1643138	0	0.8	0.8	Road is effectively closed with trees and sagebrush. Road is not used and there is no evidence of a designed road prism past the first 200 feet.
1643144	0	0.4	0.4	Road is located in the Malheur River Inventoried Roadless Area.
1643200	0	0.3	0.3	Road is overgrown and effectively closed at 0.1 mile. Roadbed has severe rilling which could impact Miller Flat Creek and closure would reduce access to a wildlife habitat area. Road closure would additionally contribute to elk security in alternative 3.
1643389	0	0.2	0.2	Road has downed trees that block access about 200 feet in.
1643512	0	0.52	0.52	Road is effectively closed with overgrown vegetation and shows no signs of use.
1643522	0	0.2	0.2	Effective road closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions.
1643524	0	0.5	0.5	Road is located in the Malheur River Inventoried Roadless Area and disrupts a spring at the edge of the meadow. Road closure would protect a heritage resource and contribute to existing and proposed elk security.
1647049	0	0.2	0.2	Road is effectively closed with overgrown vegetation and receives no use.
1647201	0	0.25	0.25	Short spur road with low use. Effective closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions. Road closure would additionally contribute to elk security in alternative 3.

National Forest System road number	Beginning milepost	Ending milepost	Length (miles)	Rationale
1647203	0	0.5	0.5	Short spur road with low use. Effective closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions. Road closure would additionally contribute to elk security in alternative 3.
1647205	0	0.1	0.1	Short spur road with low use. Effective closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions. Road closure would additionally contribute to elk security in alternative 3.
1647217	0	0.34	0.34	Short spur road with low use. Effective closure would improve wildlife habitat, move Malheur Forest Plan summer range road density toward desired conditions, and would contribute to existing and proposed elk security.
1647218	0	0.1	0.1	Road is effectively closed with large boulders and overgrown vegetation. Road shows no signs of use.
1647220	0	0.1	0.1	Road has an effective closure of a small berm and some small conifers. Road shows no signs of use.
1647221	0.45	0.85	0.4	Effective closure would improve wildlife habitat and move Malheur Forest Plan summer range road density toward desired conditions. Road closure would additionally contribute to elk security in alternative 3.
1647234	0	0.05	0.05	Road is effectively closed and overgrown. Road shows no signs of use and there is no evidence of a designed road prism past initial 600 feet.
1647235	0	0.2	0.2	Road has an effective closure of a large boulder pile and overgrown vegetation. Road shows no signs of use.
1647443	0	0.6	0.6	Road is overgrown and cannot be accessed by vehicles.
1647447	0	0.2	0.2	Road shows no signs of use and is effectively closed by vegetation. Road is within NFS road 1647433.
1647460	0	0.4	0.4	Effective closure would reduce erosion, improve wildlife habitat, and move Malheur Forest Plan summer range road density toward desired conditions. Road closure would additionally contribute to elk security in alternative 3.
1647461	0	0.2	0.2	Road is very overgrown and shows no signs of use.
1647524	0	0.1	0.1	Road has an effective closure of a berm and large rocks. Road sees no use.
1647565	0	0.13	0.13	Road is overgrown and effectively closed with no signs of use.
1647566	0	0.01	0.01	Road is overgrown and effectively closed with no signs of use.
1647572	0	0.3	0.3	Road has an effective barrier of overgrown vegetation and boulders. Road shows no signs of use and the entrance is not visible.
1647585	0	0.1	0.1	Road is overgrown and undrivable by a vehicle.
1663282	0	0.2	0.2	Road is unused and is no longer distinguishable from the surrounding landscape.

