



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Eugene District Office

P.O. Box 10226

Eugene, Oregon 97440-2226

e-mail [or090mb@or.blm.gov](mailto:or090mb@or.blm.gov)

IN REPLY REFER TO:

1792A

EA-01-23

Get Lost

Analysis Area

August 21, 2001

Concerned Citizen,

The McKenzie Resource Area of the Eugene District Bureau of Land Management has completed the Environmental Assessment (EA) and Finding of No Significant (FONSI) for the Get Lost Analysis Area located in Sections 17 and 21, T. 20 S., R. 1 W., Will. Mer. This proposal was previously analyzed in the Lost Creek Analysis Area EA No. OR090-98-20 in 1998. A new EA and FONSI have now been prepared.

You have expressed an interest in receiving copies of Environmental Assessments for district projects. Enclosed is a copy of the Environmental Assessment for your review and any comments. Public notice of this proposed action will be published in the Eugene Register Guard on August 22, 2001. The EA will also be available on the internet at <http://www.edo.or.blm.gov/nepa>. The public comment period will end on September 13, 2001. Please submit comments to me at the district office, by mail or by e-mail at [OR090mb@or.blm.gov](mailto:OR090mb@or.blm.gov) by close of business (4:15 p.m.) on or prior to September 13, 2001. If you have any questions concerning this proposal, please feel free to call Don Wilbur at 683-6994.

Comments, including names and street addresses of respondents, will be available for public review at the district office, 2890 Chad Drive, Eugene, Oregon during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Sincerely,

Emily Rice, Field Manager  
McKenzie Resource Area

Enclosure

## GET LOST ANALYSIS AREA

### McKenzie Resource Area BLM Eugene District

## ENVIRONMENTAL ASSESSMENT

### Environmental Assessment No. OR 090-EA-01-23

## 1.0 PURPOSE OF AND NEED FOR ACTION

### 1.1 Introduction

In March 1999 the Lost Creek Analysis Area Environmental Assessment, OR 090-98-20, was released for public review. A Decision Record was signed May 3, 1999 to implement the “Snag Creations” and “Flood Project” portion of the Environmental Assessment. However, **no decision** was reached on the (1) proposed roads to be decommissioned, and (2) proposed timber harvesting. Since that time, protocol surveys have been completed and additional analysis regarding Survey and Manage/Protection Buffer species has been conducted. The USDA Forest Service and USDI Bureau of Land Management (BLM) have developed a Supplemental Environmental Impact Statement (SEIS) “For Amendments to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines,” November 2000. This SEIS proposes to better identify protection needed, clarify language, eliminate inconsistent and redundant direction, and establish a process for responding to new information. This Environmental Assessment is in compliance with the SEIS ROD. This document incorporates the most current information regarding the species found within the revised proposed project areas.

BLM proposes to implement forest management activities in the Lost Creek Watershed Analysis Area. The proposed projects would occur within Matrix Lands as designated in the Record of Decision for the Northwest Forest Plan Environmental Impact Statement (SEIS/ROD) pp. 7. The area of analysis for purposes of this environmental document is approximately 15 miles southeast of Eugene, near the town of Dexter, Oregon. It includes Gosage Creek, and Guiley Creek totaling approximately **1,200** acres in size.

BLM manages **13,768** acres (39 percent) of the Lost Creek Watershed Analysis area, the U.S. Forest Service manages **685** acres, and the remaining lands are private.

## 1.2 Purpose and Need

The proposed harvest activities and road activities are located in: T. 20 S., R. 1 W., Sec. 17; and T. 20 S., R. 1 W. Sec. 21 of the Willamette Meridian.

The purpose of this action is to:

- Fulfill the BLM's mission and policy of providing wood products and jobs in the General Forest Management Area (Matrix Land Use Allocation) for Fiscal Year 2002.
- Manage Matrix lands by commercial thinning to capture mortality, reduce stocking density, and redistribute growth and yield to the remaining stand.
- Construct temporary roads for timber harvest, improve roads needed in the future.

The need for harvest action is established in the Eugene District Record of Decision and Resource Management Plan, which directs that timber be harvested from Matrix lands to provide a sustainable supply of timber. The need for the road improvement action, and road decommissioning actions are established in the Northwest Forest Plan (B-9 thru B-34) that directs that Aquatic Conservation Strategy Objectives be met.

## 1.3 Conformance

This environmental assessment (EA) is tiered to 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 (RMP)*, June 1995 as amended by the Record of Decision (ROD) for Amendments to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, January 2001. Actions described in this EA are in conformance with the Aquatic Conservation Strategy (ACS) Objectives listed on page B-11 of the Northwest Forest Plan (NFP), and in **Appendix D** of this Environmental Assessment. The RMP makes land use allocations and allows for thinning and regeneration harvest in the General Forest Management Land Use Allocation to acquire desired vegetative and structural characteristics needed to attain Aquatic Conservation Strategy objectives. These documents are available for review at the Eugene District Office of the BLM, Eugene, Oregon.

