

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

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

Turnpike Density Management Project DOI-BLM-OR-E050-2011-0009-DNA

A. Description of the Proposed Action: The proposed action is to implement the Turnpike Density Management Project by thinning approximately 65 acres within the Upper Siuslaw Landscape Plan EA planning area, 40 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. 7W, Section 33 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.
- Turnpike 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 65 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.”

Turnpike consists of approximately 65 acres that are about 45 to 51 years of age (at the time of the EA analysis baseline, p. 8). The Turnpike thinning project will thin trees to a relative density of 32 with 125 to 135 ft² basal area retained, averaging 76 to 77 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 33-20 (east portion) which will receive a 100 foot buffer to protect 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 609 feet of new road will be constructed and 18,992 feet of road will be renovated or improved. Approximately 2,493 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 2.45 trees per acre of coarse woody debris approximately 14” dbh will be felled and left on site.
- Upon completion of yarding operations, six trees per acre approximately 14” to 16” 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 and a variety of decommissioning measures were considered. 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 nor will the thinning occur in marbled murrelet critical habitat designations. The action will have no effect on critical habitat for both species. Because the Letsom Mountain Northern spotted owl site remains inactive the action is considered to have no effect due to disturbance. Thinning of dispersal habitat will not likely adversely affect the northern spotted owl in addition no thinning will occur in the nest patch of the Letsom Mountain site. The edges of two other northern spotted owl home ranges overlap the thinning area. Marbled murrelet surveys were completed in the adjacent suitable habitat stands and did not result in occupancy. The action will have no effect on marbled Murrelets from disturbance because of no occupancy in adjacent suitable 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 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 2008 RMP included a complete analysis for carbon.

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 Turnpike 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 thin northern spotted owl nest patches. 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 occupied 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 (12 to 16 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 special habitats; one site with a special status bureau sensitive species *Cimicifuga elata* was identified and buffered by 30 to 40 feet. No yarding or cutting will occur within the buffer. There are no specially designated areas (such as ACECs or RNAs) in the project area. Approximately 609 feet of new road will be constructed which is well below the average feet per acre (17 feet per acre) of new road construction for the entire planning area. Approximately 18,992 feet of road will be renovated or improved which will be above 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 Turnpike 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 Turnpike 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.

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

DECISION RECORD

Documentation of NEPA Adequacy
Turnpike Density Management Project
DOI-BLM-OR-E050-2011-0009-DNA

Decision:

It is my decision to implement the Turnpike Density Management Project as described in the Documentation of NEPA Adequacy **DOI-BLM-OR-E050-2011-0009-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 Turnpike Thinning

Project in consideration of both the December 17, 2009 and October 11, 2006 order. Because the Turnpike 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 July 27, 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

7/21/2011

Date

**Upper Siuslaw Landscape Plan
Project Implementation Prescription
Turnpike - Tract No. 12-590
T19S, R7W, Section 33**

Summary

The project has been analyzed under the Upper Siuslaw Landscape Plan EA.
Total sale area in acres: approximately 65 acres
Estimated yield: approximately 821 thousand board feet (mbf)
Approximately 165 acres have been deferred from thinning at this time due to low stand densities.

Silviculture

LSR Upland Treatment (approximately 40 acres)

Riparian Reserve Treatment (approximately 25 acres)

Silviculture Prescription for both Land Use Allocations:

- Vary the leave tree spacing as needed to generally reserve the larger diameter, more vigorous trees using basal area (BA) marking/ thinning from below.
- Reserve Pacific yew, western redcedar, 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 2.45 trees per acre, or tpa, measuring approximately 14” diameter at breast height (dbh) for down wood (240 lineal feet/acre).
- Provide 6 tpa. measuring between 14” and 16” dbh for snags.
- Number of selected leave conifer trees should be approximately 76-77 tpa (see unit prescriptions below).
- Retention conifer target BA should be approximately 125-135 ft² BA/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).
- Prior to beginning falling operations within the southeast corner of Section 33, the Purchaser shall fell girdled trees that pose a safety hazard in the northwest corner of Section 3, Township 20 S., Range 7 W., within approximately 150 feet from the thinning unit boundary. Girdled trees felled for safety reasons shall be retained on site.

