

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

ENVIRONMENTAL ASSESSMENT NO. OR090-03-19

Dead Horse Timber Sale

1.0 INTRODUCTION

1.1 Background

The Bureau of Land Management proposes to commercially thin approximately 155 acres of timber within the Matrix Land Use Allocation (LUA), and treat by density management approximately 8 acres of timber within the Riparian Reserve LUA. Harvest would take place within stands ranging in age from 36 to 45 years and within an approximately 30-year-old stand in the 17-acre Ferguson Progeny Test Site. Approximately 3,900 feet of existing road would be renovated and fully decommissioned or blocked; and approximately 6,400 feet of new road would be constructed and fully decommissioned. The project area is located in Sections 21 and 27, Township 15 South, Range 6 West, Willamette Meridian, Lane County, Oregon in the Siuslaw Resource Area of the Eugene District of the Bureau of Land Management (BLM).

1.2 Purpose of and Need For The Action

The project area is within the Matrix LUA and has management objectives for General Forest Management Area (GFMA) and Riparian Reserves. GFMA objectives are to provide an output of merchantable timber while maintaining forest health and productivity. Riparian Reserve objectives are to look for opportunities to contribute to the attainment of Aquatic Conservation Strategy (ACS) Objectives. The purpose of the proposed action is to meet these planning objectives. The need for the action is established in the Eugene District Record of Decision and Resource Management Plan (RMP) (June 1995), which directs that timber be harvested from Matrix lands to provide a sustainable supply of timber, and that actions be taken to attain ACS objectives. The stand is at an age where thinning would be beneficial: reduced stand density would promote stand volume growth, maintain good crown ratios, and stable, windfirm trees. Harvest in Riparian Reserves would promote development of large conifers, species diversity, and structural development by increasing tree crown depth and canopy layering.

The purpose of the proposed action within the Ferguson Progeny Test Site is to provide for continuation of long-term genetics research for the Eugene District tree improvement program. The need for the action is established in the RMP, which directs that progeny test sites be maintained to continue measurements of growth and other characteristics.

1.3 Conformance With Land Use Plan

All alternatives are in conformance with the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (NSO ROD) (April 1994); and the RMP, as amended (January 2001, March 2004, and April 2004). This EA is tiered to these documents.

Additional site-specific information is available in the Dead Horse Timber Sale project analysis file. This file and the above referenced documents are available for review at the Eugene District Office.

2.0 ISSUES SELECTED FOR ANALYSIS

Issue 1: *How would timber harvest and associated activities affect northern spotted owl habitat and marbled murrelet nesting habitat?*

The project area may be considered foraging or dispersal habitat for spotted owls. Timber harvest could affect the project area's ability to function as habitat for spotted owls.

Potential suitable (unsurveyed) habitat for marbled murrelets is within 0.25 miles of the project area and haul route. Timber harvest could disturb nesting marbled murrelets during breeding season.

Measures: change in quality of acres foraging/dispersal habitat (NSO); noise disturbance in MAMU breeding season; BLM Biological Assessment for USFWS Determination

Issue 2: *How would timber harvest and roading affect attainment of Aquatic Conservation Strategy (ACS) objectives at the watershed scale?*

The Proposed Action and alternatives incorporate the use of design features and selected Best Management Practices (BMPs) to insure the project proposal does not prevent or retard attainment of the nine ACS Objectives on a watershed or landscape scale, and to hasten attainment of ACS Objectives where possible. Some of the alternatives include riparian treatments.

Measures: effects determination (retard, maintain, restore) for affected ACS objectives

Issue 3: *What are the effects of temporary road construction and decommissioning?*

Yarding systems affect soil productivity and compaction in different ways. Applying selected BMPs listed in the RMP may ameliorate these impacts.

Measures: acres of compaction resulting upon completion of this action

Issue 4: *What are the effects of timber harvest and related activities on the spread of noxious weeds?*

Noxious weeds are known to exist within the watershed. These plants are able to quickly colonize areas of bare soil. Harvest activities and road construction increase the amount of bare soil and provide areas in which these weeds can thrive.

Measures: acres ground disturbance from roads; landings; harvested acres; acres noxious weeds pretreated

Issue 5: *What are the effects of timber harvest and related activities on resource damage related to OHV use?*

OHV use occurs within the project area. There are concerns that removing trees and exposing existing dirt roads would increase unauthorized OHV use in the project area and possibly increase soil and forest damage.

Measures: soil movement on exploited skid trails (tons/year); number of trees per year compromised for their utility to the genetics program

Issue 6: *How would this project contribute to the Eugene District RMP goal for the Allowable Sale Quantity?*

The purpose of the project is to provide a sustainable supply of timber while maintaining forest health and productivity. Alternatives may be developed to address the issues above that would affect the harvest volume. Analysis of this issue will show how each alternative would affect the amount of timber harvested.

Measure: MMBF

3.0 ALTERNATIVES

Alternatives 1, 2, 3, and 4 consider timber harvest and other forest management activities on a project area of approximately 360 acres (see maps) with the following results (Table 1).

Table 1: Alternatives

	Alternatives			
	1 Commercial Thin – No New Roads	2 Commercial Thin with Truck Turnaround	3 (Proposed Action) Commercial Thin with Road Construction	4 No Action
Upland Harvest	67 acres	95 acres	130 acres	0 acres
Riparian Reserve Density Management	1 acre	3 acre	8 acre	0 acre
Progeny Site Harvest	17 acres	17 acres	17 acres	0 acres
Total Acreage	85 acres	115 acres	155 acres	0 acres
Volume	0.55 MMBF*	0.8 MMBF*	1.15 MMBF*	0 MMBF*
Construction & decommissioning of new roads	None	Spur B (500 feet) (truck turnaround); decommissioned and blocked		
		Spurs A, C, C-1, D, F, G, H, I (5,900 feet new); decommissioned and blocked. Spur H blocked at progeny site fence		
Renovation & decommissioning or blocking of existing roads	Road No. 15-6-21.3 (500 feet); blocked			
	Road No. 15-6-33 (2,100 feet) and Spur E (1,300 feet) decommissioned and blocked; Spur E blocked at progeny site fence and between fence and stockpile.			
Cable Yarding	10 acres	20 acres	60 acres	
Ground-based Yarding	75 acres	95 acres	95 acres	
Operating Restrictions	Daily timing restriction April 1 – Sept. 15 for MAMU			
	Use of skid trails restricted to dry season			
Existing legacy compaction decommissioned	0.6 acres skid trails			
Botany	Release Oregon white oaks by harvesting conifers within 50' of clump			
	Pretreat roadside noxious weeds			
Progeny Site	Cut and leave on site 10% of progeny site "take" trees			
			Limb R/W trees within progeny site prior to R/W construction	

*MMBF = million board feet

3.1 Design features Common to All Action Alternatives

Fuels Reduction

Slash within 25 feet of Road No. 15-6-26 would be hand piled, covered and burned, or swamper burned. Where applicable, landing piles and burnable fuel concentrations along temporary roads would be spread over road surfaces after decommissioning to discourage OHV use.

Silviculture

No site preparation would be needed. Harvested areas would not be planted.

Retention

Matrix Uplands and Riparian Reserves

Down material of advanced decay (Decay Class 3, 4 or 5) would be retained for coarse woody debris (CWD).

Snags, Pacific yews, and hardwood trees would be retained where possible. Snags and hardwoods felled for safety reasons would be retained as CWD.

All trees not specifically identified for retention would be cut. Conifers would be thinned from below, retaining the larger diameter, more vigorous trees. Approximately 120 square feet of basal area per acre (BA/acre) would be retained. The number of trees retained per acre would vary with tree size and stand age, ranging from 90 trees per acre (TPA) in the older stands up to 120 TPA in the youngest stand.

A group of Oregon white oaks would be retained and released by removal of all trees within a 50 foot radius.

Progeny Site

Retention trees would be thinned systematically and spaced so as to maintain more or less uniform spacing and equal inter-tree competition. Approximately 170 TPA would be retained. Approximately 10% of the cut trees would be left on site.

