

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-E050-2015-0012-DNA

PROJECT NAME: Low Down Timber Sale

LOCATION/LLEGAL DESCRIPTION: T. 16 S., R. 6 W., Secs. 7 & 17 and T. 16 S., R. 7 W., Sec.1 Will. Mer.

A. Description of Proposed Action

The proposed action is to implement the Low Down Timber Sale by thinning approximately 162 acres. Approximately 110 acres Late Successional Reserve (LSR) land use allocation (LUA) and 52 acres of Riparian Reserves (RR) 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:

"Plan and implement silvicultural treatments inside late-successional reserves that are beneficial to the creation of late-successional habitat" (RMP 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 Alternative 4 (preferred alternative) 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:

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; this activity would occur in stands less than 80 years old at the time of treatment and within the LSR and adjacent Riparian Reserve LUA (Long Tom EA, p.11).

Low Down consists of approximately 162 acres of LSR thinning that are approximately 50 to 77 years of age. The Low Down Timber Sale will thin trees to a Curtis relative density of 25 to 32. Thinning will maintain more than 40% average canopy closure. 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).

All streams within the thinning unit will receive a minimum 60 foot buffer within which no thinning would occur, see the attached prescription for detailed stream buffers.

"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." (p. 16).

Approximately 7,075 feet of new road will be constructed; approximately 23,705 feet of road will be renovated or improved.

"Decommissioning strategy for Matrix 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 but are not needed for future management (decommissioning will be implemented using the design features listed in the EA) (EA 2011, p. 8).

Approximately 14,147 feet of road (including newly constructed roads) would be decommissioned (see the implementation prescription for design features). The resource area botanist will monitor the site for ensuring high priority weed control.

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. 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). The effects of thinning on spotted owl nest patches (pp. 32-33) were analyzed as well. 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 not located in the 2012 northern spotted owl critical habitat designation. 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 in the EA is adequate and conferencing with USFWS was completed. Trees with potential marbled murrelet nesting structure located within the harvest area have been painted yellow and will be reserved. All thinning units are located in marbled murrelet critical habitat.

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 and foraging habitat within the South Willamette North Umpqua Area of Concern, the project is not located in the South Willamette North Umpqua Area of Concern, canopy cover is being maintained to protect dispersal habitat.

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). In the short term low quality foraging habitat would function as dispersal habitat after thinning. Dispersal habitat that is thinned would continue to function as owl dispersal habitat since the silvicultural prescriptions for these units maintain at least 40% canopy cover. Marbled murrelet protocol surveys were completed, marbled murrelet occupied habitat is located adjacent to the thinning area.

Site visits and surveys did not identify any unique conditions (such as special habitats or special status species), there is no specially designated areas Research Natural Area (RNA) in the project area. 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 inquired 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 Low Down 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 not likely to adversely affect northern spotted owls because road construction would occur in spotted owl dispersal habitat. The project will likely adversely affect marbled murrelet habitat due to thinning near trees that have potential nesting platforms and from road construction in non-habitat. The Long Tom Watershed does not contain critical habitat for coho salmon. 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

<u>Name</u>	<u>Title</u>	<u>Resource</u>
Karin Baitis	Soil Scientist	Soils/Road Decom.
Peter O'Toole	Planning Forester	Team Lead
Emily Timoshevskiy	Silviculturist	Silviculture
Doug Goldenberg	Botanist	Botany
Evan Wernecke	Civil Engineering Technician	Engineering
Tom Jackson	IT Specialist	GIS

Kristen Allison	Fuels Specialist	Fuels
Randy Miller	Wildlife Biologist	Wildlife
Dan Stephens	Forester	Logging Systems
Leo Poole	Fisheries Biologist	Fisheries
Sharmila Premdas	Landscape Planner	NEPA
Steve Steiner	Hydrologist	Hydrology

Prepared By

/S/ Sharmila Premdas
Sharmila Premdas, NEPA Planner

Date: 7/24/2015

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/ Michael J. Korn
Michael J. Korn, Field Manager,
Siuslaw Resource Area

Date: 7/24/2015

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.

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EUGENE DISTRICT OFFICE

DECISION RECORD
DOI-BLM-OR-E050-2015-0012-EA
Low Down Timber Sale

DECISION

It is my decision to implement this action as described in the Determination of NEPA Adequacy Documentation DOI-BLM-OR-E050-2015-0012-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 project is consistent with court orders relating to the Survey and Manage mitigation measure of the Northwest Forest Plan, as incorporated into the district Resource Management Plan.

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."

Low Down project has been reviewed in consideration of Judge Pechman's October 11, 2006, order. Because the Low Down 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.

