United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Grants Pass Field Office
2164 NE Spalding Avenue
Grants Pass, Oregon 97526
www.blm.gov/or/districts/medford

JUL 29 2015

1790 (ORM070)
DOI-BLM-OR-M070-2013-003-EA

Dear Interested Party:

As the Grants Pass Field Manager, I have signed the Decision Record (DR) and the Final Finding of No Significant Impact (FONSI) for the Lower Grave Vegetation Management Project. The project is located within the Grave Creek watershed. The Selected Action Alternative is Alternative 2.

Forest management activities include:

- Commercial harvest of 582 acres within the Matrix and Riparian Reserve Land Use Allocations; and
- Non-commercial hazardous fuels reduction treatments on 378 acres within the Matrix and Riparian Reserve Land Use Allocations.

Road work activities include:

- Construction of 0.31 miles of permanent road;
- Temporary construction of 1.12 miles of routes;
- Reconstruction of 0.78 miles of existing routes;
- Construction of 0.21 miles of temporary cable-tractor swing routes; and
- Road maintenance on 45 miles of existing haul roads.

The activities associated with the Lower Grave Vegetation Management Project are analyzed in an Environmental Assessment (EA) (DOI-BLM-OR-M070-2013-003-EA). The EA was made available on January 14, 2015 for a 45-day public comment period. The BLM's responses to public comments are included in Appendix A of the DR. These comments were considered in reaching a final decision for the Lower Grave Vegetation Management Project.

You can review the DR and FONSI at http://www.blm.gov/or/districts/medford/plans/plans.php, the Medford District's internet site. Hard copies of the DR and FONSI are also available at the Grants Pass Interagency Office, 2164 NE Spalding Avenue, Grants Pass, OR 97526. Office hours are Monday through Friday, 7:45 A.M. to 4:30 P.M., closed holidays. For additional information contact Ferris Fisher, Planning and Environmental Coordinator, at (541) 471-6639 or ffisher@blm.gov.

This is a forest management decision. Administrative remedies are available to persons who believe they will be adversely affected by the decision. In accordance with the BLM Forest Management Regulations (43 CFR § 5003.2(a)), the decision for this project will not become

effective, or be open to formal protest, until the first Notice of Sale appears in the *Grants Pass Daily Courier* and the *Medford Mail Tribune* on July 30, 2015.

43 CFR § 5003.3 subsection (b) states, "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. Only written and signed hard copies of protests that are delivered to the Grants Pass Interagency Office will be accepted. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

Sincerely,

Allen Bollschweiler
Field Manager
Grants Pass Field Office

DECISION RECORD
FOR THE
LOWER GRAVE VEGETATION MANAGEMENT PROJECT
ENVIRONMENTAL ASSESSMENT
DOI-BLM-OR-M070-2013-003-EA

United States Department of the Interior
Bureau of Land Management
Medford District, Grants Pass Field Office

I. INTRODUCTION

This Decision Record (DR) addresses forest management activities analyzed in the Lower Grave Vegetation Management Project Environmental Assessment (EA), DOI-BLM-OR-M070-2013-003-EA. Activities analyzed in this EA are within the Matrix and Riparian Reserve Land Use Allocations, contained within the Medford District's 1995 Resource Management Plan (RMP). The Selected Action Alternative is Alternative 2.

This DR authorizes forest management activities that improve forest health and vigor and reduce wildfire danger while providing a sustainable supply of timber and other forest commodities. Forest management is appropriate at this time to manage stands within the Planning Area in order to reduce stand density, increase residual tree vigor, increase fire suppression effectiveness and provide an "active management entry" that is economically feasible (RMP pp. 179-180; RMP/EIS p. 2-62). Forest management activities covered in this DR include:

- Commercial harvest of 582 acres within the Matrix and Riparian Reserve Land Use Allocations
- Non-commercial fuels hazard reduction treatments on 378 acres within the Matrix and Riparian Reserve Land Use Allocations
- Use of 7 existing 1 acre helicopter landings; Construction of 2-1 acre helicopter landings
- Construction of 0.31 miles of permanent road
- Temporary construction of 1.12 miles of routes
- Reconstruction of 0.78 miles of existing routes
- Construction of 0.21 miles of cable-tractor swing routes
- Road maintenance on 45 miles of existing haul roads

Nine potential helicopter landings have been identified and analyzed within the EA. All of the helicopter landings occur on BLM managed lands. Seven of the landings are along existing roads. These areas are already disturbed, as they occur along existing roads but may need to be improved prior to use. The two remaining landings are within units 32-C and 35-C2. The 2 landings within the units will clear 1 acre of vegetation to deck and process logs. The 2 landings within the units will be fully decommissioned after use. It is not likely that all 9 landings will be utilized; however, all 9 landings were analyzed in the EA thus all 9 landings remain valid operable options (EA, p. 23).

Best Management Practices (BMPs), Project Design Features (PDFs) and seasonal restrictions will be implemented with this decision and are disclosed in the EA. (Chapter 2.3: Best Management Practices and Project Design Features, pp. 23-37).

The Lower Grave Vegetation Management (LGVM) Project Planning Area is located east of the community of Sunny Valley, east of I-5, south of Coyote Creek road and both north and south of Placer Road. The ownership within the Planning Area forms a "checkerboard" pattern of public and private ownership which is typical of Western Oregon BLM administered lands. The Planning Area is located within the Lower Rogue sub-basin in a portion of the Grave Creek watershed.

Appendix B contains a detailed map and a unit table.

II. PUBLIC INVOLVEMENT

The BLM initiated external scoping for this project on February 7, 2013. A project map and scoping letter were mailed to 360 residents within the LGVM Planning Area boundary and ¼ mile adjacent to the boundary. A public meeting and field tour were hosted on February 23, 2013 in the Wolf Creek area (EA, p. 10). Notice of scoping was made available in the Medford District BLM's Medford Messenger during the winter of 2012/2013.

Public scoping comments were requested by March 13, 2013. The BLM received a total of 14 public comments (letters, emails and phone calls). Scoping comments are responded to in Appendix 9 of the EA (pp. 220-232).

A legal notice, advertising the release of the LGVM EA, was published in the *Grants Pass Daily Courier* on January 14, 2015. In addition to the release of the EA, a Lower Grave Vegetation Management Project Reader's Guide was made available. The Reader's Guide offers an illustrated pamphlet to assist the public in understanding the EA. The GPFO offered a 45-day public comment period due to the length of time between initial public scoping and the release of the EA. This extended comment period allowed the public to reacquaint themselves with the project. The GPFO received 6 public comments and 883 email form letters. Comments are responded to in Appendix A of this Decision Record.

The scoping letter, Reader's Guide, Environmental Assessment and detailed maps are available on the Medford District's BLM website: http://www.blm.gov/or/districts/medford/plans/plans-details.php?id=2353

III. PLAN CONFORMACE, CONSULTATION, COORDINATION & COOPERATION

Land Use Plan Conformance

The Planning Area in this Decision is within the Matrix and Riparian Reserve Land Use Allocations (LUA) as defined in the Northwest Forest Plan/Medford District Resource Management Plan, Record of Decision 1995. Management in this LUA specifically directs the

Medford District to:

- Control stand density, maintain stand vigor, and place or maintain stands on developmental paths so that desired stand characteristics result in the future (RMP p. 185).

- Reduce both natural and activity based hazardous fuels through methods such as prescribed burning, manipulation of forest vegetation and debris, removal of forest vegetation and debris, and combinations of these methods (RMP p. 91).

- Reduce stand density for residual tree vigor and development and provide an active management entry that is economically feasible (RMP pp. 179-180; RMP/EIS p. 2-62).

- Produce a sustainable supply of timber and other forest commodities in conformity with the principles of sustained yield and distribute timber receipts to O&C counties (RMP, p. 38).

Endangered Species Act, Section 7 Consultation

Northern Spotted Owl
Medford BLM submitted a Biological Assessment (April 4, 2013) and received a Biological Opinion (BiOp) (June 21, 2013) from the USFWS (Howard Graves Formal-TAILS#: 01EOFW00-2013-F-0137) for the LGVM Project. After discussion with the USFWS, the Medford BLM reinitiated consultation, submitting an amendment to the Lower Grave BA (March 27, 2015). The amendment addresses changes to the Proposed Action, including dropping units and modifying prescriptions for other units to reduce effects to NSO. The changes have affected several sections of the original 2014 BA, so the BA amendment completely replaced the Lower Grave BA that was submitted to the USFWS on October 20, 2014. This Biological Assessment evaluates the Lower Grave project and stated that the project "may affect and is likely to adversely affect" (LAA) spotted owls. Treatments are proposed in the 2012 revised designated NSO critical habitat that "may affect and are likely to adversely affect" (LAA) critical habitat. No other listed wildlife species or critical habitats are affected.

Medford BLM received a BiOp (June 1, 2015) from the USFWS (Lower Grave Timber Harvest Project TAILS#: 01EOFW00-2015-F-0028). The Opinion includes a finding that the Proposed Action is anticipated to have adverse effects to NSOs, but is not likely to jeopardize the NSO, and is not likely to adversely modify NSO critical habitat (BiOp, p. 55).

Plants
There are three federally listed plants on the Medford District (*Fritillaria gentneri*, *Limnanthes flocossa* ssp. *grandiflora*, and *Lomatium cookii)*. The LGVM Planning Area does not fall within the range of *Lomatium cookii*, but a portion of the Planning Area is within the range of *Fritillaria gentneri*, as determined by the 2004 USFWS's BiOp. Final units were surveyed according to the USFWS's 2-year protocol; vascular plant surveys were conducted in the springs of 2010, 2011, 2012, and 2013, and no new *Fritillaria gentneri* sites were found. There will be no anticipated effect from Alternative 2 on any federally listed plant (EA, p. 168).

Survey and Manage and Bureau Sensitive Species Compliance

The project is consistent with the 2001 Record of Decision (ROD) and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines.

Red Tree Vole
Oregon red tree vole (RTV) (*Arborimus longicaudus*) is a 2001 ROD Survey and Manage species (Category C, survey and manage known sites). The Grants Pass Resource Area completed 1,170 acres of RTV protocol surveys in May 2013. Fifty-five active RTV nest trees were detected in the Planning Area. Ten acre habitat management areas were applied to each site according to Management Recommendations (BLM-IM-OR-2000-086). Harvest related activities will occur within one site potential tree height of 3 RTV sites (4 active and 1 inactive nests), designated as non-high priority sites (BLM-IM-OR-2012-036). A letter was received by the USFWS concurring with the BLM's assessment that two of the three sites are expected to continue to provide nesting, foraging, and dispersal opportunities for RTVs after project implementation with reduced short-term habitat quality. The third site will no longer provide suitable habitat after project implementation until stand regeneration results in suitable habitat conditions (Tails #: 01EOFW00-2015-F-0028). The non-high priority site designation is located within the project Administrative Record.

Vascular Plants, Nonvascular Plants & Fungi
Implementation of PDFs will eliminate or minimize direct and indirect effects of the Proposed Action on Bureau Sensitive and Survey and Manage (S&M) vascular plants, nonvascular plants, and fungi. No Sensitive Status or S&M vascular, nonvascular, or fungi species will trend toward listing (sensitive) or cease persisting (S&M) as a result of implementing the activities in the Proposed Action (EA, p. 176).

No Bureau Designated Sensitive or S&M vascular, nonvascular, fungi, or wildlife species will trend toward listing (Bureau Sensitive) or cease persisting (S&M) as a result of implementing the activities in the Proposed Action (EA, p. 176).

State Historical Preservation Office Consultation & Tribal Coordination

Cultural
Cultural surveys were completed (January 6, 2014) for the LGVM Project pursuant to the *Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon*. Archaeological surveys identified 4 sites within the project's area of potential effect. These sites will be protected using PDFs. Only one site – a mile long section of the Columbia Mines Co. Upper Mining Ditch – OR110-1824 - will be flagged for avoidance and protection as it bisects a project unit. The other three sites are Not Eligible for listing on the National Register of Historic Places (NRHP) (SHPO Concurrence, February 3, 2015) and do not warrant protection. OR110-1824 will be protected because it has been left unevaluated for listing on the NRHP.

The BLM submitted the LGVM Project Report to SHPO for formal review on December 19, 2014 (SHPO Report# 2730). A letter of concurrence was received by the BLM on February 3, 2015. SHPO concurred that the project "will likely have no adverse effect on site (OR110-1824) or any other known archaeological sites."

The other three cultural sites in the Areas of Potential Effects have been determined as Not Eligible for listing on the NRHP (SHPO concurrence February 3, 2015) and do not require any protection measures (FONSI, p. 4).

The BLM has coordinated with the following Tribes to ensure their aboriginal ties to the Planning Area were considered: Cow Creek Band of Umpqua Tribe of Indians, Confederated Tribes of the Grand Ronde Community of Oregon, and Confederated Tribes of the Siletz Indians of Oregon.

IV. DECISION

Based on my review of the LGVM Project EA, best available science, comments received from the public, and management direction contained in the Record of Decision and Standards and Guidelines of the Northwest Forest Plan (1994), Medford District Resource Management Plan and Record of Decision (1995), I have decided to authorize a portion of the Proposed Action as described in Alternative 2. This Decision authorizes 50 acres less than the amount analyzed within the EA. The 50 acres were deferred from treatment to reduce effects to northern spotted owls and buffer botany sites.

This Decision authorizes the commercial harvest of approximately 582 acres and non-commercial fuel hazard reduction treatments on 378 acres in the Matrix and Riparian Reserve Land Use Allocations. The Decision will incorporate all Project Design Features (PDFs), Best Management Practices (BMPs) and seasonal restrictions as described in the EA, pp. 23-37. Logging operations include ground based, cable and helicopter systems. To facilitate harvest activities, construction of 0.31 miles of new permanent roads will be constructed, 1.12 miles of new temporary route construction, 0.78 miles of existing temporary route re-constriction, 0.21 miles construction of a cable-tractor swing route, and 45.0 miles of road maintenance will occur. Temporary routes on BLM lands will be decommissioned after use. Table 1 below represents the Proposed Action as described under Alternative 2.

Table 1: Proposed Action Summary

Forest Management Treatments (Acres)			
Activity		**Matrix LUA**	**Riparian Reserve LUA**
Commercial Thinning		153	41
Variable Density Thinning		308	9
Regeneration Harvest		62	0
Density Management		7.5	1.5
Hazardous Fuel Reduction		295	83
Total Acres		**825.5**	**134.5**
Harvest Method	**Acres**	**Road Work**	**Mileage**
Ground based	161	New Temp route construction	1.12
Cable yarding	384	Existing Temp route re-construction	0.78
Helicopter yarding	37	Permanent road construction	0.31
Helicopter landings	9	Tractor Swing route	0.21
		Road maintenance	45
For the location of harvest methods and road work see Appendix B: Maps			

V. DECISION RATIONALE

My rationale for the decision is as follows:

Alternative 2 meets BLM's obligation to implement the RMP and to address the primary needs identified for lands in the Planning Area, as well as meeting the purpose and need of the project to implement forest management activities.