Reserves

The height of one site-potential tree has been determined to be 210 feet slope distance in the Long Tom Watershed. Riparian Reserves 210 feet wide on either side of non-fishbearing streams, and 420 feet around fishbearing streams would be managed in accordance with the standards and guidelines in the NSO ROD (Appendix C, pp. 31-38).

All action alternatives consider density management of the Riparian Reserves to the same densities as adjacent uplands. Acres vary by alternative. Riparian Reserves for Stream 1 would be treated to within approximately 150 feet of the stream. Riparian Reserves for Streams 2-4 would be treated to within approximately 100 feet of the streams.

Roads and Yarding

In order to slow the spread of noxious weeds, all yarding and road construction equipment, including excavators, would be washed prior to arrival on BLM land.

Approximately 1 acre of roadside noxious weeds would be pretreated by a combination of cutting and grubbing prior to harvest operations.

BLM Road No. 15-6-21.3 would be renovated under each action alternative. Upon completion of the project, deep cross ditches would be excavated to prevent vehicle passage, closing the road.

Potential nesting habitat for marbled murrelet is unsurveyed. A daily restriction on operations, beginning 2 hours before official sunset until 2 hours after official sunrise, would be required April 1 – September 15 of each year.

Logs would be yarded by cable to designated or approved landings. Downhill cable yarding may be necessary. Cable yarding would adhere to the following BMPs: The cable system would be capable of lateral yarding 75 feet; yarding corridors would not exceed 12 feet in width and would be 150 feet apart at the end farthest from the yarder. One-end suspension of logs would be required during cable yarding, and intermediate supports would be required where necessary to attain the required suspension.

Outside of the progeny site, logs would be yarded by ground-based equipment to designated or approved landings using the following BMPs: New skid trails would not be allowed within Riparian Reserves but would be limited to slopes less than 35%, be spaced approximately 150 feet apart, and limited to 12 feet in width. Existing skid roads would be used whenever possible. Excavation on skid trails would not exceed one foot in depth.

Trees would be felled to the lead of the skid trails where possible. Upon completion of operations, all skid trails used during logging operations would be lifted and aerated with an excavator or subsoiler when soil moisture is

appropriate, or waterbarred, as directed by the Authorized Officer. Adjacent logging slash would be gathered and scattered on the skid trail where possible. Vehicle access would be blocked.

Within the progeny site, logs would be yarded by ground-based equipment to designated or approved landings. New skid trails would be limited to slopes less than 35%. To prevent damage to progeny site test trees, the skid trails would be placed in designated locations and would run diagonally across the test site. Existing skid roads would be used whenever possible. Placement of skid trails would be approved by the Authorized Officer, and maps would be retained so that upon final harvest (in approximately 30 years) skid trails can be tilled to reduce compaction and restore site productivity. Directional felling would be used to protect the reserve trees from damage during the felling operations. Protective wraps would be used on the stems of reserve trees, when necessary, to protect the cambium from damage during yarding operations.

3.2 Design Features Common to Alternatives 2 and 3

Roads and Yarding

In addition to renovation of Road No. 15-6-21.3 as described in 3.1, Road No. 15-6-33 (approximately 1,800 feet under Alternative 2 and 2,100 feet under Alternative 3) would be renovated. Approximately 100 feet of Road No. 15-6-33 may be located within the outer 100 feet of the Riparian Reserve of Stream 3.

A truck turnaround (Spur B, approximately 500 feet) would be constructed.

Operations on dirt roads would be limited to the dry season. Upon completion of operations, Road No 15-6-33 would be decommissioned and blocked in the following manner:

- a) The road subgrade would be lifted and aerated (tilled) with a track mounted excavator or winged subsoiler.
- b) Water bars/drainage dips and lead off ditches would be installed along the road where necessary.
- c) Vehicle access would be blocked using barricades appropriate for the road.
- d) Logging debris would be placed on road surfaces along as much of the length of the road as possible, including small diameter trees, if available.

Yarding would be as described in 3.1.

3.4 ALTERNATIVE 1 – Commercial Thin (No New Roads)

This is a commercial thin alternative in which approximately 85 acres (1 Riparian Reserve, 67 GFMA, and 17 progeny site) would be treated. Approximately 0.55 MMBF of timber would be offered for sale.

Roads and Yarding

No new roads would be constructed. Road No. 15-6-21.3 and flat areas adjacent to Road No. 15-6-26 (Grimes Road) would provide landing and loading areas. Yarding equipment on Road No. 15-6-26, a high-volume public road, would be allowed to block traffic for no more than 20 minutes at a time.

All other design features are common to all action alternatives and described in Section 3.1.

3.5 ALTERNATIVE 2 - Commercial Thin (with Truck Turnaround)

This is a commercial thin alternative in which approximately 115 acres (3 Riparian Reserve, 95 GFMA, and 17 progeny site) would be treated. Approximately 0.8 MMBF of timber would be offered for sale.

All other design features would be as described in 3.1 and 3.2.

3.6 ALTERNATIVE 3 - Commercial Thin (with New Roads) (Proposed Action)

This is a commercial thin alternative in which approximately 155 acres (8 Riparian Reserve, 130 GFMA, and 17 progeny site) would be treated. Approximately 1.15 MMBF of timber would be offered for sale.

Roads and Yarding

In addition to renovation of Roads No. 15-6-21.3 and 15-6-33, and construction of Spur B (truck turnaround) as described in 3.2, Spurs A, C, C-1, D, and F through I (approximately 5,900 feet) would be constructed as temporary dirt spurs with 14-foot subgrades. Spur E (1,300 feet) would be renovated. Renovation of Road No. 15-6-33 to the property line would include construction of a new landing near the property line. Logger's choice spurs (short spur roads in locations selected by the logger) may be needed off of Spur D to cable log the area north of Spur D. Spur E (approximately 1,300 feet) would involve widening of an existing compacted road surface. An equipment road with a tractor swing (a cable yarder would be walked along the road; logs would be cable yarded to the yarder; and a skidder would use the equipment road as a route for skidding logs from the cable yarder to the loading area) would be needed to log an area north of the progeny site. Construction of spurs within the progeny site would involve cutting approximately 25 progeny site test trees.

Newly constructed spur roads requiring operations in more than one dry season would be placed in an erosion resistant condition (water bars and leadoff ditches) and temporarily blocked prior to the onset of wet weather. Upon completion of operations, newly constructed spur roads would be decommissioned as described for Road No. 15-6-33 in 3.2. Spur E would be blocked at the progeny site fence and between the fence and the junction with Road No. 15-6-26 (Grimes Road). Spur H would be blocked at the progeny site fence.

Landings on spurs on the north side of the progeny site would require artificial anchors within the progeny site. To prevent potential damage to progeny site trees, deadman anchors involving burial of large logs would not be allowed within the progeny site. Other types of anchors such as tractors or tilting plates would be allowed. All other design features would be as described in 3.1 and 3.2.

3.7 ALTERNATIVE 4 - No action

All timber harvest activities would be deferred; no management activities described under the action alternatives would occur, and no timber would be offered for sale at this time. Because the project area is within GFMA, a harvest may be proposed in the future.

3.8 ALTERNATIVE Considered but Not Analyzed

An additional 180 acres of forest stands in Sections 21 and 27 were considered for thinning. These stands will be left untreated at this time but may be re-evaluated within the next decade when additional growth makes them better suited to thinning.

4.0 EXISTING CONDITIONS

The plant and animal communities in this project area do not differ significantly from those discussed in the Eugene District Proposed Resource Management Plan/Environmental Impact Statement (RMP EIS) (Chapter 3). The area is discussed in general in the RMP. Resources that are specific to identified issues are discussed in greater detail in this section.

4.1 Long Tom Watershed

The project area is in the Long Tom Watershed, located in Lane and Benton Counties, west of Eugene. The watershed lies at the southwestern headwaters of the much larger Upper Willamette River Basin and contains approximately 263,000 acres.

The watershed landscape pattern is that of checkerboard ownership with approximately 21,800 acres (8%) managed by the BLM. The BLM forest lands are concentrated in the Coast Range foothills or "Valley Fringe". Forestry and agriculture are the primary land uses. Commercial forests are primarily located in the upper reaches of the watershed (Long Tom Watershed Analysis, October 2000).