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/ Michael J. Korn

Michael J. Korn
Field Manager, Siuslaw Resource Area
Eugene District Office

7/24/2015

Date

**Long Tom Landscape Plan
Project Implementation Prescription
Low Down - Tract No.E-15-528
T.16 S., R. 6 W., Secs. 7 & 17
T.16 S., R. 7 W., Sec. 1**

Summary

This project is a Density Management thinning in the Long Tom Watershed of approximately 162 acres, 110 acres upland Late Successional Reserve (LSR) and 52 acres of Riparian Reserve (RR). These 50-80 year age class stands are well stocked second growth timber, generally dominated by Douglas-fir with minor presence of Western Redcedar, Grand Fir and Western Hemlock. Hardwoods such as Golden Chinquapin and Pacific Madrone are generally found on drier uplands while Bigleaf Maple and Red Alder are found in riparian zones. These stands are currently in the stem exclusion phase and incurring competitive mortality. The estimated harvest volume is 3.5 MMbf.

Silviculture

- Maintain existing species diversity; 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 all yellow painted Marbled Murrelet habitat trees.
- Select Port Orford cedar when marking reserve trees.
- Reserve all of the large remnant seed trees.
- Retain existing snags and coarse woody debris, except for safety or operational reasons.
- Pacific yew, native hardwoods and snags will not count towards basal area or tree per acre spacing targets listed below.
- Thin Riparian Reserves to the same prescription as the adjacent uplands.

Stratum 1- Sec 1 (27 ac)

- Proportional thin, spacing of leave trees approximately 24ft x 24ft to retain approximately 78 trees/acre. Select leave trees without regard to form, or vigor.

Stratum 2 – Sec 7 (31 ac)

- Vary the leave tree spacing to retain the prescribed target basal area of 120 sq. ft. per acre, generally reserving the larger diameter, more vigorous trees.

Stratum 3 – Sec 7 (12 ac)

- Vary the leave tree spacing to retain the prescribed target basal area of 140 sq. ft. per acre, generally reserving the larger diameter, more vigorous trees.

Stratum 4 – Sec 7 (28 ac)

- Proportional thin, spacing leave trees approximately 26ft x 26ft to retain approximately 65 trees/acre. Select leave trees without regard to form, or vigor.

Stratum 5 – Sec 7 (51 ac)

- Proportional thin, spacing leave trees approximately 22ft x 22ft to retain approximately 90 trees/acre. Select leave trees without regard to form, or vigor.

Stratum 6 – Sec 17 (13 ac)

- Proportional thin, spacing leave trees approximately 29ft x 29ft to retain approximately 51 trees/acre. Select leave trees without regard to form, or vigor.

Logging systems

Cable Yarding Design Features (113 acres)

- Cable yard to designated or approved landings.
- Space cable corridors 150 feet apart and limit to 12 feet in width (a cable system capable of 75 foot lateral yarding).
- Require a minimum 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.
- Layout cable corridors used for yarding in concave slopes above stream channel initiation points (headwall areas) at 45 degrees to perpendicular of the centerline. This is to provide a sharp channel junction to dissipate the energy of any potential debris flows or torrents.
- Minimize sidehill yarding across headwall areas to reduce soil disturbance and slope failures.

Ground-Based Yarding Design Features (49 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.
- 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 minimum 150 foot spacing between skid trails, and maintaining width of the skid trail to 12 feet.
- 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.
- Skid logs to designated or approved landings.
- De-compact 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. De-compaction should immediately follow logging operations. If de-compaction cannot be accomplished the same operating season, all trails should be left in an erosion resistant condition and blocked.
- When logging with ground-based equipment within 210 feet of any stream, skid trails shall be located at least 75 feet from the posted boundary. Within 210 feet of any stream, ground-based yarding equipment shall not leave the designated trail.
- Retain existing organic matter (large tops and limbs), and seed and mulch skid trails with exposed mineral soils with weed free materials. Use on-site woody debris to improve nutrient value, to minimize on site erosion, or prevent sediment delivery to adjacent streams.
- Forwarder harvester, processor, shovel/loader operations will be limited to one pass off of designated skidtrails and should use an adequate layer of green slash (limbs, tops and small boles) created by the harvesting or felling process to limit bare soil exposure. A desired depth of such material would be 12 to 18 inches of loose slash. A minimum layer between 4 and 6 inches in depth, of slash/limbs is necessary to prevent compaction in tread areas and should be placed on areas of travel.