The Analysis File contains additional information used by the interdisciplinary team (IDT) to analyze impacts and alternatives and is hereby incorporated by reference. The above referenced documents are available for review at the Eugene District Office of the BLM, Eugene, Oregon or on the internet at <http://www.or.blm.gov/nwfp.htm>.

## 1.4 Monitoring

Monitoring guidelines are established in the 1995 RMP/ROD, Appendix D, and the 1994 Northwest Forest Plan Standards and Guidelines, pp. E-1 to E-10.

## 1.5 Scoping

The scoping process identified both agency and public concerns relating to the proposed projects, and defined the issues and alternatives that would be examined in detail in the Environmental Assessment. The public was informed of the planned environmental assessment through letters to those on the Resource Area's mailing list, and to those receiving the *Eugene District Planning Update*.

Two public scoping meetings were held: one on January 7, 1998, and the other on March 3, 1998. A field trip was also conducted for interested parties on April 9, 1998. There were 16 comment letters or phone conversations from the public that identified issues or concerns. A copy of the scoping mailing list, and the public identified issues are in the Analysis File.

## 1.6 Issues

Scoping by the interdisciplinary team and public input identified the following **three** issues:

1. What would be the effect of harvesting and road management activities on the aquatic system?
2. What would be the effect of harvesting and road management activities on threatened & endangered fish and other aquatic species?
3. What is the effect of harvesting activities on Northern spotted owl suitable nesting habitat?

## 1.7 Issues Identified But Eliminated From Detailed Analysis

1. An issue about the effect of harvesting and road management on the timing and magnitude of peak flow was eliminated because the proposed action involves a low elevation thinning. Hydrologic modeling was conducted in the Gosage Creek and Guiley Creek drainages to assess whether or not changes to the timing and magnitude of peak flows would be altered by changes in the vegetative canopy. Commercial thinning is not expected to impact peak flows under normal or unusual storm conditions and, therefore, will not be analyzed any further in this document.

2. An issue identified during public scoping meetings concerning the effects of harvesting activities on steep slopes was incorporated into Issue #1 and, thereby, eliminated from detailed analysis as a separate issue. All areas with high risk of instability were withdrawn from timber harvest and road building activities.

## **2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION**

This section describes alternatives identified by the interdisciplinary team, alternatives eliminated from detailed study, and comparison of alternatives.

### **2.1 Alternative I – Proposed Action**

The proposed action is described below. Refer to **Appendix A** for Project Design Features, **Appendix B** for Harvest Area Details, and Road Construction and Closure Summary, and **Appendix C** for maps of proposed harvest areas.

#### **2.1.1 Timber Harvest Activity in the Matrix**

This alternative consists of thinning three harvest areas comprising 333 acres of 50 year old Douglas-fir dominant in naturally regenerated stands. Thinning these stands would release from competition dominant and co-dominant trees, which would encourage growth on the residual trees. Logging would be completed by aerial systems, ground-based tractors, and cable systems. All perennial and intermittent nonfish-bearing streams retain the interim Riparian Reserve width of one site potential tree height (180 feet slope distance) on each side of the stream channels. All fish-bearing streams retain the interim Riparian Reserve width of two site potential tree heights (360 feet slope distance) on each side of the stream channels. Intermittent streams and wetlands greater than 1 acre retain the interim Riparian Reserve width of one site potential tree height (180 feet slope distance) on each side of the stream channel. Wetlands of less than one acre in size would be buffered to the extent of the riparian vegetation.

Ground based logging systems would be used on 94 acres of Harvest Area 3 or 28 percent of all proposed harvest areas. Operational restrictions and mitigation measures would be applied on all acres operated with ground-based machines to help achieve the goal of insignificant growth loss effects from compaction (2% or less of any treated harvest area compacted after amelioration practices) as per the Eugene District RMP/ROD pp. 37 (See **Appendix A** for Design Features that address various log yarding systems). Helicopter logging would take place on 97 acres in Harvest Areas 1 and 2 or 29 percent of all proposed harvest areas. Cable logging would be used on 142 acres on Harvest Areas 1, 2, and 3 or 43 percent of all proposed harvest areas (See **Appendix B** for Harvest Area Details, Road Construction, and Closure Summary).

The table below summarizes the type of harvest, affected Land Use Allocation, and affected acres for the Proposed Action.

TYPE HARVEST	LAND USE ALLOCATION	ACRES	Thinning Harvest Acres (Helio)	Thinning Harvest Acres (Cable)	Thinning Harvest Acres (Grnd)	Volume (MBF)
Thinning	Matrix	333	97	142	94	5
	<b>TOTAL</b>	333			<b>TOTAL</b>	5

Helio - Helicopter Yarding  
 MBF - Thousand Board Feet  
 Grnd - Ground based Yarding

### 2.1.2 Roads

An estimated 1.06 miles of temporary native surface road would be constructed and approximately 0.60 mile of existing native surface road would be renovated. All new road construction would be on ridge tops or upper slopes so no stream crossings would be necessary. All new construction and renovation would be blocked and water barred upon completion of harvest activities. An additional 0.19 mile of native surface Road No. 20-1-21.5 in the riparian reserve would be decommissioned including removal of two old log culverts (see **Appendix A** for Best Management Practices and Design Features for road construction, and decommissioning).