Approximately 40% of the forested BLM-administered lands within the watershed are in the 0-30 year age classes; 40% are in the 40-70 year age class; and 20% are in the late successional or 80-year and older age class (based on Forest Operations Inventory (FOI) stand data 1999).

4.2 Timber

The proposed harvest area is comprised of second-growth timber stands which were logged in the 1950s and 1960s. The older stand in Section 21 regenerated from seed trees following harvest, but the remainder of the harvest area was planted. This area has been precommercially thinned. The common stand condition is a well-stocked overstory of Douglas-fir which is generally uniform in structure, with occasional hemlock and maple trees. A few white oaks are in the southeast portion. Riparian areas are generally hardwood, dominated by alder and bigleaf maple. Upland portions of the Riparian Reserve are similar to the adjacent Matrix stand conditions. Large snags (>20") and down wood are sparse throughout the stand.

A stand exam was completed in September 2002.

Table 2: Stand Exam Results

Section	DBH*	Basal Area	TPA	Relative Density	Volume/Acre**
21	12"	212'	290	62	25.6 MBF
27	12"	180'	222	52	23.5 MBF

*Diameter at Breast Height **Thousand Board Feet

Part of the proposed harvest area is within a progeny test site of the Eugene District Tree Improvement program. The Ferguson Progeny Test Site was established in 1973 with Douglas-fir trees planted on an approximately 10-foot grid pattern (435 TPA). Each test tree is from a known pedigree. The progeny test site has had regular vegetation maintenance and was initially thinned in 1995. Approximately 270 TPA were retained.

Progeny test site measurements were collected in February 2002.

Table 3: Progeny Site Measurement Results

DBH Max	DBH Min	DBH Mean	Basal Area	TPA	Relative Density
17.5"	3.0"	11.2"	187'	270	56

4.3 Wildlife (including Special Status and Special Attention Species)

Threatened and Endangered Species

Northern Spotted Owl (Threatened)

The project area provides dispersal and foraging habitat for northern spotted owls. Dispersal habitat for owls consists of conifer forests of greater than 11 inches dbh with at least 40% cover that function for roosting and foraging (usually 40-80 years old). Although some stands within the project area are less than 40 years old, they have the necessary structure to function as dispersal habitat. These stands may provide temporary habitat for transient owls searching for a longer term territory and also foraging habitat for owls from nearby territories. The project area is located on the edge of the provincial home range (PHR) of two nesting pairs, Hole and Ferguson Creek. Owls have been known to inhabit the Ferguson Creek site since 1994 and successfully nested there for 7 years. The most recent known nesting activity occurred in 2000. Nesting activity at the Hole nest site has been recorded since 1998 and the site was last occupied by an owl pair in 2001.

The amount of suitable nesting and foraging habitat within a PHR is typically used as a measure of the likelihood of successful reproduction at an owl site. The amount of suitable habitat within the Hole and Ferguson Creek owl sites' home range is low, 247/142 acres (5% and 3%) out of 4,765 acres, respectively. When suitable nesting habitat is below 40% within a PHR, a site is considered to be at risk relative to the potential for successful reproduction. Dispersal and foraging habitat (stands 40 years and older) are also limited within the two PHRs--approximately 14% of the total acres. Due to the recent loss of suitable habitat from private lands within these two owl territories, and relatively low percentage of federal acres in the older age classes, both are considered unsuitable for occupation or reproduction by owls under current stand conditions.

Marbled Murrelet (Threatened)

Suitable nesting habitat for marbled murrelet consists primarily of old growth and mature coniferous forests. Murrelets also have been found in younger forests (60-80 years) with structural elements similar to old growth, such as remnant old-growth trees or younger trees with platforms created by deformities or dwarf mistletoe infestations (Nelson 1997, Nelson and Wilson 2001). Although the proposed harvest area does not contain suitable nesting habitat, unsurveyed habitat that has the potential to be suitable exists on federal and private lands within 0.25 mile of the proposed harvest area and along the haul route.

Special Status Species

There are 20 Bureau Sensitive Species (BS) and 8 Bureau Assessment (BA) species which are known or suspected to occur on the Eugene District. Of these, 7 potentially occur within the Deadhorse project area: northern goshawk (*Accipiter gentilis*)(BS), northern red-legged frog (*Rana aurora*) (BA), tailed frog (*Ascaphus truei*) (BA), Oregon slender salamander (*Batrachoseps wrighti*)(BS), Townsend's big-eared bat (*Plecotus townsendii*)(BS), fringed myotis (*Myotis thysanodes*)(BS), and purple martin (*Progne subis*) (BS).

Because the proposed project alternatives would not modify habitats to a large degree or occur close enough to Special Status Species habitats to significantly disrupt their behaviors, special status species were not selected as an issue for detailed analysis. Additional information is available in the project file.

Other Wildlife

This project area provides habitat for a variety of species that utilize mid-seral forest habitat. For a list of species that may occur here, refer to Table 3-54 in the RMP (pages 3-52).

4.4 Soils

Geology / Landslides

The project area is geologically mapped within the Flournoy/Tyee (Tt) Formation that consists of massive and rhythmically bedded feldspathic and micaceous sandstone and subordinate siltstone. Each bed is graded and ranges from coarse sandstone at the base to fine sandstone and siltstone above. The Tyee formation is widespread in the central Coast Range (Walker & Macleod; 1991). Field reconnaissance and air photo interpretation indicate that short slope failures have occurred during historical time along the steep slopes of streams in private industry clearcut units.

Soils/compaction/erosion

Predominant soils found in the project area include Bellpine, Bohannon, Digger, Jory, Peavine, and Slickrock (U.S.D.A. 1987). Honeygrove soils are mapped in the Lane County Soil Survey as being present in the project area; however, site investigation indicates that there are no Honeygrove soils present. The soils that are present have a high Site Index that correlates to a high amount of on-site nitrogen and potential site productivity. All soils are susceptible to compaction and a reduction in pore space in the soil. This may lead to a decrease in air and water availability for plants and a loss in site productivity.

Bellpine soils are moderately deep (20-50 inches), and well drained. The surface layer is a silty clay loam; the subsoil is silty clay with soil horizons containing 40-55% clay. Roads constructed through these soils are subject to slumping. Rock fragments in the soil profile are typically less than 15%. Permeability is slow due to the heavy textures and absence of coarse fragments. These soils are susceptible to compaction. Potential of erosion is high on steep slopes.

Bohannon soils commonly form on downtrending ridges and headwalls, commonly in old slump areas, and Preacher soils develop on side slopes. Both soils are deep, contain 15-30% clay, and are relatively well drained with moderate permeability. Runoff is rapid and the hazard of water erosion is high. The main limitations of these soils are generally slope and low soil strength.

Digger-Rock outcrop complex (50-85% slope) is moderately deep (27-37 inches). The surface layer is a gravelly loam, and the subsoil may contain 15-25% clay. The surface may be littered with stones. Permeability is moderately rapid and runoff is rapid with hazard of erosion being high. Because Digger soils tend to develop on steep slopes, there is a high hazard of erosion and slumping in disturbed areas. Windthrow is a hazard when the soil is wet and winds are strong. Disturbed areas are subject to rill and gully erosion and sloughing.

Jory soils are deep (< 60 inches) and well drained. The surface layer is a silty clay loam, the subsoil is dark reddish brown silty clay with soil horizons containing 50-60% clay. Road construction is generally easy in these soils; however, compaction on these soils would reduce the volume and height growth of Douglas-fir, resulting in a reduction in timber site class. Runoff is rapid and hazard of water erosion is high. The use of ground-based equipment could result in reductions in long-term soil productivity if unmitigated, indiscriminate tractor logging occurs. However, BMPs are planned for all action alternatives.

Peavine soils are moderately deep (30-40 inches). The surface layer is a silty clay loam, the subsoil is silty clay with soil horizons containing 30-60% clay. Unstable areas associated with Peavine soil are in steep, concave slopes at the heads of drainages, the edges of benches, or areas where ground water accumulates. Common slope failure is of the slump and earthflow type. Rock fragment content in the soil profile is typically less than 20%. Permeability is moderately slow due to the heavy textures and absence of coarse fragments. These soils are susceptible to compaction.