Projected Post Treatment Stand Conditions

Partial Harvest Area	Silviculture Unit	BA/Acre (conifer)	BA/Acre (All Species)	TPA (conifer)	TPA (All Species)	RD	QMD*	Type Thinning
2	1	135	136	76	79	32	17.8	From Below
1	2	125	128	77	86	32	16.5	From Below

*Quadratic Mean Diameter

Soils

Cable Yarding Design Features (approximately 53 acres)

- All cable yarding would be to designated or approved landings.
- To minimize impacts, spacing of cable corridors should be kept to 150 feet apart and limited to 12 feet in width (a cable system capable of 75 foot lateral yarding would be used).
- Minimum one-end suspension is required. Intermediate supports may be necessary to achieve the required suspension.

- Full suspension over streams and adjacent banks is required when yarding over streams and/or wetlands.
- Cable yarding system should be laid out to eliminate gouging (log dragging) to reduce concentration of drainage delivering to streams.
- Cable corridors used for yarding in concave slopes above stream channel initiation points (headwall areas) should be within 45 degrees of perpendicular to the centerline. This is to provide a sharp channel junction to dissipate the energy of any potential debris flows or torrents.
- Cable yarding corridors shall be waterbarred immediately after use, if necessary to prevent erosion.
- Sidehill yarding across headwall areas should be minimized to reduce soil disturbance and slope failures.
- No felling or yading would be allowed in the *Cimicifuga elata* buffer.

Ground Based Yarding Design Features (approximately 12 acres, some of which may be roadside shovel yarded)

- Operations would 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.
- Monitor soil moisture contents on soils identified for ground based logging.
- Limit skid trails to slopes less than 35%.
- Pre-designate and approve all skid trails.
- Use existing skid trails wherever possible.
- Preplan (map) and designate (flag) skid trails to occupy less than 10% of the unit. This can be accomplished by a minimum 150 foot spacing between skid trails, and maintaining width of the skid trail to 12 feet (felling of trees to-lead to the skid trails optimizes winching distances that can be as much as 100 feet so that distances between trails could reach 200 feet).
- Limit use of low ground pressure (recommend <6 psi) ground-based yarding equipment to one round trip when operating outside designated primary skid trails, walking the equipment over downed slash to minimize soil disturbance.
- Logs would be skidded to designated or approved landings.
- Decomact all skid trails and landings and place slash and brush on trails. Use of an excavator with a bucket with teeth that can be used to shatter but not mix the soil is optimum for density thins. Care should be taken not to mix or displace the soil profile. In density thins, roots can be avoided with use of a modified bucket. Decomaction should immediately follow logging operations. If decomaction cannot be accomplished the same operating season, all trails should be left in an erosion resistant condition and blocked.
- Within 210 feet of any stream, ground-based yarding equipment would not be allowed within 75 feet of the posted harvest boundary.

Engineering

Roads with wet weather haul allowed:

Renovation:

Name/Number	Length (feet)	Rock	Buy-out?	
19-7-28A,B	2,220	Required for wet weather haul	N/A	Purchaser option to rock
19-7-28.1 A	5,070	No	N/A	
19-7-28.1B&C	8,290	No	N/A	
19-7-34.2	435	Required for wet weather haul	Yes	Purchaser option to rock

- 160+15 stations renovation
- Grade the ditch line
- Brush, scarify or grade and/or widen existing subgrade to a 14' width
- Surfacing gradation 3" minus; compacted depth 6" min

Special Provisions:

- If wet weather haul occurs on Road No. 19-7-28, surface rock must be applied from milepost 0.25 (junction with 19-7-28.2) to milepost 0.54.

Roads with dry season haul required:

New construction:

Name/Number	Length (feet)
Spur A	610

- 6+09 stations new construction
- Subgrade to a 14' width, outsloped where possible.

Renovation:

Name/Number	Length (feet)
19-7-28.1D	1,450

- 14+50 stations renovation
- Grade the ditch line
- Brush, scarify or grade and/or widen existing subgrade to a 14' width

Summary:

6+10 stations new construction; 174+65 stations renovation. Logger's choice landings/spurs requested by Purchaser are subject to approval by the Authorized Officer. Short distances of +/-18% grades may be needed to access necessary landing sites.

Road decommissioning

Decommissioning measures

All decommissioning shall be completed during the dry season.

- (aa) Decompect all natural surfaced 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.
- (cc) Place logging slash on surfaces where available.
- (dd) Block at entry points using stumps, slash, and/or cull logs.