I have chosen a portion of Alternative 2, because it will meet all of the elements of the purpose and need. Alternative 2 authorizes active forest management on 960 acres. Alternative 2 meets the RMP direction to, "reduce stand density for residual tree vigor and development and provide an active management entry that is economically feasible" (RMP pp. 179-180; RMP/EIS p. 2-62). To facilitate an economically feasible entry the construction of 0.31 miles of permanent road will be constructed, 1.12 miles of new temporary routes will be constructed, 0.21 miles of cable-tractor swing route will be constructed and 0.78 miles of existing routes will be renovated. To ensure resource damage does not occur from hauling activities 45.0 miles of haul routes will be maintained.

Alternative 2 meets the RMP direction to "Control stand density, maintain stand vigor, and place or maintain stands on developmental paths so that desired stand characteristics result in the future" (RMP, p. 185). This Decision authorizes 161 acres of ground based harvesting methods, 384 acres of cable yarding, and 37 acres of helicopter yarding to achieve the RMP goals listed above (RMP, p. 185, EA, p. 9).

Alternative 2 meets the RMP direction to "Reduce both natural and activity based fuel hazards through methods such as prescribed burning, manipulation of forest vegetation and debris, removal of forest vegetation and debris, and combinations of these methods" (RMP, p. 91). "Forest structure alterations…would result in disrupting fuel continuity, uniformity and structure and a reduction to fire hazard, fire size and reduced chance of loss of values at risk in the PA"

(EA, p 62). "Alternative 2 would help restore, maintain, and enhance fire-adapted ecosystems by reducing fire hazard within the landscape" (EA, p. 64).

All project activities authorized within this Decision are subject to the implementation of Best Management Practices (BMPs), Project Design Features (PDFs) and seasonal restriction which will mitigate any potential resource damage. Soil erosion and sensitive soils will be protected: "Because of the implementation of PDFs, accelerated erosion, chronic erosion, or excessive soil displacement that would occur as a result of any Proposed Actions associated with this project is not expected. The magnitude and extent of soil erosion from all activities would be consistent with the impact analysis and conclusions provided in the1994 Medford RMP EIS" (EA, p. 128).

I chose not to select the No Action Alternative because it would not meet the Purpose and Need of the Project. Under the No Action Alternative, reductions in stand density would not occur, stand and tree development would not be maintained on a desired trajectory, naturally occurring fuel loading would not be reduced, and an economically feasible harvest entry would not be achieved. The No Action Alternative would not produce a sustainable supply of timber and other forest commodities in conformity with the principles of sustained yield and to distribute timber receipts to O&C counties (EA, p. 9).

A Finding of No Significant Impact (FONSI) explains that the portion of Alternative 2 that I have selected has been analyzed in an Environmental Assessment and has been found to have no significant impacts, thus an Environmental Impact Statement is not required, and will not be prepared.

VI. ADMINISTRATIVE REMEDIES

In accordance with Forest Management regulations at 43 CFR Subpart 5003 – Administrative Remedies, publication of the first Notice of Sale for the Timber Sale constitutes the decision document for the purposes of protest. Protest of the timber sale decision may be filed with the authorized officer, Allen Bollschweiler, within 15 days of the publication date of the Notice of Sale in the *Daily Courier* newspaper in Grants Pass, Oregon, and the *Medford Mail Tribune* in Medford, Oregon. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

43 CFR § 5003.3 subsection (b) states, "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. **Only written and signed hard copies of protests delivered to the Grants Pass Interagency Office will be accepted.** The Grants Pass Interagency Office is located at 2164 NE Spalding Ave, Grants Pass, Oregon, 97526.

43 CFR § 5003.3 subsection (c) states, "Protests received more than 15 days after the publication of the first notice of sale are not timely filed and shall not be considered." Upon timely filing of a protest, the authorized officer shall reconsider the project decision to be implemented in light of the statement of reasons for the protest and other pertinent information available to him. The authorized officer shall, at the conclusion of the review, serve the protest decision in writing to the protesting party. Upon denial of a protest, the authorized officer may proceed with the

implementation of the decision as permitted by regulations at 5003.3(f).

VII. IMPLEMENTATION DATE

If no protest is received by the close of business (4:30 p.m.) within 15 days after publication of the Legal Notice, the decision will become final. If a timely protest is received, the decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available and a final decision will be issued in accordance with 43 CFR § 5003.3.

VIII. CONTACT PERSON

For additional information contact either Allen Bollschweiler, Field Manager, Grants Pass Field Office, 2164 NE Spalding Ave., Grants Pass, OR 97526, telephone (541) 471-6653; or Ferris Fisher, Planning and Environmental Coordinator, telephone (541) 471-6639.

Allen Bollschweiler
Field Manager
Grants Pass Field Office

7/30/15
Date

APPENDIX A
LOWER GRAVE VEGETATION MANAGEMENT PROJECT
RESPONSE TO ENVIRONMENTAL ASSESSMENT PUBLIC COMMENTS

BLM Response to Public Comments

The BLM received 5 letters in response to the release of the Lower Grave Vegetation Management Project EA. Comment letters were received from 2 private citizens, 880 form emails (all form mails contained the same content), Klamath-Siskiyou Wildlands Center (KS Wild), and Oregon Wild. The BLM's response to comments follows.

Topics covered in this document

1) Field Tours
2) Red Tree Vole
3) Contour Ditches
4) Timber Volume
5) LUA/Ownership
6) Watershed Analysis
7) Silvicultural Prescription – variable density thinning vs regeneration, commercial thinning, and hardwood retention
8) Stream/fish info
9) Road Densities/St. Paul Mountain
10) Environmental Protection Zones/Sensitive soils
11) BMPs/PDFs
12) Controversy
13) Seasonal Waivers
14) Reasonable Range of Alternatives
15) Maintaining Spotted Owl Habitat
16) Ecological Forestry Alternative
17) Large Tree and Old Growth Retention
18) Riparian Reserve Commercial Logging
19) Consultation with National Marine Fisheries Service
20) O&C Act of 2015
21) Impacts to Occupied Barred Owl Habitat
22) Loss of Quality Older Forest Recreation Opportunities
23) Public Involvement
24) Klamath Mountain Province NSO
25) Barred Owls
26) Coho Salmon
27) Sedimentation
28) Disclosure of Proposed Action Metrics
29) Carbon and Climate Change
30) Environmental Impact Statement
31) Snag Recruitment
32) Literature Review
33) Wood Market
34) Trade-offs

1) Field Trips

Comment: There have been no public field trips to the project area thus far. This is an oversight, since on the ground visits are essential public outreach opportunities to incorporate local knowledge. Please schedule a field trip and consult with me and other interested neighbors as to itinerary.

Response: On February 7, 2013 a Lower Grave Vegetation Management (LGVMP) Project map and scoping letter were mailed to 360 residents within the LGVM Planning Area boundary and ¼ mile adjacent to the Planning Area boundary. The letter dated February 7 invited the public to attend a public meeting and field tour. On February 23, 2013 the BLM held the public meeting and field tour. The public meeting and field tour were held on a Saturday to better accommodate the public. There were approximately 12 public attendees. The tour visited 3 areas. Stop 1 highlighted a properly functioning riparian area which did not require treatment to achieve ACS objectives. Stop 2 was at the "children's forest" which was proposed for regeneration harvest, and subsequently dropped form the proposal. Stop 3 highlighted treatments proposed in overstocked second growth stands.

1a) Comment: Prior to the issuing of timber sale decisions, we request to meet with you briefly at your office and then make a field visit to the project area for further discussion. Our specific concerns are regeneration harvest units 3-2A, 3-2C, 15-2 and VDT units 34-2B, 34-2D.

Response: The BLM had two requests for a post EA release field tour. Following correspondence with the requesters it was determined by BLM management that the requests for information could be resolved with in-office face to face meetings. BLM staff engaged with the two commenters on separate occasions. The records for those meetings are contained within the Administrative Record.

2) Red Tree Voles

Comment: Red Tree Vole (RTV) inventories have been conducted. The specific locations are not allowed in the public record, please supply a generalized location map of their relative densities.

Response: The RTV inventories showing relative densities, along with the Non-high site priority designation is included in the Administrative Record for the project. A map showing approximate location of RTV sites is available upon request.

2a) Comment: Protection of healthy well-distributed populations of red tree vole may be important for conservation of the spotted owl because they are an arboreal species and spotted owls may have a competitive advantage in obtaining RTVs relative to barred owls which seem to forage and hunt more on the ground.

The inactive RTV nests should be fully buffered because RTV are known to frequently reoccupy previously inactive nests. Until more is known about the status and life needs of the Red tree vole, protecting this species requires buffering all active and inactive nests.

Response: Red tree vole (RTV) sites were determined following the methodology outlined in the RTV management recommendations (USDA USDI 2000) (EA, p. 77). RTV surveys were conducted in suitable habitat for project units, and active sites will be managed following RTV Management Recommendation Guidelines (USDA USDI 2000), where the BLM deviated from Management Recommendations a Non-High Priority Site analysis was conducted. Sites not needed for species persistence and negative impacts to active sites from the Proposed Action are analyzed in the Non-High Priority Site (NHP) Analysis (IM-OR-2012-036) (EA, p. 77) (See NHP analysis, Administrative Record). RTVs comprise only approximately 2.6% of the diet of NSOs in this area (Forsman 2004) (EA, p. 72).

3) Contour Ditches

Comment: Contour ditch presence has not yet been documented in the project area. Is that true? We agree these are valuable cultural/recreational assets. There is a District wide inventory of these ditches in progress the results of which will be submitted to State Historic Preservation Office, the state historic preservation office for consideration. Who is the BLM point person for this effort? And how can public input be best incorporated?

Response: Contour ditches have been documented within the Grave Creek watershed - but they will not be impacted by this project. There is a District project to identifying and document mining contour ditches, which will culminate with a report to the SHPO. This is purely a survey to document the location and NRHP eligibility of mining ditches - there is no proposal for any active management or modification, so at this time there is no plan to gather public input.

4) Timber Volume

Comment: Please supply a ball park estimate of expected timber volume associated with the Lower Grave Vegetation Management project?

Response: There is an estimated 8 million board feet (mmbf) expected from the timber sale.

5) Land Use Allocations/Ownership

Comment: There are no Connectivity Blocks in the project area.

Response: There is 1 section within the LGVM Planning Area that contains a Connectivity Diversity Block. It is located in T34S-R05W-Section 04. There are no treatments proposed within this section.

5a) Comment: The checkerboard land ownership pattern of BLM lands here necessitates that the BLM be especially conscious of fire hazard, water quality, wildlife and recreational needs in addition to timber production.

Response: The Federal Land Policy and Management Act (FLPMA) governs the way in which BLM land is administered. The law requires multiple-use which is defined as, "the management of public lands and their various resources values so that they are utilized in the combination that will best meet the present and future needs of the people."

The Lower Grave Project is proposing hazardous fuel reduction treatments and the treatment of

activities slash following implementation of project activities. The EA addressed the beneficial uses of water within the Grave Creek watershed from a water quality and water quantity perspective. The Lower Grave project has formal consultation with the U.S. Fish and Wildlife service regarding NSO and NSO CHU. Additionally, this project was altered to decrease negative impacts to NSOs and their critical habitat. As identified within the EA, there are no designated recreation sites within the Lower Grave Project Planning Area. The EA did analyze for project effects on dispersed recreation within the Planning Area.

6) Watershed Analysis

Comment: Is the 1999 Grave Creek WA being used? The Grave Creek Watershed Analysis of 1999 remains the only comprehensive inventory for baseline data, to date. The Water Quality Restoration Plan (WQRP) referenced in the planning document was generated in 2001 by DEQ, incorporating much of the information in BLM's WA. A new Watershed Analysis (WA) is overdue. The impact analysis of the proposed project on aquatic systems is therefore incomplete.

Response: The Grave Creek watershed analysis was utilized as a guidance document (baseline information) to inform the analysis in the EA. It was cited in the Reference section on page 163 of the EA. It is mentioned early on the EA as a guiding document (EA p.8). Silvicultural Rx used the recommendations of the WA "In accordance with the Grave Creek Watershed Analysis (GCWA) (p. 93), stands 40 to 80 years old were examined as a high priority for CT treatments. Activity fuels would be treated where necessary" (EA p. 17).

The analysis in the EA and the subsequent unit layout and buffer distances are based upon information from stream surveys conducted throughout 2013. The impact analysis regarding aquatic systems is robust and based upon current conditions documented within detailed stream survey data contained within the Administrative Record.

7) Silvicultural Prescription

Comment: How is Variable Density Thinning different from Regeneration Harvest?

Response: All details and differences between the silvicultural prescriptions can be found within the EA Chapter 3.1 Vegetation Resources, pages 51-53.

Variable Density Thinning (VDT)

General descriptions for VDT can be found on page 17 of the EA. The objectives for the VDT prescription and how it influences NSO habitat can be found on pages 51-52 of the EA. Specific unit prescriptions can be found in Appendix 7 of the EA on pages 217-218.

Regeneration Harvest (RH)

General descriptions for RH can be found on page 18 of the EA. The objectives for the RH prescription and how it influences NSO habitat can be found on pages 52-53 of the EA. Specific unit prescriptions can be found in Appendix 7 of the EA on pages 216-217.

7a) Comment: Previous BLM EAs have identified alternatives that reduced environmental impacts from logging by dropping regen units or substituting increased VDT. The EA fails to provide appropriate analysis of decreased timber volume, reduced environmental impacts, and

reduced controversy by eliminating regen units. The EA fails to provide the Authorized Officer with quantitative environmental/economic tradeoffs between a future timber sale with regen units and one without regen units.

Response: As described in the Lower Grave FONSI, "the analysis contained within the EA does not represent a decision in principle about future considerations" (FONSI, p. 7). Although past EAs may have taken the course described above each Proposed Action and analysis is unique.

Regeneration harvest prescription treatments would adhere to the RMP prescription of retaining a minimum of 6-8 trees per acre (TPA) for North GFMA (EA, p. 17), while variable density thinning units focus on the retention and thinning of variable groups of trees designed to provide structure, future snags, and coarse woody debris (CWD) to enhance wildlife habitat (O'Hara 2004). These units would be thinned according to site-specific characteristics (EA, p. 17). Stated simplistically, VDT units will retain a greater numbers of TPA than regeneration harvest units, thus the volume from VDT units would be less than the volume harvested from regeneration units.

7b) Comment: The Proposed Action regen logging is a giant step back to the 1980s when this type of logging dominated. This ill-advised policy decision is certain to create public controversy and be rejected by the scientific community.

7c) Comment: Regen logging in dry forests is highly controversial with the public and scientists. Regen logging is not routine since BLM Grants Pass has not proposed regen harvest for at least ten years and have not implemented regen logging for at least 15 years. The reason for lack of regen logging on public lands is growing public disapproval of regen logging on public lands. Prominent foresters have provided BLM with reports recommending thinning but no regen harvest in dry forests. The O&C Act of 2015 would prohibit regen logging in dry forests. During the past few years BLM has promoted "ecological forestry" which relies on VDT and DM to manage dry forests.