Engineering

Access:

Name/Number	Action	Road Control	RWA/Easement
Spur A	Construct	BLM	
Spur B	Renovation/Construct	BLM	
16-6-6 Seg. A	Renovate	WEYCO	E-340 Supp. N
16-6-6 Seg. B por.	Renovate	BLM	
16-6-6.1	Renovate	ODF	1 st Use, Cooperative Agreement
16-6-6.2	Construct	BLM	Crossing Plat over state
16-6-7.1 Seg. A	Use	BLM	
16-6-7.1 Seg. B	Use	WEYCO	E-340
16-6-7.2	Renovate	BLM	
16-6-7.4	Improve / Renovate	BLM	
16-6-7.5	Improve	BLM	
16-6-7.6	Renovate	BLM	
16-6-7.7	Construct	BLM	
16-6-7.8	Construct	BLM	
16-6-7.9	Construct	BLM	
16-6-7.10	Construct	BLM	
16-6-7.11	Renovation	BLM	
16-6-7.12	Improvement / Construct	BLM	
16-6-7.13	Renovate	BLM	
16-6-7.14	Construct	BLM	
16-6-7.71	Improve	BLM	
16-6-8.3	Renovate	GLT	1 st Use over GLT
16-6-8.4	Construct	BLM	Crossing Plat over GLT
16-6-17	Use	BLM	
16-6-17.2 Seg. A.	Renovate	BLM	From highway to property line
16-6-17.2 Seg. B.	Renovate	GLT	From prop line N. to int, w/ -8.3
Old Highway 36	Renovate	ODOT	

WEYCO = Weyerhaeuser Company
 GLT = Giustina Land & Timber
 ODF = Oregon Dept. of Forestry
 BLM = Bureau of Land Management
 ODOT = Oregon Dept. of Transportation

Special access needs:

- Land in Section 8 needs to be added to an agreement with GLT.
- Crossing plats are required for Road Segments: 16-6-6.2, & 16-6-8.4.
- First Use required on Road Nos. 16-6-6.1 (ODF) and 16-6-8.3 (GLT).

Roads with wet weather haul allowed:

New construction:

Name/Number	Length (feet)	Rock	Buy-out?	Comments
Spur A	560	Optional		Purchasers Option to Rock
16-6-6.2	640	Required	Yes	Surfaced with 9" depth of 6"- and 3" Depth of 1 ½"- Requires crossing plat
16-6-7.7	150	Optional	Yes	Purchasers Option to Rock
16-6-7.8	210	Required	Yes	Surfaced with 9" depth of 6"-
16-6-7.9	250	Required	Yes	Surfaced with 9" depth of 6"-
16-6-7.10	1,105	Optional	Yes	Purchasers Option to Rock
16-6-7.12	1,500	Required	Yes	Surfaced with 9" depth of 6"- and 3" Depth of 1 ½"-
16-6-7.14	380	Required	Yes	Surfaced with 9" depth of 6"-
16-6-8.4	1,390	Optional	No	Purchasers Option to Rock Requires crossing plat

- Approximately 61.85 stations new construction.
- Subgrade to a 14' width, out-sloped where possible.
- End haul of waste material from full bench portion of Road No. 16-6-7.12 is required.

Renovation:

Name/Number	Length (feet)	Rock	Buy-out?	Comments
16-6-6 Segs. A&B por	2,800			
16-6-6.1	1,203		No	Existing rock surface. Requires first use calculations
16-6-7.1 Seg. A	1,600	Required	No	Rock will be placed at all roadside landing locations
16-6-7.2 por. 1	3,436	Required	N/A	Existing rock surface. Additional 6" lift of 3"-
16-6-7.2 por. 2	510	Required	N/A	Existing rock surface. Additional 4" lift of 3"-
16-6-7.4	1,720	Optional		Purchasers Option
16-6-7.6	325	Optional		Purchasers Option to Rock
16-6-7.11	715	Optional	N/A	Purchasers Option to Rock
16-6-7.13	475	Optional	N/A	Purchasers Option to Rock
16-6-8.3	2,217			Existing rock surface. 30 cy crushed rock placed at intersection w/ -17.2 Requires first use calculations
16-6-17.2 Segs. A&B	4,283			

- Approximately 192.84 stations renovation.
- Road No. 16-6-7.2 shall have 3 additional cross drain culverts and other additional drainage measures added to it.
- Renovation may consist of brushing, grading, ditching, cross drain replacement, lifts of rock on rocked roads, etc.

Improvement:

Name/Number	Length (feet)	Rock	Buy-out?	Comments
16-6-7.4	150	Required	Yes	Surfaced with 9" depth of 6" - and 3" Depth of 1 1/2"-
16-6-7.5	990	Required	Yes	Surfaced with 9" depth of 6" - and 3" Depth of 1 1/2"-
16-6-7.12	375	Required	Yes	Surfaced with 9" depth of 6" - and 3" Depth of 1 1/2"-
16-6-7.71	60	Required	Yes	Surfaced with 9" depth of 6" -

- Approximately 15.75 stations improvement.

