

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

**DETERMINATION OF NEPA ADEQUACY (DNA)**

OFFICE: Siuslaw Resource Area, BLM Eugene District

TRACKING NUMBER: DOI-BLM-OR-E050-2013-0018-DNA

PROJECT NAME: Hardy Creek Timber Sale

LOCATION/LEGAL DESCRIPTION: T.18 S., R.6 W., Section 17, Will. Mer.

**A. Description of Proposed Action**

The proposed action is to implement the Hardy Creek Timber Sale by thinning approximately 305 acres. Approximately 140 acres General Forest Management Area (GFMA) Land Use Allocation (LUA) with associated Riparian Reserves (RR) and approximately 165 acres of Late Successional Reserve (LSR) and associated Riparian Reserve LUAs will be thinned. The project site is located within the Long Tom Landscape Plan EA planning area. The proposed action (including silvicultural prescriptions; logging systems; RR treatments; road construction and renovation; road decommissioning prescription; wildlife, botany, and fuels mitigation measures) is described in the attached "Implementation prescription."

**B. Land Use Plan (LUP) Conformance**

The Eugene District initiated planning and design for this project to conform and be consistent with the following:

- Eugene District Record of Decision and Resource Management Plan (RMP), as amended. Date approved: June 1995
- Long Tom Landscape Plan Environmental Assessment (EA). Date approved: July 2011

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

*"Design silvicultural systems on General Forest Management Areas to meet a high level of timber production within a framework of mitigating measures and project design features which protect environmental quality and habitat for wildlife, fish and botanical species." (RMP 1995, p. 86)*

*"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 1995, p. 30)*

*In Riparian Reserves "Design and implement wildlife habitat restoration and enhancement activities in a manner that contributes to attainment of Aquatic Conservation Strategy objectives... Manage riparian areas for a late seral stage unless watershed analysis identifies reasons for alternate objectives... Maintain the riparian/wetland conditions within the historic range of conditions as much as can be determined..." (RMP 1995, p. 42)*

**C. Identify applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.**

The proposed action is covered by the Long Tom Landscape Plan EA (July 2011).

United States Fish and Wildlife Service Biological Opinion for the Long Tom Landscape Plan EA.

**D. NEPA Adequacy Criteria**

- 1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?**

The proposed thinning is part of the action analyzed in the Long Tom Landscape Plan EA and is contained within the EA analysis area. The current proposed action implements the following specific actions in the selected alternative:

*In matrix lands "Forest stands between 30 and 79 years of age would be thinned using the traditional silvicultural technique of thin from below to relative densities in the mid-thirties, generally ranging from 32 to 38. Spotted owl dispersal habitat would be maintained to USFWS standards (EA, p. 11)."*

Hardy Creek consists of approximately 140 acres of matrix thinning that are approximately 73 years of age. In matrix the Hardy Creek Timber Sale will thin trees to a relative density of 32. Thinning will retain 158 square feet basal area, averaging about 49 trees per acre, maintaining an average canopy closure of 54 percent. This prescription will maintain northern spotted owl dispersal habitat.

*In late successional reserves "Forest stands between 30 and 79 years of age would be thinned using two silvicultural techniques to introduce variation in forest structure and complexity. 75% percent of forest stands would be thinned using a proportional thinning technique to relative densities generally ranging from 26 to 35." (EA, p.11)*

Hardy Creek consists of approximately 165 acres of LSR thinning that are approximately 73 years of age. In LSR the Hardy Creek Timber Sale will thin trees to a relative density of 27. Thinning will retain 112 square feet basal area, averaging about 74 trees per acre (includes large remnant conifers), maintaining an average canopy closure of 54 percent. This prescription will maintain northern spotted owl dispersal habitat.

*"All streams would receive a minimum buffer of approximately 60 feet within which no thinning would occur." (EA, p.12).*

See the attached implementation prescription for details about stream buffer widths specific to the Hardy Creek timber sale.