Response: This Response pertains to Comments 7a, 7b, 7c and 10:

The commenter mentions "controversy" in regards to the regeneration harvest units. As documented in the FONSI "CEQ guidelines relating to controversy refer not to the amount of public opposition or support for the project, but to a substantial dispute as to the size, nature, or effect of the action. The effects of actions planned under the Proposed Action (EA, pp. 14-37) are similar to many forest management projects implemented within the scope of the 1995 Medford ROD/RMP (ROD/RMP, pp. 9, 39-40, 73-74, 181-182, 187-188). No unique or appreciable scientific controversy has been identified regarding the effects of the Proposed Action. There is, therefore, no known scientific controversy over the impacts of the project" (FONSI, p. 4).

The regeneration harvest prescriptions are silviculturally sound and adhere to the management direction in the 1995 RMP. These three stands have likely met or exceeded the age, 100 years, at which the culmination of mean annual increment most likely occurs in Southwestern Oregon (DOI 1995, p. 181). The 10 year age classes for these three stands are: 100, 120, and 160. When

this occurs, the rate at which the trees are growing begins to decline (EA, p. 216). Regeneration harvests prescriptions are applied to stands that meet the above RMP requirements.

The Medford District BLM has proposed regeneration harvest prescription as recently as 2011. The last sale to implement regeneration harvests occurred between the years of 2002 and 2006.

7d) Comment: What is left after the commercial thin?

Response: What remains following a CT depends on the type of NSO habitat present prior to the treatment. As stated on page 16 of the EA 40-60% canopy or as stated on page 17 of the EA 80-160 square feet of basal area.

General information regarding CT can be found in the EA on pages 16-17. The objectives for the CT prescription and how it influences NSO habitat can be found on pages 48-51 of the EA. Specific unit prescriptions can be found in Appendix 7 of the EA on pages 214-215.

7e) Comment: Is retention of diversity a priority with any of the RX's, specifically hardwood retention?

Response: The retention of diversity is a priority within all of the silvicultural prescriptions. For example on page 17 of the EA: Proposed treatments would reduce ladder fuels and risk of older tree loss from wildfire and competition while favoring retention of more fire and drought tolerant tree species (ponderosa pine, sugar pine, incense cedar and large hardwoods). Additionally, page 18 of the EA states, "Where possible, large (≥16" DBH) hardwoods would be retained in the unit." Page 18 also states "DM would enhance and promote the longevity of this stand in the future by improving vigor and retention of drought-tolerant species such as pine, cedar, oak, and large hardwoods." For HFR units page 19 of the EA states "…hardwood spacing would be 25 to 45 feet depending on hardwood size class (plus or minus 10%). Additional information regarding retention of diversity can be found within Appendix 7, Silvicultural Rx, EA (pp. 211-220).

7f) Comment: It is my understanding that this timber sale will "regenerate" some older forest stands…and replace some large fire resilient trees with fiber plantations.

Response: The Lower Grave Project is located within the Grave Creek watershed which is approximately 104,559 acres. The acres proposed for treatment under the Lower Grave Project are 960. Of the 960 acres proposed for treatment, 63 of those acres are prescribed for regeneration harvest. The 960 acres equates to approximately 1% (960/104,559 = 0.009) of the Grave Creek Watershed and the 63 acres equates to approximately 0.06% (63/104,559 = 0.0006) of the acres within the Grave Creek Watershed.

The Medford District RMP directs the BLM to propose regeneration harvest in stands over 100 years old. On the Matrix land use allocation the BLM is directed to produce a sustainable supply of timber and other forest commodities to provide jobs and contribute to community stability (RMP p. 38), which meets the purpose and need for the Lower Grave Project.

All proposed regeneration harvest units occur outside of NSO habitat circles (nest patch, core and home range circles). The proposed regeneration harvest units are not located within Critical Habitat. The USFWS Biological Opinion stated that the "Proposed Action is anticipated to have adverse effects to spotted owls, but is not likely to jeopardize the spotted owl" (BiOp, p. 1).

7g) Comment: Regen harvest will result in a dense young forest and create dense fuels close to the ground and increase fuel hazard in conflict with the stated purposes of this project.

Response: As stated on page 64 of the EA "RH prescriptions would perpetuate an early-successional condition on the landscape. Approximately 6-8 trees per acre would be retained. This type of treatment would cause a discontinuous pattern across the forest canopy and could disrupt fire behavior by creating gaps in the forest canopy. There would be a short-term increase in surface fuels and fire behavior until implementation of activity slash treatments. These units would have a reduction in potential fire behavior following reforestation until the new stand becomes well established. As the stand develops it would represent a shrub fuel model with an increased fire behavior potential as vegetation occupies the site. In the long-term, as these forest stands mature (TU or TL fuel models), fire behavior would decrease and fuel loading and ladder fuels would be reduced through Silviculture practices, and natural competition for space, moisture, light and nutrients."

8) Stream/fish info

Comment: How recent is the baseline information for "perennial fishbearing streams"?

Response: Stream identification surveys were conducted by BLM field crews between 2012 and 2013. Data regarding fish bearing stream identification is conducted by ODF as they are the entity that manages fish of the state. The most current data the BLM has access to was recorded between 1995 and 2005. This data is only updated if a biologist in the field observes and reports altered conditions to ODF.

9) Road Densities

Comment: Road density measures and the impacts of the project on St. Paul Mountain. Most of the upper half of Grave Creek was deferred from harvest for the first decade of the current BLM Land Use Plan because forest practices had so much negative impact to hydrologic function. Grave Creek has never been allowed to recover from past logging practices.

Response: Road density measures have been analyzed in Chapter 3.6 Hydrology. Road density was analyzed specifically with regards to peak flow enhancement. As stated on page 133 of the EA, "The likelihood of increases to peak flow as a result of the Proposed Actions would be low (Grant et al., 2008), based on the following: Road density within the Planning Area is well below 12% (currently 4.94%), the threshold determined by Ziemer (1981) that must be exceeded before perceptible increases of peak flow are observed."

The proposed permanent road construction within the Shanks Creek watershed was analyzed and discussed on page 138 of the EA. The analysis discloses the existing road density and the Net Gain density from the proposed permanent road. See Table 26: New Road Proposal in Shanks Creek (EA, p. 138).

The St. Paul Mountain area is located within the Planning Area on the Matrix LUA. There is no treatment proposed on the summit of St. Paul Mountain. The effects of the treatments that are proposed adjacent to St. Paul Mountain are contained with the analysis of the EA. As there is no land use allocation designation that would require additional analysis for the area, it was analyzed as a no treatment area within the larger Lower Grave Planning Area.

9a) Comment: …Construct new logging roads in an extremely heavily roaded watershed…

Response: The BLM is proposing to construct approximately 0.31 miles of permanent road, 1.1 miles of new temporary routes, and 0.78 miles of temporary route re-construction. All of the new and re-constructed temporary routes will be decommissioned after use.

The Medford District RMP does not restrict road building within the Matrix Land Use Allocation. The RMP directs the Grants Pass Resource Area to develop and maintain a transportation system that serves the needs of users in an environmentally sound manner (RMP p. 84). It also directs us to correct problems associated with high road density by emphasizing the reduction of minor collector and local road densities where those problems exist (RMP p. 84). The RMP and the RMP Environmental Impact Statement direct the BLM to reduce stand density for residual tree vigor and development and provide an active management entry that is economically feasible (RMP pp. 179-180; RMP/EIS p. 2-62).

The RMP and the Grave Creek watershed analysis mention high road densities within the Grave Creek watershed. The BLM acknowledges the high road densities and has analyzed road decommissioning in the Aquatic and Riparian Habitat Enhancement EA (DOI-BLM-OR-M000-2013-0004-EA).

Additionally, 2.86 miles of road were identified for decommissioning within the Grave Creek watershed. After further assessment by the interdisciplinary team it was determined that the 2.86 miles of road were needed to provide for future access to manage BLM administered lands. This access provides for current and future forest management activities such as: young stand management development, fuels reduction treatments, and fire suppression access. Segments of the identified roads were encumbered under reciprocal right-of-way agreements, which preclude the BLM from decommissioning. Furthermore, the procedural requirement for the BLM to decommission roads, in coordination with appropriate constituents, was beyond the timeframe needed to complete this EA.

The BLM analyzed for the minimum amount of temporary route construction and determined that deferring route construction would not permit access to harvest units making the project economically infeasible.

10) <u>Environmental Protection Zones/Sensitive Soils</u>
Comment: BLM's minimum No-Treatment stream buffers are inadequate for the highly dissected and unstable local soils and terrain.

Response: The EPZs are established within RRs based on field stream survey information. The

size of the EPZ is dependent on treatment type, soil/stream type, and existing stand conditions in order to meet ACS objectives (Appendix 2, ACS) (EA, p.19).

11) BMPs/PDFs

Comment: Unless your staff ensure that PDFs and BMPs are actually performed as described, BLM's effects predictions will be incorrect and invalidate any FONSI.

Response: The commenter has not provided specific examples of how the PDFs and BMPs are deficient. With the lack of information it is not possible to respond to the comment specifically. The analysis contained within the EA is based upon the assumption that the PDFs and BMPs are implemented and monitored by the Grants Pass Resource Area Timber Sale Administrator.

11a) Comment: Include the exact specifications of the PDFs and BMPs in the timber sale contract.

Response: The timber sale Prospectus contains the BMPs/PDFs that pertain to the timber sale portion of the project. These can be found in the "Special Provision" portion of the contract. Prospectus documents are available to the public on the Medford District website at: http://www.blm.gov/or/districts/medford/timbersales/.

11b) Comment: BLM's staff consistently fails to monitor for compliance, logging and road construction operators have consistently ignored these important mitigations in this Resource Area.

Response: See Response to 11 and 11a.

12) *Controversy*

Comment: You will also find that in all previous BLM logging projects that received public comment that the local residents were worried about the same elements being brought forward to current project proposals. Logging unstable ground in drought-prone valleys with every other square mile occupied by many affected parties who live no more than a half-mile from BLM has always been a source of controversy to residents near project areas.

Response: See Response to Comment 7b.

The BLM provides protection for resources through the implementation of BMPs/PDFs and seasonal restrictions. Citizen social controversy is a theme common to all BLM management activities; it is often a matter of preference/opinion for resource management. Many of the concerns expressed by the public are due to conflicting values. The BLM is mandated, on the Matrix LUA, to "produce a sustainable supply of timber and other forest commodities" (RMP, p. 38). This mandate may be unpopular when the proposed activities occur near residences. The BLM has completed a robust analysis for the Lower Grave Project which included public involvement (EA, p. 10; DR, Appendix A).

13) Seasonal Waivers

Comment: Do not allow operational waivers from these protections in wet season conditions.

Response: The BLM may offer waivers during the wet season if dry conditions persist.

14) Reasonable range of Alternatives

Comment: Analysis in the EA is limited to a single action alternative, the Proposed Action (PA). Analysis of a single action alternative is not adequate to provide the Authorized Officer or the public with information needed to make reasoned choices among forest management activities. The EA fails to provide analysis of important issues to inform the Authorized Officer about environmental trade-offs between increased environmental protection/public controversy and potential decreased timber volume needed to meet RMP timber volume sale quantities.

14a) Comment: BLM needs to consider a full range of NEPA alternatives. BLM needs to identify specific trade-offs caused by logging and then develop alternatives that resolve or mitigate those trade-offs.

14b) Comment: Environmental analysis documents must "[r]igorously explore and objectively evaluate all reasonable alternatives" to the project. 40 C.F.R. § 1502.14(a).

14c) Comment: It is not enough to consider just one action alternative as BLM often does. The CEQ regulations specifically require that Environmental Assessments shall follow the alternatives language in NEPA.

Response: The BLM developed a reasonable range of alternatives for the Lower Grave Vegetation Management Project EA.

Section 102(2)(E) of NEPA requires consideration of appropriate alternatives to the Proposed Actions, i.e. alternatives that will accomplish the intended purpose and need, and are technically and economically feasible. Courts have found that in approving consideration of the proposed action and a no action alternative in an EA, there is no numerical floor of alternatives to be considered. Instead the concern is with the substance of the alternatives.

The purpose and need statement for the Lower Grave Vegetation Management Project is consistent with the goals and objectives identified in the Medford RMP. The BLM analyzed a No Action Alternative and the Proposed Action. Substantive issues identified through the scoping process assisted the IDT team in shaping the Proposed Action and improving PDFs (EA, p. 11). The EA documents the incorporation of the Grave Creek Citizens Alternative (EA, p. 11). The Grave Creek Citizens Alternative "presents most of the same actions as proposed, recognizing that BLM needs to manage forestlands and make raw materials available for commerce" (Grave Creek Citizens Alternative, p. 1). Many of the topics within the Grave Creek Citizens Alternative were useful and incorporated into the analysis for this project. Topics that were not relevant to the analysis are explained in "Issues Considered but Not Analyzed in Detail" or are responded to as public comments in Appendix 9 of the EA (p. 11).

As stated on page 11 of the EA "The IDT incorporated the following substantive issues into the design of the Proposed Action , PDFs and analysis of the environmental effects found in Chapter 3.0 and Appendix 1 of the EA:

- *Landslide Hazards:* Potential loss of human life from landslides caused by federal actions, "high-risk sites" and the general slope instability in the Grave Creek area.
- *Soil and Forest Productivity:* Long-term permanent loss of soil productivity.
- *Hydrology/Aquatics:* Protection of water quality/quantity, fish and aquatic habitat.
- *Low Income Populations:* Considered Environmental Justice during the planning process.
- *Climate Change, Greenhouse Gas, and Carbon Dioxide:* Alteration of greenhouse gas and carbon dioxide emissions.
- *Esthetics:* Visual resources.

Additionally, the EA "explored and objectively evaluated a reasonable range of alternatives within law, regulation and policy." Through the planning process several issues where explored but eliminated from detailed analysis" (EA, p. 12). The following alternatives were considered by the interdisciplinary team, but not analyzed in detail:

- *Decommissioning of roads/Reducing permanent road network.*
- *Ecosystem Services*

The BLM did not find that these concerns provided for additional alternatives other than the No Action and Proposed Action. The alternatives BLM considered analyzed whether the Lower Grave Vegetation Management Project would accomplish its intended purpose and need, were technically and economically feasible, and the final project design incorporated changes responsive to environmental impacts. For the reasons stated above, BLM considered and analyzed a reasonable range of alternatives for this project.

14d) Comment: The aggressive logging proposed in the single action alternative in Grave Creek harms many of the values I care about.