Slickrock soils are deep (40-60 inches). The surface layer is a brown, fine loam, the subsoil is a dark brown turning to yellowish brown, gravelly loam with soil horizons containing 15-30% clay. Rock fragments content averages 50-70% in the lower profile. Runoff is slow to medium, and the hazard of water erosion is moderate.

There are legacy skid roads and compaction within the project area. OHV use can reduce site productivity due to soil disturbance, compaction, and forest soil erosion. There are approximately 3,300 feet of 8-foot-wide skid roads currently being used by OHVs in the project area which equates to approximately 0.6 acres.

4.5 Aquatic and Riparian Resources and Fisheries

Aquatic Characterization

The project area is located within the headwaters of the 6th-field Lower Long Tom River sub-watershed (approximately 33,000 acres) and within the Ferguson Creek drainage (approximately 13,000 acres, or 40% of the sub-watershed). All of the streams in the project area are 1st order, headwater tributaries to the Ferguson Creek drainage except for Stream 1, which is a 2nd order stream. Approximately 15% of the drainage area is in young forest (0-15 years old). Agricultural and rural residential uses are common along the main stem of Ferguson Creek, and these uses account for about 25% of the drainage area. Less than 10% of the drainage area is in forest that is greater than 60 years old. The remainder is intermediate in age (15-60 years old). Nearly 2/3 of the Lower Long Tom River sub-watershed is currently agricultural or rural residential land. These uses are concentrated on the east and north portions of the sub-watershed. Forest uses are located in the west portion of the sub-watershed.

Road density in the Ferguson Creek drainage is approximately 4.7 miles/square mile. Road density in the sub-watershed is 3.3 miles/square mile.

The project area is generally gentle to moderately steep. Topography varies from 0-110%. An area south of Stream 1 near the west property line of Section 27 is very steep. Much of the unit is 10-50% in slope gradient.

The Ferguson Creek drainage is predominately a low elevation basin where rain-on-snow events are unusual. Approximately 90% of the drainage basin is below 1,200 feet elevation. Rain-on-snow events in the Coast Range are unusual at elevations below 1,500 feet. Proposed harvest elevations vary by alternative, with the widest range under Alternative 3 (850-1,800 feet). The proposed harvest area in Alternative 1 would be entirely below 1,500 feet elevation. Approximately 85% of the harvest area would be below 1,500 feet with Alternative 2. Approximately 75% of the harvest area would be below 1,500 feet with Alternative 3.

There are 4 streams located within or adjacent to the project area. Stream 2 is a tributary of Davidson Creek, which is a tributary of the main stem Ferguson Creek. Stream 2 drains in a northeast direction. Streams 1 and 4 are tributaries of the South Fork of Ferguson Creek, a tributary of Ferguson Creek. Stream 1 bears generally northeast through the project area and then eventually bears southeast into the South Fork of Ferguson Creek. Stream 3 is a short, discontinuous channel that drains in a southeast direction. There are a few other headwater streams south and east of the project area in Section 27 that are tributaries of the South Fork of Ferguson Creek. There are a few other headwater streams north of the project area in Section 21 that are tributaries to Davidson Creek.

Most stream reaches within the project area are 10-20% gradient except for Stream 4 and the lower reach of Stream 2 (north of Road No. 15-6-26), which are greater than 20% gradient. Most of the streams have substrate that varies from fine material to gravel. The larger streams generally have substrate that is gravel and cobble.

Most streams surveyed have a low to moderate density of large woody debris with good canopy cover (70-90% or greater) within the proposed harvest area. Stream 4 is on private land in a recent clear-cut area and has a very high density of logging slash. There is currently very little riparian shading on this stream.

Channel down-cutting or channel aggrading do not appear to be a notable problem on the surveyed reaches. Bank stability for the streams in the project area appears to be good. Stream 3 is a discontinuous channel. Channel characteristics (scour/deposition) occur on approximately 500 feet of this channel. Stream 2 is crossed by an old skid trail west of the south quarter-corner of Section 21. This crossing has partially failed. There still is approximately 8 feet of fill over portions of this channel at the crossing.

There are numerous filed water rights for irrigation and domestic use on Long Tom River and Ferguson Creek below the project area. The closest filed water right is for irrigation use about 2 miles below the project area in Ferguson Creek. There is a vertical culvert pipe installed about 1000 feet above Road No. 15-6-26, adjacent to Stream 2. There is also a water pipe extending upstream from this culvert. There are no known filed water rights for this location.

Fisheries Characterization

A presence/absence fish survey, utilizing netting and visual observation, was conducted along Streams 1-4. No fish were present.

All project area streams flow through steep narrow valleys (10-20% gradient) constrained by hillslopes. Streams 1, 2, and 4 are completely dry in summer. During the summer months, Stream 3 has a few small plunge pools (approximately 1-2 feet diameter and 6-12 inches depth) and all other flow is subsurface. Stream 3 contains a moderate amount of small and medium size (36 inch dbh) woody debris. These streams are nonfishbearing due to intermittent flow, high stream gradient, and physical barriers. Currently, in the Long Tom River 5th-field Watershed, there are no anadromous fish above the water diversion barrier.

4.6 Botany

Native Plants, Special Status, and Survey & Manage Species

Surveys were conducted in the project area for federally listed Threatened or Endangered and BLM Special Status vascular plants, lichens and bryophytes. Surveys for vascular plants occurred in July 2002 and August 2003. Surveys for lichens and bryophytes occurred in November 2002 and August 2003. No federally listed or Special Status species were located during surveys. The lichen *Ramalina thrausta* was found at one location. This lichen was on the Survey and Manage list at the time, but was removed from the list during the December 2003 annual species review. The Survey and Manage Standards and Guidelines have since been removed from the Northwest Forest Plan (Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, March 2004).

Noxious Weeds and Invasive Non-native species

The State-of-Oregon-listed noxious weeds located during plant surveys include Scotch broom, Himalayan blackberry, meadow knapweed, bull thistle, Canada thistle, tansy ragwort, and common St. Johns-wort. These weeds are fairly sparse in the project area, but some larger infestations occur along roadsides, in openings within the progeny site, and in adjacent older clearcut units.

Recently clearcut plantations and roadsides within and adjacent to the project area were surveyed for invasive non-native species abundance in August 2003. Roadsides had an average of about 25% cover of non-native invasive species. Most of the cover was from introduced grasses, but not state-listed noxious weeds, although Himalayan blackberry and Scotch broom were locally abundant. In Section 21, a 24-year-old plantation had no weeds, due to shade and dense salal; and a 12-year-old plantation had <1% non-native cover, with some Scotch broom. A 10-year-old plantation had about 10% cover, with 14 non-native species including the bull and Canada thistles, blackberry, and St. Johns-wort. In Section 27, a 10-year-old plantation had less (~1%) weed cover, due to dense poison oak, bracken fern, and shrubs. Openings in the progeny site had about 20% weed cover, with 13 species including the thistles, St. Johns-wort, Scotch broom, ragwort and blackberry. Despite the variability, the entire area had greater weed abundance than other areas of the Coast Range, possibly due to a drier climate and proximity to the Willamette Valley. Thinned units elsewhere in the Coast Range were found to have about 1% cover of noxious weeds, with 5% cover in regeneration units and on roadsides.

Oregon White Oak

Ten Oregon white oak trees were found on south slopes with shallow soil in Section 27, in the southern part of the proposed harvest area. These oaks were sometimes fairly large, up to 10" DBH, and may predate the existing stand, representing an artifact from more frequent historical fires due to the proximity with the Willamette Valley. Fires could have maintained relatively open forest conditions on drier sites. Oregon white oaks are fairly shade-intolerant, yet the site these trees are in currently support a dense conifer forest. In contrast, most white oak in the Coast Range are found on rocky sites that remain open through succession.

4.7 Recreation

Recreation consists of dispersed activities such as driving for pleasure, OHV use, and hunting. OHV use has been light in the project area except for inside the progeny site, where some trails have been created which connect it to Road No. 15-6-26. One trail along the south side has resulted in deep ruts and excessive soil erosion.

