

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

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

North Creek Density Management Project DOI-BLM-OR-E050-2011-0005-DNA

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- A. Description of the Proposed Action:** The proposed action is to implement the North Creek Density Management Project by thinning approximately 77 acres within the Upper Siuslaw Landscape Plan EA planning area, 52 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, road construction, road renovation, and road decommissioning prescriptions, botany and fuels mitigation measures) is described in the attached "Implementation Prescription."
- Location** T. 19S, R. 8W, Section 13 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

- The Eugene District initiated planning and design for this project to conform and be consistent with the Eugene District's 1995 RMP. Following the March 31, 2011 decision by the United States District Court for the District of Columbia in Douglas Timber Operators et al. v. Salazar, which vacated and remanded the administrative withdrawal of the Eugene District's 2008 ROD and RMP, we evaluated this project for consistency with both the 1995 RMP and the 2008 ROD and RMP. Based upon this review, the current proposed action contains some design features not mentioned specifically in the 2008 ROD and RMP. The 2008 ROD and RMP did not preclude use of these design features, and the use of these design features is clearly consistent with the goals and objectives in the 2008 ROD and RMP. Accordingly, this project is consistent with the Eugene District's 1995 RMP and the 2008 ROD/RMP.
- 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.
- Eugene District RMP/Environmental Impact Statement -2008 and Record of Decision.

- 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.
- North Creek 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? Is the project within the same analysis area?

The proposed action for thinning approximately 77 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.”

North Creek consists of approximately 77 acres that are about 47 to 54 years of age (at the time of the EA analysis baseline, p. 8). The North Creek thinning project will thin trees to a relative density of 34 with 130 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 13-7 which will receive a 100 foot buffer to protect saturated side slopes.

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 3,235 feet of new road will be constructed and 5,545 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 1.98 trees per acre of coarse woody debris approximately 14” to 18” dbh inches in diameter will be felled and left on site.
- Upon completion of yarding operations, six trees per acre approximately 14” to 18” dbh 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 would not substantially change the 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 does not lie within the 2008 northern spotted owl critical habitat designations. The thinning will not occur in marbled murrelet critical habitat designations however construction of road number 19-8-13.9 would occur in marbled murrelet critical habitat unit OR-04-I therefore likely adversely affecting marbled murrelet critical habitat. Construction of road number 19-8-13.9 would likely to adversely affect spotted owl suitable habitat due to habitat modification; however functionality of the stand as suitable habitat would be maintained. Northern spotted owl surveys indicate there are no active sites consisting of nest patches or core areas within 0.5 miles from the proposed units. Marbled murrelet surveys were completed and did not result in occupancy.

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 when burning 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 North Creek Project Analysis File.

4. Are the direct and indirect, and cumulative effects that would result from implementation of the current proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document(s)?

The Upper Siuslaw Landscape Plan EA analyzed direct, indirect and cumulative 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). The analysis of the ACS objectives considered the effects of road use and road improvements from the proposed action. 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). Implementation of Best Management Practices (BMPs) from the 1995 RMP and unthinned 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). The project does not overlap northern spotted owl nest patches or owl cores. 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 a 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. The Upper Siuslaw Landscape Plan EA analyzed the effects of thinning on Critical Habitat for Spotted Owls and Marbled Murrelet habitat (pages 35-36). 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 3,235 feet of new road will be constructed which is above the average feet per acre (17 feet per acre) of new road construction for the entire planning area. Approximately 5,545 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 North Creek project analysis file.

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. The methodology and analytical approach used in the EA are appropriate for the current proposed action.

5. 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 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 North Creek 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
Teague Mercer	Hydrologist
Karin Baitis	Soil Scientist/ Road Decommissioning
Justin Pattison	Engineer/Roads/ Road Decommissioning
Dan Crannell	Wildlife Biologist
Sharmila Premdas	Landscape Planner/NEPA
Leo Poole	Fish Biologist
Mark Stephen	Silviculturist
Dave Reed	Fuels Specialist
Molly Widmer	Botanist
Crystal Perez-Gonzales	Logging Systems Forester
Peter O'Toole	Planning Forester
Tom Jackson	GIS

PREPARED AND REVIEWED BY

/s/ Sharmila Premdas May 19, 2011
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 constitute BLM's compliance with the requirements of NEPA.