Improvements may consist of all operations listed under renovation as well as culvert additions, rocking natural surface roads, etc.

Special provisions (Wet Weather Haul):

- Wet weather haul (timber or mineral) will not be permitted on Old Highway #36 under any circumstance.
- All roads listed as Purchaser Option to rock above would be fit for wet weather haul if rocked.

Roads with dry season haul required:

New construction:

Name/Number	Length (feet)	Rock	Comments
Spur B	890		

- Approximately 8.90 stations new construction.

Renovation:

Name/Number	Length (feet)	Rock	Comments
Old Highway 36	2513		Additional 18" x-drain planned
Spur B	333		

- 28.46 stations renovation.

Summary:

New Construction Approximately 70.75 stations

Renovation Approximately 221.30 stations

Improvement Approximately 15.75 stations

Logger's choice landings/spurs requested by Purchaser are subject to approval by the Authorized Officer.

Road Lengths obtained from GPS, GIS, and/or string box

Green trees are available for guy-lines at all roads

Road Improvement - Work done to an existing road which improves it over its original design standard.

Road Renovation - Work done to an existing road which restores it to its original design.

Road Construction – Work done to create a road where one has not existed in the past.

Soils

Winter haul is allowed. Best Management Practices (BLM, 2011) for forest roads will be applied as needed as site specific actions for winter haul, including additional cross-drains to filter sediment onto the forest floor, additional lifts of gravel, and ceasing haul during heavy rains when ditchlines are flowing and turbidity is observed. Limit road and landing construction, reconstruction, or renovation activities to the dry season.

Road decommissioning

All decommissioning measures shall be completed during the dry season.

- (aa) De-compact all natural surfaced roads and landings with de-compaction equipment, such as a track mounted excavator with a thumb that is capable of moving logging slash.
- (bb) Construct drainage dips, waterbars and/or lead-off ditches, and remove all culverts and cross drains as directed by the Authorized Officer.
- (cc) Place logging slash larger than 6 inches diameter, where available, in a discontinuous pattern, on road surfaces, as directed by the Authorized Officer.
- (dd) Block at entry points using stumps, slash, and/or cull logs, or earthen barricades, as directed by the Authorized Officer.

		Natural Surface Road				Rock Road		
		(aa)	(bb)	(cc)	(dd)	(bb)	(cc)	(dd)
Road Number	Unit	Decompact	Drainage	Logging Slash	Blocking	Drainage	Logging Slash	Blocking
Spur B- forest	1	X	X	X	X-EB*			
16-6-6.1 - rock	1					X		
16-6-6.2 - forest	1	X	X	X	X	X		X
16-6-7.4 - dirt	2	X	X	X	X	X		
16-6-7.5 - dirt	2	X	X	X	X	X		
16-6-7.6 - dirt	2	X	X	X				
16-6-7.7 - forest	2	X	X	X		X		
16-6-7.8 - forest	2	X	X	X				
16-6-7.9 - forest	2	X	X	X		X		
16-6-7.10 - forest	2	X	X	X		X		
16-6-7.14	2	X	X	X	X	X	X	
16-6-7.2 - RESOURCE	3					X		
16-6-7.11 - dirt	3	X	X	X	X	X		
16-6-7.12 - dirt	3	X	X	X	X	X		
16-6-7.13 - rock	3					X		X
16-6-7.71 - dirt	3	X	X	X	X	X		
Spur A - forest	4	X	X	X	X	X	X	X
16-6-8.4 - forest	4	X	X	X	X	X		

EB*Road will be decompacted, have water bars installed, heavily slashed for its full length and have an earthen barricade with roots & avail boulders to prevent OHV use. Additional drainage will be installed at junction with mainline. This is a Federal Register Closure Area, closed to OHV for environmental damage.

Storm proofing roads and placing them in a self-maintaining condition consists of site-specific measures to stabilize roadside slopes, prevent erosion of soil and/or sediment delivery to streams by reducing the concentration of water on the road prism and ditchlines, before blocking. If culverts are left in place, deep drainage ditches (water bars) should be angled in the roadbed in to positions above and below where necessary to prevent the culvert from plugging from any debris.

Road No. 16-6-7.2 is a Resource Road with dumping and OHV use.