4.8 Visual Resources Management

The project area is within the RMP visual resource management Class IV which allows major modifications of the existing character of the landscape. There are no structures within the project area or large bodies of water such as rivers or lakes. There is one major paved road known as Grimes Road (Road No. 15-6-26) within the project area. Numerous narrower and shorter rocky and dirt spur roads take off from this major road. Private clear cuts west and south of the project area have resulted in a highly visible contrast between the two properties.

5.0 DIRECT AND INDIRECT EFFECTS

5.1 Unaffected Resources

The following resources are either not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concern; prime or unique farm lands; Native American religious concerns; solid or hazardous wastes; Wild and Scenic Rivers; Wilderness; minority populations; air quality; bald eagle habitat; and low income populations.

5.2 Summary of Effects

Table 4: Summary of Effects

Issue	Alternative			
	1 Cable, ground, no new roads	2 Cable, ground, truck turnaround	3 Cable, ground, new roads	4 No Action
<p>How would timber harvest and associated activities affect NSO habitat and MAMU nesting habitat?</p> <p>Measures: <i>change in quality of acres foraging/dispersal habitat (NSO); noise disturbance in MAMU and NSO breeding season; F&W call</i></p> <p>*Riparian Reserves</p>	NSO: Degrade 68 acres Foraging/Dispersal Habitat for 10-20 years	NSO: Degrade 98 acres Foraging/Dispersal Habitat for 10-20 years	NSO: Degrade 138 acres Foraging/Dispersal Habitat for 10-20 years	NSO: No degradation of Foraging/Dispersal Habitat
	May Affect, Not Likely to Adversely Affect due to degradation of dispersal habitat			No Effect
	No acceleration of development of late-successional characteristics in RRs*		Accelerate development of late-successional characteristics in RRs	No acceleration of development of late-successional characteristics in RRs
	May Affect, Likely to Adversely Affect due to noise disturbance associated with hauling March 1 – July 2			No Effect
	MAMU: Noise disturbance; No Seasonal Restriction			MAMU: No disturbance effect
	May Affect, Likely to Adversely Affect due to disturbance			No Effect
<p>How would timber harvest and roading affect attainment of Aquatic Conservation Strategy (ACS) objectives at the watershed scale?</p> <p>Measures: <i>retard, maintain, restore</i></p>	OBJ 1 Restore			OBJ 1 Maintain
	OBJ 2-9 Maintain			
<p>What are the effects of temporary road construction and decommissioning?</p> <p>Measures: <i>acres compaction resulting upon completion of this project</i></p>	1.7 acres Allowable Aerial Extent (AAE) compaction remaining after project	2.4 acres (AAE) compaction remaining after project	3.1 acres (AAE) compaction remaining after project	0.6 acres compaction remaining after project
<p>What are the effects of timber harvest and related activities on the spread of noxious weeds?</p> <p>Measures: <i>acres ground disturbance from roads, landings; treated acres; acres noxious weeds pretreated</i></p>	1 acre disturbed due to road renovation, construction and decommissioning	1.5 acres disturbed due to road renovation, construction and decommissioning	4.5 acres disturbed due to road renovation, construction and decommissioning	0 acres disturbed due to road renovation, construction and decommissioning
	85 acres disturbed due to thinning operations	115 acres disturbed due to thinning operations	155 acres disturbed due to thinning operations	0 acres disturbed due to thinning operations
	1 acre noxious weeds pretreated	1 acre noxious weeds pretreated	1 acre noxious weeds pretreated	0 acres noxious weeds pretreated
<p>What are the effects of timber harvest and related activities on resource damage related to OHV use?</p> <p>Measure: <i>soil movement on skid trails (tons/year); number of trees per year compromised for their utility to the genetics program</i></p>	<1 ton/year soil movement on skid trails			25 tons/year
	0 trees per year compromised			4 trees per year compromised
<p>How would this project contribute to the Eugene District RMP goal for ASQ?</p> <p>Measure: <i>MMBF</i></p>	0.55 million board feet (MMBF)	0.8 MMBF	1.15 MMBF	0 MMBF

5.3 Issue 1: *How would timber harvest and associated activities affect Northern Spotted Owl habitat and Marbled Murrelet nesting habitat?*

Northern Spotted Owl- Modification of Foraging/Dispersal Habitat

Effects at the stand level

Alternatives 1-3 would degrade 85-155 acres of foraging and dispersal habitat for the Northern Spotted Owl by reducing canopy closure, and modifying mid-canopy and understory vegetation. The short-term loss of vegetative cover would make owls more vulnerable to predation and reduce habitat for prey species, which would affect their ability to forage in the area. Although thinning would temporarily degrade habitat conditions, the overall canopy closure would remain above 40% and harvested areas would still function as low-quality dispersal habitat. Little foraging would occur until the canopy density recovers to near pre-harvest conditions within approximately 10-20 years. In the long-term (30+ years), thinning would accelerate the development of older forest characteristics that would ultimately improve both foraging and dispersal habitat for owls. Those stands outside Riparian Reserves would be subject to commercial harvest rotations (approximately 80 years) typical of Matrix lands. Regeneration harvest could occur in as little as 30 years.

Effects to Provincial Home Range of Hole and Ferguson Creek Owl Sites

Approximately 50-91 acres (less than 2%) of dispersal/foraging habitat would be degraded within the home range of the Hole and Ferguson Creek owl sites. An estimated one third of the proposed harvest acres occur outside of these historic territories. No suitable nesting habitat would be affected. While portions of the project area may have functioned as foraging habitat for owls using these territories, there is a low probability of owl nesting due to lack of suitable habitat within these areas. In addition, the affected (treated) acres are on the outer edges of each owl's home range. Due to recent loss of suitable habitat (primarily on private lands) within these two home ranges, they are probably unsuitable for occupation or reproduction by owls until stands recover. The action alternatives are not likely to have any adverse affect on owls utilizing these territories.

Northern Spotted Owl - Effects of Disturbance

Unsurveyed suitable nesting habitat (80-year-old stands) occurs along the proposed haul route. Under Alternatives 1-3 there is a possibility of disturbance to nesting owls due to hauling during the critical breeding period (March 1-July 7). Because of potential disturbance impacts, Alternatives 1-3 "May Affect, and (are) Likely to Adversely Affect" the northern spotted owl.

Under Alternative 4, there would be no disturbance to nesting owls from proposed harvest and related activities in the short term. In the long term (30+ years), development of older forest characteristics and their associated benefits to the northern spotted owl would occur more slowly than with Alternatives 1-3, through natural disturbance processes and forest succession.

Marbled Murrelet – Habitat Modification

Because there is no suitable marbled murrelet habitat within the proposed harvest area, Alternatives 1-3 would cause no short-term effects to marbled murrelets from habitat modification. In the long term (30+ years), development of older forest characteristics and their associated benefits to marbled murrelets would occur more quickly than in the absence of treatment. Those stands outside Riparian Reserves would be subject to commercial harvest rotations (approximately 80 years) typical of Matrix lands. Regeneration harvest could occur in as little as 30 years.

Marbled Murrelet – Effects of Disturbance

Unsurveyed suitable habitat occurs within 0.25 mile of the project area. Because the proposed harvest and other actions associated with Alternatives 1-3 would occur during the critical breeding period (April 1-August 5), there is a possibility of disturbance to nesting marbled murrelets. Implementation of daily timing restrictions on harvest activities during this time period would mitigate impacts to the extent possible. Because of potential disturbance impacts, Alternatives 1-3 "May Affect, and (are) Likely to Adversely Affect" the marbled murrelet.

Under Alternative 4, in the short term, no potential or suitable habitat for the marbled murrelet would be modified or affected by disturbance. In the long term (30+ years), development of older forest characteristics and their associated benefits to marbled murrelets would occur more slowly than with Alternatives 1-3, through natural disturbance processes and forest succession.

Cumulative Effects - All Action Alternatives

Effects to Owls at the Landscape Scale

Effects of timber harvest to dispersing owls are often assessed at the watershed level. However, due to the large size of the Long Tom Watershed and the fact that much of it is non-forested agricultural land, the watershed is not an appropriate unit for measuring effects to dispersal habitat for this project. In order to measure effects at the landscape scale, dispersal habitat was assessed within four quarter townships adjacent to the project area (taking into account that owls will not be dispersing into the valley to the east). Based on two separate analyses of quarter townships, dispersal habitat is currently 57-64% of federal lands within the two areas. This meets the standard for Matrix lands of maintaining 50% of the forest landscape with a mean DBH of 11 inches and 40% canopy cover (Thomas et al. 1990). The proposed action alternatives would affect less than 1% of the federal acres within the four quarter townships analyzed.