/s/ William E. Hatton May 20, 2011
William E. Hatton Date
Field Manager
Siuslaw Resource Area

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

DECISION RECORD
Documentation of NEPA Adequacy
North Creek Density Management Project
DOI-BLM-OR-E050-2011-0005-DNA

Decision:

It is my decision to implement the North Creek Density Management Project as described in the Documentation of NEPA Adequacy **DOI-BLM-OR-E050-2011-0005-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 Eugene District initiated planning and design for this project to conform and be consistent with the Eugene District's 1995 RMP. Following the March 31, 2011 decision by the United States District Court for the District of Columbia in Douglas Timber Operators et al. v. Salazar, which vacated and remanded the administrative withdrawal of the Eugene District's 2008 ROD and RMP, we evaluated this project for consistency with both the 1995 RMP and the 2008 ROD and RMP. Based upon this review, the current proposed action contains some design features not mentioned specifically in the 2008 ROD and RMP. The 2008 ROD and RMP did not preclude use of these design features, and the use of these design features is clearly consistent with the goals and objectives in the 2008 ROD and RMP. Accordingly, this project is consistent with the Eugene District's 1995 RMP and the 2008 ROD/RMP.

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 North Creek

Thinning Project in consideration of both the December 17, 2009 and October 11, 2006 order. Because the North Creek 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 May 25, 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:

/s/ William E. Hatton

William E. Hatton
Field Manager
Siuslaw Resource Area

May 20, 2011

Date

**Project Implementation Prescription
North Creek Tract #11-584
T. 19 S., R. 8 W., Section 13**

SUMMARY

The project is a density management treatment of the Siuslaw Watershed. Approximately 25 acres of Riparian Reserve and approximately 52 acres of upland Late Successional Reserve would be treated. Estimated harvest volume is approximately 508 MBF. The project area is made up of dense, approximately 47-54 (BLM forest operations inventory data) year old, Douglas-fir stands. North Creek is located in the Upper Siuslaw Landscape Plan planning area.

SILVICULTURE

- Vary the leave tree spacing as needed to generally reserve the larger diameter, more vigorous trees using basal area marking/thinning from below.
- Selected leave trees should generally be of good form and relatively free of defect; however, trees with unique structure such as wolf trees, forked tops, and cavities shall be reserved in sufficient numbers to maintain presence in the stands.
- Reserve Pacific yew, western redcedar, incense-cedar, and hardwoods. Retain on site any of these 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 1.98 trees per acre (tpa) measuring approximately 14-18" diameter at breast height (dbh) for down wood (*240 lineal feet/acre*).
- Snags would be provided at the time of harvest. Provide 6 trees per acre measuring approximately 14-18" dbh for snags (*6 snags/acre*).
- Number of selected leave conifer trees should be approximately **74 tpa**.
- Target conifer retention should be approximately **130 square feet basal area** per acre.
- Resulting stand Relative Density (RD-Curtis) should be **34**.
- The silvicultural prescription is designed to maintain 40% post harvest canopy closure in existing dispersal habitat (stands greater than 40 years old).

Retention					
BA/Acre (conifer)	BA/Acre (All Species)	TPA (conifer)	TPA (All Species)	RD	Type Thinning
130	141	74	87	34	From Below

LOGGING SYSTEMS

Cable Yarding Design Features – approximately 57 acres (includes 1 acre of shovel yarding)

- 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.
- Full suspension is required when yarding over streams. Yarding is expected to occur over Stream 13-7.
- Cable yarding corridors would be made erosion resistant if needed where severe gouging has occurred.
- 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 20 acres

- Require that operations occur when soil moisture content provides the most resistance to compaction (during the dry season, typically July 1 to October 31), 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.
- Decompact all skid trails and landings and place slash and brush on trails with an excavator. Decompaction should shatter but not mix or displace the soil profile and minimize damage to roots. Decompaction would immediately follow logging operations and take place prior to the onset of the fall rainy season (generally October 15). If decompaction cannot be accomplished the same operating season, leave all trails in an erosion resistant condition and block.
- Prohibit skidding equipment within 75 feet of posted riparian boundaries.

SOILS

Organic Matter

- Retain organic matter on soils, where possible, for nutrients and seasonal saturation of soils.

