

Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA)

U.S. Department of the Interior
Bureau of Land Management (BLM)
Eugene District, Oregon

No Bounds Density Management Project DOI-BLM-OR-E050-2011-0004-DNA

A. Description of the Proposed Action: The proposed action is to implement the No Bounds Density Management Project by thinning approximately 91 acres within the Upper Siuslaw Landscape Plan EA planning area, 66 acres in Late Successional Reserve (LSR) and 25 acres in Riparian Reserve land use allocations. The proposed action (including silvicultural prescriptions, logging systems, Riparian Reserve treatments, and road construction, renovation, and decommissioning prescriptions, botany and fuels mitigation measures) is described in the attached "Implementation Prescription." **Location** T. 18S, R. 8W, Section 29 Will. Meridian, Late Successional Reserve and Riparian Reserve land use allocation.

B. Conformance with the Land Use Plan (LUP) and Consistency with Related Subordinate Implementation Plans

- Eugene District Resource Management Plan (RMP), June 1995, as amended.
- Upper Siuslaw Landscape Plan Environmental Assessment, July 2009.

The proposed action is in conformance with the applicable LUPs, because it is specifically provided for in the following LUP decisions:

"Plan and implement silvicultural treatments inside Late-Successional Reserves that are beneficial to the creation of late-successional habitat.

"If needed to create and maintain late-successional forest conditions, conduct thinning operations in forest stands up to 80 years of age. This will be accomplished by pre-commercial or commercial thinning of stands regardless of origin (planted after logging or naturally regenerated after fire or blowdown)" (RMP p30). "Apply silvicultural practices in Riparian Reserves to acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives" (p24).

C. Identify the applicable NEPA document(s) and other related documents that cover the proposed action.

The proposed action is covered by the Upper Siuslaw Landscape Plan Environmental Assessment – July 2009.

Other NEPA documents and other related documents that are relevant to the proposed action include:

- Eugene District RMP/Environmental Impact Statement -November 1994 and Record of Decision –June 1995.
- Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage Protection Buffer, and other Mitigation Measures Standards and Guidelines. January 2001.
- U.S. Fish and Wildlife Service Biological Opinion for the Upper Siuslaw Landscape Plan FY 2010.
- Late-Successional Reserve Assessment for the Oregon Coast Province - Southern Portion – RO267, RO268. 1997
- Siuslaw Watershed Analysis. 1996.
- No Bounds project analysis file.

D. NEPA Adequacy Criteria

1. Is the current proposed action substantially the same action (or is a part of that action) as previously analyzed?

The proposed action for thinning approximately 91 acres is part of the proposed action analyzed in the Upper Siuslaw Landscape Plan Environmental Assessment and is contained within the EA analysis area. The current proposed action implements the following specific actions in the selected alternative:

“Trees identified for harvest would generally be from the smaller diameter classes, varying spacing to reserve the larger, more vigorous trees to a specified basal area. Thinning would be to a Relative Density (RD) in the mid-30s which is expected to result in a residual canopy closure of 45 to 60 percent.”

No Bounds consists of approximately 91 acres that are about 47 to 58 years of age (at the time of the EA analysis baseline, p. 8). The Kelly Creek thinning project will thin trees to a relative density of 32 with 135 ft² basal area retained, averaging 74 trees per acre maintaining an average canopy closure of 40 percent or more canopy closure. This will maintain northern spotted owl dispersal habitat. Streams will receive a no treatment buffer of 75 feet except for stream 29-2 which will receive a 100 foot buffer because of adjacency to listed fish habitat.

Roads would be constructed or renovated/improved as needed. Approximately 20 to 30 miles of construction and approximately 170 to 190 miles of renovation/improvement would occur (page 16).

For LSR lands, all newly constructed and non-inventoried roads used for harvest activities; renovated/improved roads within late successional stands that are natural surface or have been rocked to facilitate harvest activities; other existing roads that are not needed for future management will be decommissioned using the design features listed in the EA.

Approximately 852 feet of new road will be constructed and 9,451 feet of road will be renovated or improved.

Approximately 5,182 feet of road would be decommissioned which includes the new construction portion (see the implementation prescription for design features).