*"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).*

Approximately 3,995 feet of new road will be constructed; approximately 17,795 feet of road will be renovated or improved

*“Decommissioning strategy for Matrix lands: Newly constructed and renovated/improved natural surface roads; Newly constructed and renovated/improved roads within late successional stands that are natural surface or have been rocked to facilitate harvest activities but are not needed for future management.” (decommissioning will be done using the design features listed in the EA)  
(EA 2011, p 8)*

*“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 21,790 feet of road (including newly constructed roads) would be decommissioned (see the implementation prescription for design features).

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

The Long Tom Landscape Plan EA analyzed four alternatives in addition to a no action alternative. The alternatives analyzed a variety of thinning prescriptions and include a range of alternatives. The EA analyzed the effects of thinning on suitable and potentially suitable habitat for northern spotted owls (pp. 29-32) and marbled murrelet habitat (p. 31) and the effects of thinning on spotted owl nest patches (pp. 32-33). The effects of road use and improvements on ACS objectives were analyzed (pp. 24-29). The effects of management activities on the release or storage of carbon were analyzed (pp. 39-41). 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 valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated list of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?**

There is no significant new information or circumstance relative to the analyses in the Long Tom Landscape Plan EA and the current proposed action. The project is located in the 2012 northern spotted owl critical habitat designations. Trees with potential marbled murrelet nesting structure located within the harvest area have been painted yellow and will be reserved. The Revised Recovery Plan for the Northern Spotted Owl (USDI-FWS, Revised Recovery Plan for the Northern Spotted Owl 2011), (USDI-FWS, Revised Critical Habitat for the Northern Spotted Owl; Final Rule provides new information; However, the existing analysis is adequate because the actions do not change the adequacy of the existing analysis. Consistency is a result of project design features for the northern spotted owl.

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

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

The Long Tom 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 northern spotted owls. The EA analysis concluded that habitat within known current owl home ranges would maintain the ability of the stand to function as dispersal habitat and that the actions outlined in this timber sale will not exceed the anticipated effects on wildlife.

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 un-thinned (EA, p. 38). Road renovation, new road construction, and log-haul would produce negligible, if any, sediment delivery to streams, while road improvements such as replacement of culverts and upgrading surfacing would reduce long-term sediment delivery (EA, p. 26). Stream buffers will protect streams from sediment that may be generated from logging operations (EA, p. 26). 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, p. 36). The EA analyzed both the short-term and long-term effects of carbon emissions and carbon storage. The analysis indicated that long-term cumulative carbon emissions levels were less than the long term carbon sequestration levels 30 years after thinning.

The site specific effects of the current proposed action are consistent with the effects analysis in the Long Tom Landscape Plan EA. The stand conditions in the project area for the current proposed action are consistent with those anticipated in the Long Tom Landscape Plan (EA, pp. 14-16). Dispersal habitat thinned would continue to function as owl dispersal habitat since the silvicultural prescriptions for these units maintain at least 40% canopy cover. This timber sale is located in 2012 northern spotted owl critical habitat however recovery action 10 and 32 would not be affected because the project is not within the home range of a known active owl site and the project is not located in RA 32 stands. Marbled murrelet protocol surveys were conducted and an occupied site has been delineated. Thinning will occur within marbled murrelet recruitment habitat which is to be managed as an un-mapped LSR. All seasonal and timing restrictions will be implemented. This timber sale is not located within marbled murrelet critical habitat.

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 3,995 feet of new road will be constructed (13 feet per acre), which is below the feet per acre (21 feet per acre) of new road construction for the entire planning area, analyzed in the Long Tom Landscape Plan EA. Approximately 17,795 feet of road will be renovated (58 feet per acre), which is below the feet per acre (121 feet per acre) of road renovation or improvement for the entire planning area analyzed in the Long Tom Landscape Plan EA: "approximately 30 to 35 miles of construction and approximately 195 to 200 miles of renovation/improvement would occur" (EA, p. 13). These feet of road work per acre are within the estimated road miles for the Long Tom Landscape Plan EA, many sales implemented under the Long Tom Landscape Plan EA are expected to have less road work and the cumulative totals analyzed in the Long Tom Landscape Plan EA are not expected to be exceeded. Additional details are provided in the Long Tom Landscape Plan EA project analysis file.