Road Number	Wet Weather Haul	Road Rocking	If Not Rocked				If Rocked		
			(aa)	(bb)	(cc)	(dd)	(bb)	(cc)	(dd)
			Decompact	Drainage	Logging Slash	Blocking	Drainage	Logging Slash	Blocking
Spur A	No	No	X	X	X				
Road No. 19-7-28.1D	No	No	X	X	X	X			
Road No. 19-7-34.2*		Option	X	X	X	X	X	X	X

*Private road; depends on terms and conditions

Hydrology

Riparian Buffers

100-foot buffers: Stream 33-20 (east portion)

75-foot buffers: Stream 33-20 (west portion); all remaining streams

Fisheries

Threatened and Endangered Species

Coho Critical Habitat

Listed Fish Habitat for coho salmon has been found on Streams 33-20 and 33-32. Thinning activity might occur approximately 100 feet from coho habitat on the first 1835 feet of Stream 33-20, beginning from where it enters Section 33 from the southeast. Thinning activity will occur approximately 600 feet above coho habitat on Stream 33-32.

- If wet weather haul occurs, surface rock will be applied on Road No. 19-7-28 from milepost 0.25 (junction with 19-7-28.2) to milepost 0.42 and on Road No. 19-7-28.1 from milepost 0.00 to milepost 0.12.

Wildlife

Threatened and Endangered Species

Spotted Owls NSO:

The site center for the Letsom Mountain owl pair is located in Section 33 north of the thinning units. No harvest activity is planned within this nest patch. Two other historic spotted owl home ranges partially overlap the eastern thinning unit. Several stands of suitable roosting/foraging/nesting habitat are located outside and adjacent to the boundaries of the thinning units, including the site center for the Letsom Mountain owl pair.

- Maintain 40% post-harvest canopy closure in dispersal habitat.
- If the Letsom Mountain owl site is found to be occupied, no chainsaw use would occur within 65 yards and no heavy equipment would be operated within 35 yards of the known nest tree during the critical portion of the breeding period (March 1 through July 7). If the nest tree is absent or unknown, these distances would be measured from the 300 meter nest patch. No such mitigations would be required if this site remains unoccupied. Log haul or other trucking activities would not require such mitigation measures in any situation. *At this time, none of these mitigations affect this action because all proposed actions occur outside of the disruption distances.*

Marbled Murrelets (MAMU):

There is no suitable habitat located within the harvest area; however, stands qualifying as marbled murrelet habitat are located adjacent to the boundaries of the thinning units.

Special Status Species

No special status species were located during surveys.

Botany

Threatened and Endangered Species

No federally listed Threatened or Endangered plant species were located during surveys, and no effects to these species are anticipated. No mitigation measures are necessary.

Sensitive Species

A single site of a Sensitive plant was located during surveys. The *Cimicifuga elata* site is buffered by about 30-40 feet (radius) as needed to provide protection to the site. No cutting or yarding is to occur within the buffer.