Coarse woody debris and snags in LSR and associated Riparian Reserves (page 15 USLP EA):
Snags and coarse woody debris would be retained during thinning harvest of stands except for safety or operational reasons. New snags and coarse woody debris would be created when existing levels of snags and coarse wood debris do not meet the levels defined below:

Stand QMD** (pretreatment)	CWD Retention or Creation			Snag Retention or Creation	
	Total	Component Diameters**	Component Lengths	Total	Component Diameters
>14 in	240 ft/ac	>14 in	>20 ft	6 tpa	>14 in dbh
≤14 in	120 ft/ac	>12 in	>20 ft	3 tpa	>12 in dbh

* Quadratic Mean Diameter

** large end

- Upon completion of yarding operations approximately 1.85 trees per acre of coarse woody debris greater than 14 inches in diameter will be felled and left on site.
- Upon completion of yarding operations, six 14” dbh trees per acre (444 trees) shall be girdled to hasten the development of snags.

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

The Upper Siuslaw Landscape Plan Environmental Assessment analyzed four alternatives in addition to the no action alternative. The alternatives analyzed a variety of thinning prescriptions and include a range of alternatives from considering limited road construction in LSR lands and spotted owl critical habitat units to building new roads as needed. The types of roads to be decommissioned varied between alternatives to reflect the variety of decommissioning opportunities that may exist. Comments received were taken into consideration both before and after the alternatives were analyzed. No new environmental concerns, interests, resource values, or circumstances have been revealed since the EA was published that would indicate a need for additional alternatives.

3. Is the existing analysis adequate and are the conclusions adequate in light of any new information or circumstances? Can you reasonably conclude that all new information and all new circumstances are insignificant with regard to analysis of the proposed action?

There is no significant new information or circumstance relative to the analyses in the Upper Siuslaw Landscape Plan EA (USLP EA) and the current proposed action. The affected environment and environmental effects were considered in the EA; there is no new information or circumstances relative to these analyses. The project lies within the 2008 northern spotted owl critical habitat designations, the light to moderate thinning will occur in designated critical habitat and will have an adverse impact on principle component elements such as a reduction in existing snags and coarse woody debris in thinned stands within critical habitat. However the project includes the creation of coarse wood and snags mitigating any such loss. The project is not located in marbled murrelet critical habitat designations due to lack of potential nesting structure and therefore has no effect on marbled murrelet critical habitat.

We received one comment about the consideration of carbon sequestration during the public comment period for the USLP EA. The appropriate scale at which carbon storage estimates should occur are at the Resource Management Plan or larger. Since the USLP EA tiered to the 1995 RMP, the analysis has been completed in the EIS that accompanied the 1995 RMP. The 1995 RMP did consider increases in carbon dioxide release from forest management activities. The two forest management activities that were considered as having a measureable impact (based on research available at that time) included large scale clear cutting of old growth (age class 200+) and prescribed burning after harvest of those acres. The total increase in atmospheric carbon would not exceed 0.01 percent due to those actions under the 1995 Proposed Resource Management Plan (pages 4-9; 4-10 1995 FEIS). All other forest management actions were considered to have much less of an impact and therefore were not considered. In comparison, the current proposed action under the Upper Siuslaw Landscape Plan Environmental Assessment is a thinning project and does not include clear cut harvest of old growth and associated prescribed burning. The proposed action includes piling of slash within 25 feet of certain roads. Slash from these piles would be used to scatter over decommissioned roads, and the remaining material would be covered and burned to increase safety in the event of wildfire occurrences. The carbon released from these slash piles is not expected to have measurable impacts to increases in carbon dioxide in the atmosphere due to the small quantity and short duration of burning that is to occur. The conclusions in the 1995 RMP/EIS analysis of carbon release support that thinning as described in this proposed action would have a negligible effect on the global carbon pool, in addition, carbon sequestration due to thinning would provide beneficial consequences due to carbon uptake by increased growth of conifers after thinning. New information or circumstances about carbon release with regards to the proposed action is considered to be insignificant.

The USLP EA has been issued a Biological Opinion by the USFWS which is consistent with the 2008 northern spotted owl recovery plan. Additional details are provided in the No Bounds Project Analysis File.

4. Do the methodology and analytical approach used in the existing NEPA document(s) continue to be appropriate for the current proposed action?