Modification of dispersal habitat associated with the action alternatives “May Affect, but is Not Likely to Adversely Affect,” the northern spotted owl.

In the short term, Alternative 4 would not affect dispersal and foraging habitat of the northern spotted owl. In the long term (30+ years), development of older forest characteristics and their associated benefits to spotted owls would occur more slowly than with Alternatives 1-3, through natural disturbance processes and forest succession.

5.4 Issue 2: *How would timber harvest and roading affect attainment of Aquatic Conservation Strategy (ACS) objectives at the watershed scale?*

All alternatives would maintain ACS objectives 2-9. Action alternatives would restore ACS Objective 1, which is explained further below.

Objective 1:

All action alternatives are likely to maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features in relation to the aquatic systems. All streams would have unthinned buffers of at least 100 feet. Late-successional characteristics in the Riparian Reserves would be hastened by density management of the outer portions. The greatest benefit of this treatment would be realized under Alternative 3.

Alternative 4 is likely to maintain the distribution, diversity, and complexity of watershed and landscape-scale features in relation to the aquatic systems. Late-successional characteristics would not be hastened under this alternative but would proceed on the current trajectory.

The harvest areas proposed in the different action alternatives vary from approximately 0.3-0.5% of the total sub-watershed area and from approximately 0.6-1.2% of the Ferguson Creek drainage area. The harvest area represents less than 0.01% of the Long Tom River Watershed.

5.5 Issue 3: *What are the effects of temporary road construction and decommissioning?*

Table 5: Summary of measurable effects by Alternative

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Allowable compaction after amelioration at final harvest 2% of acres	<1.7 Acres	<2.4 Acres	<3.1 Acres	Approx. 0.6 Acres

Direct effect of cable and ground based logging is soil compaction on landings, cable corridors and skid trails. However, with the use of BMPs, compaction would not exceed the 2% ROD standard. Indirect effects include a loss in site productivity.

Cumulative Effects - All Alternatives

Alternatives 1-4 would not be expected to have any cumulative effect on soil compaction within the Long Tom Watershed. Continued management of BLM lands and on-going right-of-way agreements with adjacent landowners may result in additional permanent new roads being built within the watershed over time on BLM lands, contributing to compaction and a loss of soil productivity within the watershed. The transportation management plan for the Long Tom Watershed proposed to decommission approximately 50 miles (46%) of the 110 miles of BLM-controlled road in the road system (EA-01-09). To date, BLM has completed approximately 16 miles of this decommissioning.

5.6 Issue 4: What are the effects of timber harvest and related activities on the spread of noxious weeds?

Ground disturbance and loss of canopy would lead to increases in the invasive non-native and noxious weeds in the area. Thinning generally increases the diversity and abundance of non-native weeds (Thysell and Carey 2001). The requirement to wash equipment before entering the area would mitigate the spread of weeds. Approximately 1 acre of noxious weeds found on roadsides adjacent to the proposed harvest area, and within the progeny site, would be removed prior to operations. Himalayan blackberry, Scotch broom, and meadow knapweed would be removed with a combination of cutting and grubbing. This noxious weed pretreatment would lessen the risk or severity of noxious weed establishment in the thinned areas.

Based on observations in timber harvests and roadsides adjacent to the project area, thinned areas and decommissioned roads could have 1-20% cover of invasive non-native and noxious weed species for up to 10-20 years after harvest. Noxious weed cover in adjacent harvested areas was highly variable and negatively correlated with tree and brush cover. Because the thinning units often have few native plants in the understory due to the thick canopy, there would be much open ground available after thinning for weed establishment. The risk of noxious weed invasion on temporary and decommissioned roads is even greater as there is a greater expanse of open ground and less canopy cover than within the proposed harvest area.

Cumulative Effects - All Alternatives

Within the Long Tom Watershed, there are locations where displacement of native species by invasive non-natives, Scotch broom and knapweed in particular, has occurred. Ground disturbance within the Dead Horse project area from any of the action alternatives proposed herein may contribute to this effect.

Roads act as the primary vector for the long-distance spread of invasive non-natives across landscapes. The Bureau of Land Management has an active invasive non-native control program and is currently targeting roadside populations of Scotch broom and knapweed in this watershed and across the Eugene District. The Long Tom Watershed is highly roaded. There would be no net gain in permanent roads under any of the alternatives, but rather a net loss with the action alternatives.

5.7 Issue 5: What are the effects of timber harvest and related activities on resource damage related to OHV use?

Soil Movement

Table 6: Summary of Effects to OHV-Related Erosion

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Soil Erosion on OHV trails after project completion	< 1 ton/year	< 1 ton/year	< 1 ton/year	Approx. 24 tons/year

Currently, there is OHV use in the project area. A direct effect of OHV use on existing trails is erosion. For example, the soil erosion due to OHV use on one existing skid road is approximately 300 feet in length by 8 feet wide and 1.5 feet deep. Approximately 3,600 cubic feet (133 cubic yards) of soil have eroded off this trail. Over a five-year period this equates to approximately 24 tons per year of erosion. The sediment is being delivered to ditchlines and the headwalls of low gradient draws. The indirect effect of erosion is a degradation of water quality due to sedimentation. Sediment could be potentially entrained during high rain events and enter streams. Upon completion of any of the action alternatives, the OHV trails would be decommissioned and closed to OHV use. The total amount of sedimentation from remaining roadbeds and is expected to drop to <1 ton/year. Under Alternative 4, it would be expected that approximately 24 tons/year of sediment would continue to erode from the hillslopes.

Number of trees per year compromised for their utility to the genetics program

All action alternatives would have a beneficial effect of closure of existing OHV trails within the progeny site. Upon completion of operations, OHV damage to trees within the progeny site would be stopped. Under Alternative 4, no existing roads would be closed. At current rates, approximately 4 trees per year would be compromised by OHV damage.

5.8 Issue 6: How would this project contribute to the Eugene District RMP goal for the Allowable Sale Quantity?

Alternative 3 (Proposed Action) would contribute the most toward reaching the Eugene District RMP goal for ASQ at approximately 1.15 MMBF. Alternative 2 would contribute 0.8 MMBF. Alternative 1 would contribute 0.55 MMBF. Alternative 4 would not contribute toward reaching the Eugene District RMP goal for ASQ.

6.0 CUMULATIVE EFFECTS

This analysis incorporates by reference the analysis of cumulative effects in the Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl (NSO FSEIS) (Chapter 3 & 4, pp. 4-10) and the RMP EIS (Chapter 4). Those documents analyze most cumulative effects of timber harvest and other related management activities. None of the alternatives analyzed here would have cumulative effects on soils, water or air quality beyond those effects analyzed in this or the above documents.

It is likely that some stands on BLM-administered lands in the Long Tom Watershed will be treated with commercial thinnings or regeneration harvests in the future, given that the surrounding sections are within the GFMA and Connectivity LUAs. For Fiscal Year 2004, the following have been analyzed for treatment: 7th Paradise (commercial thinning, 17-7-3); Rock Fish (commercial thinning, 16-7-23); and Get Ready (commercial thinning, 15-6-21, 27). Timber sales previously analyzed but not yet logged include Little AI (thinning, 17-6-7, 8, and 17; sold in 2001) and Bishops Hat (thinning, 17-7-21; sold in 2002).

On private lands in the watershed, more intensive timber management actions, including clearcutting and broadcast burning, are occurring and are likely to continue. Also, it is possible that some forest stands on private land will be converted to non-forest land, for either agricultural or residential use. Private lands provide habitat for deer, elk, and neotropical birds but will primarily alternate between early- to mid-seral stages.

7.0 CONSULTATION AND COORDINATION

7.1 LIST OF PREPARERS

The Proposed Action and alternatives were developed and analyzed by the following interdisciplinary team of BLM specialists.