Spurs 1A, 1B, 1C, 2A, 3A, 3B, 3C, and 3D would require 1.06 miles of temporary road construction that would be decommissioned upon completion of harvest activities.

In addition to decommissioning temporary roads, an additional 0.79 mile of existing road would be decommissioned (**0.46 mile** of Rd. No. 20-1-21.5, **0.14 mile** of Rd. No. Spur 3E, and **0.19 mile** of Rd. No. 20-1-21.5 in the riparian reserve).

A portion of Road No. 20-1-21.5 (0.46 mile) and spur 3E (0.14 mile) would require 0.60 mile of improvement. This would consist of widening, shaping, grading, and establishing drainage.

Harvest Area	Native Surface Road Constr. (Miles)	Native Surface Road Decom. (Miles)	Existing Road improve. (Miles)	Existing Road Decommissioning (Miles)
1	0.30	0.30	0.0	0
2	0.12	0.12	0.0	0
3	0.64	0.64	0.60	0.79

**Decom.** – Decommission: Roads to be blocked and treated as necessary to restore infiltration and hasten vegetative recovery after completion of timber sale contract. Roads would be closed and not require future maintenance.

## **2.2 Alternative II – No Action**

### **2.2.1 Timber Harvest Activity in the Matrix**

No timber harvest would occur within the Get Lost Analysis Area at this time. Meeting the District's decadal Potential Sale Quantity volume commitment would have to be accomplished from other areas. There would be no increase in the productivity of Matrix lands by thinning overstocked stands.

### **2.2.2 Roads**

Under this alternative, no temporary road construction or improvements on the existing road system would occur.

## **2.3 Alternative III**

Same as the Proposed Action except: No helicopter logging, construct approximately 2.07 miles of new temporary dirt road, and renovate approximately 0.6 mile of existing dirt road. Three new stream crossings would be required. Upon completion of harvest activities the culverts would be removed and the roads constructed or renovated would be blocked and water barred.

## **2.4 Alternatives Eliminated From Detailed Study**

The original proposal encompassed the entire Lost Creek Watershed as the analysis area, with the proposed action involving approximately 800 acres of proposed harvest with two action alternatives. However, over 230 acres of proposed harvest areas are deferred because many Survey & Manage species were found and protected with required buffers that often overlap or block access to proposed harvest areas. Another 430 acres are deferred until surveys can be conducted for Survey & Manage species.

## 2.5 Comparison of Alternatives

ELEMENTS	ALTERNATIVE I PROPOSED ACTION	ALTERNATIVE II NO ACTION	ALTERNATIVE III
Thinning Harvest Acres	333	None	333
<b>TOTAL ACRES HARVESTED</b>	333	None	333
Miles of Temporary Road Construction	1.06	None	2.07
Net Miles of Road Improvement	0.6	None	0.6
Existing Road Decommissioning	0.79	None	0.79
Acres Logged by ground based equipment	94	None	94
Acres Logged by Cable	142	None	239
Acres Logged by Helicopter	97	None	0

### **3.0 AFFECTED ENVIRONMENTS**

This section describes key components of the existing environment. The plants and animals do not differ significantly from those discussed in Chapter 3 RMP, 1994.

#### **3.1 Vegetation**

Douglas-fir and western hemlock are the dominant forest trees in the project area. The elevations for the proposed Get Lost harvest areas are 1550 feet to 2350 feet. All of the areas selected for this review are second growth conifer stands that are approximately 55 years old with some remnant older trees up to 120 years. These mid-aged stands have a forest structure classified as “stem exclusion.” Stem exclusion is characterized by high numbers of trees per acre with little or no understory trees or vegetation. Early logging usually left large down logs on the site because they were considered non-merchantable due to utilization standards at the time. Currently, these old logs are functioning as advanced decay structure.

Associated conifer species are western red cedar, incense cedar, grand fir and Pacific yew. The common hardwoods are red alder, bigleaf maple, black cottonwood, Pacific dogwood, Pacific madrone, chinquapin, bitter cherry, and willow. Shrubs in the region may include associations of vine maple, rhododendron, California hazel, ocean spray, red huckleberry, and poison oak. Frequently occurring vascular plants include salal, swordfern, vanilla leaf, Oregon grape, whipple vine, oxalis, and redwood violet.

Stands proposed for treatment have all had some level of harvest in the past. That level of harvest may have been clear cutting, selective cutting, or salvage harvesting.