The Upper Siuslaw Landscape Plan EA analyzed the effects of thinning on Critical Habitat for Spotted Owls and Marbled Murrelet habitat (pages 35-36). The ACS objectives analyzed the effects of road use and improvements by the proposed action. The methodology and analytical approach used in the EA are appropriate for the current proposed action.

5. Are the direct and indirect impacts of the current proposed action substantially unchanged from those identified in the existing NEPA document(s)? Does the existing NEPA document sufficiently analyze site-specific impacts related to the current proposed action?

There is no new information or circumstance that would alter the effects analysis in the Upper Siuslaw Landscape Plan EA.

The Upper Siuslaw Landscape Plan EA analyzed direct and indirect impacts of the proposed action; the current project consists of treatments that were described in the proposed action for the EA. The EA concluded that thinning the stands would improve growing conditions and improve the quality of habitat for spotted owls and marbled murrelets. The EA analysis concluded that dispersal habitat within known owl current owl home ranges would be thinned but would not be downgraded and will maintain the ability of the stand to function as dispersal habitat or not limit the ability of an owl to disperse through the landscape. Current levels of dispersal habitat within known owl home ranges in the Area of Concern (AOC) will be maintained and non-dispersal habitat within those owl home ranges will be thinned (EA pp. 34). The current proposed action is not located in the AOC. Thinning and associated activities would result in slash creation in the short-term increasing fire risk, followed by a long-term reduction in the risk of severe fire, relative to leaving stands unthinned (EA pp. 42). Road renovation, new road construction, and log haul would produce negligible, if any, sediment delivery to streams, because of road improvements such as replacement of stream crossing culverts and cross drains (EA pp. 29). Stream buffers will protect streams from sediment that may be generated from logging operations (EA pp. 30). Reduction in canopy closure from thinning, road renovation and new road construction could result in some further establishment and spread of noxious weeds; however, weed levels will decrease as the canopy recovers and shade is restored to these sites. Weed introductions will be minimized by cleaning of vehicles prior to entry into the stand (EA pp. 38).

The site specific effects of the current proposed action are consistent with the effects analysis in the Upper Siuslaw Landscape Plan EA. The stand conditions in the project area for the current proposed action are consistent with those anticipated in the Upper Siuslaw Landscape Plan (EA p. 33-37). Portions of the project overlap two northern spotted owl home ranges; however, thinning will occur outside the nest patches of both these owl home ranges. Dispersal habitat thinned would continue to function as owl dispersal habitat since the silvicultural prescriptions for these units maintain at least a 40% canopy cover and no suitable habitat will be thinned. There will be no thinning within the disruption distance of the known owl site. As analyzed in the EA, approximately 240 linear feet per acre of coarse woody debris greater than 14 inches in diameter and 20 feet in length will be felled and left on site; 6 trees (14 inch dbh or greater) per acre (approximately 6.5 square feet per acre) would be left on site as snags after girdling. There is no marbled murrelet potential nesting structure within the thinning units. Since thinning would occur within 100 yards of adjacent un-surveyed marbled murrelet suitable habitat, there will be a 2 hour daily timing restriction between April 1 and September 15. Site visits and surveys did not identify any unique conditions (such as special habitats or special status species), and there are no specially designated areas (such as ACECs or RNAs) in the project area. Approximately 852 feet of new road will be constructed which is below the average feet per acre (17 feet per acre) of new road construction for the entire planning area. Approximately 9,451 feet of road will be renovated or improved well within the average feet per acre (111 feet per acre) of road renovation or improvement for the entire planning area analyzed in the Upper Siuslaw Landscape Plan EA; "approximately 20 to 30 miles of construction and approximately 170 to 190 miles of renovation/improvement would occur (page 16)". Additional details are provided in the No Bounds project analysis file.

6. Can you conclude without additional analysis or information that the cumulative impacts that would result from implementation of the current proposed action are substantially unchanged from those analyzed in the existing NEPA document(s)?