Sedimentation from Roads

- Mitigation measures will be developed in accordance with topographic relief and opportunity to remove water from the surface of the roadbed.
- Native surface roads would be built or used during low moisture conditions. Yarding, decking or hauling of logs on native surface roads would be allowed only during low moisture conditions.

ENGINEERING

Roads with wet weather haul allowed:

New construction:

Name/Number	Length (feet)	Rock	Buy-out?	Comments
Spur A	120	Purchaser Option	N/A	
Spur B	65	Purchaser Option	N/A	
Spur C	985	Purchaser Option	N/A	
19-8-13.9 Seg B	2,065	Purchaser Option	N/A	

- Approx. 32.35 stations new construction
- Subgrade to a 14' width, outsloped where possible
- Surfacing gradation 3" minus; compacted depth 10"; required for wet weather hauling

Renovation:

Name/Number	Length (feet)	Rock	Buy-out?	Comments
19-8-13.7	2,640	Required for wet weather haul	Yes	Grade existing surface prior to application of rock lift.
19-8-13.9 Seg A	2,430	Required for wet weather haul	Pending RRC T&C	Re-establish right-of-way. Merchantable timber will be cut in right-of-way. Grade existing surface prior to application of rock lift.

- Approx. 50.7 stations renovation.
- Grade the ditch line on 19-8-13.9 Seg. A only.
- Brush, scarify or grade and/or widen existing subgrade to a 14' width.

- Surfacing gradation 1.5" minus; compacted depth 6"; required for wet weather hauling.

Special provisions (Wet Weather Haul):

None of the roads listed above need to be rocked if hauling is to occur during summer only. However, Roseburg Resources Company may require rocking in their terms and conditions for use of Road No. 19-8-13.9 Seg A.

Roads with dry season haul required:

Renovation:

Name/Number	Length (feet)	Comments
19-8-13.8	475	Re-establish right-of-way and ditch line. Grade road prior to hauling.

- Approx. 4.75 stations renovation.
- Grade the ditch line and re-establish lead off ditches where necessary.
- Brush, scarify or grade and/or widen existing subgrade to a 14' width

Summary:

- Approx. 32.35 stations new construction.
- Approx 55.45 stations renovation.
- Logger's choice landings/spurs requested by Purchaser are subject to approval by the Authorized Officer.
- Green trees are available for guylines at all roads.
- Short distances of +/-18% grades may be needed to access necessary landing sites.

ROAD DECOMMISSIONING

All decommissioning shall be completed during the dry season.

Place natural-surfaced renovated or newly constructed roads and landings requiring operation during more than one operating season in an erosion resistant condition and temporarily block prior to the onset of wet weather.

- (aa) Decompact skid trails and natural surface roads with decompaction equipment, such as a track mounted excavator with a thumb that is capable of moving logging slash, during the dry season.
- (bb) Construct drainage dips, waterbars and/or lead-off ditches, as directed by the Authorized Officer.
- (cc) Place logging slash, where available, on the entire road prism of decompacted natural-surfaced roads.
- (dd) Block roads 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	*	X	X	X				
Spur B	*	X	X			X		
Spur C	*	X	X	X	X	X		X
19-8-13.8	Not Allowed	X	X	X				
19-8-13.9 Seg. B	*	X	X	X		X		X

*Road rocking required for wet weather haul.

HYDROLOGY

Maintain minimum no-harvest buffers of 100 feet from Stream 13-7 (North Creek) to protect saturated side slopes and 75 feet from all other streams. No cutting would occur within the primary shade zone, except for limited cutting for yarding corridors.

Maintain a no-harvest, no disturbance buffer around a small slope failure (<0.10 acres) located southeast of Spur A in the NE¼NW¼ Section 13 and upslope from Stream 13-3. No yarding or soil disturbance should occur within the posted buffer.

FISHERIES

Threatened and Endangered Species

The Oregon Coastal Coho Salmon evolutionarily significant unit (ESU) is listed as threatened under the Endangered Species Act.

Critical and Essential Fish habitat proximity to project elements:

Stream Reach Numbers	Hydro Stream Numbers	Proximity of Unit activity to coho habitat (feet)	Coho life cycle use	Buffer widths Assoc. with proximity to LFH (feet)
123587724391647	13-7	75	Spawning, incubation, and rearing	75*
123588504391963	13-3	75	Spawning, incubation, and rearing	75

*Although hydrology has requested a 100-foot buffer on Stream 13-7, a 75-foot buffer would be sufficient to protect the listed fish habitat (LFH).