Natural regeneration, from seed trees left on-site or nearby stands, initiated new stands with uneven or patchy stocking, and a range of tree birth dates. Subsequent management practices such as pre-commercial and commercial thinning have attempted to develop uniform stands to full stocking levels.

The Riparian Reserve areas normally have an overstory of conifers with Douglas-fir as the principal species. Some areas along the creeks may have an overstory of red alder. This is usually a sign of past disturbance and relatively early stand development. These alder stands lack the conifers that will provide a future canopy of high shade, nutrient rich detritus, and large woody material for stream habitat structure.

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

**Northern Bald Eagle (Threatened)** – Bald eagles are not expected to be found within the project area because it is not located close enough to a major water forage resource. This species will not be analyzed in this document.

**Northern Spotted Owl (Threatened)** – The proposed harvest areas are defined as dispersal habitat, with some parts of these stands also suitable for foraging or roosting. These stands are not judged to be suitable for nesting due to the lack of key features such as: larger remnant trees with suitable nesting cavities, moderate to high amounts of down woody debris and a complex multi-tiered stand canopy. Some larger remnant trees do exist, but not in the amount or orientation required for nesting. The harvest areas are probably used as stop-over points as juvenile or adult owls travel across the landscape (i.e., dispersal habitat) and move between larger blocks of suitable habitat or between nest sites.

In Section 17, approximately 17 acres next Harvest Area 2 and 82 acres within 0.25 mile of Harvest Area 2 (in the southwest portion of section 21) are defined as suitable nesting habitat. In section 21, two patches (10 and 55 acres) of suitable nesting habitat exist adjacent to Harvest Area 3.

**Spring Chinook Salmon (Threatened)** – The Lost Creek drainage is considered critical habitat for spring chinook salmon although surveys suggest that the population is rather small. Historically, spring chinook likely inhabited the lower 10 miles of the main stem of Lost Creek as well as the lower gradient reaches of tributary streams such as Anthony Creek. Current spring chinook distribution is likely limited by habitat conditions such as warm water temperatures and reduced flows. Low flows at the mouth of Lost Creek present a barrier during most years for fish migrating upstream from the confluence of the main stem Middle Fork Willamette River.

### 3.3 Survey and Manage

The ROD for the *Supplemental Environmental Impact Statement Amending the Survey and Manage, Protection Buffer, and Other Mitigating Measures Standards and Guidelines* was signed January 2001 and management of Survey and Manage species conforms to this and associated documents.

**3.3.1 Red Tree Vole (*Arborimus longicaudus*)** – The proposed harvest areas are potential habitat for red tree voles. Surveys were conducted in 2000 consistent with the current survey protocol (version 2.0). All potential nest trees were climbed and no red tree voles were detected.

**3.3.2 Mollusks (*Megomphix hemphilli*)** – The project area is habitat for the Survey and Manage mollusk *Megomphix hemphilli* (Oregon megomphix). Surveys were conducted in 1998 and 1999 consistent with the current survey protocol (versions 1.0 and 2.0). A total of 5 *Megomphix hemphilli* sites were located in or near Unit Nos. 1 and 2, and 6 sites in or near Harvest Area 3. Sites are defined as locations with a detection of at least one individual and will be managed by delineation of Habitat Areas,  $\geq 0.25$  acres in size, consistent with direction in the current management recommendations for the species (version 2.0). See Appendix A - Design Features for Survey and Manage Species for details.

**3.3.3 Fungi, lichens, Bryophytes and Vascular Plants** – The project area is habitat for a number of Survey and Manage fungi, lichens, bryophytes, and vascular plants. See the project file for the list of species included as part of the surveys. Surveys were conducted in 1998 and 1999 consistent with the current survey protocols.

Category “A” and “C” species require surveys be done to protocols prior to habitat disturbing activities. All current Category “A” and “C” species were surveyed for and none were found. A total species list was documented during the surveys which included species added or dropped from the Northwest Forest Plan 1994 Survey and Manage list. Vascular plant surveys were done as part of Special Status Plant Surveys. No Survey and Manage vascular plants were found.

### 3.4 Soils

The Lost Creek Watershed is within an area formed millions of years ago from the volcanism of the Cascade Range to the east. Large quantities of water-laid tuff were deposited, interbedded with flows of breccia, andesite, and basalt. Differential erosion of these varied materials has produced many of the topographic features.

Prevalent in the Lost Creek area are the softer tuffaceous deposits that were easily weathered, producing gentle slopes and clay loam soils with shallow A horizons that are easily compacted, clay-rich, and erode with concentrated surface water flows.

The occurrence and pertinent features of the soils contained are briefly described below:

**Harvest Area 1 – Honeygrove** soils are deep (40 to 60 inches), well drained and productive. They are the dominant soil within Harvest Area 1 (greater than 2/3 of the area) occurring on stable ridge tops where slopes are gentle (3 to 25%). The surface layer is silty clay loam; the subsoil is clay. Rock content within the soil profile is usually less than 20 percent and low amounts of surface rock are present. Permeability is moderately slow due to heavy textured subsoils and the absence of coarse fragments. Consequently these soils are particularly susceptible to compaction.