The Upper Siuslaw Landscape Plan EA analyzed the cumulative impacts of the proposed action within the watershed. The EA concluded that thinning would benefit wildlife species on LSR lands and would maintain spotted dispersal habitat on Matrix lands. Heavy thinning on approximately 325 acres in the LSR would improve the quality of habitat for spotted owls and murrelets in the long term, however there is no heavy thinning included in the current proposed action (EA pp. 36). Road improvements will be implemented to accommodate haul during the wet season. Thinning and associated road construction (such as the current proposed action) would not contribute to any cumulative impacts to fish and aquatic resources (EA pp. 29-30). Coarse wood and snags would be created to improve habitat for wildlife. Road decommissioning would occur where wildlife and fish habitat may benefit from it.

7. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Public involvement for the Upper Siuslaw Landscape Plan EA has been adequate. Scoping was completed before the analysis for the EA began with a letter, describing the proposed project and project area and was mailed to interested parties on March 20, 2007. The EA and preliminary FONSI were made available for a 30 day public review on December 10, 2008; three comments were received. One comment suggested a “hybrid” alternative combining Matrix thinning as described in Alternative B and LSR heavy thinning as described for Alternative D. The EA analyzed thinning in the Matrix and heavy thinning on LSR lands; the proposed action includes both treatments. One other comment indicated the inadequate analysis of hardwood conversions included in the proposed action. Hardwood conversions will be analyzed in a separate NEPA document and are not part of the proposed action in the EA. The third comment requested the consideration of the consequences of thinning on carbon sequestration; this has been addressed in the third category of the NEPA adequacy criteria. BLM did not receive any protests following the publication of the Decision Record.

BLM notified the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians, and the Confederated Tribes of the Grand Ronde, of the Upper Siuslaw Landscape Plan EA during the scoping process, requesting information regarding tribal issues or concerns relative to the project. BLM also sent the tribes copies of the EA and no responses were received.

BLM has consulted with the U.S. Fish and Wildlife Service (USFWS). BLM completed formal consultation under the Endangered Species Act with the USFWS on effects of the No Bounds project on the northern spotted owl, and marbled murrelet. The current proposed action is consistent with the description of the action in the Upper Siuslaw Landscape Plan Biological Opinion issued by the USFWS in 2009. Because the current proposed action would have no effect on coho salmon and its designated critical habitat, as well as no adverse effect on Essential Fish Habitat, consultation with NOAA Fisheries is not required.

E. Interdisciplinary Analysis: Identify those team members conducting or participating in the preparation of this worksheet.

NAME	SPECIALTY
Steve Steiner	Hydrologist
Teague Mercer	Hydrologist
Karin Baitis	Soil Scientist/ Road Decommissioning
Jeff Spring	Engineer/Roads/ Road Decommissioning
John Moore	Wildlife Biologist
Sharmila Premdas	Landscape Planner/NEPA
Leo Poole	Fish Biologist
Mark Stephen	Silviculturist
Nanci Curtis	Fuels Specialist
Doug Goldenberg	Botanist
Chris Finn	Logging Systems Forester/Team Lead
Peter O'Toole	Planning Forester
Tom Jackson	GIS

PREPARED AND REVIEWED BY

NEPA Coordinator

Date

CONCLUSION

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the existing NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of NEPA.

William E. Hatton
Field Manager
Siuslaw Resource Area

Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

DECISION RECORD

Documentation of NEPA Adequacy
No Bounds Density Management Project
DOI-BLM-OR-E050-2011-0004-DNA

Decision:

It is my decision to implement the No Bounds Density Management Project as described in the Documentation of NEPA Adequacy **DOI-BLM-OR-E050-2011-0004-DNA** and in the attached implementation prescription.

The proposed action has been reviewed by Resource Area Staff and appropriate project Design Features specified in the Upper Siuslaw Landscape Plan EA, which analyzed these actions, will be incorporated into the proposal. Based on the Documentation of NEPA Adequacy, I have determined that the proposed action involves no significant impact to the human environment and no further analysis is required. The Proposed Action is in conformance with the standards and guidelines of the 1995 Eugene District Record of Decision and Resource Management Plan.

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al. v. Rey, et al.*, No. 08-1067 (W.D. Wash.) (Coughenour, J.), granting Plaintiffs' motion for partial summary judgment and finding a variety of NEPA violations in the BLM and USFS 2007 Record of Decision eliminating the Survey and Manage mitigation measure. Previously, in 2006, the District Court (Judge Pechman) had invalidated the agencies' 2004 RODs eliminating Survey and Manage due to NEPA violations. Following the District Court's 2006 ruling, parties to the litigation had entered into a stipulation exempting certain categories of activities from the Survey and Manage standard (hereinafter "Pechman exemptions").