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

Public involvement for the Long Tom Landscape Plan EA has been adequate. Scoping was completed before the analysis for the EA began. An information sheet describing the proposed project and project area was included in the Long Tom Watershed Council newsletter in March of 2009. A letter was mailed to interested parties on March 15, 2009. Representatives of the BLM attended a Long Tom Watershed Council meeting on March 29, 2011. The EA and preliminary FONSI were made available for a 30-day public review on March 15, 2011; twelve comments were received. One comment suggested a wider range of alternatives and mentioned that thinning to 60% canopy cover be analyzed as a separate alternative. One comment requested a more open, inclusive and collaborative process of review and analysis. The EA process included an adequate scoping and public comment period which began approximately three years ago.

One comment suggested that county commissioners should be allowed to make recommendations for road decommissioning but not allowed decision making authority. The EA incorrectly stated that county commissioner "approval" will be obtained before road decommissioning measures are implemented. That statement in the EA has been changed to state county commissioners will "review" decommissioning measures before implementation. Two comments questioned if surveys for survey and manage species will be performed in stands greater than 80 years of age.

BLM received one protest following the publication of the Decision Record, filed August 8, 2011. The protest was denied on January 10, 2012. The appeal period ended on February 21, 2012. BLM notified the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians; the Confederated Tribes of the Siletz; and the Confederated Tribes of the Grand Ronde of the Long Tom 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 (ESA) with the USFWS on effects of the Hardy Creek Timber Sale on the northern spotted owl and marbled murrelet. The current proposed action is consistent with the description of the action in the Long Tom Landscape Plan Biological Opinion issued by the USFWS in 2011. Northern spotted owl critical habitat was re-designated in 2012 and conferencing with USFWS has been completed for this project. The proposed action is likely to adversely affect northern spotted owls and marbled murrelets because road construction would occur in spotted owl foraging habitat and in marbled murrelet suitable nesting habitat. 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 the National Oceanic and Atmospheric Administration - Fisheries is not required.

**E. BLM Staff Consulted**

<b><u>Name</u></b>	<b><u>Title</u></b>	<b><u>Resource</u></b>
Karin Baitis	Soil Scientist	Soils/Road Decom.
Clint Foster	Silviculturist	Silviculture
Doug Goldenberg	Botanist	Botany
Luis Palacios	Civil Engineering Technician	Engineering
Tom Jackson	IT Specialist	GIS
Eric Johnson	Deputy Fire Staff	Fuels
Randy Miller	Wildlife Biologist	Wildlife
Crystal Perez-Gonzalez	Forester	Team Lead/ Logging Systems
Leo Poole	Fisheries Biologist	Fisheries
Sharmila Premdas	Landscape Planner	NEPA
Steve Steiner	Hydrologist	Hydrology
Janet Zentner	Planning Forester	Forestry

**Prepared By**

/s/ Sharmila Premdas

Sharmila Premdas, NEPA Planner

Date: 8/2/2013

**Conclusion**

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

/s/ Charles L. Fairchild

Charles L. Fairchild, Field Manager,  
Siuslaw Resource Area

Date: 8/2/2013

**Note:** The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal, under 43 CFR Part 4 and the program specific regulations.

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

**DECISION RECORD**  
DOI-BLM-OR-E050-2013-0018-EA  
Hardy Creek Timber Sale

**DECISION**

It is my decision to implement this action as described in the Determination of NEPA Adequacy Documentation DOI-BLM-OR-E050-2013-0018-DNA.