**Peavine** soils occur in Harvest Area 1 on gentle to moderate lower slopes, ranging from 3 to 50 percent. Peavine is moderately deep (30 to 40 inches), well drained and productive. The surface layer is a silty clay loam and the subsoil is silty clay. Slopes range from 3 to 60 percent. Rock content in the soil profile is less than 30 percent. Surface rock content is usually light. Permeability is moderately slow. Like Honeygrove, Peavine soils are particularly susceptible to compaction because of the slow internal permeability.

**Harvest Area 2 – Peavine** silty clay loam (described above) is the most widely occurring soil in Harvest Area 2. It occurs along the main ridge and northeast facing sideslopes. Slopes range from 3 to 60 percent. Surface rock content is heavier than typical for Peavine along the main ridge.

**Honeygrove** silty clay loam is a minor component in Harvest Area 2. It occurs on the broad ridgetop along the west boundary.

**Klickitat** soils, from 50 to 75 percent, formed on the steepest slopes of the Harvest Area. They are moderately deep (25 to 40 inches), well drained, and moderately productive. The surface layer is a stony loam, the subsoil is a very cobbly loam. Klickitat is skeletal with 35 to 60 percent coarse fragments within the soil profile. Moderate to high amounts of surface rock are also present. Permeability is moderate.

**Harvest Area 3 – Peavine** (described above) is the dominant soil in Harvest Area 3, occurring over about 3/4 of the area. **McDuff** soils formed on the gentle benches along the northwest side of Area 3. They are moderately deep (ave. 37 inches), well-drained, and moderately productive. The surface layer is a clay loam, the subsoil is silty clay or clay. Rock content in the soil profile is less than 20 percent. Surface rock content is usually light, but here the ridges have moderate to high amounts. Slopes range from 3 to 25 percent with permeability moderately slow.

**3.4.1 Fragile Soils** – All wetlands/hydric soils within the analysis area were withdrawn from all activities and buffered according to standards set forth in the ROD, pp. B-16 and 17. A greater than 1 acre wetland (**Minniece** series) was identified in the northwest corner of Harvest Area 1. Multiple small wetlands were identified within Harvest Area 3, all contained within Riparian Reserves.

Two small areas (approximately 2 acres each) along the main ridge within Harvest Area 2 were reserved from harvest due to shallow, low productivity skeletal soils in association with outcrops (**Kilchis** series) and high amounts of surface rock (atypical **Peavine** series).

Approximately 25 acres within the analysis area were identified with moderate to high potential for mass wasting and reserved from harvest and road building due to slope stability concerns. Slumps and abruptly steep streams and slopes characterize this area on the southeast side of Harvest Area 2 (**Klickitat** soils).

### **3.5 Hydrology and Water Quality**

The Lost Creek 5<sup>th</sup> Field Watershed is approximately 55 square miles in size. Lost Creek is a 6th order stream, flowing at predominantly a low gradient (<3 percent). Lost Creek and its tributaries discharge to the Middle Fork of the Willamette River about 3 miles downstream from Dexter Reservoir. Natural stream flow within the watershed reflects the seasonal precipitation pattern, with low flows occurring in the summer and highest flows occurring in the winter. Stream flow response to precipitation in forested watersheds involves a variety of processes affected by climatological conditions, topography, soils, vegetation, and land uses. Annual precipitation within the watershed ranges from 48 to 66 inches, falling mostly as rain. The proposed harvest areas are adjacent to Gosage Creek and Guiley Creek, both tributaries of Lost Creek in the southwest area of the watershed.

Identified beneficial uses of water within the watershed are: water supply, irrigation and livestock watering, anadromous fish and resident fish rearing, spawning and passage, other aquatic life, wildlife and hunting, fishing, water contact recreation, and aesthetic quality. According to records in the Lost Creek Watershed Analysis (March 1997), there are four water rights for domestic water supply, four permits for industrial water supply, 51 permits for irrigation, four permits for agriculture and livestock watering, and two permits for fish and wildlife in the watershed.

*Water Temperature:* Based on data obtained by BLM in 1998 - 2000, Gosage and Guiley Creeks did not exceed Department of Environmental Quality (DEQ) standards.

*Sediment/Turbidity:* Although it is not listed on the Department of Environmental Quality Water Quality Limited List (303(d)), Lost Creek is considered a 'water of concern' regarding sedimentation. No data regarding sedimentation/turbidity has been collected on streams in the Gosage Creek or Guiley Creek basins or along Lost Creek.

*Chemical Contamination/Nutrients:* No water sampling information for chemicals was available for Lost Creek or its tributaries. There are no known chemical contamination or nutrient problems in the Gosage Creek or Guiley Creek basins. Rural residential development and commercial forestry practices in this watershed may increase the likelihood of pollutants entering the surface waters in the lower reaches of the Lost Creek watershed.