Response: The purpose and need statement of the Lower Grave Project is consistent with the goals and objectives identified in the Medford RMP. The BLM analyzed a No Action alternative and the Proposed Action. The BLM considered scoping comments and used them to inform the project. Other concerns were incorporated into the analysis for the project, such as landslide hazard, soil and forest productivity, hydrology and aquatics, low income populations, climate change, and esthetics. While the timber industry wanted more regeneration harvest proposed, the amount proposed was reduced to decrease effects to NSO sites. The proposal to avoid and defer new temporary route construction, minimizing new landing construction and decommissioning unneeded roads would be the same as not taking these actions, and was therefore considered under the No Action Alternative, which allowed the BLM to compare trade-offs associated with various practices in deciding which alternative to select.

15) <u>Maintaining Spotted Owl Habitat</u>

Comment: Previous BLM EAs have identified alternatives that would not downgrade any spotted owl habitat.

Response: "Alternative 2 meets the intent of Recovery Action #10 (RA 10) of the NSO

Recovery Plan, by maintaining NRF habitat or improving dispersal or capable habitat conditions within NSO home ranges and core-use areas, and deferring treatment within complex NRF habitat within high suitable habitat on lower slopes within drainages (USFWS 2011). Downgrade and removal of NSO habitat would be limited to outside of occupied NSO site home ranges, and on or near ridgetops where NSO roosting and foraging is less or avoided (Blakesley et al., 1992) and where NSO Relative Habitat Suitability (RHS) is low according to the MaxExtent Model (USFWS 2011). Removal of NRF habitat would only occur outside of known NSO home ranges and in areas of low RHS areas, and avoids high quality NRF habitat. Downgrade of NSO habitat would only occur in low RHS areas, outside of home range area, in foraging habitat, and provide ecological benefits of retaining dominant trees and favoring retention of resilient tree species. Near ridgetops, thinned stands may improve fire defensibility" (EA, p. 87).

Additionally, the BLM formally consulted with the FWS for this project. Medford BLM received a Biological Opinion (June 1, 2015) from the USFWS (Lower Graves Timber Harvest Project TAILS#: 01EOFW00-2015-F-0028). The Opinion includes a finding that the proposed action is anticipated to have adverse effects to spotted owls, but is not likely to jeopardize the spotted owl, and is not likely to adversely modify spotted owl critical habitat.

15a) Comment: BLM monitoring, KS wild monitoring, and monitoring by others has found that "maintenance" thinning intended to maintain spotted owl habitat has actually downgraded and removed spotted owl habitat. BLM prescriptions cannot be trusted to achieve minimum post-harvest canopy levels needed to maintain habitat. This issue has only become fully apparent in 2014. We did not know about "inconsistent" maintenance thinning during February 2013 scoping.

Response: Past projects relied on canopy cover measurements to ensure spotted owl habitat was maintained. Through various monitoring efforts it was discovered that this metric alone was not enough to ensure that spotted owl habitat was actually being maintained. To remedy this issue the USFWS provided guidance in a May 2015 document (*Recovery Plan Implementation Guidance: Interim Recovery Action 10*, p.27) which provides a measurement of basal area to be retained for each NSO habitat type. The basal area metric is a more quantitative approach to maintaining spotted owl habitat. As stated in the EA on pages 99-100, Canopy cover within treated stands will be maintained at 60% or greater post-treatment. Additionally, nest quality stands will maintain a quadratic mean diameter (QMD) of > 15" DBH and will maintain a total basal area (conifer and hardwoods) between approximately 180-200 feet squared per acre (McKelvey 1). Foraging stands will maintain a QMD of > 14" DBH and will maintain a total basal area (conifer and hardwoods) between approximately 150-180 total basal area per acre (McKelvey 2).

As demonstrated on pages 51-52 of the EA, meeting basal area retention requirements are a project priority. In addition to the basal area requirements, the marking guides for the Lower Grave Project require retaining complex habitat features important to spotted owl habitat. The EA states that "the NRF stand will retain at least 60% canopy cover. In treatment areas with large trees, multistoried canopy, standing and down dead wood, diverse understory adequate to support prey, mistletoe or other decay, platforms for nesting, and large trees with cavities or

defects to support owl nesting, approximately 180 ft^2 of conifer and hardwood basal area would be retained. In these nesting habitat quality stands, basal area removal of midstory and overstory trees from the treatment units generally would not exceed approximately 20%. In younger and less structurally diverse treatment areas that support foraging and roosting, approximately 150 ft^2 of conifer and hardwood basal area would be retained" (EA , p. 71).

As stated in the EA "The cumulative amount of treatment of dispersal and suitable owl habitat would not preclude spotted owls or other late-successional forest species from dispersing within or through the watershed. It is unlikely it would reduce the survival or recovery of the NSO. The cumulative effects of this project would not preclude owls occupying historic home ranges and continuing to occupy or reproduce in the LGVM Planning Area" (EA, p. 110).

It should also be mentioned that the project silviculturalist and wildlife biologist worked together and reviewed the marking within each unit. They worked with and monitored the contract marking crews and during the process made several adjustments to the marking within the units. For some units this process occurred multiple times to ensure that basal area requirements were achieved.

15b) Comment: The BLM needs to recognize that even if canopy targets are met logging will still reduce the quality of owl habitat.

Response: The BLM timber sale contract, within the Special Provisions section, contains the L-25 stipulation. This stipulation requires the purchaser to identify the location of the skid roads, cable yarding corridors, tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer. This stipulation is often referred to as the "tree swap" stipulation and ensures that trees marked for retention are retained, and further ensures that trees marked for retention that may need to be removed to accommodate logging systems would be swapped with a different retention tree that is of equal ecological value.

16) Ecological Forestry Alternative

Comment: Previous BLM EAs have analyzed an alternative emphasizing Ecological Forestry that reduces environmental impacts and reduces public controversy consistent with the RMP. The EA fails to provide the Authorized Officer with quantitative environmental/economic tradeoffs between a future timber sale decision emphasizing Ecological Forestry principles in the PA.

Response: This project meets the primary needs for lands within the Planning Area as described in the RMP. The 1995 RMP does not require the analysis of an Ecological Forestry Alternative.

16a) Comment: I do not believe this is the proper direction for the dry forest stands in Southwest Oregon.

Response: The commenters have expressed their preference for the management direction of forests in Southern Oregon. There disposition is not supported by fact or current management direction. The Medford District is directed to perform certain activities as outlined in the 1995 Medford District RMP. The RMP directs proposals on the Matrix land use allocation to produce

a sustainable supply of timber and other forest commodities to provide jobs and contribute to community stability. Control stand density, maintain stand vigor, and place or maintain stands on developmental paths so that desired stand characteristics result in the future.

16b) Comment: Please consider embracing the dry forest restoration principles that have proven successful on BLM lands in Southwest Oregon.

Response: Although the Lower Grave Project did not directly state that the goals of the project were in-line with dry forest restoration principles, the silvicultural prescriptions to be implemented under this project have similar goals.

The Lower Grave Project will conserve and improve the survivability of legacy trees by reducing adjacent fuels and thinning around large leave trees which have been marked for retention within treatment units. The project aims to increase the resistance and resilience of forest stands and the landscape by reducing stands densities, ladder fuels, and promoting a diversity of tree species. The project intends to accelerate the development of structural complexity by retaining minor tree species, utilizing skips and gaps and retaining a greater number of trees per acres within regeneration harvest units to increase the future recruitment of large snags and coarse woody debris. The project also contributes to fulfilling the intent of the Endangered Species Act by conserving ecosystems which species depend, by incorporating recommendations put forth by the USFWS.

17) Large Tree and Old Growth Retention

Comment: Previous BLM EAs have analyzed an alternative that does not log old growth or large trees. The EA fails to provide the Authorized Officer with quantitative environmental/ economic tradeoffs between a future timber sale decision that retains old growth/ large trees and the Proposed Action which logs a substantial number of old growth trees and large trees.

Response: The Alternative analyzed in the EA meets the purpose and need of the project. The purpose of this project is to implement forest management activities that improve forest health and vigor and reduce wildfire danger while providing a sustainable supply of timber and other forest commodities. The LGVM PA is within the Oregon and California Railroad Revested Lands (O&C Act) administered by the Department of the Interior, BLM National System of Public Lands. The O&C Act requires the Secretary of the Interior to manage O&C lands "for permanent forest production in conformity with the principles of sustained yield for the purposes of providing a permanent source of timber supply" (EA, p. 9). To ensure a permanent source of timber some large trees must be cut and replaced with vigorously growing young trees.

17a) Comment: Our relationship with the forest environment is adversely affected when large trees are cut and this impact must be disclosed.

Response: A full disclosure of the impacts of Alternative 2 can be found in Chapter 3 of the EA: Vegetation Resources pages 41-56. Additional information can be found in Appendix 7: Silvicultural Prescription.

18) Riparian Reserve Logging

Comment: Previous BLM EAs have analyzed an alternative that does not log in riparian reserves. The EA fails to provide the Authorized Officer with quantitative environmental/economic tradeoffs between future timber sale decision that retain commercial sized trees within riparian reserves and the Proposed Action which logs a substantial number of commercial sized trees from riparian reserves.

18a) Comment: The EA failed to consider new science information and new BLM state director policy about riparian reserve logging.

Response: The BLM is not required to provide an alternative that does not log in riparian reserves because previous EAs have done so. Riparian thinning is proposed in units that are not currently meeting the Aquatic Conservation Strategy (ACS) objectives. The BLM has proposed treatments in Riparian Reserves (RRs) to speed the attainment of ACS objectives while maintaining the physical integrity of the aquatic system at the site and watershed scales (EA, p. 50). The EA does not state that a substantial number of trees will be removed from RRs.

18b) Comment: Logging in designated Riparian Reserves**.**

Response: The Lower Grave Project proposes to treat a total of 1,010 acres, 136 of those acres are located within the Riparian Reserve land use allocation. This equates to 13% of the total project acres.

The Grants Pass Field Office employs a stream survey crew; prior to any treatments being considered within any Riparian Reserves each potential treatment unit is traversed by a member of the survey crew. They collect digital and hardcopy qualitative/quantitative data on stream origin, stream type, stream location, existing vegetation condition, slope, aspect, soil type, etc. This data is used by the interdisciplinary team in their analysis to assess each individual Riparian Reserve area to assess whether or not the proposed treatment would benefit the attainment of Aquatic Conservation Strategy objectives.

The PRMP/EIS directs silvicultural practices in Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives (pp. 2-10). Thinning would reduce stocking in the short-term and facilitate the distribution of desired large trees throughout the reserve in the long-term. Thinning would also improve the diversity and complexity of the watershed in the long-term by adding future large coarse woody debris and snags. The spatial and temporal connectivity within and between watersheds would be maintained in the short and long-term at the site and landscape scales (ACS objective 2). These units are overstocked with conifers that currently do not have enough growing space to develop into large trees. The RMP (1995, p. 23) directs silvicultural treatments to restore Riparian Reserves with large conifers. These units would retain contributing large structural components (large living and/or dead trees), targeting removal of mid-sized conifers with receding crowns and high height-to-diameter ratios in order to facilitate the development of large conifers.

Riparian Reserve thinning occurs within units that are prescribed for variable density thinning, commercial thinning, and hazardous fuels reduction. Riparian Reserves will only be thinned,

and are not included in the regeneration harvest proposal. Riparian thinning is proposed in units that are not currently meeting the Aquatic Conservation Strategy (ACS) objectives. The BLM has proposed treatments in Riparian Reserves to speed the attainment of ACS objectives while maintaining the physical integrity of the aquatic system at the site and watershed scales. Proposed units that have Riparian Reserve thinning would maintain a minimum of 40%-60% canopy cover. No commercial treatments would occur within the variable width Ecological Protection Zone (EPZ).

19) Consultation with National Marine Fisheries Service (NMFS)

Comment: Evading consultation with NMFS by claiming no sediment impacts, no nutrient impacts and no large wood impacts has no scientific basis when road construction and logging is proposed adjacent coho critical habitat in Graves Creek.

Response: Coho Critical Habitat (CCH) is found adjacent to 4 thinning units (1-A, 1-A2, 1-C1, and 1-C2) at an average of 200 feet from CCH in Grave Creek. These thinning units will have Ecological Protection Zones (50-200 feet; Table 4, EA, p. 20) which are no-treatment areas. Beyond the EPZ, 40-60% canopy cover will be retained within the Riparian Reserves and uplands (EA, p. 169; FONSI, p. 8). Additionally, this EA applies BMPs and PDFs which mitigate impacts to coho critical habitat; for specific design features see page 29 of the EA.

20) O&C Act of 2015

Comment: BLM failed to develop an alternative consistent with pending legislation in Congress (i.e. thinning only for dry forests as per ecological forestry).

Response: The BLM only incorporates pending legislation into alternative development if the Washington Office or Oregon State Office provides direction to do such. This direction has not been given to the Medford District.

21) Impacts to Occupied Barred Owl Habitat

Comment: BLM failed to quantify impacts to barred owls in the project area. This is important because downgrading or removing occupied barred owl habitat means these barred owls will further encroach and displace spotted owls. Reducing owl habitat increases competition between barred owls and spotted owls.

Response: Barred owls are detected incidentally because the BLM does not conduct barred owl surveys across the District. To mitigate negative interactions between NSOs and barred owls, the BLM defers from treatment forested areas that have high-quality habitat known as RA32.

Furthermore, the Lower Grave Vegetation Management Biological Assessment documents 11,178 acres of Federal NSO NRF habitat within the Planning Area (BA, p. 18, Table 3). The 63 acres of regeneration harvest which will remove NRF habitat equates to approximately 0.6% ((63 ÷ 11,178) × 100 = 0.56) of the NRF contained within the Planning Area or less than 1%. All the remaining treatments within the Planning Area treat and maintain NSO habitat.

Removal of less than 1% of the NRF habitat within the area and the results of USFWS consultation demonstrate that the regeneration harvest treatments are not likely to have

international, national, region-wide, or state-wide importance. Additionally, the BiOp concludes that the project is "not likely to jeopardize the continued existence of the spotted owl" (BiOp, p. 55).

22) Loss of Quality Older Forest Recreation Opportunities

Comment: The EA failed to quantify or adequately recognize the recreational loss of removing large trees from forest stands. We visit forests to see and experience large trees with high canopy cover (>60%). Our experience is degraded or ruined when we see large stumps where stately trees once stood. Wildlife viewing is diminished. Fewer trees mean fewer birds.

Response: The Lower Grave Vegetation Management Biological Assessment documents 11,178 acres of Federal NSO NRF habitat within the Planning Area (BA, p. 18, Table 3). This habitat type represents the commenters description of forests with large trees and high canopy cover (>60%). The 63 acres of regeneration harvest which will remove NRF habitat equates to approximately 0.6% ((63 ÷ 11,178) × 100 = 0.56) of the NRF contained within the Planning Area or less than 1%, which retains the remaining 99% of NRF within the Planning Area for recreation, wildlife and bird viewing.