**PLAN CONFORMANCE**

The proposed action has been reviewed by BLM staff. The Proposed Action is in conformance with the 1995 Eugene District Record of Decision and Resource Management Plan (as amended). Based on the Determination of NEPA Adequacy, I have determined that the existing NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of the NEPA.

**SURVEY AND MANAGE**

The Hardy Creek project is consistent with court orders relating to the Survey and Manage mitigation measure of the Northwest Forest Plan, as incorporated into the Eugene District 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. 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. Plaintiffs and Defendants entered into settlement negotiations that resulted in the 2011 Survey and Manage Settlement Agreement, adopted by the District Court on July 6, 2011.

The Ninth Circuit Court of Appeals issued an opinion on April 25, 2013, that reversed the District Court for the Western District of Washington's approval of the 2011 Survey and Manage Settlement Agreement. The case is now remanded back to the District Court for further proceedings. This means that the December 17, 2009, District Court order which found National Environmental Policy (NEPA) inadequacies in the 2007 analysis and records of decision removing Survey and Manage is still valid.

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 large wood, channel and floodplain reconstruction, or removal of channel diversions; and
- D. The portions of 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 District Court's December 17, 2009 ruling, the Pechman exemptions still remained in place. I have reviewed the Hardy Creek Project in consideration of both the December 17, 2009 partial summary judgment and Judge Pechman's October 11, 2006 order. Because the Hardy Creek project includes no regeneration harvest and includes 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.

#### **ADMINISTRATIVE REMEDIES**

The decision to implement this project may be protested under 43 CFR 5003 - Administrative Remedies. In accordance with 43 CFR 5003.2, the decision for this project will not be subject to protest until the notice of sale is first published in the Eugene Register-Guard. This published notice of sale will constitute the decision document for the purpose of protests of this project (43 CFR 5003.2b). Protests of this decision must be filed with this office within fifteen (15) days after first publication of the notice of sale. As interpreted by BLM, the regulations do not authorize the acceptance of protests in any form other than a signed, written hard copy that is delivered to the physical address of the BLM Eugene District Office.

Signature of the Responsible Official:

/s/ Charles L. Fairchild  
Charles L. Fairchild  
Field Manager, Siuslaw Resource Area  
Eugene District Office

8/2/2013  
Date



**Long Tom Landscape EA  
Project Implementation Prescription  
Hardy Creek #13-508  
T. 18 S., R. 6 W., Section 17, W.M.**

**SUMMARY**

The Hardy Creek Timber Sale is an approximately 305 acre thinning located in the Long Tom Watershed. The project was divided into two units, both in the 70 year age class. The harvest volume from the units is approximately 6.5 MMBF, expected to sell August 29, 2013. Low conifer stocking, marbled murrelet (MAMU) occupied habitat and logging systems infeasibility resulted in deferral of approximately 170 acres.

**Background**

At the time of project initiation, the Hardy Creek Timber Sale was designated as General Forest Management Area (GFMA) Land Use Allocation (LUA) with associated Riparian Reserves. During field surveys, marbled murrelet habitat was found to be occupied, causing a portion of the proposed harvest area to switch to an LUA of "unmapped" Late Successional Reserve (LSR). Since then, the LSR has been delineated by Resource Area wildlife biologists.

**SILVICULTURE**

- Hierarchical selection of reserve trees is as follows: western redcedar, followed by Douglas-fir, and western hemlock.
- Maintain existing species diversity; minor species such as Pacific yew and native hardwoods would be retained to the extent possible, and left in the stand if felled for safety or operational reasons.
- Reserve existing snags and coarse woody debris, except for safety or operational reasons.
- Retain in the stand any Pacific yew, hardwoods, or snags felled for safety or operational reasons.
- Reserve all yellow painted MAMU habitat trees.
- Reserve all remnant trees.
- Do not non-merchantable tree tops and limbs to the landing; leave on site to contribute to soil productivity, except where the resource area Fuels Specialist has determined roadside slash shall be gross yarded and piled to reduce hazardous fuels loading.
- In GFMA and adjacent Riparian Reserves, vary the leave tree spacing as needed to generally reserve the larger diameter, more vigorous trees.
- In GFMA and adjacent Riparian Reserves, thin from below to a stand level Relative Density (RD-Curtis) of **32** (140 acres).
- In the LSR and adjacent Riparian Reserves, proportionally thin to a stand level Relative Density (RD-Curtis) of **27** (165 acres).
- Upon completion of harvest activities, address coarse woody debris and snag creation needs in LSR.