### **3.6 Fisheries**

The Lost Creek Watershed provides habitat for both resident and anadromous fish. Resident fish include cutthroat trout, rainbow trout, speckled dace, western brook lamprey, and various sculpin species. Oregon Chub (Endangered) are not found in the Lost Creek Watershed. The closest known occupied habitat is a slough of the main stem Middle Fork Willamette River east of Lost Creek. Cutthroat trout and sculpins are widely distributed throughout the basin in the main stem of Lost Creek as well as throughout many of the tributary streams. Rainbow trout, dace, and lamprey are primarily located in the lower reaches of main stem Lost Creek. Streams adjacent to the proposed project area are Gosage Creek and Guiley Creek. Neither of these streams is fish bearing adjacent to the project area although cutthroat trout and sculpin are present downstream.

Anadromous fish in the Lost Creek watershed include spring chinook salmon and steelhead trout. The Lost Creek drainage is considered critical habitat for spring chinook salmon (threatened) although surveys suggest that the population is small. Historically, spring chinook likely inhabited the lower 10 miles of the main stem of Lost Creek as well as the lower gradient reaches of larger tributary streams such as Anthony Creek. Current spring chinook distribution is limited by habitat conditions such as warm water temperatures and reduced flows. Low flows at the mouth of Lost Creek present a barrier during most years for fish that migrate upstream from the confluence of the main stem Middle Fork Willamette River. Steelhead use most of Lost Creek and the lower reaches of Wagner, Anthony, Middle, Carr, Gosage, and Guiley creeks, but are not native to the Lower Middle Fork Willamette Basin Watershed.

Resident and anadromous fish habitat in the main stem of Lost Creek is limited by somewhat

elevated (over 64 degrees a few days per summer) water temperature, seasonal low water levels, and lack of habitat complexity. Reduced habitat complexity in both the main stem and tributaries of Lost Creek is due to the lack of large woody material in and adjacent to the stream channel due to past management practices. Harvesting and development of the flood plain and riparian areas in the lower reaches of Lost Creek has contributed to the elevated water temperatures and low summer flow conditions.

## 4.0 ENVIRONMENTAL CONSEQUENCES

This incorporates the analysis of cumulative effects in the USDA, Forest Service and the USDI, Bureau of Land Management *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Related Species Within the Range of the Northern Spotted Owl*, February 1994, (Chapters 3 & 4) and in the Eugene District Proposed RMP/EIS, November, 1994 (Chapter 4). These documents analyze most cumulative effects of timber harvest and other related management activities. The following analysis has a cumulative effects section that supplements those analyzed in the above documents, and provides site-specific information and analysis particular to the alternatives considered here.

### 4.1 Alternative 1 - Proposed Action

#### 4.1.1 Issue #1 - *What would be the effect of harvesting and road management activities on the aquatic system?*

Direct effects include the temporary addition of sediment to two streams during the removal of fill material adjacent to harvest area 3. The impacts to streams at these locations are expected to be short-term, as the first fall rains following the activity would move the sediment downstream. In the long-term, stream-side conditions would be improved and the potential for road related sedimentation would be reduced since the un-maintained road would be closed and left in an erosion resistant condition (this action meets ACS Objectives 4, 5). By restricting equipment operation in stream channels and conducting the work during low flow periods (July 1 to October 15) prior to fall rains, the amount of sediment delivered to streams would be minimized. Minor excavation to restore the natural stream channel configurations at these two sites and tilling the road where subgrade conditions allow would minimize future sediment recruitment from the road prism (this action meets ACS Objectives 3, 5). Restoration of the stream banks and channel bottoms at those locations would eliminate existing artificial barriers to sediment transport as well as reduce the risk of future road/culvert failures in this area. No changes to stream water temperatures are expected from harvesting or road work.

Indirect effects include impacts to the channel farther downstream as a result of movement of small amounts of sediment generated during fill removal at the two stream crossings. Again, this impact is expected to be short-term as the fall and winter storms would disperse the sediment through the system downstream. Sediment and bedload materials stored in the channel above the undersized culverts may mobilize after the stream crossings are removed. No impacts to the aquatic system are anticipated from timber harvest activities because no stream-side vegetation would be disturbed.

No direct or indirect effects are anticipated from new temporary road construction because stream channels would not be crossed, and none of the proposed spur roads are located within the Riparian Reserves. No sedimentation would be expected from harvest activities since no thinning would take place within the Riparian Reserves, or on any potentially unstable slopes. Stream temperatures would not be affected.

**Cumulative Effects** – The Proposed Action includes decommissioning several temporary roads following harvest activities, and stream channel restoration along a road no longer needed. Implementation of this proposal, combined with other ongoing and planned road renovation and restoration work in the Lost Creek watershed (both on BLM and private lands) would result in a reduction of road related sediment delivery to streams in the future.