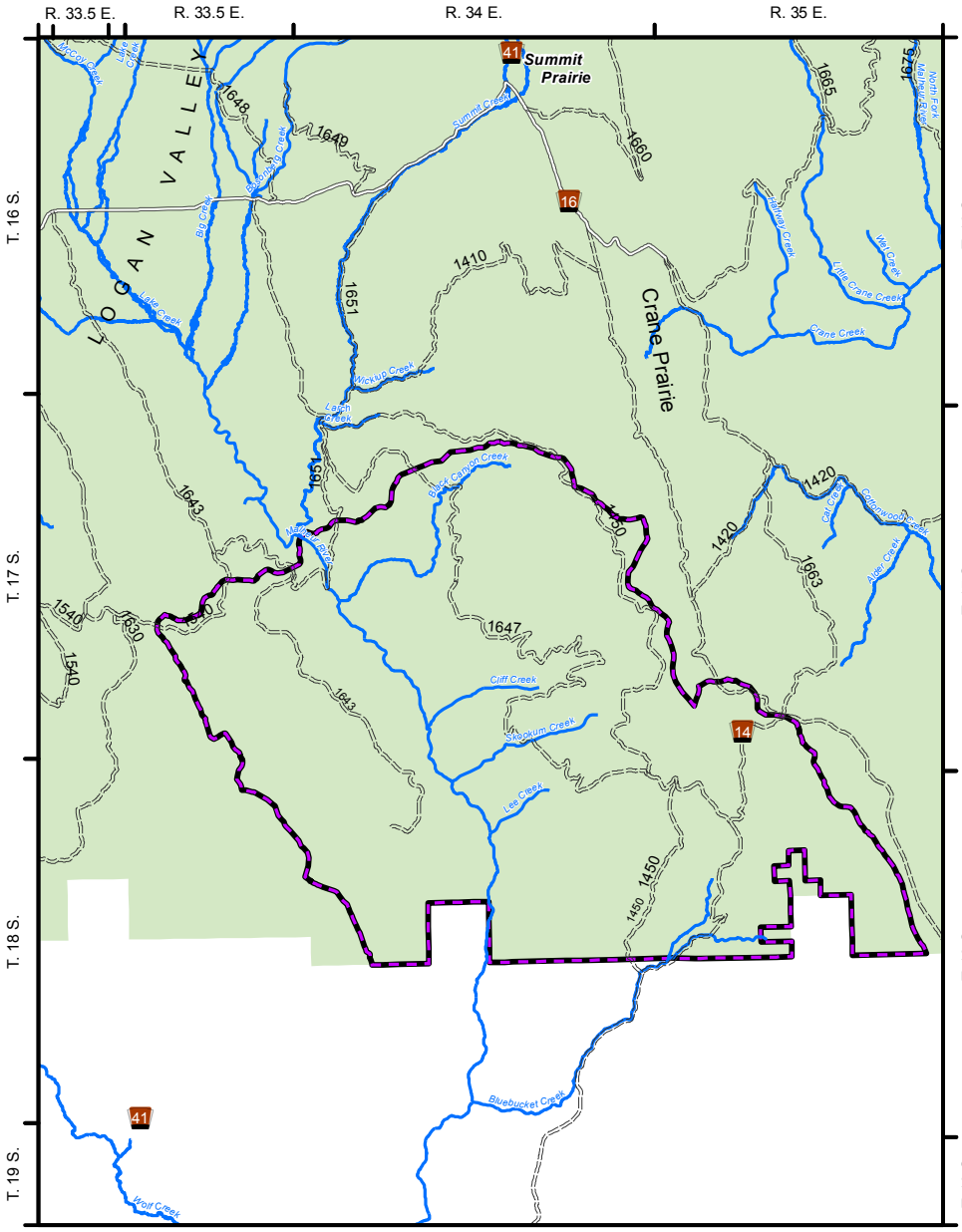
Cliff Knox Project
Draft Record of Decision

Appendix B – Maps

Maps

Cliff Knox Project

Map 1 Vicinity Map



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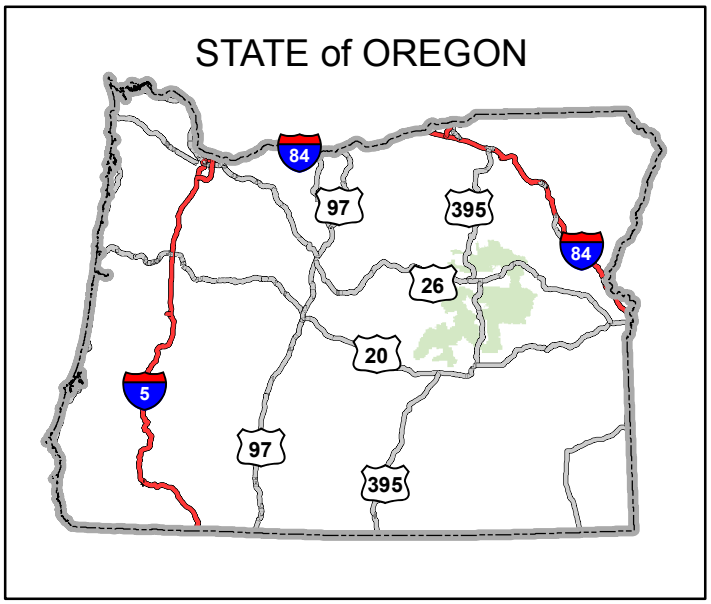