Judge Pechman's Order from October 11, 2006 directs: "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

- A. Thinning projects in stands younger than 80 years old (emphasis added):*
- B. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;*
- C. Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement of large wood, channel and floodplain reconstruction, or removal of channel diversions; and*
- D. The portions of the project involving hazardous fuel treatments where prescribed fire is applied. Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph a. of this paragraph."*

Following the Court's December 17, 2009 ruling, the Pechman exemptions are still in place. Judge Coughenour deferred issuing a remedy in his December 17, 2009 order until further proceedings, and did not enjoin the BLM from proceeding with projects. Nevertheless, I have reviewed the No Bounds Thinning Project in consideration of both the December 17, 2009 and October 11, 2006 order. Because the No Bounds Thinning Project entails no regeneration harvest and entails thinning only in stands less than 80 years old, I have made the determination that this project meets Exemption A of the Pechman Exemptions (October 11, 2006 Order), and therefore may still proceed to be offered for sale even if the District Court sets aside or otherwise enjoins use of the 2007 Survey and Manage Record of Decision since the Pechman exemptions would remain valid in such case. The first notice for sale will appear in the newspaper on March 30, 2011.

Administrative Remedies:

The forest management decision to be made on the action described in the Documentation of NEPA Adequacy is subject to protest under 43 CFR subpart 5003. Under 43 CFR 5003.2 subsection (b), the decision will be published in local newspaper(s) and this notice shall constitute the decision document. Under 43 CFR 5003.3 subsection (a), protests may be filed with the authorized officer within 15 days of the publication date of this decision. Under 43 CFR 5003.3 (b), protest(s) filed with the authorized officer shall contain a written statement of reasons for protesting the decision. A decision on this protest would be subject to appeal to the Interior Board of Land Appeals, although, under 43 CFR 5003.1 subsection (a), filing a notice of appeal under 43 CFR part 4 does not automatically suspend the effect of a decision governing or relating to forest management under 43 CFR 5003.2 or 5003.3.

Authorizing Official:

William E. Hatton
Field Manager
Siuslaw Resource Area

Date

**Project Implementation Prescription
No Bounds Tract #11-583
Upper Siuslaw Landscape Plan
T. 18 S., R. 8 W., Section 29**

Unit Overview

- Dense, approximately 47-58 (*BLM forest operations inventory data*) year old Douglas-fir stands; totaling approximately **91** acres in size within the Late Successional Reserve (LSR) and Riparian Reserve (RR) Land Use Allocations of the Siuslaw Watershed.
- The thinning of this stand is designed to be consistent with the *Upper Siuslaw Landscape Plan Environmental Assessment, July 2009*; and the *Eugene District Resource Management Plan (RMP), June 1995*, as amended.

CURRENT STAND CONDITIONS

Stand Exam Information (All species)- 174 TPA; Basal Area of **203 sq. ft./acre**; Relative Density of **53**; Quadratic Mean Diameter of **14.6 inches**. Primarily second growth Douglas-fir stand with minor components of western hemlock, western redcedar and hardwoods. Hardwoods included Bigleaf maple, red alder, and Golden chinkapin. A portion of the stands have been pre-commercially thinned. The stands were regenerated by natural and/or artificial seeding, and planting. (Stand included approximately 15-20 acres of very dense non-merch conifer with infrequent merchantable trees dispersed within.)