Hydrology

- Add three cross drains on BLM road 16-6-7.2 to reduce current sediment delivery miles on this road by about 0.15 miles. Other cross drains may be added to improve general road drainage as per project engineer recommendations.
- Maintain adequate, high quality (durable) aggregate on BLM road segments with particular emphasis in the areas with sediment delivery potential and all season haul. The recommended aggregate is a minimum of 6" to 8" of depth with low percentage of fines and high resistance to abrasion.
- Replace (two to six) damaged and rusted out cross drain culverts on BLM controlled segments of the haul route to reduce long term risk of pipe or fill failure (see hydrology haul season map and hydrology culvert table in hydro input folder).
- Stream buffers of 60 feet are recommended on both sides of stream 7-3.
- Stream buffers of 75 feet are recommended on both sides of streams 7-1b, 7-2, 7-6, 7-7/7b, 7-10, 7-11, 7-12, 7-14, 7-15, 7-16, and 7-22/22b.
- Stream buffers of 75 feet are also recommended on the unit side of streams 7-1, 7-10, 7-13, and 7-24.
- Stream buffers of 100 feet are recommended on the unit side of streams 1-1, 1-2, and 17-1.

Stream buffer width recommendations by the Siuslaw Area Hydrologist were based on on-site conditions and the proposed actions. The minimum buffer width allowed in the Long Tom Landscape Plan Environmental Assessment is 60 feet. The primary factors for determining stream buffer widths for each stream in the project area were: flow (perennial/intermittent), tree height, vegetation density, topographic slope, harvest prescription, extent of yarding corridors, and aspect (stream orientation).

Fisheries

Threatened and Endangered Species

No ESA listed fish species are associated with this project.

There is no critical or essential fish habitat designated within tributaries of the Long Tom River associated with this thinning.

Wildlife

Threatened and Endangered Species

Northern Spotted Owls (NSO):

- More than 40% canopy cover will be maintained in stands older than 50 years of age. The stands in this project are 50 to 77 years of age.
- Seasonal timing restrictions are not needed.
- Protect all known spotted owl nest trees. There is a historic nest tree adjacent to unit 3 in the Special Tailhold Area
- This proposed unit is not within Critical Habitat (CH) for the spotted owl.

Marbled Murrelets (MAMU):

- The following operating restrictions are required in the SE corner of unit 1, SW corner of unit 2, and northern portions of unit 3 within 110 yards of un-surveyed suitable MAMU habitat.
 - A.) All power tools and heavy equipment are prohibited from April 1 through August 5.
 - B.) Time of day restrictions apply from August 6 to September 15. Power tools and heavy equipment may operate from two hours after sunrise until two hours before sunset.

- Occupied habitat adjacent to unit 1 and un-surveyed suitable habitat adjacent to units 2 and 3 will be excluded from the project area.
- All thinning units are designated as Marbled Murrelet Critical Habitat (OR-04-j).
- Protect potential murrelet nesting structure. There are 35 yellow-painted murrelet nest structure trees within or directly adjacent to the sale units.
- To minimize the risk of attracting predators to the site, all garbage (especially food products) will be contained or removed daily from the work site.

Bureau Sensitive Species

No mitigation measures.

Snags and Down Wood

Clump snags and down wood (CWD) as shown on the project area map. A portion of the dead wood will be well distributed throughout the unit. Approximate amounts of clumps and dispersed dead wood for each unit and stratum are shown in the table below.

	Unit 1 stratum 1	Unit 2 stratum 2	Unit 2 stratum 3	Unit 2 stratum 4	Unit 3 stratum 5	Unit 4 stratum 6
Harvest acres (planned)	29	31	12	28	51	13
No. of 1/4 ac. CLUMPS in unit: Actual planned (on map)	10	8	2	9	15	4
Trees for CWD per 1/4 acre CLUMP	6	4	5	5	7	5
Trees for SNAGs per 1/4 acre CLUMP	14	8	10	11	16	8
Total acres of CLUMPS	2.50	2.16	0.67	2.25	3.75	1.00
Percent of harvest unit in CLUMPS	9%	7%	6%	8%	7%	8%
No. of trees DISPERSED (not in clumps) CWD	3	3	3	8	18	2
No. of trees DISPERSED (not in clumps) SNAG	6	5	7	18	42	3

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.

Bureau Sensitive Species

No Sensitive plant species were located during surveys. No mitigation measures are necessary.