**4.1.2 Issue #2 - *What would be the effect of harvesting and road management activities on T&E fish and other aquatic species?***

**Direct and Indirect Effects** – The proposed harvest and road management activities are not adjacent to fish bearing streams. Spring chinook, the only Threatened & Endangered (T&E) species located in this watershed, are approximately 8 miles downstream from the proposed action in the lower reaches of Lost Creek. The proposed project is about 1.5 miles from currently unoccupied spring chinook critical habitat. Resident fish are located at least 400 feet from proposed activities. Water temperature and in-stream habitat would not be impacted. Effects to fish and other aquatic life would be limited to sediment input. The timing and amounts of sediment produced as a result of this project would result in short-term minimal impacts to fish and other aquatic life and would be beneficial in the long-term as existing barriers to substrate migration would be removed and future risks of road failures would be reduced. Please see the previous issue for further discussion of sediment input.

**Cumulative Effects** – As discussed in the previous issue, a reduction of future road related sediment would occur as a result of the proposed actions as well as other ongoing projects in this area. This long-term decrease in sedimentation would benefit resident and anadromous fish as well as other aquatic species.

**4.1.3 Issue #3 - *What Is the Effect of Harvesting Activities on Northern spotted owl Suitable Nesting Habitat?***

**Direct and Indirect Effects** – The direct effect of the proposed harvest actions would degrade roughly 333 acres of dispersal habitat, some of which is used for foraging.

No suitable nesting habitat would be removed and none would be disturbed by noise within the critical nesting season (March 1 - July 15).

The indirect effect of the thinning treatments would quicken the development of suitable nesting habitat for spotted owls by enhancing or accelerating the development of tree growth and late seral type characteristics. Habitat within Riparian Reserves would continue to be available for use by owls, with suitability for nesting expected in as little as 30 years (dependent on the characteristics and development of the stand).

**Cumulative Effects** – Cumulative effects would be negligible and the harvest areas would degrade, but not remove, a relatively small amount of dispersal habitat that would recover to pre-harvest conditions for dispersal in 10-20 years and for foraging in 15-25 years.

Very little was known about the number of spotted owl sites before the late 1980s, with the number of sites generally increasing into the late 1990s, mostly due to information gathered from expanded survey efforts. The management of BLM and Forest Service lands within the range of the spotted owl is detailed in the Northwest Forest Plan (NFP) and is designed to maintain species viability and provide for the recovery of the species across its range. All current and foreseeable future actions by the BLM conform to the NFP and the District RMP. The NFP directs that Matrix lands will be managed to provide some dispersal habitat between LSRs with the assumption that, as LSR habitat improves, the amount and importance of Matrix land habitat declines.

Current and future projects across the checkerboard pattern of BLM and private lands within the watershed could affect spotted owls or their habitat at this scale, but is not expected to negatively affect the recovery of the species across its range. Information on the consultation results can be found in section 4.4.4 titled “Threatened and Endangered Species.”

## 4.2 Alternative II - No Action

### 4.2.1 Issue #1 - *What would be the effect of harvesting and road management activities on the aquatic system?*

**Direct and Indirect Effects** – Under this alternative, many of the Aquatic Conservation Strategy Objectives (#2, #3, #4, #5) may not be met because taking no action would not necessarily maintain the physical integrity of the aquatic system, water quality, or the sediment regime in these drainages. Road-related sedimentation to streams may escalate due to lack of road maintenance especially at stream crossings. Existing stream crossings on Road No. 20-1-21.5 adjacent to Harvest Area No. 3 would not be removed and could result in mass movement and short-term water quality degradation.

**Cumulative Effects** – Opportunities to restore the two stream channels and decommission Road No. 20-1-21.5 would be postponed to a later date. Detrimental effects from possible culvert failures and road introductions of sediment could occur due to lack of maintenance, and it is unknown what the cumulative ramifications may be.

### 4.2.2 Issue #2 - *What would be the effect of harvesting and road management activities on T&E fish and other aquatic species?*

**Direct and Indirect Effects** – As stated in the previous issue, this alternative would not maintain the physical integrity of the aquatic system due to increases in road-related sediment caused by not removing stream crossings that have a risk for road failure. This potential for sediment input could negatively impact fish and other aquatic species.

**Cumulative Effects** – Potential sediment input could negatively affect fish and other aquatic species.

**4.2.3 Issue #3 - *What Is the Effect of Harvesting Activities on Northern spotted owl Suitable Nesting Habitat?***

**Direct and Indirect Effects** – Dispersal or suitable nesting habitats would not be modified or disturbed, and there would be no direct or indirect effects to spotted owls or their habitat, due to actions on federal lands. The habitat within the proposed harvest areas would continue to provide dispersal and foraging without interruption.