23) Public Involvement

Comment: Two years passed since scoping for this project occurred in February/March 2013 and the release of an EA. We assert that prior to release of the Jan 2015 EA, the public was not given an opportunity to identify new issues and provide new information to support concerns raised in KS wild scoping letter dated February 26, 2013. During the intervening 2 years the BLM developed more precise locations of units but failed to provide this important site specific information to the public for renewed review or comment.

Response: Beginning on January 13, 2015, the Grants Pass Field Office offered a 45-day public comment period due to the length of time between initial public scoping and the release of the EA. This extended comment period allowed the public to reacquaint themselves with the project. The GPRA requested comments on the EA to be submitted by February 27, 2015 (EA, p. 11). The BLM acknowledged that more precise locations of units were developed and offered this extended EA comment period so the public could provide renewed comments on the refined proposal.

23a) Comment: The BLM failed to collaborate with KSWild, Oregon Wild, Cascadia Wildlands, and the Citizens of the Grave Creek Watershed during 2013-2015 to develop Page 4 of 34 alternative(s) for analysis (in addition to the Proposed Action) that would substantially meet BLM objectives and be socially/environmentally acceptable (i.e. non-controversial). As described in the CEQ publication, "Collaboration in NEPA: A Handbook for NEPA Practitioners," public involvement can span a spectrum that includes informing, involving, consulting and collaborating with the public.

Response: On February 7, 2013 a LGVM Project map and scoping letter were mailed to 360 residents within the LGVM PA boundary and ¼ mile adjacent to the Planning Area boundary. The GPRA held a public meeting and field trip on February 23, 2013 in the Wolf Creek area. Notice of scoping was made available in the Medford District BLM's Medford Messenger

during the winter of 2012/2013.

A legal notice, advertising the release of the LGVM EA, was published in the *Grants Pass Daily Courier* on January 14, 2015. The GPFO offered a 45-day public comment period due to the length of time between initial public scoping and the release of the EA. This extended comment period allowed the public to reacquaint themselves with the project.

Additionally, members of the IDT and management have met with private citizens and KSWild representatives following the EA release to discuss comments and concerns. The BLM has engaged in public involvement that has included informing, involving and consulting with members of the public.

23b) Comment: By focusing on thinning activities in younger stands, reducing road densities, and being mindful of fire hazard, the agency helps build the trust and good-will that is essential for successful public lands management. This should be the management direction for the BLM moving forward.

Response: The BLM management direction is governed by the Federal Land Policy and Management Act (FLPMA). FLPMA directs the BLM to use the principle of "multiple-use, sustained-yield." Although these two directives may seem at odds it is the balancing act the BLM must maintain so as to not bias certain user groups. Public involvement can aid in building trust and good-will. The Lower Grave Project had sufficient public involvement; unfortunately no representative from KS Wild chose to participate during the initial phases of planning development. The BLM was satisfied with the outreach efforts as we received 800 Form Mails during the public comment process.

24) Klamath Mountain Province NSO

Comment: The EA failed to include analysis of new information that indicates Klamath Mountain Province NSO are not stable as previously reported and are experiencing a "steady and rapid decline".

Response: The BLM consulted with the USFWS regarding the Lower Grave Project. The Biological Opinion (June 1, 2015) contains Appendix B: Status of the Species and Status of Critical Habitat for the Spotted Owl, pages 70-128, which acknowledges and incorporates the information the commenter references. The Biological Opinion is the USFWS opinion addressing the Lower Grave Project in regards to effects to NSO and their critical habitat. The opinion was prepared in accordance with the requirements of section 7 of the ESA. The USFWS anticipated that the Proposed Action is anticipated to have adverse effects to spotted owls, but is not likely to jeopardize the spotted owl (BiOp, p. 1).

25) Barred Owls

Comments: The EA failed to quantify impacts to barred owls in the project area.

Response: For a detailed explanation of the Proposed Action's effects to Barred Owls see page 11 of the Lower Grave Vegetation Management Finding of No Significant Impact. As stated above in the Response to #24, the BLM fulfilled its obligation for consultation with the U.S.

FWS under section 7 of the ESA.

26) <u>Coho Salmon</u>

Comment: The EA/Proposed Action failed to rely on the *final Coho Salmon Recovery Plan (NMFS 2014*) as the "best available" science and failed to review the Recovery Plan for possible recovery actions relevant to logging and road building.

Response: As stated on page i of the Recovery Plan "plans are guidance and planning documents only; identification of an action to be implemented by any public or private party does not create a legal obligation beyond existing legal requirements."

The EA mitigates for potential effects to coho critical habitat (CCH) with PDFs on page 29. The EA contains a consultation statement with regards to coho on page 149. Pages 169 and 172 of the EA explains that sediment from the Proposed Action would not be expected to enter CCH as a result of haul or maintenance of haul roads, with dry condition haul, well-vegetated ditch lines, properly functioning cross drains, and existing filter strips, or sediment barriers installed, where needed, to prevent sediment delivery into CCH. Project activities would follow all provisions of the CWA (40 CFR Subchapter D) and ODEQ's provisions for maintenance of water quality standards.

26a) Comment: The EA has no narrative section devoted to impacts to fish or to coho salmon except for erroneous "Interdiscliplinary Team Remarks" (172-173). The EA failed to take a hard look at impacts to fish.

Response: There is no effect to fish or coho salmon which is why the EA does not contain a narrative section devoted to fish or coho salmon. The analysis showed that Essential Fish Habitat and Special Status Species will not be affected by the Proposed Action (EA, pp. 172-173).

26b) Comment: Coho distribution is likely much greater than previously thought but the EA has failed to identify up to date stream survey data for coho distribution and passage blocks.

Response: The Oregon Department of Fish and Wildlife manages distribution data for coho and passage blocks. This information is available on their website:
http://www.dfw.state.or.us/index.asp

26c) Comment: Each road segment and landing needs identification in the EA and systematic impact assessment so that routes that will likely adversely affect coho critical habitat can be identified. Similarly site specific EA analysis is needed to identify egregious routes that would retard attainment of aquatic conservation objectives (e.g., "minimize road and landing locations in riparian reserves").

The EA fails to disclose that the Lower Graves Creek project is likely to adversely affect coho salmon critical habitat because of cumulative sediment impacts from new road construction, landing construction, underburning, tractor logging, log haul, and cable logging on steep slopes. The EA fails to disclose that due to close proximity of activities to fish streams, nutrient and

sediment would be increased in streams occupied by coho salmon.

Response: The location of all proposed activities are identified on the Decision Record Map (DR, Appendix B) and associated Map table. Coho Critical Habitat (CCH) is found adjacent to 4 thinning units (1-A, 1-A2, 1-C1, and 1-C2) at an average of 200 feet from CCH in Grave Creek. These thinning units will have Ecological Protection Zones (50-200 feet; Table 4, EA, p. 20) which are no-treatment areas. Beyond the EPZ, 40-60% canopy cover will be retained within the Riparian Reserves and uplands (EA, p. 169).

Pages 27-30 of the EA contain BMPs and PDFs, the section is titled 2.3.2 Stream Protection. This section contains 30 BMPs and PDFs for the purposes of stream protection. See Appendix 2 Aquatic Conservation Strategy Assessment for a description of project compliance. Additionally, the EA states on page 172 "Regeneration harvest, thinning, yarding, landing construction and rehabilitation, temporary route construction and reconstruction (including route decommissioning), road maintenance, hauling, and activity fuel treatments would not adversely affect coho and Chinook salmon Essential Fish Habitat.

27) Sedimentation

Comment: The EA is vastly underestimating sediment impacts from logging. The EA gives the decision maker and reader the erroneous impression that there are no easily understood major differences in sediment impacts to streams from the Proposed Action and no action. Proposed soil disturbing activities must be reduced to meet RMP standards for compaction.

Response: The EA contains Chapter 3.5 Soil Erosion and Sensitive Soils, pages 118-128. This chapter contains an analysis regarding sediment impacts from the Proposed Action and the associated activities. The EA discloses that "Management actions proposed under Alternative 2 would result in soil displacement and erosion within the Activity Areas, although would remain within limits disclosed in the 1994 EIS 1995 and RMP/ROD" (EA, p. 122).

The EA further concludes: There would be no changes to current slope stability or risk of slope failure. The potential for periodic slope failures within the range of natural variability would still remain in association with areas exhibiting an historic disposition to soil movement, particularly in the event of a major storm. Because of the implementation of PDFs, accelerated erosion, chronic erosion, or excessive soil displacement that would occur as a result of any proposed actions associated with this project is not expected. The magnitude and extent of soil erosion from all activities would be consistent with the impact analysis and conclusions provided in the1994 Medford RMP EIS (EA, p. 128).

The information needed for the Authorized Officer to make an informed decision is contained within the analysis in the Lower Grave Vegetation Management Project EA.

27a) Comment: The EA failed to consider intense rainfall that would result in overland flow of sediment. The EA failed to consider the delivery of sediment to swales and unchanneled valleys (upslope from riparian reserves) during intense rainfall which would deliver sediments to the stream network.

Response: No-treatment buffers established on streams in or adjacent to proposed units would prevent disturbance to stream channels and stream banks and intercept surface run-off allowing sediment transported by overland flow to be filtered out before reaching active waterways (Chapter 3.6: Hydrology) and would prevent impacts to aquatic resources (EA, p. 182).

The EA mitigates the potential for sediment delivery into swales during project activities through the use of BMPs, PDFs, and seasonal restrictions. As listed on page 27 of the EA "To the greatest extent practicable, locating new landings in areas that can contribute eroded fines to dry draws and swales would be avoided. If such locations cannot be avoided, sediment control measures would be properly installed and maintained, as needed, to keep eroded material on site."

In addition to the mitigation measure listed above, pages 27-30 contain BMPs and PDFs, the section is titled 2.3.2 Stream Protection. This section contains 30 BMPs and PDFs for the purposes of stream protection.

27b) Comments: The EA failed to consider restricting landing location based on percent slope. If landings are not restricted to 30% slope or less, then the potential for catastrophic failure must be addressed as a cumulative sediment impact.

Response: The EA provided multiple mitigation measures in the form of BMPs and PDFs. For example: Landing runoff would divert water away from headwalls, unstable areas, or stream channels. This PDF, along with 6 others can be found on page 27 of the EA, Section 2.3.2 Stream Protection.

27c) Comment: Assertions in the EA that logging slash would prevent sediment from moving from the logging unit may be true for the summer dry period, but logging slash would not be a deterrent during intense winter rainfall. In addition most logging slash will be burned or yarded. Accelerated soil erosion would occur during the first rainy season following ground disturbance resulting in at least short-term but significant sedimentation.

Response: The EA discloses that "Management actions proposed under Alternative 2 would result in soil displacement and erosion within the Activity Areas, although would remain within limits disclosed in the 1994 EIS 1995 and RMP/ROD" (EA, p. 122).

27d) Comment: Since the Proposed Action proposes to disturb thousands of acres of the project area, the techniques used in the Biscuit FEIS and Timber Rock FEIS are relevant.

Response: The Decision Record authorizes 960 acres of forest management activities. The commenter's assertion that the Proposed Action will disturb thousands of acres is incorrect.

27e) Comment: Project Design Features and Best Management Practices (EA: 23-30) reduce, but do not prevent log haul sediment from entering stream systems. The EA failed to estimate increased log haul sediment from Road 34-5-1 that parallels Graves Creek critical coho salmon habitat for several miles. Increased sediment from log haul on this and other routes would likely adversely affect coho salmon and critical habitat.

Response: BMPs are required by the Federal Clean Water Act to reduce nonpoint source pollution to the maximum extent practicable. The BMPs are methods, measures, or practices selected from Appendix D of the 1995 ROD/ RMP to ensure that water quality will be maintained at its highest practicable level. BMPs in this Section are noted by an asterisk (*). PDFs are specific measures included in the site-specific design of the proposal to eliminate or minimize adverse impacts on the human environment (EA, p. 23). As stated in the EA these measures are meant to reduce effects not entirely prevent them.

The analysis contained within the EA mitigates potential impacts from log haul with the following PDF: Water or approved road surface stabilizers/dust control additives would be applied as necessary where haul roads are located near residences and where needed to reduce surfacing material loss and buildup of fine sediment that can enter into wetlands, floodplains and waters of the state. Road surface stabilizers/dust control additives would be prevented from entry into waters of the state during application (EA, p. 30).

Additionally, the EA states on page 172, "Regeneration harvest, thinning, yarding, landing construction and rehabilitation, temporary route construction and reconstruction (including route decommissioning), road maintenance, hauling, and activity fuel treatments would not adversely affect coho and Chinook salmon Essential Fish Habitat.

28) <u>Disclosure of Proposed Action Metrics</u>

Comment: The EA failed to disclose the intensity of logging proposals with quantification of parameters or descriptions that would provide quantitative differences between the 2 alternatives. Scientific descriptions of forests typically include the seral stage, size and number of trees/acre, dominant tree species, basal area, canopy cover, and snag densities (BLM stand data, Manning et al. 2011, Fireman plot data). While canopy cover and basal area is informative, we assert that BLM must also estimate the number and size of trees present in units (No Action baseline) and the number of trees/acre that would be removed in the PA (or conversely the number of trees/acre that would remain subsequent to logging).

Response: Table 6 on page 45 of the EA discloses the Current and Future Stand Conditions for the No Action Alternative. Table 8 on pages 49-50 discloses the Current and Desired Future Conditions by Treatment Type for the Proposed Action. The projected figures were obtained from stand exams conducted in 2012 and modeled in ORGANON (Oregon Growth Analysis and Projection) v.8.0, a growth and yield model (Hann 2005) (EA, p 41).

Information regarding alterations in vegetation can be obtained in Chapter 3.1; Vegetation. Additional, information can be obtained from Appendix 7, Silvicultural Prescriptions.

28a) Comment: The most egregious canopy reduction in regen units are not depicted (EA: 16). The EA fails to inform us to what degree canopy reductions would affect our recreational relationship to the forest.

Response: The EA discloses that "canopy cover in these units would be reduced to approximately 7-21% on average and this would shift the stand into a new seral stage" (EA, p.

53). Also see response to Comment #17 Large Tree and Old Growth Retention.

29) Carbon and Climate Change

Comment: The NEPA analysis must avoid minimizing this project's contribution to carbon emissions and global warming by saying the effects of this project would be negligible on a global scale.

Response: Specific sources of greenhouse gas emissions cannot be designated as the cause of specific climate impacts at a specific location, the appropriate scale for analysis is global, not local, regional, or continental. However, due to the increased level of public concern regarding anthropogenic contributions of greenhouse gas emissions to climate change, the BLM is estimating carbon dioxide (a greenhouse gas) production at the project scale to determine the potential for this project to significantly affect the human environment. The Lower Grave Project Carbon Report can be reviewed in the Administrative Project Record.

30) Environmental Impact Statement

Comment: An EIS is required for this project because it may have significant effects on the environment.

Response: The analysis in the Lower Grave Vegetation Management EA and FONSI demonstrates that the Proposed Action would have no significant effects beyond those already analyzed in the 1994 Final Supplemental Environmental Impact Statement, the Proposed Medford District Resource Management Plan/Environmental Impact Statement and the 1995 Record of Decision/Medford District Resource Management Plan. A Proposed Action may have significant effects and still reach a FONSI, provided that those significant effects were fully analyzed in the EIS to which this EA is tiered.