SILVICULTURE PRESCRIPTION

The project is a density management thinning. The marking guide for upland and riparian stands is as follow:

- Vary the leave tree spacing as needed to generally reserve the larger diameter, more vigorous trees using BA marking/ thinning from below.
- Reserve Pacific yew, western redcedar, incense cedar, and hardwoods. Retain on site any trees felled for safety or operational reasons.
- Reserve existing snags, and coarse woody debris of decay classes 3, 4, and 5. Retain in the stand any snags felled for safety or operational reasons.
- Retain non-merchantable tree tops and limbs where the source tree is felled.
- Additional down wood would be provided at the time of harvest. Provide **137 trees** (approx. 1.85 TPA) measuring approx. 16-18" D.B.H. for down wood (*240 lineal ft./ac.*).
- Snags would be provided within 5 years after completion of partial harvest. Provide **444 snags** (6 TPA). measuring approx. 16-18" DBH for snags (*6 snags per ac.*).
- Number of selected leave conifer trees should be approximately **74 trees/acre** (*see unit prescriptions below*).
- Retention conifer target basal area should be approximately **135 ft² basal area** per acre (*see unit prescriptions below*).
- Resulting stand Relative Density (RD-Curtis) should be **32** (*see unit prescriptions below*).
- The silvicultural prescription is designed to maintain 40% post harvest canopy closure in existing dispersal habitat (stands greater than 40 years old).

BA/Acre (conifer)	BA/Acre (All Species)	TPA (conifer)	TPA (All Species)	RD
135	137	74	78	32

Est. Yield

Project total: 91 acres x 12.2 MBF/ac = 1,110 MBF (*Approx. 15-20 acres of very dense non-merch conifer with infrequent merchantable trees dispersed within.*)

LOGGING SYSTEMS

Cable Yarding Design Features – approximately 86 acres

- All cable yarding shall be to designated or approved landings.

- To minimize impacts, keep spacing of cable corridors 150 feet apart at one end whenever possible, and limit to 12 feet in width (a cable system capable of 75 foot lateral yarding should be used).
- Minimum one-end suspension is required. Intermediate supports may be necessary to achieve the required suspension.
- Cable yarding systems should be laid out to eliminate gouging (log dragging) to reduce concentration of drainage delivering to streams.
- Full suspension is required when yarding over streams.
- Locate cable corridors over streams and on concave slopes above stream channel initiation points (headwalls) so that they are within 45 degrees of perpendicular to the stream, where possible. This is to provide a sharp channel junction to dissipate the energy of any potential debris flows or torrents.

Ground Based Yarding Design Features – approximately 5 acres

- Require that operations occur when soil moisture content provides the most resistance to compaction (generally less than 25%--during the dry season, typically, July 1 to October 15), as approved by the Authorized Officer in consultation with the soil scientist.
- Use existing skid trails wherever possible.
- Limit skid trails to slopes less than 35%.
- Pre-designate skid trails.
- Limit skid trails to <10% of the harvest area by requiring a minimum 150 foot spacing between skid trails, and limit the width of skid trails to 12 feet.
- Limit low ground pressure (<6 psi) ground-based yarding equipment to one round trip when operating outside designated primary skid trails, utilizing downed slash to minimize soil disturbance.
- Require felling of trees to lead to the skid trails and maximize winching distances.
- Skid logs to designated or approved landings.
- Decompect all skid trails and landings and place slash and brush on trails with an excavator. Decompeaction would immediately follow logging operations and take place prior to the onset of the fall rainy season. If decompeaction cannot be accomplished the same operating season, leave all trails in an erosion resistant condition and block.

ENGINEERING

Construction and Renovation:

Road No.	Type	Length (feet)	Notes
18-8-17	Improvement	1531	Replace three 18" cross drains and one 24" culvert
18-8-19	Renovation	3590	
18-8-20	Renovation	1320	Required road rocking
18-8-21.1	Renovation	3010	Required road rocking
Spur A	Construction	852	May be rocked at purchaser's expense

- Renovation work may consist of brushing, scarifying the subgrade to a 14-foot width, outsloping where possible, replacing old culverts, and road rocking.
- Design new construction as natural surfaced, with 14 foot wide subgrade (SN-14) and no ditches; outslope subgrades with road grades 0-12% and inslope with grades over 12%. Use drain dips and rolling dips where possible with minimal use of culverts.
- To facilitate winter hauling/logging operations, the purchaser will add additional rock to Road Nos. 18-8-20 and 18-8-21.1. Road No. 18-8-19 is also open for all season haul.
- To facilitate winter hauling/logging operations, the purchaser will have the option to rock the surface of Spur A according to same specifications as the renovated roads

Decommissioning measures

All decommissioning shall be completed during the dry season.

- (aa) Purchaser shall till all natural surfaced roads with decompeaction equipment, such as a track mounted excavator with a thumb that is capable of moving logging slash, during the dry season.