**LOGGING DESIGN FEATURES TO MINIMIZE EFFECTS TO SOIL PRODUCTIVITY**

**Cable Yarding Design Features – approximately 220 acres**

- Cable yard to designated or approved landings.
- Space cable corridors a minimum of 150 feet apart and limit width to 12 feet (a cable system capable of 75 foot lateral yarding would be used).
- Require a minimum of one-end suspension. Intermediate supports may be necessary to achieve the required suspension.
- Require full suspension on all yarding across streams.
- Lay out cable yarding system to eliminate gouging (log dragging) to reduce concentration of drainage delivering to streams.
- Make cable yarding corridors erosion resistant if needed where severe gouging has occurred.
- Locate cable corridors used for yarding in concave slopes above stream channel initiation points (headwall areas) 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.
- Minimize side hill yarding across headwall areas to reduce soil disturbance and slope failures.
- Downhill yarding will be necessary.
- A Special Tailhold Area is delineated in purple.

**Ground Based Yarding Design Features – approximately 85 acres**

- Limit operations to 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).
- Monitor soil moisture contents on soils identified for ground based logging.
- Limit skid trails to slopes less than 35% with approval from the Authorized Officer.
- All skid trails would be pre-designated and approved by an Authorized Officer.
- Within Riparian Reserves, locate skid trails at least 75 feet from the posted no-cut boundary.
- Use existing skid trails wherever possible.
- Preplan (map) and designate (flag) skid trails to occupy less than 10% of the unit.
- Limit use of low ground pressure (recommended <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.
- Do not allow operation of ground-based equipment off of skid trails within 200 feet of streams.
- Skid logs to designated or approved landings.
- Decompact skid trails and landings as needed and place slash and brush on trails.

**ENGINEERING**

**Roads with wet weather haul allowed:**

**New construction:**

Name/Number	Length (feet)	Rock	Buy-out?	Comments
Spur A*	285	Yes	Yes	Option not to rock if hauled in summer
Spur B	210	Yes	Yes	Option not to rock if hauled in summer
Spur C	165	Yes	Yes	Option not to rock if hauled in summer
18-6-17ext**	990	Yes	Yes	Option not to rock if hauled in summer
18-6-18.14**	2345	Yes	Yes	Option not to rock if hauled in summer

- Approx. 39.95 stations of new construction
- Subgrade to a 14' width, out sloped where possible
- Surfacing gradation 3" minus; Compacted Depth 8" on grades less or equal to 15%
- Surfacing gradation, 3" minus; Compacted Depth 6" plus 1.5" minus; Compacted Depth 3" on grades greater than 15%
- \* Tractor assist required
- \*\* Full bench construction required (-17ext: Approx. 350')(-18.14: Approx. 500)

**Renovation:**

Name/Number	Length (feet)	Rock	Buy-out?	Comments
18-6-8.2	325	Yes	Yes	Option not to rock if hauled in summer
18-6-8.4	790	Yes	No	114"x35' CMP shall be installed
*18-6-8.5 por.	2,200	Yes	Yes	Option not to rock if hauled in summer
18-6-8.5 por.	3,870	Yes	NA	Purchaser's Option to Rock for Wet Weather Haul
18-6-9.4	1,200	No	NA	Brushing and Grading Only
18-6-9.6	790	No	NA	Brushing and Grading Only
*18-6-17	1,300	No	NA	Purchaser's Option to Rock for Wet Weather Haul
18-6-17	4,030	No	NA	Purchaser's Option to Rock for Wet Weather Haul
18-6-17.1	315	No	NA	Purchaser's Option to Rock for Wet Weather Haul
18-6-17.71	1,320	No	NA	Purchaser's Option to Rock for Wet Weather Haul
18-6-18.13	1,000	Yes	Yes	
Truck Turn Around	400	Yes	Yes	