31) Snag Recruitment

Comment: The normal processes of forest succession require that stands begin to accumulate biomass in the form of live and dead wood. Logging in older stands (or repeated logging entries in some younger stands) will truncate that important ecological process.

Response: For regeneration harvests, retention trees will be 20 inches DBH or greater, and will be marked proportionally throughout the diameter classes in each species present. Additional green trees have been retained to meet the required 2 snags per acre and 120 linear feet of down wood. RRs would provide untreated canopy cover retention throughout units that contain streams and would reduce the treated area to narrow strips rather than larger rectangular areas (EA, p. 18). For all other silvicultural prescription, the retention and thinning of variable groups of trees is designed to provide structure, future snags, and coarse woody debris (CWD) to enhance wildlife habitat (O'Hara 2004) (EA, p. 17). Additional PDFs require: All existing snags to be retained from cutting unless they pose a safety hazard, in which case they would be left on the ground in the unit, and coarse woody debris (CWD) would be retained and protected from disturbance to the greatest extent possible during logging, burning and other project activities (EA, pp. 34-35).

32) Literature

Comment: Consider more literature in support of preserving old growth forests.

Response: The interdisciplinary team reviewed the literature submitted by members of the public during the scoping and EA comment period and is referred to in EA, Chapter 6.

33) Wood Market

Comment: The market for wood products is quite depressed as a result of the inter-related financial, housing, and wood bubbles, so there is little justification for sacrificing public forests to produce wood products.

Response: The commenter has expressed their preference for the management of forest lands designated as Matrix under the NWFP. Although the commenter feels that the market for wood products is depressed a recent article in the Oregonian (BLM plan shows need for O&C legislation: Editorial Agenda 2015, July 4, 2015) outlines how wood products are a vital part of the economy in Southwest Oregon.

34) Trade-offs

Comment: All logging, including thinning stands of any age, include some adverse impacts and trade-offs.

Response: The Lower Grave Project EA contains Chapter 3 which provides analysis for each potentially effected resource. Individual resources are analyzed within separate chapters of the EA. Information pertinent to cumulative impacts can be found under the headings of past actions, present actions, and future actions, for each respective resource (Vegetation; EA 3.1; Fire Hazard, EA 3.2; Wildlife, EA 3.3; Soil Productivity and Compaction, EA 3.4; Soil Erosion and Sensitive Soils, EA 3.5; Hydrology, EA 3.6; and Cultural and Paleontological Resources, EA 3.7). The EA contains Chapter 2.3: BMPs and PDFs which mitigate project effects.

FINDING OF NO SIGNIFICANT IMPACT
FOR THE
LOWER GRAVE VEGETATION MANAGEMENT PROJECT
DOI-BLM-OR-M070-2013-003-EA

I. INTRODUCTION

The Grants Pass Field Office, Medford District Bureau of Land Management (BLM), Lower Grave Vegetation Management Project Environmental Assessment (EA) was made available for public comment from January 14, 2015 to March 2, 2015. The purpose and need of the project is to implement forest management activities that improve forest health and vigor and reduce wildfire danger while providing a sustainable supply of timber and other forest commodities. I have decided to authorize Alternative 2, with associated Project Design Features (PDFs), Best Management Practices (BMPs) and seasonal restrictions. Alternative 2 authorizes 960 acres of forest management activities, 0.78 miles of temporary route reconstruction, 1.12 miles of new temporary route construction, 0.21 miles of cable-tractor swing route construction, 0.31 miles of permanent road construction, and 45 miles of existing road maintenance.

All proposed forest management activities are analyzed in the Lower Grave Vegetation Management Project EA (DOI-BLM-OR-M070-2013-003-EA). There are no significant impacts beyond those analyzed in the 1994 Final Supplemental Environmental Impact Statement, the Proposed Medford District Resource Management Plan/Environmental Impact Statement and the 1995 Record of Decision/Medford District Resource Management Plan.

II. DETERMINATION OF SIGNIFICANCE

The discussion of the following significance criteria applies to the intended actions and is within the context of local importance. Chapter 3 of the EA details the effects of Alternative 2. None of the effects identified, including direct, indirect and cumulative effects, are considered to be significant and do not exceed those effects described in the 1995 Medford District Resource Management Plan/Final Environmental Impact Statement (1994 RMP/FEIS). The environmental effects of Alternative 2 do not meet the definition of significance in context or intensity as defined in 40 CFR § 1508.27. Therefore, an environmental impact statement is not necessary and will not be prepared.

Context. The Lower Grave Vegetation Management Project proposes to actively manage 960 acres of forests within a portion of the Grave Creek Watershed. The Grave Creek Watershed is approximately 104,559 acres. The Lower Grave Vegetation Management Project proposes to treat less than 1% of the lands contained within the Grave Creek Watershed. Public interests reside within Josephine County. Alternative 2 by itself does not have international, national, region-wide, or state-wide importance.

Intensity. The following discussion is organized around the Ten Significance Criteria described in 40 CFR § 1508.27(b) as they pertain to the context of the Lower Grave Vegetation Management Project under Alternative 2.

1. Impacts that may be both beneficial and adverse. The most noteworthy predicted environmental effects of Alternative 2 include:

a) **Soil Erosion and Sensitive Soils**. The type of forest management activities proposed are routine on forested lands throughout Southwest Oregon and the outcome of the activities are known and can therefore be mitigated. The Lower Grave Vegetation Management EA documents BMPs and PDFs specific to the protection of soil resources on pages 23-27, Section 2.3.1: Soil Productivity, Soil Compaction, Residual Trees, and Coarse Woody Debris. Additional PDFs are documented on pages 30-31, Section 2.3.4: Fragile Soils. To further ensure the protection of soil resources, seasonal restrictions will be implemented, which will limit operations to seasons of the year where dry conditions dominate (generally May 15 to October 15). Because of the type of actions proposed and BMPs, PDFs, and seasonal restrictions that would be implemented, there would be no instances of chronic erosion or excessive soil displacement that will occur as a result of actions associated with Alternative 2. The magnitude and extent of soil erosion from all activities associated with Alternative 2 will be consistent with the impact analysis and conclusions provided in the 1994 Medford RMP/FEIS (RMP, pp. 42-44, 158, 167-168, 169).

b) **Fuel Loading and Fire hazard**. Alternative 2 would reduce fuel loading on 378 acres (EA, p. 15), and treat project activity fuels following forest management activities (EA, p. 18) on 582 acres. Long-term beneficial effects are anticipated in terms of decreased fire hazard on approximately 378 acres. These 378 acres could be utilized as strategic holding points for fire suppression personnel for the next 10 to 20 years (EA, p. 65). Alternative 2 would result in a short term increase (six months to 2 years) in fire hazard due to the presence of slash or until the time it is treated and/or partially decomposed (EA, p. 65). The Lower Grave Vegetation Management Project EA documents a series of BMPs/PDFs specific to mitigating fire hazards from fuel loading under the title: Activity Fuels and Prescribed Fire (EA, pp. 25, 32, and 33). The implementation of PDFs and BMPs would reduce fire hazard within harvest units. Any initial, short-term increase in fire hazard would not cause significant effects that require an EIS because these activities would be mitigated soon after project activities through slashing, hand piling, pile burning, chipping, lop and scatter treatments and broadcast burning. The analysis is consistent with the conclusions provided in the 1994 Medford RMP/FEIS (RMP, pp. 89-90 and 169-170).

c) **Water Quality.** BMPs are methods, measures, or practices selected from Appendix D of the 1995 ROD/RMP to ensure that water quality will be maintained at its highest practicable level. The Lower Grave Vegetation Management Project EA incorporated relevant BMPs to protect water quality. Where site specific water protection measures were needed to protect water quality, the interdisciplinary team created PDFs. The EA documented BMPs and PDFs on pages 27-30, Section 2.3.2 titled: Stream Protection; and on pages 31-33 in Section 2.3.5 titled: Riparian Zones. To further ensure the protection of water quality, seasonal restrictions will be implemented, which will limit forest management operations to seasons of the year where dry conditions dominate (generally

May 15 to October 15), mitigating sediment transfer into streams. The Lower Grave Vegetation Management (LGVM) Project concluded that while some short-term direct and indirect impacts to water quality were identified due to pulse increases in sediment and turbidity from road work, it would still remain within acceptable water quality limits for turbidity, and would be difficult to distinguish from background levels (EA, p.138-139).

Riparian Reserve thinning is proposed in areas that are not currently achieving Aquatic Conservation Strategy objectives. In those Riparian Reserves which could benefit from proposed treatments, an EPZ has been identified to ensure protection of stream channel structure and water quality (EA, p. 19). The effects to water resources from all activities associated with Alternative 2 are consistent with the impact analysis and conclusions provided in the 1994 Medford RMP/EIS (RMP, p. 40, 48-49, 94-96, 151-152, 158, 162-166).

Because of the forest management activities associated with Alternative 2 and the implementation of PDFs, BMPs, and seasonal restrictions, there will be no enhancement to peak flows, low flows, water yield, or temperature.

d) Soil Compaction and Productivity. Total compaction/displacement associated with tractor skid trails, landings and cable yarding corridors would account for an average of 10.63% per unit. Across the Planning Area, the overall compaction would be 8.17% and soil productivity loss would be 2.86% (EA, p. 116). Each harvest unit in Alternative 2 would be below 12% compaction and 5% productivity loss as analyzed in the 1994 Medford District RMP/EIS (RMP, p. 41-42, 166; PRMP/EIS, p. 18).

e) Botany. See 9 below.

f) Northern Spotted Owl. See 9 below.

2. The degree to which the selected alternative will affect public health or safety. Public health and safety would not be affected. The Proposed Action is comparable to other projects which have occurred within the Grants Pass Resource Area with no unusual health or safety concerns. The Planning Area is not located within a Class 1 designated airshed or non-attainment area. Activity fuel burning operations would follow all requirements of the Oregon Smoke Management Plan and the Department of Environmental Quality Air Quality and Visibility Protection Program, ensuring that smoke related impacts to public health and safety are mitigated. The impact of smoke on air quality is expected to be localized and of short duration. Particulate matter would not be of a magnitude to harm human health, affect the environment, or result in property damage (EA, p. 167).

Dust created from vehicle traffic on gravel and natural-surface roads and logging operations would be localized and of short duration. Four haul routes that occur near residences have been identified for approved surface stabilizers. These roads include Salmon Creek (34-6-2), McCoy Creek (34-5-9), Miller Gulch (33-6-24), and Ditch Creek (34-4-28) (EA, pp. 30, 167). Alternative 2 is consistent with the provisions of the Federal Clean Air Act.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas. It was the BLM's recommendation to the State Historic Preservation Office (SHPO) that the Lower Grave Vegetation Management Project will have "No Adverse Effect" to cultural resources. The SHPO concurred in a letter dated February 3, 2015 that the proposed project "will likely have no adverse effect on site (OR110-1824) or any other known archaeological sites." A mile long section of the Columbia Mines Co. Upper Mining Ditch – OR110-1824 - will be flagged for avoidance and protection as it bisects a project unit. The other three sites are Not Eligible for listing on the National Register of Historic Places (SHPO Concurrence 2/3/2015) and do not warrant protection. OR110-1824 will be protected because it has been left unevaluated for listing on the National Register of Historic Places.

There are no eligible rivers under the Wild and Scenic Rivers Act of 1968, as amended, in the Lower Grave Vegetation Management Project Planning Area (EA, p. 167). There are no Research Natural Areas (RNAs) or Areas of Critical Environmental Concern (ACEC) as designated by the Medford District RMP in the Planning Area (EA, p. 167). There are no park lands, prime farm lands, wetlands, or ecologically critical areas in the Planning Area (EA, p. 168).

Recreation users in the Planning Area may experience increased log truck traffic during the operational months; however, this type of activity is typical for the area because of harvesting on private and other government managed lands (EA, p. 172). The area is open to dispersed recreation use, as is most of the Grants Pass Resource Area. Alternative 2 would have a neutral effect on dispersed recreation in the Resource Area.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial. The effects on the quality of the human environment are not likely to be highly controversial (40 CFR 1508.27(b)(4)). CEQ guidelines relating to controversy refer not to the amount of public opposition or support for the project, but to a substantial dispute as to the size, nature, or effect of the action. The effects of actions planned under the Proposed Action (EA, pp. 14-37) are similar to many forest management projects implemented within the scope of the 1995 Medford ROD/RMP (ROD/RMP, pp. 9, 39-40, 73-74, 181-182, 187-188). No unique or appreciable scientific controversy has been identified regarding the effects of the Proposed Action. There is, therefore, no known scientific controversy over the impacts of the project.

Environmental effects of the project are within the scope of those considered in the 1995 ROD/RMP. The 1995 ROD/RMP projected that the Medford District would regeneration harvest 1,140 acres annually (1,040 acres of regeneration harvest and 100 acres of overstory removal) (ROD/RMP, p. 9). From 2005 to 2015, the Medford District has regenerated harvested 1,376 acres (Medford District Annual Program Summary and Monitoring Report, Table S-1, 2005 to 2014) (or 12% of the total 11,400 acres projected per decade). Regeneration harvesting 63 acres would constitute 5.5% of the annual projection (63 ÷ 1,140 = 5.5%) and less than 0.5% of the decadal projection (63 ÷ 11,400 = 0.5%). The 63 acres of regeneration harvest described in the Proposed Action added to the 1,376 acres harvested between 2005 and 2014 results in 1,439 acres which is 13% of the 11,400 acres projected per decade.

Effects disclosed in the EA are expected to be consistent with the cumulative effects analysis contained within the EA, and are not controversial in a scientific sense. The public had the opportunity to comment on this project at a public meeting, through formal scoping, and during a formal comment period on the LGVM Project EA, Chapter 1.6: Public Involvement (EA, pp. 10-12) and Appendix 8: Scoping Comments (EA, pp. 220-233). While comments were received expressing disagreement with the BLM's timber management program (DR, Appendix A) none established a scientific dispute regarding the size, nature, or effects of the modified Proposed Action.

The Revised Recovery Plan for the Northern Spotted Owl (USFS 2011) acknowledges that "management of spotted owl habitat in…drier areas is an extremely complex undertaking" (p. III-20). The Recovery Plan mentions the "ongoing debate…regarding the relative merits of active management in dry forest landscapes and the potential positive and negative impacts to spotted owls" (p. III-21). A thorough reading of the full discussion in the Recovery Plan acknowledges that "This debate focuses on uncertainty and seems to be one of degree rather than fundamental differences in long-term conservation goals" (p. III-21). The Recovery Plan recommends "building on areas of agreement for spotted owl recovery, but we [The USFWS] recognize that many of these recommendations are controversial due to **political and socio-economic reasons**" (p. III-21) (emphasis added).