Noxious Weeds and Invasive Non-native species

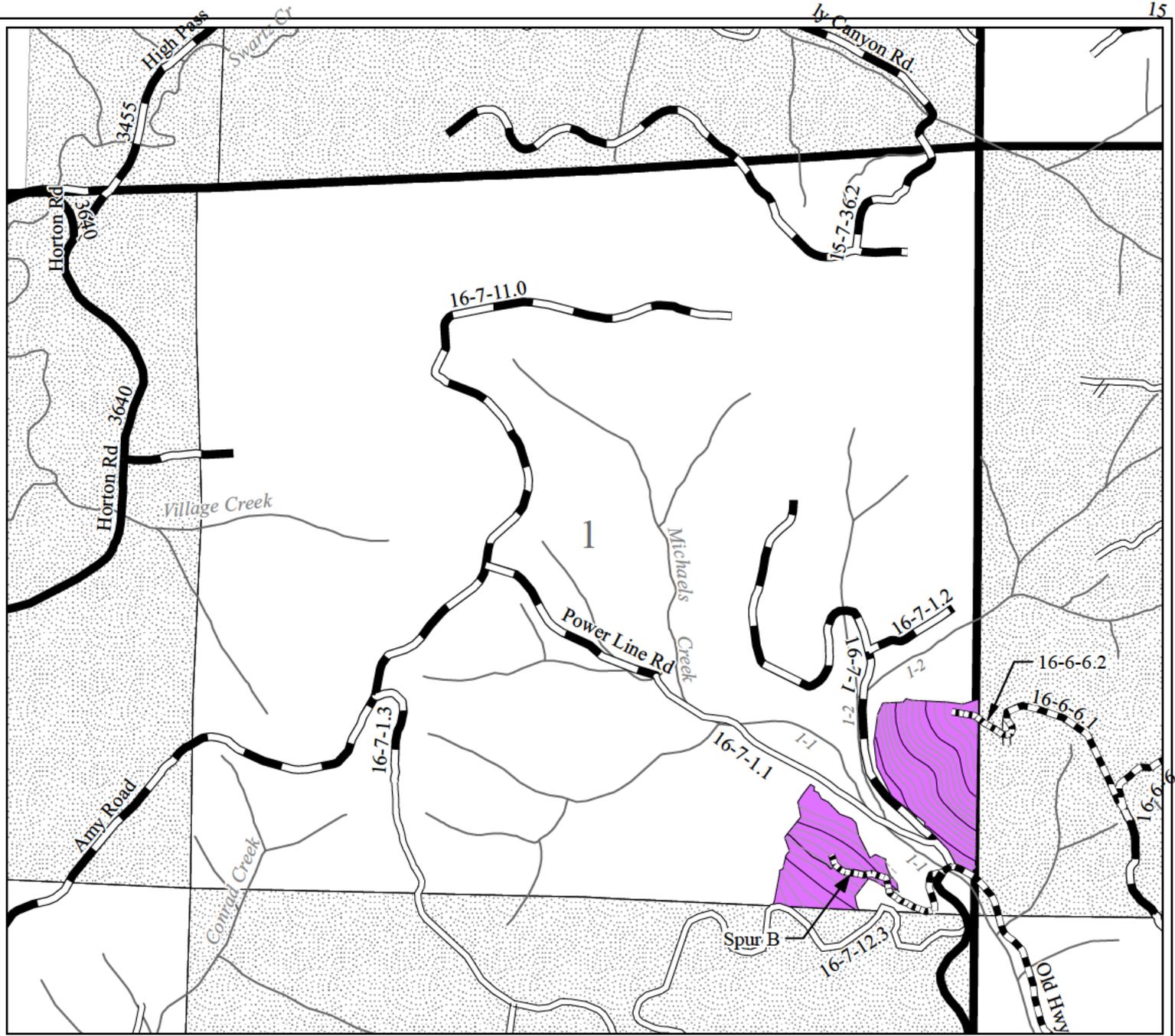
- Clean all yarding and road construction equipment prior to arrival on BLM-managed lands to lessen the spread of noxious weed seed.
- Sow native grass seed on decommissioned, decompacted roads, and other areas as appropriate, after operations have been completed.
- Control existing false brome and English ivy populations prior to project activity, monitor for at least 5 consecutive years after timber sale implementation, and control weed infestations discovered through monitoring as appropriate.

Port Orford Cedar

Reserve Port Orford Cedar trees preferentially under the marking guidelines. Port Orford cedar is concentrated near the major roads: Highway 36 in Section 17, Old Highway 36 in Section 7, and Road No. 16-7-1 in section 1.

Fuels

- Pile logging slash at all landings and machine pile logging slash greater than 2 feet long and between 1 and 6 inches in diameter, within the harvest area, that is within 25 feet of Spur A and, Road Nos. 16-6-7.11, 16-6-7.12, 16-6-7.13, 16-6-7.2, as directed by the Authorized Officer.
- Cover and burn roadside piles and landing piles, or otherwise remove biomass from 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.