- Approx. 175.40 stations of renovation
- Subgrade to a 16' width, out slope where possible.
- Surfacing gradation 3" minus; Compacted Depth 8"

- \* Surfacing gradation 3" minus; Compacted Depth 4"

**Improvement:**

Name/Number	Length (feet)	Surfacing	Buy-out?
18-6-9.6	255	Rock	Yes

- Approximately 2.55 stations of Improvement
- Subgrade to a 16' width, out sloped where possible
- Surfacing gradation 3" minus; Compacted Depth 8"

**Summary:**

- 39.95 stations of new construction
- 175.40 stations of renovation
- 2.55 stations of improvement
- 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.
- Natural surfaced roads requiring operation during more than one dry season would be placed in an erosion resistant condition and temporarily blocked prior to the onset of wet weather. This could include construction of drainage dips, water bars, lead off ditches or barricades.

**ROAD DECOMMISSIONING**

All decommissioning shall be completed during the dry season.

- (aa) Decompact natural surfaced roads and landings 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, 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.

	If Not Rocked				If Rocked		
	(aa)	(bb)	(cc)	(dd)	(bb)	(cc)	(dd)
Road Number	Decompact	Drainage	Logging Slash	Blocking	Drainage	Logging Slash	Blocking
Spur A	X	X			X		
Spur B	X	X			X		
Spur C	X	X			X		
18-6-8.2					X		
18-6-8.4*					X		
18-6-8.5*	X	X			X		
18-6-9.4					X		
18-6-9.6 REN					X		
18-6-9.6 IMP	X	X			X		
18-6-17*	X	X			X		
18-6-17ext.	X	X			X		
18-6-17.1	X	X			X		
18-6-17.71	X	X			X		
18-6-18.13		X			X		
18-6-18.14	X	X		X	X		X
Truck turn around		X			X		

\*Pull stream crossings-remove culverts, pull-back slopes, erosion proof side slopes with mulch/seed/etc.

## HYDROLOGY

Maintain minimum no-harvest buffers of:

- 60 feet from both sides of Streams 17-13, 17-16, 17-17, 17-21b, and 17-26.
- 75 feet from both sides of Streams 17-8, 17-9, 17-10, 17-11, 17-12, 17-18, 17-19, 17-20, 17-21 (below 17-21a), 17-22 (above the confluence with Stream 17-23), 17-23, 17-24, 17-25, 17-27, 17-28 (above the confluence with Stream 17-28b), 17-28b, 17-28c, 17-29, 17-31 (above the confluence with Stream 17-34), 17-32, 17-34, 17-40 (below the confluence with Stream 17-45), 17-41, 17-42 (on BLM land), 17-43 (below the confluence with Stream 17-47), 17-44, and 17-49.
- 75 feet on the north and east sides of Stream 17-6, the north and west sides of Stream 17-7 (below the confluence with Stream 17-37 and above the confluence with Stream 17-13), the north and east sides of 17-28 (below the confluence with Stream 17-28b), the north and west sides of Stream 17-29 (below the confluence with Stream 17-41), the west and south sides of Stream 17-33, the north and east sides of Stream 17-35, the north and east sides of Stream 17-37, the north and east sides of Stream 17-39, the north and east sides of Stream 17-40 (above the confluence with Stream 17-45), The north and east side of 17-42 (on private land), the north and east sides of Stream 17-43 ( above the confluence with Stream 17-47), the west and north sides of Stream 17-45, and the west and north sides of Stream 17-47.
- 100 feet on both sides of Streams 17-7 (below the confluence with Stream 17-13 to the confluence with Stream 17-6), and 17-31 (below the confluence with Stream 17-34).
- 100 feet on the south and east sides of Stream 17-4 (below the confluence with Stream 17-42 to the north property line), the south and west sides of Stream 17-6, the south and east sides of Stream 17-7 (below the confluence with Stream 17-37 to the confluence with Stream 17-40) and the south and west sides of Stream 17-7 (below the confluence with Stream 17-6), the south and west sides of Stream 17-28 (below the confluence with Stream 17-28b), the east and south sides of Stream 17-29 (below the confluence with Stream 17-41) and the south and west sides of Stream 17-35.
- 120 feet on the south and east side of Stream 17-7 below the confluence with Stream 17-40 to the confluence with Stream 17-13.
- No cutting would occur within the primary shade zone, except for limited cutting for yarding corridors.