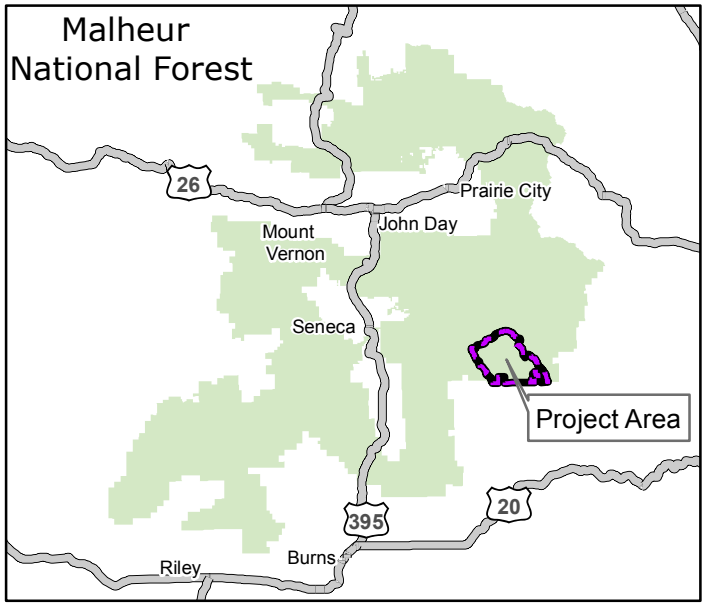

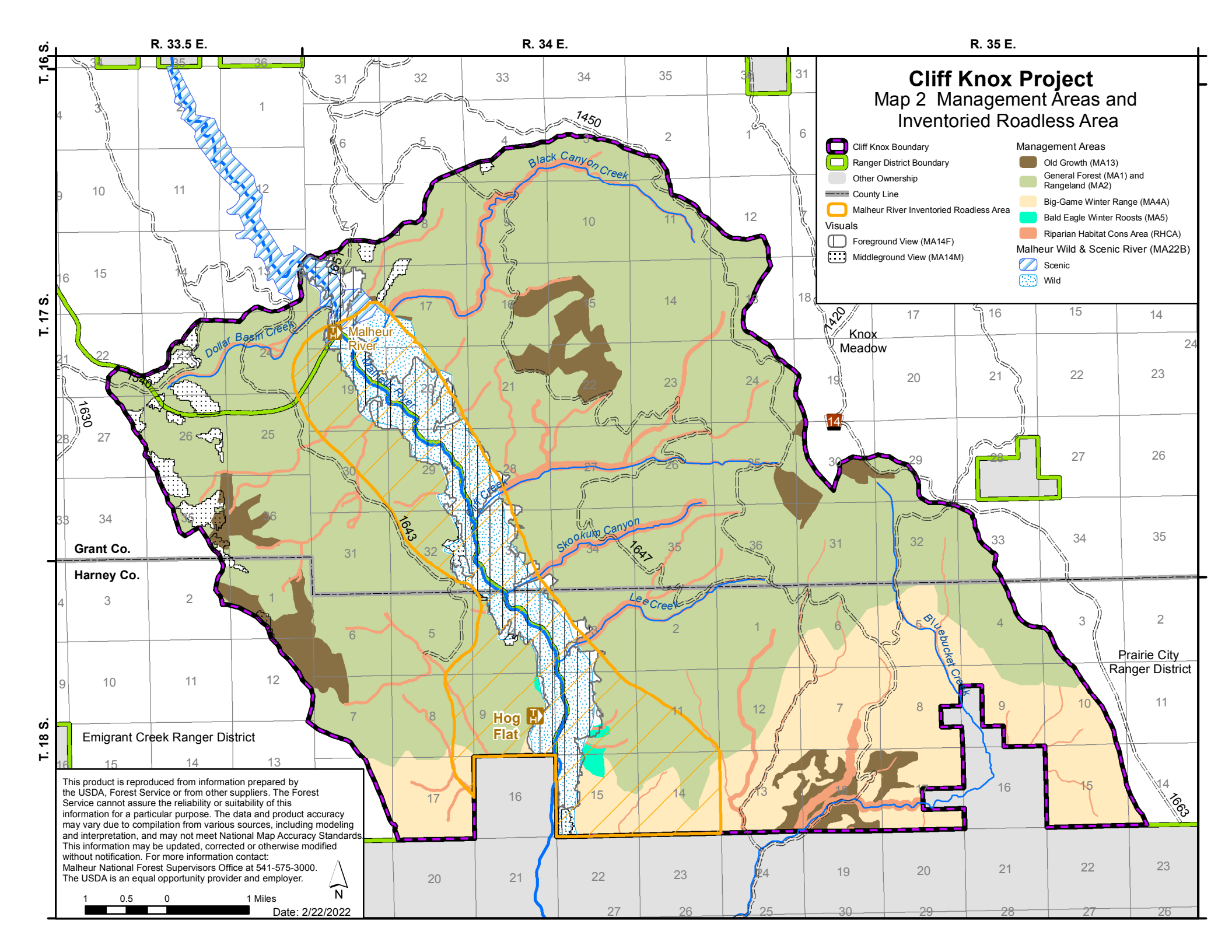
Cliff Knox Project
Map 2 Management Areas and Inventoried Roadless Area
Cliff Knox Boundary
Ranger District Boundary
Other Ownership
County Line
Malheur River Inventoried Roadless Area
Visuals
Foreground View (MA14F)
Middleground View (MA14M)
Management Areas
Old Growth (MA13)
General Forest (MA1) and Rangeland (MA2)
Big-Game Winter Range (MA4A)
Bald Eagle Winter Roosts (MA5)
Riparian Habitat Cons Area (RHCA)
Malheur Wild & Scenic River (MA22B)
Scenic
Wild
R. 33.5 E.
R. 34 E.
R. 35 E.
T. 16 S.
T. 17 S.
T. 18 S.
Black Canyon Creek
Dollar Basin Creek
Malheur River
Silver Creek
Skookum Canyon
Lee Creek
Bluebucket Creek
Knox Meadow
Hog Flat
Grant Co.
Harney Co.
Emigrant Creek Ranger District
Prairie City Ranger District
1450
1420
1540
1630
1643
1647
1663
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1 0.5 0 1 Miles
N
Date: 2/22/2022