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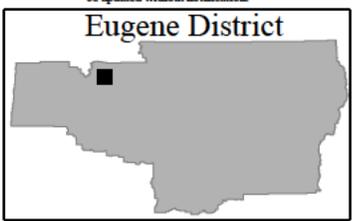
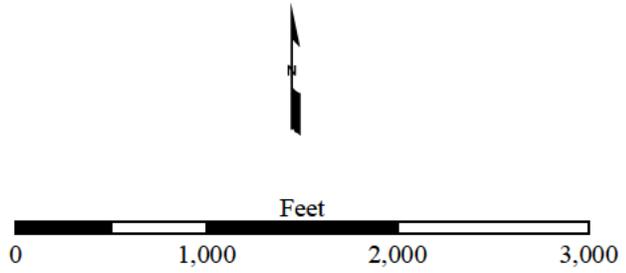
Low Down Timber Sale DNA
 T.16 S., R.7 W., Sec. 1
 Page 1 of 3

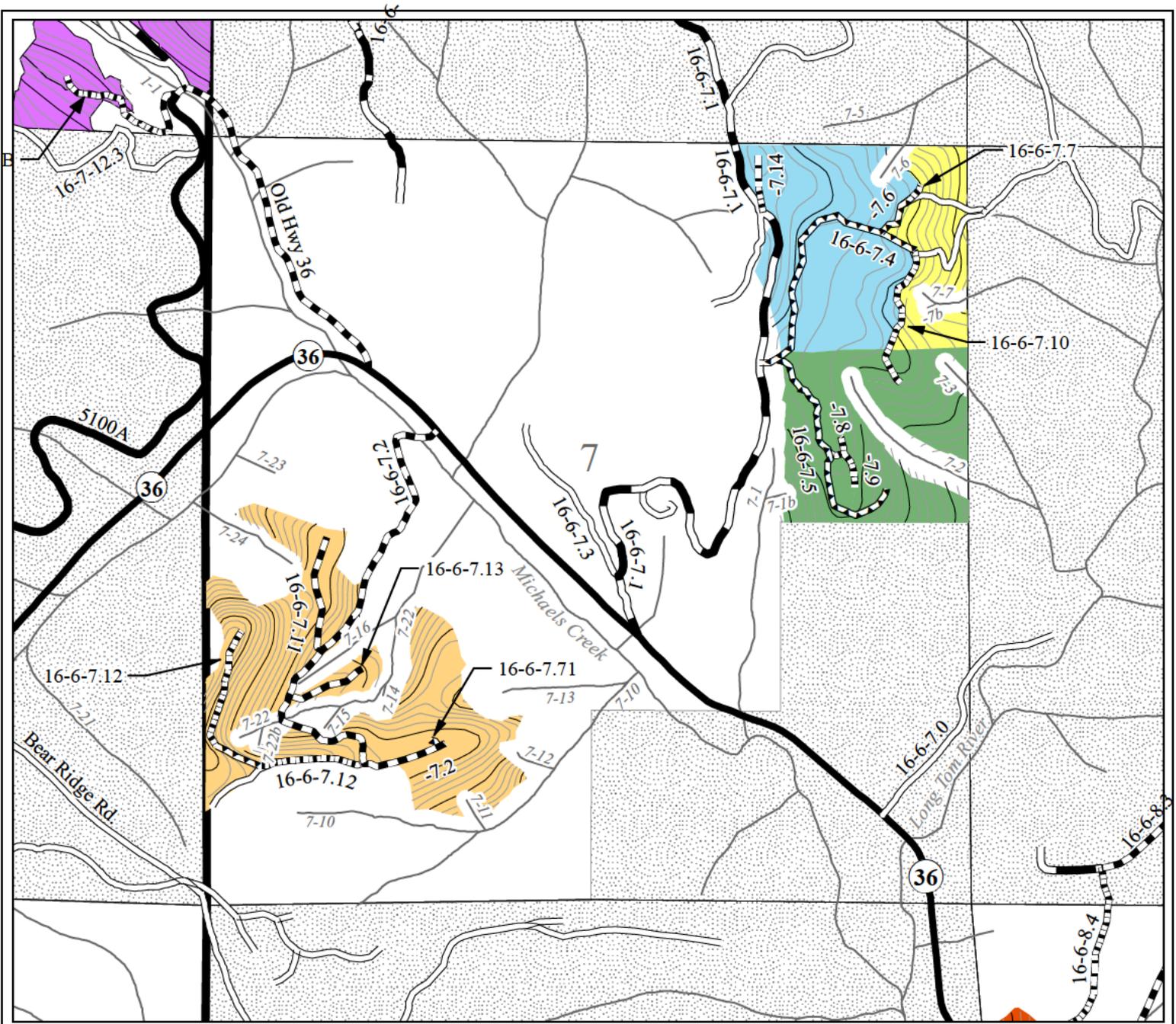
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Universal Transverse Mercator
 Zone 10, North American Datum 1983

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.