- (bb) Purchaser shall construct drainage dips, waterbars and/or lead-off ditches, as directed by the Authorized Officer. Waterbars and drainage dips shall be constructed in accordance with the specifications shown on Exhibit H.
- (cc) Purchaser shall place logging slash on surfaces where available.
- (dd) Purchaser shall block at entry points using stumps, slash, and/or cull logs, or earthen barricades, as directed by the Authorized Officer.

		If Not Rocked				If Rocked		
		(aa)	(bb)	(cc)	(dd)	(bb)	(cc)	(dd)
Road Number	Road Rocking	Tilling	Drainage	Logging Slash	Blocking	Drainage	Logging Slash	Blocking
Spur A	Purchaser option	X	X	X	X	X		X
18-8-20	Required^		X			X		
18-8-21.1	Required^		X			X		

^Road rocking required for wet weather haul. Purchaser may buy out of rocking if hauling on this road only during the dry season.

HYDROLOGY

Maintain minimum no-harvest buffers from streams:

- 75 feet for all intermittent and perennial streams except for stream 29-2 for which a 100 foot buffer has been designated because it consists of listed fish habitat.
- No cutting would occur within the primary shade zone, except for limited cutting for yarding corridors.

FISHERIES

- Full suspension required when yarding across streams
- For stream 29-2 a 100 foot buffer has been recommended because it consists of listed fish habitat.

WILDLIFE

Threatened and Endangered Species

Northern Spotted Owl:

- No mitigations are required

Marbled Murrelets:

There is occupied habitat adjacent to the unit to the northwest and southeast. There are trees with potential structure adjacent to the harvest area.

- When operating within 100 yards of occupied habitat or unsurveyed suitable habitat (Special Operating Area), a 2-hour time restriction is required between April 1 – September 15.
- Do not harvest or damage trees with murrelet nesting structure adjacent to the harvest area in the reserve area to the northwest and southeast to the harvest area. Consult with the area wildlife biologist prior to approving guyline or tailhold trees in this area.

Snags and Coarse Woody Debris

- Upon completion of yarding operations approximately 1.85 trees per acre of coarse woody debris greater than 14 inches in diameter will be felled and left on site.
- Upon completion of yarding operations, six 14” dbh trees per acre (444 trees) shall be girdled to hasten the development of snags.

Only 74 of the 91 acres within the unit boundary contain trees large enough in abundance enough to achieve the snag and coarse woody debris prescription. Therefore the above tree requirements are based on 74 acres.

Special Status Species

No Special Status Species, federally listed species or unique habitats were located during field reviews of the project area .

BOTANY

Threatened and Endangered Species

No federally listed Threatened or Endangered plant species were located during surveys.

Sensitive Species

Sensitive Species plants were located during site surveys, however they were outside the project area

Noxious Weeds and Invasive Non-native species:

- Clean all yarding and road construction equipment prior to arrival on BLM-managed lands to lessen the spread of noxious weed seed.
- Seed tilled roads with native species to help shade out weeds, lessen erosion, and speed re-vegetation, Prescribe these actions based on on-site evaluation after logging has been completed.

FUELS

- Pile slash at landings and within 25 feet of Road Nos. 18-8-20 and 18-8-21.1. Leave material greater than 9" in diameter out of piles. Ninety percent (90%) of all landing and roadside piles would be burned.
- Cover and burn remaining roadside piles and landing piles.



**United States Department of the Interior
Bureau of Land Management**

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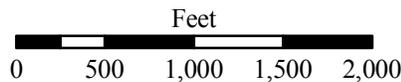
Phone: 541-683-6600
FAX: 541-683-6981
Email: Or_Eugene_Mail@blm.gov
Website: <http://www.blm.gov/or/districts/eugene>

Universal Transverse Mercator
Zone 10, North American Datum 1983

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.

No Bounds DNA

T.18 S., R.8 W. Sec. 29



-  Thinning Area
-  Marbled Murrelet Habitat
-  Special Operating Area
-  Road - Paved
-  Road - Rock
-  Road - Other
-  Road - Renovate
-  Road - New Construction
-  Streams
-  State Ownership
-  Private Ownership