## FISHERIES

### Threatened and Endangered Species

No Endangered Species Act listed fish species are associated with this project.

Yarding over streams with full suspension over the stream channel is expected.

## WILDLIFE

### Threatened or Endangered Species

#### ***Northern Spotted Owls (NSO):***

- Improve the quality of forest habitat.
- Maintain canopy cover > 40% in stands older than 50 years of age.
- Timing restrictions are not needed for the spotted owl because no known active sites are near treatment areas.
- Proposed Critical Habitat: Maintain or restore elements of high quality spotted owl habitat, such as large live and dead trees, multi-species multi-layered canopies, and hardwood trees.

#### ***Marbled Murrelets (MAMU):***

- **Operating restrictions are required** near occupied marbled murrelet habitat located in the southwest portion of the unit. The use of power tools and heavy equipment is restricted to August 6 to March 31 within 100 yards of this occupied habitat. Additionally, time of day restrictions are required from August 6 to September 15; i.e., power tools and heavy equipment are only allowed between two hours after sunrise and two hours before sunset if within 100 yards of occupied habitat.

- Maintain potential nesting habitat (trees with nesting platforms) and adjacent trees (buddy trees) that contribute to potential nesting habitat.
  - At least two yarding corridors may damage a few trees and or their nesting platforms. However, this damage is not likely to affect nesting structure, and if it does, there would be ample amounts of other trees containing potential nesting structure that would not be affected by treatment activities. Thus, potential nesting habitat would remain functional because over 90% of the potential nesting platforms would remain after thinning.
  - The use of potential nest trees for guylines or tailholds is acceptable if other options are not available AND if these uses would not kill these trees. A wildlife biologist must be consulted if use of these trees could cause them to die. This also applies to all trees in the Special Tailhold area.

### **Special Status Species**

- Improve the quality of forest habitats for Special Status Species, Birds of Conservation Concern, or other species:
  - Maintain large remnant conifer and hardwood trees.
  - Maintain trees with broken tops, large limbs, and cavities.
    - Maintain greater than 40% canopy cover.
  - Maintain trees that contribute to middle-story, such as conifers with deep crowns, hardwood trees, and small conifer trees.
  - Create grass or forb habitat patches where possible:
    - Apply native grasses or forbs along spur roads and other openings. Coordinate this with botanist and other specialists.

### **BOTANY**

#### **Threatened and Endangered Species**

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

#### **Sensitive Species**

No sensitive plant species were located during surveys.

#### **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 decommissioned roads with native species after operations are completed.
- Monitor for at least 3 consecutive years after timber sale implementation, and control infestations discovered through monitoring as appropriate.
- Do not place slash on decommissioned roads in order to allow monitoring and treatment of false brome in the area.

### **FUELS**

- Cover and burn or otherwise remove piles from the site. Burn piles in the late fall when favorable smoke dispersion conditions are most common and risk of fire spread away from piles is low.