-  BLM Ownership
-  Stratum 1: 24x24ft Spacing
-  Paved Road
-  Existing Rock Road
-  Other Existing Road
-  Road Renovation
-  Road Construction
-  Stream





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Eugene District

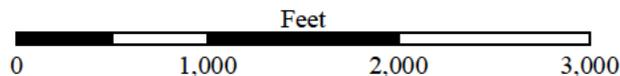


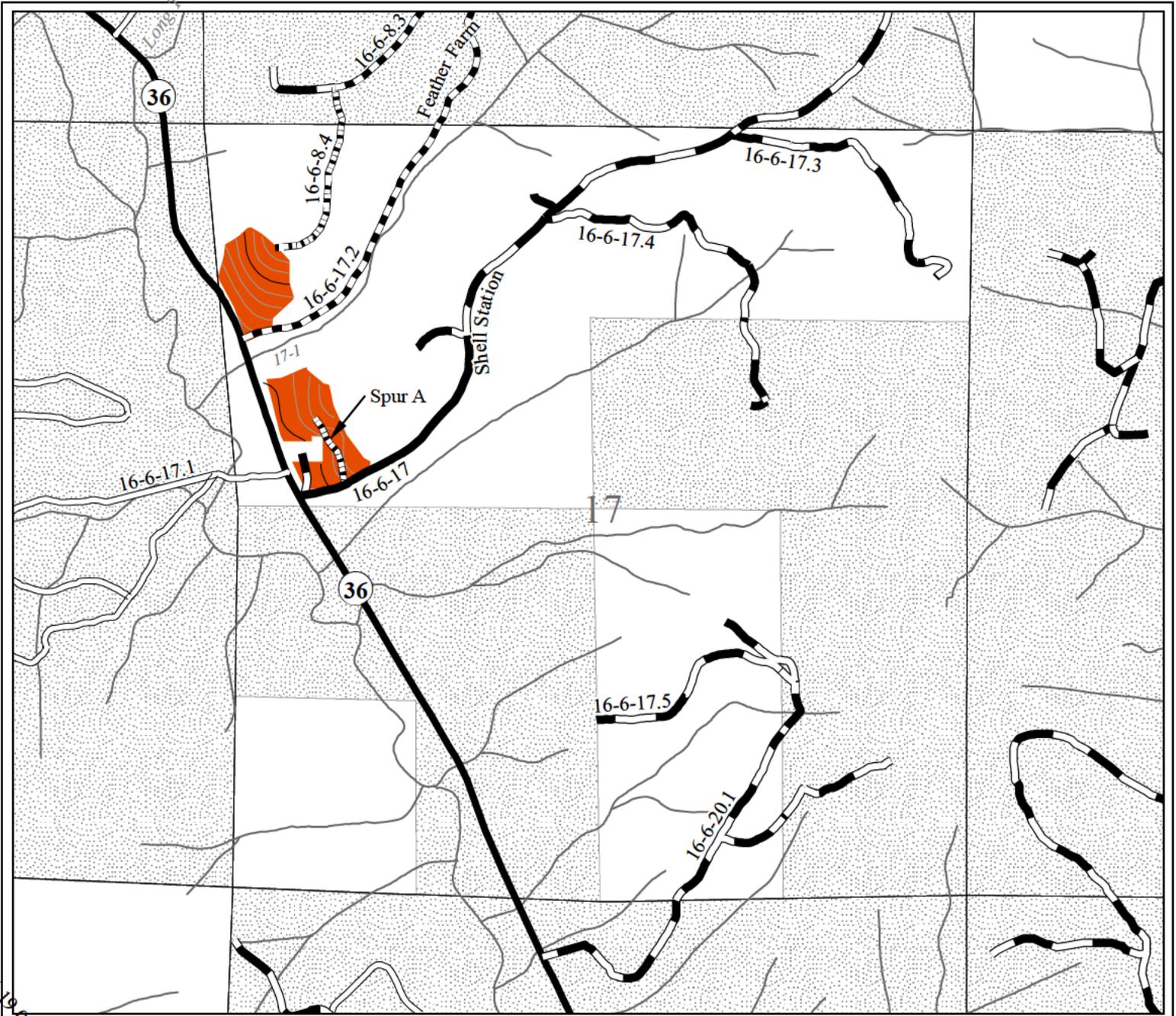
Low Down Timber Sale DNA

T.16 S., R.6 W., Sec. 7

Page 2 of 3

- BLM Ownership
- Stratum 2: BA 120 sq. ft/ac
- Stratum 3: BA 140 sq. ft/ac
- Stratum 4: 26x26ft Spacing
- Stratum 5: 22x22ft Spacing
- Private Ownership
- Existing Rock Road
- Other Existing Road
- Road Renovation
- Road Improvement
- Road Construction
- Stream





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Low Down Timber Sale DNA

T.16 S., R.6 W., Sec. 17

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	BLM Ownership
	Stratum 6: 29x29ft Spacing
	Private Ownership
	Paved Road
	Existing Rock Road
	Other Existing Road
	Road Renovation
	Road Construction
	Stream