R. 33.5 E.

R. 34 E.

R. 35 E.

T. 17 S.

T. 18 S.

Cliff Knox Project

Map 3 Selected Alternative
Forest Restoration & Unique Habitat
Vegetation Activity Description

- Cliff Knox Boundary
- Ranger District Boundary
- Other Ownership
- County Line
- Malheur River Inventoried Roadless Area

Malheur Wild and Scenic River corridor

- Scenic
- Wild

Description of Activity

- Dry Pine Restoration
- Meadow Enhancement
- Mixed Conifer Restoration
- Mountain Mahogany Restoration
- Old Growth Habitat and Connectivity Enhancement
- Pine Savannah Habitat Restoration
- Riparian Restoration
- Shrub Steppe Restoration
- Aspen Restoration
- Strategic Fuels

Black Canyon Creek

Dollar Basin Creek

Malheur River

Malheur River

Cliff Creek

Skookum Canyon

Lee Creek

Bluebucket Creek

Malheur River

Hog Flat

Knox Meadow

Grant Co.

Harney Co.

Emigrant Creek Ranger District

Prairie City Ranger District

1647

1630

1541

1420

1450

1643

1663

4102

1 0.5 0 1 Miles

N

Date: 3/1/2022

Cliff Knox Project

Map 4 Selected Alternative
Forest Restoration & Unique Habitat
Vegetation Proposed Treatment

- Cliff Knox Boundary
- Ranger District Boundary
- Other Ownership
- County Line
- Malheur River Inventoried Roadless Area

Malheur Wild and Scenic River corridor

- Scenic
- Wild

Proposed Treatment

- Commercial Thinning
- Commercial Thinning;Small Diameter thin/Biomass Removal
- Non-Commercial Thinning
- Small Diameter Thinning/Biomass Removal
- RHCA Mechanical Areas

R. 33.5 E.

R. 34 E.

R. 35 E.

T. 17 S.

T. 18 S.

Malheur River

Black Canyon Creek

Bull Run Basin Creek

Malheur River

Cliff Creek

Skookum Canyon

Lee Creek

Hog Flat

Knox Meadow

Bluebucket Creek

Grant Co.

Harney Co.