The Grants Pass Resource Area received comments which attempt to identify federal regeneration harvesting practices synonymously with industrial clearcutting. Regeneration harvesting on federally managed lands does not resemble or function as industrial clearcut parcels. They contain complex early seral habitat which is "different than industry early seral habitat because herbicides would not be used to control the brush, therefore providing more diversity in this stage of development" (EA, p. 53). "This treatment strives to maintain site productivity and wildlife habitat values through the retention of a minimum of 6 to 8 (with the potential to leave more TPA [trees/acre] based upon varying site conditions) large green trees per acre" (EA, p. 53). "The canopy cover in these units would be reduced to approximately 7-21% on average" (EA, p. 53). "Additional green trees would be retained to meet the required 2 snags per acre and 120 linear feet of down wood" (EA, p. 216). "This retention level would help large snag recruitment and large CWD [coarse woody debris] as the new forest develops (Hansen et al. 1991, p. 390)" (EA, p. 53). Industrial forest clearcuts are governed by the Oregon Forest Practices Act and have regulations for timber harvesting, road construction/maintenance, slash treatment, reforestation, snags, and herbicide/pesticide use. Those regulations differ from the management direction contained in the Medford District RMP, to which all activities described in the Proposed Action adhere.

The BLM consulted with the U.S. Fish and Wildlife Service (USFWS) regarding effects to northern spotted owls (NSO) and their habitat as a result of active forest management projects. The 63 acres of regeneration harvest that have been consulted upon occur outside of NSO nest patches, half mile core areas and 1.3 mile home ranges. Additionally, the 63 acres of regeneration harvest occur outside of NSO Revised Critical Habitat (USFWS 2012). The Biological Opinion (BiOp) from the USFWS has concluded that the Proposed Action is not likely to jeopardize the continued existence of the NSO and is not likely to adversely modify

NSO critical habitat (BiOp, p. 55). The USFWS reached these conclusions because the Proposed Action has been planned in a manner that avoids adverse effects to NSOs at 7 of 10 sites [within the Planning Area], conforms to the Northwest Forest Plan, and incorporates principles of the NSO Recovery Plan's Recovery Actions 10 and 32 which provide further habitat conservation and help ameliorate barred owl impacts (BiOp, pp. 1-2). The BiOp also stated that the Proposed Action is likely to result in incidental take of 2 adult (one pair) spotted owls plus 1.5 juveniles at site 4625B (BiOp, pp. 57-58). This "Take" determination is not a result of the 63 acres of regeneration harvest; it is the result of treating and maintaining 67 acres [core-use area] and 203 acres [home range area] of nesting, roosting and foraging habitat and 11 acres [core-use area] and 346 acres [home range area] of dispersal habitat at site 4625B. Additionally, the BiOp states that the Proposed Action does not rise to the level of destruction or adverse modification of critical habitat, which is determined at the critical habitat unit or range-wide scale (BiOp, pp. 57-58). The regeneration harvest occurs outside of NSO critical habitat. The Proposed Action is consistent with the Northwest Forest Plan and to the extent practicable with the Recovery Plan. The Proposed Action is not likely to appreciably reduce the likelihood of survival and recovery of the NSO population at the provincial or range-wide scales.

The BLM is aware that the fundamental nature of science requires disagreement and vigorous debate, and that as a result some disagreement will always be present in any scientific discussion. The topic of active forest management is no exception. The BLM is aware that social controversy is ongoing over the existence and practices of the BLM's timber management program across western Oregon. The societal debate, reflected in the comments received by the BLM and addressed as applicable in the EA and the Decision Record (EA, pp. 221-232; DR: Appendix A), is precisely the public's opposition or support that the CEQ guidelines have identified as not relevant to the term 'controversy' as applied to the National Environmental Policy Act (NEPA). The BLM has considered and responded to the comments received, and found none of them to constitute a true dispute over the size, nature, or effects of the Proposed Action. Because the comments received from the public do not establish such a dispute, the Proposed Action is not controversial under NEPA.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. The effects of the Proposed Action are not unique or unusual. The BLM has experience with similar forest management projects and has found the effects to be reasonably predictable. In accordance with law, regulation, executive order, policy, and direction, an interdisciplinary team reviewed the elements of the human environment to determine if they would be affected by the alternatives described in the Proposed Action: EA Chapter 2.0. The LGVM Project EA "documents the environmental analysis the BLM conducted to estimate the potential site-specific effects on the human environment that may result from the implementation of this project" (EA, p. 5). The environmental effects to the human environment are fully analyzed in Chapter 3 of the EA (EA, p. 38-146). The analysis in Chapter 3 includes PDFs (EA, pp. 23-37) which "are specific measures included in the site-specific design of the proposal to eliminate or minimize adverse impacts on the human environment" (EA, p. 23).

To ensure public concerns and input have been considered throughout the analysis see Chapter 1.6, Appendix 9 of the EA (EA, pp. 220-232) and Appendix A of the Decision Record.

The activities analyzed in Alternative 2 are routine in nature. The Proposed Action includes site-specific PDFs, standard BMPs, and seasonal restrictions. The effects of active forest management are well known and do not involve unique or unknown risk to the human environment.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. Alternative 2 does not set a precedent for future actions that might have significant effects nor does it represent a decision in principle about a future consideration.

Chapter 1 of the Lower Grave Vegetation Management Project EA identifies how Alternative 2 would be consistent with the Purpose and Need for the project (EA, pp. 8-9). "The LGVM Project is designed to meet BLM's obligation to implement the 1995 RMP and to address the primary needs identified for lands in the PA [Planning Area]" (EA, p. 8). The RMP is tiered to both the *Final Supplemental Environmental Impact Statement and Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (Northwest Forest Plan FSEIS 1994 and ROD 1994) and The *Final Medford District Proposed Resource Management Plan/Environmental Impact Statement* and *Record of Decision* (EIS 1994 and RMP/ROD 1995). The Proposed Action is in compliance with these documents. Because of this, the Proposed Action does not establish a precedent for future actions with significant effects. The activities described under the Proposed Action have already been analyzed within higher level EIS documents. The analysis in Chapter 3 (EA, p. 38-146) of the EA demonstrates that the Proposed Action is within the environmental effects predicted in the documents listed above. Any future projects would be evaluated through the NEPA process and would stand on their own as to the environmental effects, thus this action does not represent a decision about future considerations.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. The interdisciplinary team's analysis "considers the direct impacts (effects caused by the action and occurring at the same place and time), indirect impacts (effects caused by the action but occurring later in time and farther removed in distance but are reasonably foreseeable) and cumulative impacts (effects caused by the action when added to other past, present and reasonably foreseeable future actions on all land ownerships)" of the Proposed Action (EA, p. 38).

The Lower Grave EA documents and describes Past Actions (EA, p. 39), Present Actions (EA, pp. 39-40) and Future Actions (EA, p. 40-41) within the Planning Area. The analysis performed in Chapter 3 (EA, p. 38-146) of the EA documents the interactions of the Proposed Action with past, present and future actions. Individual resources are analyzed within separate chapters of the EA. Information pertinent to cumulative impacts can be found under the headings of past actions, present actions, and future actions, for each respective resource (Vegetation; EA 3.1; Fire Hazard, EA 3.2; Wildlife, EA 3.3; Soil Productivity and Compaction, EA 3.4; Soil Erosion and Sensitive Soils, EA 3.5; Hydrology, EA 3.6; and Cultural and Paleontological Resources, EA 3.7) (Note: No paleontological resources have ever been discovered in the Planning Area). Conclusions regarding cumulative impacts are documented in each resource section (as listed

above) and for example, have concluded "For this project, it was determined that no cumulatively measurable or significant alterations to the hydrologic function of the Grave Creek watershed would occur" (EA, p. 139). Significant cumulative effects outside those already disclosed in the 1995 RMP/EIS are not predicted.

The Lower Grave Vegetation Management Project EA anticipated that "carbon dioxide emissions resulting from the project in each of the estimates is very small when compared to worldwide and United States emissions estimates" (EA, p. 178).

8. The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources. Alternative 2 would not adversely affect districts, sites, highways, structures or other objects listed in or eligible for listing in the National Register of Historic Places. Alternative 2 would not cause loss or destruction of significant scientific, cultural, or historical resources. Cultural resource surveys of the Planning Area have been completed. Two site specific protection measures (Project Design Features), described in Section 2.3.11 Cultural Sites (EA, p. 36-37), would be applied to protect cultural resources located within Areas of Potential Effects (APE). If cultural resources are discovered during project implementation, sites would be evaluated and mitigation procedures or protection measures would be implemented based on recommendations from the Resource Area Archaeologist with input from Tribes and concurrence from the Field Manager and SHPO.

On February 3, 2015 the Grants Pass Resource Area received concurrence from the SHPO which stated that the Lower Grave Project "will likely have no adverse effect on site (OR110-1824) or any other known archaeological sites." Three other sites are in the APE but have been determined Not Eligible and do not require protection.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

a) **Fish:** There is one federally listed fish species that occurs within the Planning Area. The Southern Oregon/Northern California Coast coho salmon is listed as threatened. Coho Critical Habitat (CCH) is found adjacent to 4 thinning units (1-A, 1-A2, 1-C1, and 1-C2) at an average of 200 feet from CCH in Grave Creek. These thinning units will have Ecological Protection Zones (50-200 feet; Table 4, EA, p. 20) which are no-treatment areas. Beyond the EPZ, 40-60% canopy cover will be retained within the Riparian Reserves and uplands (EA, p. 169).

   The Lower Grave Project haul road segments and road-related activities intersect 2 streams at 3 locations containing CCH. These 3 road segments represent 3 bridges (Grave Creek and Coyote Creek) on CCH streams. Sediment would not be expected to enter CCH as a result of haul or maintenance of haul roads, with dry condition haul, well-vegetated ditch lines, properly functioning cross drains and existing filter strips or sediment barriers installed to prevent delivery into CCH (EA, p. 169).

Alternative 2 will follow all provisions of the Clean Water Act (40 CFR § D) and Oregon Department of Environmental Quality provisions for maintenance of water quality standards (EA, p. 169). The Proposed Action will have no effect on coho salmon, CCH or Essential Fish Habitat (EFH); therefore ESA consultation was not required.

b) Plants: Of the three federally listed plants on the Medford District (*Fritillaria gentneri*, *Limnanthes flocossa* ssp. *grandiflora*, and *Lomatium cookii*), only *Limnanthes flocossa* ssp. *grandiflora* does not have a range which extends into the Planning Area. The Lower Grave Vegetation Management Planning Area does not fall within the range of *Lomatium cookii*, but a portion of the Planning Area is within the range of *Fritillaria gentneri*, as determined by the 2004 USFWS Biological Opinion. Final units were surveyed according to the USFWS's 2-year protocol; vascular plant surveys were conducted in the springs of 2010, 2011, 2012, and 2013, and no new *Fritillaria gentneri* sites were found. There would be no anticipated effect from Alternative 2 on any federally listed plant.

Survey and Manage Fungi
Two sections, four acres in 33-5-34 and 7.5 acres in 34-5-15 (described in more detail under the Survey and Manage Fungi section of the LGVM EA) had portions of units that exceed 180 years in age and reflect stand complexities as described in the 2001 Survey and Manage Standards and Guides, and as such, will be surveyed for both Survey and Manage and Interagency Special Status Species Policy Sensitive fungi. Sites recorded as a result of said surveys will be buffered prior to project implementation (EA, pp. 175-176).

c) Northern Spotted Owl (NSO): The LGVM Planning Area contains one Threatened and Endangered wildlife species, the federally threatened NSO. Medford BLM submitted a Biological Assessment (April 4, 2013) and received a Biological Opinion (June 21, 2013) from the USFWS (Howard Graves Formal-TAILS#: 01EOFW00-2013-F-0137) for the LGVM Project. After discussion with the USFWS, the Medford BLM reinitiated consultation, submitting an amendment to the Lower Grave BA (March 27, 2015). The amendment addresses changes to the Proposed Action, including dropping units and modifying prescriptions for other units to reduce effects to NSO. The changes have affected several sections of the original 2014 BA, so the BA amendment completely replaced the Lower Grave BA that was submitted to the USFWS on October 20, 2014. This Biological Assessment evaluates the Lower Grave project and stated that the project "may affect and is likely to adversely affect" (LAA) spotted owls. Treatments are proposed in the 2012 revised designated NSO critical habitat that "may affect and are likely to adversely affect" (LAA) critical habitat. No other listed wildlife species or critical habitats are affected.

The USFWS Biological Opinion, (June 1, 2015) includes a finding that the District's Proposed Action is anticipated to have adverse effects to spotted owls, but is not likely to jeopardize the spotted owl. This is because the Proposed Action has been planned in a manner that avoids adverse effects to spotted owls at seven of ten spotted owl sites and conforms to the Spotted Owl Revised Recovery Plan's Recovery Action 10 and Recovery

Action 32, both of which provide further habitat conservation and help ameliorate barred owl impacts. "The spotted owl occupancy and jeopardy analysis contained herein [BiOp] addresses barred owl impacts on spotted owls. As such, the USFWS anticipates effects to spotted owls are represented as appropriate based on best available information. While the project has multiple objectives, including providing for a sustainable supply of timber, it also has elements of improving forest health, thus benefitting spotted owls" (BiOp, pp. 1-2).

Northern Spotted Owl Critical Habitat (CHU)

The Planning Area overlaps approximately 14,254 acres of spotted owl critical habitat of which 7,703 acres is considered nesting, roosting, and foraging habitat (NRF), in subunits KLE-2 and KLE-3 combined. For the LGVM Project, approximately 447 acres of NRF and dispersal habitat are proposed for treatment and are within Critical Habitat Unit 10, sub-units KLE-2 and KLE-3. Approximately 438 acres will be treated, and will maintain the Primary Constituent Elements of Critical Habitat Unit 10; approximately 9 acres downgrade may occur in KLE-3.

The proposed downgrading of 9 acres of NRF habitat (0.02%), KLE-3 is expected to maintain the intended function of providing demographic support for NSOs because sites that are likely to be occupied would not likely be adversely affected from the Proposed Action. The 9 acres proposed for downgrading NRF habitat in KLE-3 would occur outside of known occupied home ranges, and within the home range of one site (McCoy #4042O) that has no recorded occupancy during 9 years of surveys from 1994-2014. The treatment occurs near the edge of the home range and outside of high Relative Habitat Suitability as modeled by the MaxEnt Model (*2011 Revised Recovery Plan for the Northern Spotted Owl*, USDI USFWS 2011). The McCoy site is not likely to be occupied based on cumulative historical surveys, but conservatively is assumed to be occupied based on incomplete recent protocol surveys. The 97 total historic sites within KLE-3 would continue to provide demographic support in the sub-unit.

The proposed downgrading of 9 acres of NRF will not affect the intended conservation function of north-south and east-west connectivity between subunits and critical habitat units because the proposed downgrading of NRF habitat would result in a reduction of only 0.02% of the NRF habitat within sub-unit KLE-3.