NAME	TITLE	DISCIPLINE
Karin Baitis	Soil Scientist	Soils
Mark Stephen	Forest Ecologist	Ecology
Gary Cairns	Engineer	Roads/Transportation
Dave Reed	Fuels Specialist	Fuels/Air Quality
Michael Southard	Archaeologist	Cultural Resources
Peter O'Toole	Silviculturist/Timber Planner	Silviculture
Carla Alford	T&E and Wildlife Biologist	Wildlife Habitat
Rob Preece	Biological Technician	Fisheries
Douglas Goldenberg	Botanist	Botanical Resources
Janet Zentner	Forester	Logging Systems
Saundra Miles	Recreation Planner	Visual Resources and Recreation
Gary Hoppe	Landscape Planner	Planning and Environmental Coordination
Steve Steiner	Forest Hydrologist	Hydrology
Rich Kelly	Geneticist	Genetics

7.2 CONSULTATION

This proposed action has been addressed in the FY 2003-04 Habitat Modification Biological Opinion which was issued on September 30, 2002. All required mitigation measures included in this Opinion would be followed to ensure compliance with the Endangered Species Act.

Because of potential disturbance effects, Alternatives 1-3 "May Affect and (are) Likely to Adversely Affect" the northern spotted owl.

Because of the modification of dispersal habitat in an area that would continue to provide an adequate amount of this habitat after harvest, Alternatives 1-3 "May Affect and (are) Not Likely to Adversely Affect" the northern spotted owl.

Unsurveyed potential suitable habitat for the marbled murrelet exists within 0.25 mile of the proposed harvest area and haul route. A daily timing restriction would be enforced during the breeding season. Therefore, disturbance from Alternatives 1-3 "May Affect and (are) Likely to Adversely Affect" the marbled murrelet.

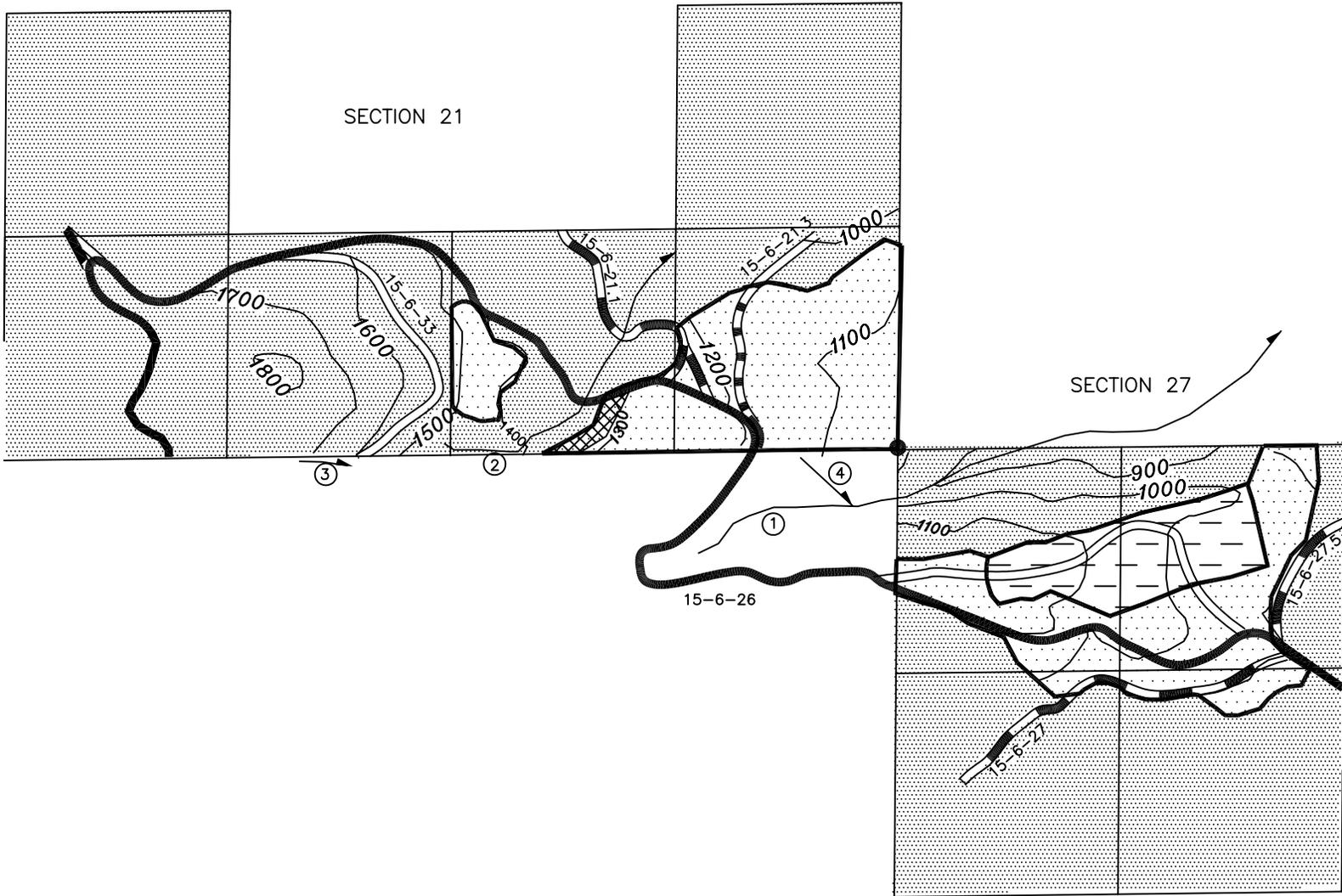
There would be no effect to the bald eagle.

The Bureau of Land Management Siuslaw Resource Area consulted with the Confederated Tribes of Siletz, and the Confederated Tribes of the Grande Ronde. No response was received.

8.0 REFERENCES

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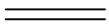
BUREAU OF LAND MANAGEMENT
 PROJECT AREA PLANNING MAP
 DEAD HORSE
 ALTERNATIVE 1
 T. 15 S., R. 6 W., Sections 21 & 27



LEGEND

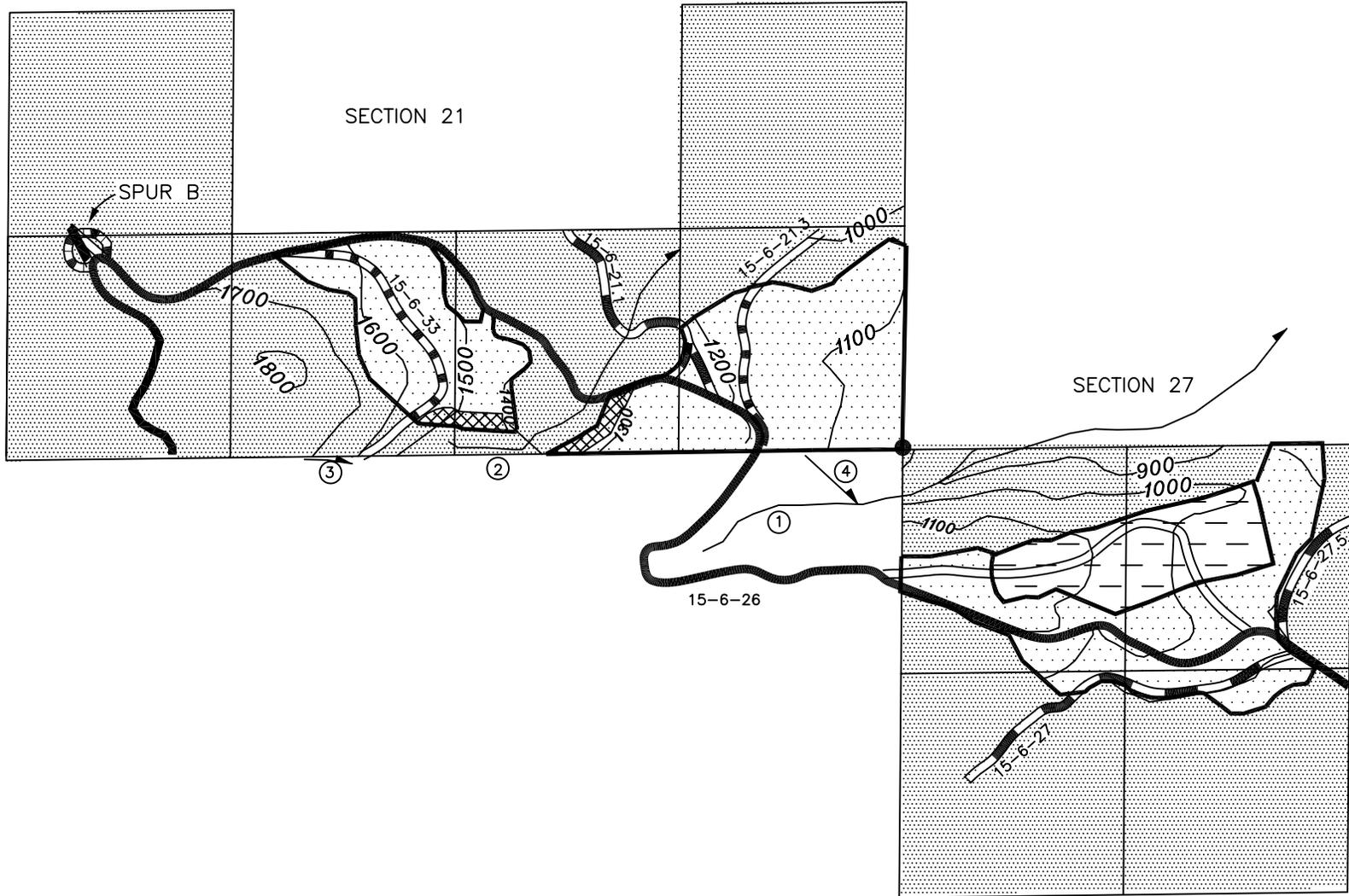
SCALE: 1" = 1,000 FT.