Emigrant Creek Ranger District

Prairie City Ranger District

1630

1647

1651

1643

1450

1420

1663

4102

N

1 0.5 0 1 Miles

Date: 3/1/2022

Cliff Knox Project
Map 5 Selected Alternative Burn Block

- Cliff Knox Boundary
- Ranger District Boundary
- Other Ownership
- County Line
- Malheur River Inventoried Roadless Area

Block
1
2
3
4

R. 33.5 E.
R. 34 E.
R. 35 E.
T. 17 S.
T. 18 S.

Malheur River
Hog Flat
Knox Meadow
Black Canyon Creek
Dollar Basin Creek
Malheur River
Cliff Creek
Skookum Canyon
Lee Creek
Bluebucket Creek
1630
1647
1651
1643
1500
1450
1420
1663
4102
Grant Co.
Harney Co.
Emigrant Creek Ranger District
Prairie City Ranger District

1 0.5 0 1 Miles

N

Date: 3/1/2022

R. 33.5 E.

R. 34 E.

R. 35 E.

T. 17 S.

T. 18 S.

Cliff Knox Project

Map 6 Selected Alternative
Management Area 13 Expansions, Late & Old Structure, and Connectivity Corridors

- Cliff Knox Boundary
- Ranger District Boundary
- Other Ownership
- County Line
- Scenic River Corridor (MA22B)
- Wild River Corridor (MA22B)
- Late and Old Structure Stands
- Existing ConnectivityCorridors
- Proposed Connectivity Cooridors

Existing MA13

- Dedicated Old Growth
- Replacement Old Growth

Updated MA13

- Dedicated Old Growth
- Replacement Old Growth

Summit Project

Elk 10 Project

Knox Project

Wolf Project

Malheur River

Dollar Basin Creek

Black Canyon Creek

Cliff Creek

Skookum Canyon

Lee Creek3

Bluebucket Creek

Grant Co.

Harney Co.

Emigrant Creek Ranger District

Prairie City Ranger District

Hog Flat

1 0.5 0 1 Miles

N

Date: 3/1/2022

R. 33.5 E.

R. 34 E.

R. 35 E.

T. 17 S.

T. 18 S.

Cliff Knox Project

Map 7 Selected Alternative Road System Changes

- Cliff Knox Boundary
- Ranger District Boundary
- Other Ownership
- County Line
- Major Road (ML3, ML4, ML5)
- High Clearance Road (ML2)
- Closed Road (ML1)

Proposed Road Maintenance Level(ML)

- Close Road
- Open Road
- Decommission Road
- Construct New Road
- Confirm Closed Roads

Malheur River

Dollar Basin Creek

Malheur River

Black Canyon Creek

Cliff Creek

Hudkum Canyon

Lee Creek

Bluebucket Creek

Knox Meadow

Hog Flat

Grant Co.

Harney Co.

Emigrant Creek Ranger District

Prairie City Ranger District

1647565
1647566
1647461
1647460
1647218
1647220
1647201
1647205
1643512
1647221
1647217
1647235
1647572
1647447
1647443
1647234
1450053
1450431
1540724
1540610
1540602
1540115
1643524
1643522
1540110
1643136
1643138
1643200
1643134
1643135
1643125
1643126
1647585
1647524
1647049
1450054
1450561
1450505
1643389
1643144
1643131
1450490
1400580
1450473
1450206
1450477
1450480
1450482
1450475
1400278
1400575
1400710
1663282
1630
1647
1651
1420
1450
1663
4102

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1 0.5 0 1 Miles

N

Date: 3/1/2022

R. 33.5 E.

R. 34 E.

R. 35 E.

T. 17 S.

T. 18 S.

Cliff Knox Project

Map 8 Selected Alternative Haul Routes and Temporary Roads with Quarry sites

- Cliff Knox Boundary
- Ranger District Boundary
- Other Ownership
- County Line
- Rock Pits
- Major Road
- High Clearance Road
- Selected Alternative Haul Routes
- Selected Alternative Temporary Roads

Malheur River

Dollar Basin Creek

Malheur River

Black Canyon Creek

Cliff Creek

Skookum Canyon

Lee Creek

Bluebucket Creek

Knox Meadow

Hog Flat

Grant Co.

Harney Co.

Emigrant Creek Ranger District

Prairie City Ranger District

1630

1647

1643

1450

1420

1663

4102

1 0.5 0 1 Miles

N

Date: 3/1/2022