KLE-2 is still expected to maintain the intended conservation function of north-south and east-west connectivity between subunits and critical habitat units by providing demographic support for NSOs. No downgrade or removal of critical habitat would occur, supporting the 88 total historic NSO sites in this critical habitat sub-unit.

The USFWS has determined that treating and maintaining approximately171 acres of NRF habitat in critical habitat will have an insignificant effect to NSO critical habitat and is not likely to adversely affect (NLAA) critical habitat because the treatment will not change the intended function of the habitat and the conditions that would classify the stand as NRF would remain post-treatment.

The USFWS has determined that the proposed maintenance of 268 acres of dispersal-only habitat within critical habitat will have an insignificant effect to NSO critical habitat and is not expected to have adverse effect to critical habitat because the treatment will not change the intended function of the habitat and the conditions that would classify the stand as dispersal would remain post-treatment.

"The effects of the Proposed Action are anticipated to increase the health and vigor of the residual stands post-treatment within 30 years as recommended in the NSO recovery plan. Many of the treatments proposed, especially those that would occur in dispersal quality habitat, would have long-term beneficial effects to NSOs by increasing growth rates of the residual stand and accelerating the development of late-successional structural complexity within the treated areas than would occur if left untreated" (EA, pp. 101-102).

Barred Owls

The 2011Revised Recovery Plan for the Northern Spotted Owl identifies competition from the barred owl as a threat to the spotted owl (USDI FWS 2011). Evidence suggests that barred owls compete with northern spotted owls for habitat and prey with near total niche overlap and that interference competition (Dugger et al. 2011, Van Lanen et al. 2011, Wiens 2014) is resulting in increased northern spotted owl site abandonment, reduced colonization rates, and likely reduction in reproduction (Olson et al. 2005, Dugger et al. 2011, Forsman et al. 2011, Wiens 2014).

Barred owls are detected incidentally because the BLM does not conduct barred owl surveys across the District. These incidental observations are increasing within the Medford District. Incidental observations across the District, as well as information from the Klamath and South Cascades Demographic Study Areas indicate that barred owls are increasing in this area. Local populations of barred owls are likely to increase over time (BA, p. 20, 3.6 Barred Owls).

To mitigate negative interactions between NSOs and barred owls, the BLM defers from treatment forested areas that have high-quality habitat known as RA32. "Through field evaluations, 14 patches (1 to 33 acres each) totaling approximately 94 acres were determined to meet RA32 stand conditions and would not be treated. Maintaining or restoring forests with high-quality habitat will provide additional support for reducing key threats faced by NSOs. Protecting these portions of forests stands should provide NSOs high-quality refugia habitat from the negative competitive interactions with barred owls" (EA, p. 87).

The BLM is proposing approximately 63 acres of regeneration harvest which will remove NRF habitat. The 63 acres of regeneration harvest were not identified as RA32 stands. The stands occur outside of northern spotted owl nest patches, half mile core areas and 1.3 mile home ranges. "There are approximately 1,229 acres of NRF habitat on federal lands within the Lower Grave Planning Area that occur outside of known spotted owl home ranges. Due to the heavily fragmented and checkerboard landscape, and significant private timber harvesting, the BLM does not anticipate to find owls" (BA, pp. 19-20).

Additionally, the 63 acres occurs outside of northern spotted owl Revised Critical Habitat (USFWS 2012).

Of the approximately 63 acres of NRF habitat proposed for removal, 50 acres are within and 13 acres are outside known spotted owl home ranges. NRF habitat proposed for removal/downgrade under this Proposed Action is not of the high-quality characterized as Recovery Action 32 type habitat. However, adverse effects are likely because of the removal of key habitat elements such as large diameter trees (generally greater than 16 inches DBH) that may have potential nesting structure and the associated reduction in canopy cover and the loss of multiple canopy layers that provide concealment cover, foraging perches, and suitable microclimate conditions for spotted owls. Spotted owl foraging opportunities are likely to be reduced as well due to habitat loss which may diminish spotted owl habitat-fitness because of reductions in spotted owl prey along with spotted owls having to travel greater distances for prey. As a result spotted owl reproduction could be affected or physical health impacted, leading to site abandonment or reduced survival" (June 2015 BiOp, p. 37).

The Lower Grave Vegetation Management Biological Assessment documents 11,178 acres of NSO NRF habitat on federally managed lands within the Planning Area (BA, p. 18, Table 3). The 63 acres of regeneration harvest which will remove NRF habitat equates to approximately 0.6% ((63 ÷ 11,178) × 100 = 0.56) of the NRF contained within the Planning Area or less than 1%.

The Northwest Forest Plan Standards and Guidelines state that at least 15% of each fifth field watershed should be managed to retain late-successional patches (ROD, C-44). The Planning Area is in compliance with the 15% Standard and Guideline (EA, p. 177). So, while it is critical to retain most of the mature stands within the Planning Area the BLM has met the obligation set forth in the Northwest Forest Plan Standards and Guidelines ROD. Removal of less than 1% of the NRF habitat within the area and the results of USFWS consultation demonstrate that the regeneration harvest treatments are not likely to have international, national, region-wide, or state-wide importance. Additionally, the BiOp concludes that the project is "not likely to jeopardize the continued existence of the spotted owl" (BiOp, p. 55).

d) Fisher

The USFWS issued a proposal to list the West Coast distinct population segment (DPS) of the fisher as a threatened species under the Endangered Species Act on October 7, 2014 (*Federal Register* /Vol. 79, No. 194 /Tuesday, October 7, 2014). At this time the USFWS has found the designation of critical habitat as "not determinable" for the West coast Distinct Population Segment of the fisher. The EA has evaluated the impacts of the Proposed Action and alternatives on the fisher and its habitat. The Proposed Action does not occur within the Northern California Southern Oregon range known to be occupied by fisher (EA, pp. 75-76).

Fisher surveys using baited camera stations were conducted in portions of the Grave Creek watershed and proximate to the Planning Area in 2000, 2004, and 2009 with no

detections. The absence of detections from camera surveys, hair tubes, and reported potential sightings from BLM field personnel, indicates it is unlikely that a resident population occurs, or that it is an area of low and/or incidental use. The Proposed Action is not expected to have measureable adverse effects to fisher, and therefore will not be analyzed in any further detail (EA, p. 76). Because the Planning Area has been identified as an area of low and/or incidental use, the Proposed Action will have no impact on the West Coast fisher population segment.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. The Proposed Action is designed to be compliant with federal, state, and local laws required for the protection of the environment. Furthermore, the Proposed Action is consistent with applicable land use management plans, policies, and programs listed within the EA on pages 9-10.

III. FINDING

I have determined that the Proposed Action does not constitute a major federal action having a significant effect on the human environment; an environmental impact statement is not necessary and will not be prepared. This conclusion is based on my consideration of the Council on Environmental Quality's criteria for significance (40 CFR §1508.27), with regard to the context and the intensity of the impacts described in the EA, and on my understanding of the project, review of the project analysis, and review of public comments. As previously noted, the analysis of effects has been completed within the context of the Medford District's Resource Management Plan and the Northwest Forest Plan. This conclusion is consistent with those plans and the anticipated effects are within the scope, type, and magnitude of effects anticipated and analyzed in those plans. The analysis of project effects has also occurred in the context of multiple spatial and temporal scales as appropriate for different types of impacts and the effects were determined to be insignificant.

Allen Bollschweiler
Field Manager
Grants Pass Field Office

7/30/15
Date

Lower Grave Vegetation Management Project
Decision Record
Unit Summary Table

All values in this table are approximations

Unit Number	Acres	Logging System	Unit Prescription	Route Length (Miles)	Route Type
01-1	16	Cable	VDT		
01-2	27	Cable	VDT	0.01	Truck Turn Around
	7	Ground Based			
01-A	2	Ground Based	CT	0.10	New Temp Route Construction
	23	Cable			
01-A2	6	Ground Based	CT	0.18	New Temp Route Construction
	10	Cable			
01-A3	11	Ground Based	CT		
01-A4	2	Ground Based	CT		
01-C1	6	Ground Based	CT		
01-C2	4	Ground Based	CT		
01-C3	14	Cable	CT	0.18	Temporary Route Re-construction
01-C4	11	Cable	CT		
	5	Ground Based			
01-C5	43	Cable	CT	0.20	Temporary Route Re-construction
				0.07	New Temp Route Construction
03-1F	65	N/A	HFR		
03-2A	37	Helicopter	RH		
03-2C	11	Cable	RH		
	1	Ground Based			
03-2F	15	N/A	HFR		
07-2	15	Cable	VDT	0.01	New Temp Route Construction
	1	Ground Based		0.03	Temporary Route Re-construction
07-2C	8	Ground Based	VDT	0.05	New Temp Route Construction
	11	Cable			
15-1	19	Cable	VDT		
15-2	11	Cable	RH		
15-3A	23	Ground Based	VDT		
15-3B	7	Ground Based	VDT		
17-2	1	Ground Based	VDT	0.07	New Temp Route Construction
	8	Cable			
26-1	21	Cable	CT	0.17	Temporary Route Re-

Lower Grave Vegetation Management Project
Unit Summary Table

All values in this table are approximations

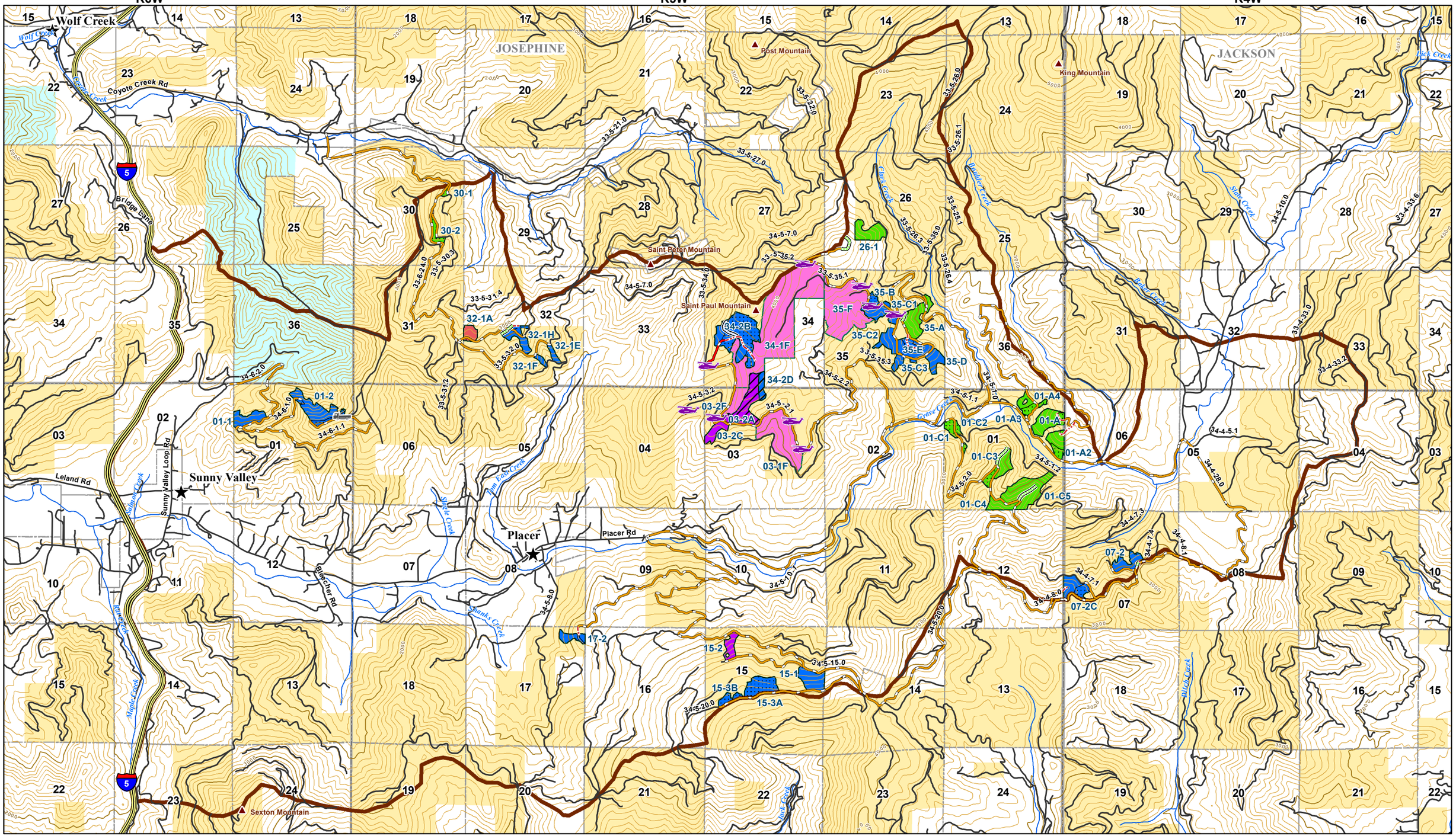
Unit Number	Acres	Logging System	Unit Prescription	Route Length (Miles)	Route Type
					construction
30-1	1	Ground Based	CT		
30-2	7	Ground Based	CT		
32-1A	1	Ground Based	DM		
	8	Cable			
32-1E	4	Cable	VDT		
32-1F	3	Cable	VDT		
32-1H	13	Cable	VDT	0.13	Temporary Route Re-construction
	3	Ground Based		0.06	New Temp Route Construction
				0.21	Cable-tractor Swing Route
34-1F	204	N/A	HFR		
34-2B	52	Ground Based	VDT	0.38	New Temp Route Construction
	13	Cable		0.30	Permanent Road Construction
34-2D	7	Helicopter	VDT		
35-A	26	Cable	CT	0.07	Temporary Route Re-construction
	2	Ground Based			
35-B	7	Ground Based	VDT		
35-C1	12	Cable	VDT		
35-C2	17	Cable	VDT		
35-C3	7	Cable	VDT		
35-D	13	Cable	VDT		
35-E	8	Ground Based	VDT	0.18	New Temp Route Construction
	17	Cable			
35-F	94	N/A	HFR		
Total	**960**			**2.4**	

All new temporary routes, re-constructed routes, and tractor swing routes will be decommissioned after use: Block, rip, waterbar and seed/mulch.

Definitions

- CT = Commercial Thin
- VDT = Variable Density Thin
- RH = Regeneration Harvest
- HFR = Hazardous Fuels Reduction

Lower Grave Vegetation Management Project Decision Record



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Current Date: 06/19/2015

Truck Turnaround
Helicopter Landings

Temporary Route Construction
- Construction
- Reconstruction
- Swing Road
- Permanent Road Construction
- Haul Routes

Logging System
- Cable
- Ground Based
- Helicopter Yard
- Perennial Fishbearing Streams
- Project Boundary

EA Units
- Commercial Thin
- Density Management
- Hazardous Fuels Reduction/No Extraction
- Regeneration Harvest
- Variable Density Thin

- Bureau of Land Management
- State
- Private

N

Miles
0 0.5 1