Requirements to protect listed coho of all life cycles as related to proposed timber sale activities include:

- Full suspension yarding over the mainstem of North Creek (Stream 13-7).
- Buffering fishbearing and non-fishbearing stream reaches as defined in recent management guidelines to protect primary shade zones and protecting against unwanted haul route sediment delivery by following Best Management Practices (BMP's).

WILDLIFE

Threatened and Endangered Species

Northern Spotted Owl:

Density management areas are composed of dispersal habitat for the northern spotted owl. Suitable nesting/roosting/foraging habitat (suitable habitat) is located adjacent to the density management areas. Approximately 0.9 acre of suitable habitat would be removed due to construction of Road No. 19-8-13.9 Seg. B.

Spotted Owl Activity Centers: No spotted owl nest patches, 0.5 mile cores, or predicted sites overlap the density management areas. Two known owl home ranges (Edris Creek, Collins Creek) overlap portions of the density management areas:

Spotted Owl Critical Habitat: None under the current 2008 delineation.

Mitigation (Northern Spotted Owl): Maintain 40% canopy closure. Do not harvest or damage trees within suitable habitat in the reserve area. Consult with the area wildlife biologist prior to approving guyline or tailhold trees in this area. No seasonal restrictions or mitigations are required for the density management areas. Reserve from cutting four trees located in the reserve area between the density management area and the end of Road No. 19-8-13.7. When constructing Road No. 19-8-13.9 through the reserve area south of the density management area, approximately 5 Douglas-fir trees with diameters at breast height of 30 inches or greater are expected to be felled. Those trees shall be retained on site as coarse woody debris.

Marbled Murrelets:

Marbled Murrelet Habitat: There is no suitable habitat located within the density management areas, but suitable habitat does occur adjacent to the treatment areas. No trees with potential nesting structure are located within the treatment areas.

Marbled Murrelet Activity Centers: There are no MAMU activity centers. Surveys were completed in 1999 and will remain valid through 2014. Only murrelet presence was documented. An extended survey effort as a result of that detection failed to result in Occupancy (hence; no Occupied site established).

Critical Habitat: Critical Habitat Unit OR-04-I. Approximately 0.9 acre of suitable habitat would be removed due to construction of Road No. 19-8-13.9 Seg. B.

Mitigation (Marbled Murrelet): Do not harvest or damage trees with murrelet nesting structure in the reserve area adjacent to the harvest area. Consult with the area wildlife biologist prior to approving guyline or tailhold trees in this area. No seasonal restrictions or mitigations are required for the density management areas.

Special Status Species

No Special Status Species or other species of special interest 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.

Special Status Species

No Special Status species (vascular and nonvascular) are known in the project area.

Noxious Weeds and Invasive Non-native species:

- Notify the Siuslaw Resource Area botanist and Siuslaw Resource Area weed coordinator prior to operations to arrange for mowing or otherwise treating roads to limit transportation of weed seeds into harvest areas.
- Clean all yarding and road construction equipment prior to arrival on BLM-managed lands to lessen the spread of noxious weed seed.
- Seed decommissioned roads with native species (i.e. Wild Blue Rye or native legumes). Prescribe these actions based on on-site evaluation after logging has been completed.

FUELS

- Scatter roadside and landing piles across roads to be closed after treatment as shown in the decommissioning table. Scatter slash in a manner that does not create a deep (>1 foot) continuous fuel bed.
- Pile roadside slash less than 9" in diameter as needed within 25 feet of Road Nos. 19-8-13.7, 19-7-13.9, and 19-8-14.1 where they pass through the density management area.
- Cover and burn at least 90% of all roadside piles and landing piles. Burn piles in the late fall when favorable smoke dispersion conditions are common.



- Wildlife Trees
- New Construction
- Renovation
- ▬▬▬▬ Rocked Road
- Paved Road
- Streams
- Treatment Area
- ▨ Suitable Habitat
- ▨ Private Ownership

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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.

North Creek DNA

T. 19 S., R. 8 W., Sec. 13