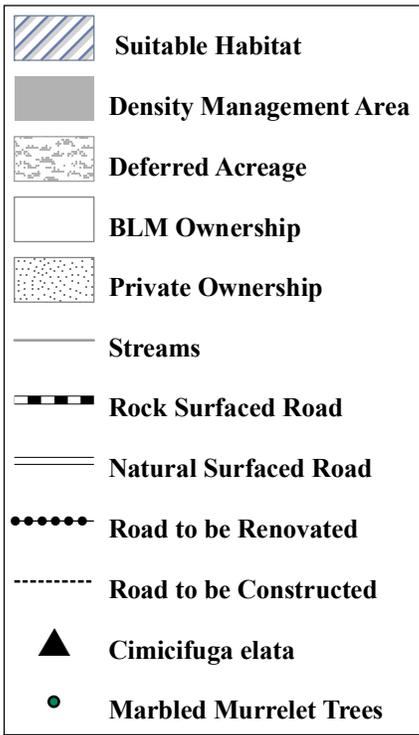
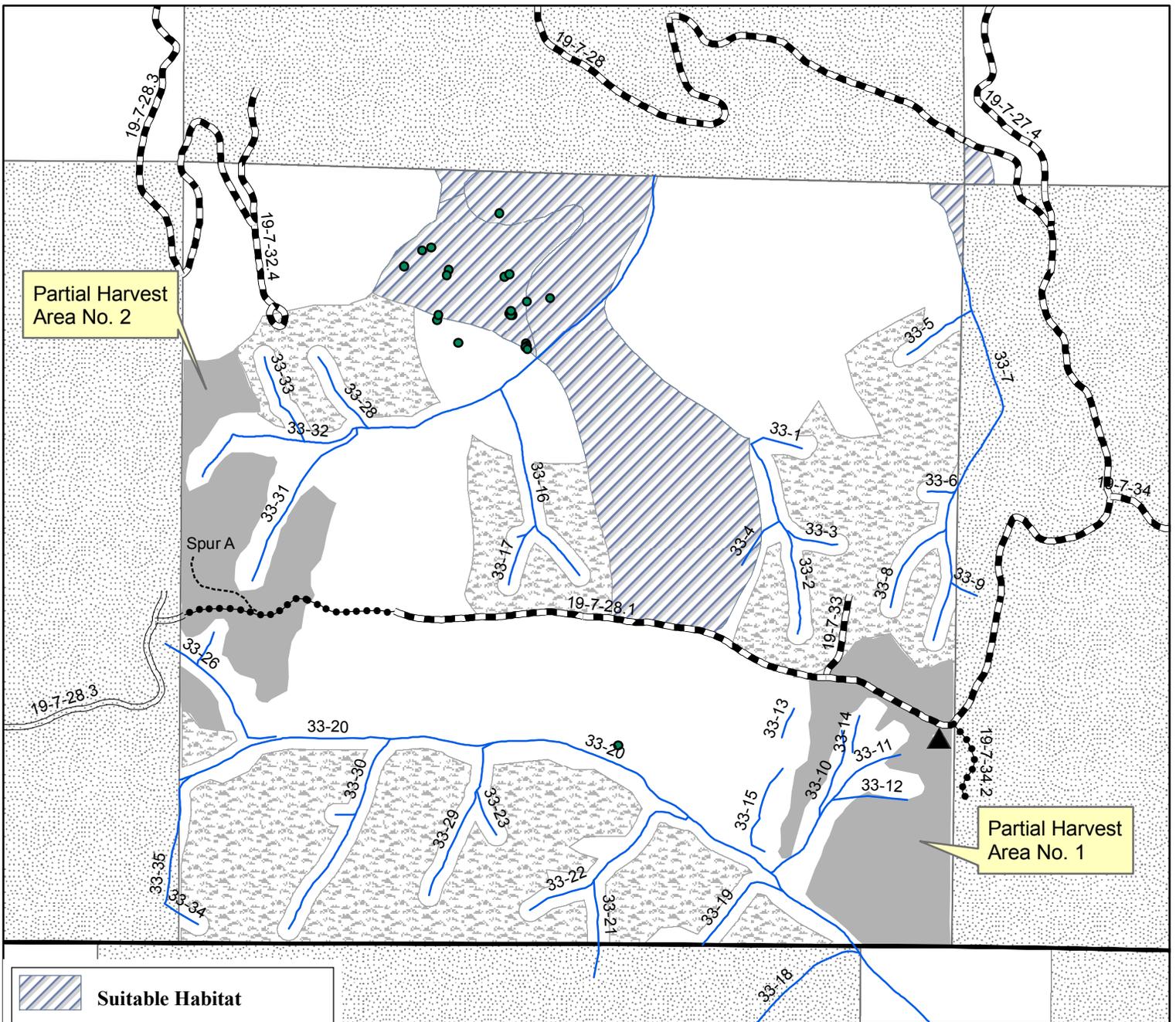
Noxious Weeds and Invasive Non-native Species

- Clean all yarding and road construction equipment prior to arrival on BLM-managed lands to lessen the spread of noxious weed seed.
- Sow native grass seed on decommissioned, decompacted roads after operations have been completed.

- Monitor for at least 3 consecutive years after timber sale implementation, and control infestations discovered through monitoring as appropriate.

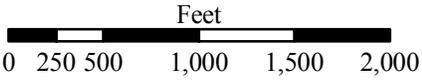
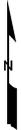
Fuels

- Scatter roadside and landing piles across roads to be closed after harvest. Scatter slash in a manner that does not create a deep continuous fuel bed.
- Cover and burn remaining roadside piles and landing piles
- Pile, cover, and burn logging debris less than 9" diameter on all landings and within 25 feet of landings and Road No. 19-7-28.1.
- Restrict excavator use to rocked road surface.
- Burn piles in the late fall when favorable smoke dispersion conditions are common.



Turnpike DNA

T.19 S., R.7 W. Sec. 33



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Universal Transverse Mercator
 Zone 10, North American Datum 1983

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