-  PARTIAL HARVEST AREA
-  PARTIAL HARVEST AREA (PROGENY SITE)
-  RESERVE AREA
-  DENSITY MANAGEMENT (RIPARIAN RESERVE)

-  CORNER FOUND
-  PAVED ROAD
-  ROCKED ROAD
-  DIRT ROAD
-  ROAD TO BE RENOVATED
-  STREAM
-  STREAM NUMBER

DATE: 11/3/03

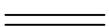
BUREAU OF LAND MANAGEMENT
 PROJECT AREA PLANNING MAP
 DEAD HORSE
 ALTERNATIVE 2
 T. 15 S., R. 6 W., Sections 21 & 27



LEGEND

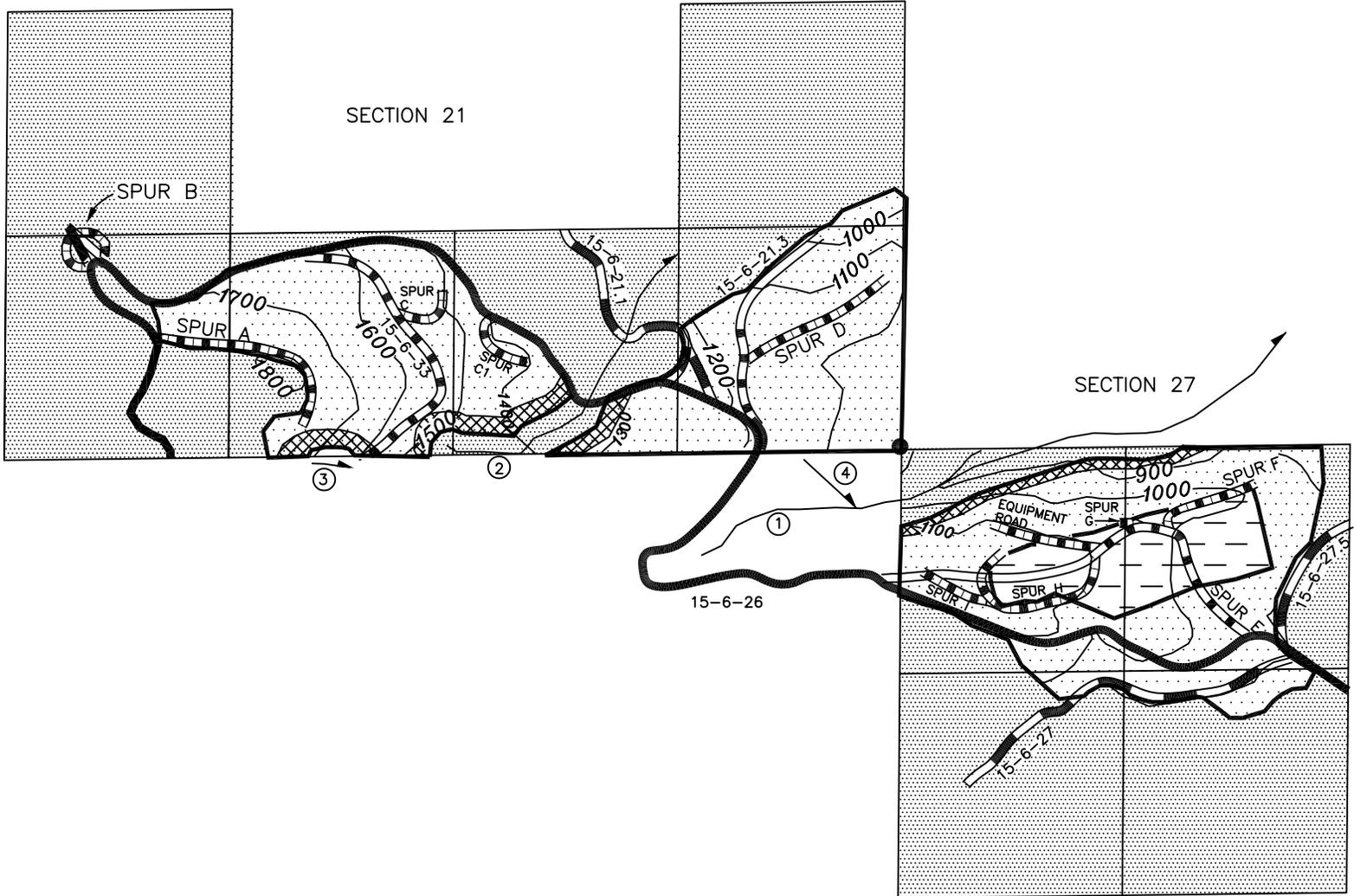
SCALE: 1" = 1,000 FT.

-  PARTIAL HARVEST AREA
-  PARTIAL HARVEST AREA (PROGENY SITE)
-  RESERVE AREA
-  DENSITY MANAGEMENT (RIPARIAN RESERVE)

-  CORNER FOUND
-  PAVED ROAD
-  ROCKED ROAD
-  DIRT ROAD
-  ROAD TO BE RENOVATED
-  STREAM
-  STREAM NUMBER

DATE: 11/3/03

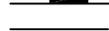
BUREAU OF LAND MANAGEMENT
 PROJECT AREA PLANNING MAP
 DEAD HORSE
 ALTERNATIVE 3 (PROPOSED ACTION)
 T. 15 S., R. 6 W., Sections 21 & 27



LEGEND

SCALE: 1" = 1,000 FT.

-  PARTIAL HARVEST AREA
-  PARTIAL HARVEST AREA (PROGENY SITE)
-  RESERVE AREA
-  DENSITY MANAGEMENT (RIPARIAN RESERVE)

-  CORNER FOUND
-  PAVED ROAD
-  ROCKED ROAD
-  DIRT ROAD
-  ROAD TO BE CONSTRUCTED
-  ROAD TO BE RENOVATED
-  STREAM
-  STREAM NUMBER

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE
Preliminary Finding of No Significant Impact
for
Dead Horse Timber Sale
OR090-EA-03-19**

Determination:

On the basis of the information contained in the Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternatives will not have significant environmental impacts beyond those already addressed in the Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (April 1994), and the Eugene District Record of Decision and Resource Management Plan (June 1995), as amended, and does not, in and of itself, constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

Steven Calish
Field Manager, Siuslaw Resource Area

Date

Environmental Assessment

for

**Dead Horse Timber Sale
OR090-EA-03-19**

June 2004

**United States
Department of the Interior
Bureau of Land Management
Eugene District Office
Siuslaw Resource Area**