**Cumulative Effects** – Cumulative effects would be the same as the proposed actions.

**4.3 Alternative III Road Construction Alternative**

**4.3.1 Issue #1 - *What would be the effect of harvesting and road management activities on the aquatic system?***

**Direct and Indirect Effects** – Compared to Alternative I, two additional stream crossings would be impacted under this alternative due to new road construction. Direct effects include the addition of sediment to streams during the construction of these two temporary stream crossings adjacent to Harvest Areas 1 and 2. These crossings would be sized to maintain the natural sediment regime and reduce the potential for plugging by debris (meets ACS Objective 5), and would be removed following harvest activities. Excavation to restore the stream channels after harvest would result in short-term impacts to the channels and water quality. Other direct and indirect effects as identified under Alternative I may also occur under this alternative with the restoration of two existing stream crossings.

**Cumulative Effects** – Same as Alternative I.

**4.3.2 Issue #2 – *What would be the effect of harvesting and road management activities on T&E fish and other aquatic species?***

**Direct and Indirect Effects** – Increased road construction, which would occur as a result of this alternative (compared to Alternative I), could impact fish and other aquatic life due to sediment related concerns discussed in Issue 1.

**Cumulative Effects** – Same as Alternative I.

**4.3.3 Issue #3 - *What Is the Effect of Harvesting Activities on Northern spotted owl Suitable Nesting Habitat?***

**Direct, Indirect, and Cumulative Effects** – The suitable nesting habitat next to Harvest Area No. 2 would be impacted by the proposed Road Spur No. 2 and potential yarding corridors, resulting in the removal of up to 17 acres of suitable nesting habitat. Other direct, indirect, and cumulative effects would be the same as the proposed action alternative. Information on the consultation results can be found in section 4.4.4 titled “Threatened and Endangered Species.”

## 4.4 Other Environmental Effects – Common To All Action Alternatives

- 4.4.1 Unaffected Resources** – The following either are not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concerns, prime or unique farm lands, flood plains, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, Minority populations, and low-income populations.
- 4.4.2 Wetlands** – Since no ground disturbing activities would occur in meadows and wetlands, the hydrology in these sensitive areas would be maintained in the current condition, and the intent of ACS Objective 7 would be met.
- 4.4.3 Recreation** – The Action Alternative would not have any adverse effects on the dispersed recreational opportunities existing in the project area. Proposed decommissioning of temporary roads would not affect future vehicle access opportunities into the Lost Creek Watershed, because these areas are currently behind private locked gates. The proposed Harvest Areas are subject to the Visual Resource Management (VRM) Class IV management prescription under the 1995 Eugene District RMP. There are no Wilderness Areas, Roadless Areas, or Wild and Scenic Rivers in, or adjacent to, the analysis area.

### 4.4.4 Threatened and Endangered Species

**Northern Spotted Owls & Bald Eagles(Threatened)** – The action alternatives were consulted on programmatically in the *Willamette Province FY 1998 Habitat Modification Biological Assessment for Effects to Northern Spotted Owls and Northern Bald Eagles* and conforms to the guidance in this document, including updates to current standards and application of Reasonable and Prudent Measures to minimize disturbance to spotted owl pairs and their progeny. Based on this document, Alternative I may affect but is not likely to adversely affect the northern spotted owl. Alternative III may affect and is likely to adversely affect the northern spotted owl.

**Spring Chinook Salmon (Threatened)** – The Lost Creek Watershed is designated Critical Habitat for spring chinook. Informal consultation with NMFS on the original Lost Creek EA (May, 1999) was completed with a letter of concurrence ( “May Affect, Not Likely to Adversely Affect”) on August 4, 1999.

The proposed project covers Harvest Area 7 (new Harvest Areas 1 and 2) and Harvest Area 8 (new Harvest Area 3) as described in the original Lost Creek EA. Changes between the original proposal consulted on in 1999 would result in less or equal impacts on spring chinook salmon than the original Biological Assessment and Letter of Concurrence.

The following modifications have been made to the proposal consulted on in the original spring chinook biological assessment (May, 1999):

- Approximately 41 fewer upland acres would be thinned.
- No Riparian Reserve thinning would occur.
- Approximately 0.15 fewer miles of temporary road would be constructed.
- Approximately 0.35 fewer miles of road improvement would occur.
- Approximately 0.16 fewer miles of existing road would be decommissioned

**Bull Trout (Threatened)** – Bull trout are not found in the Lower Middle Fork Willamette River Watershed, which includes the Lost Creek Drainage.

**Oregon Chub (Endangered)** – Oregon Chub are not found in the Lost Creek Watershed. The Oregon Department of Fish and Wildlife does not consider the Lost Creek Watershed suitable habitat for Oregon Chub (Paul Scheerer, personal communication, 1996). The closest known occupied habitat is a slough of the Mainstem Middle Fork Willamette River east of Lost Creek. The USFWS has concurred with the BLM determination of a “No Effect” to Oregon chub for this action.

**Plants (Threatened or Endangered)** – Special Status plant surveys have been conducted on all proposed harvest areas. No threatened or endangered plants were found.

**4.4.5 Cultural Resources** – No Cultural sites have been identified. The analysis file contains the cultural report.

**4.4.6 American Indian Rights** – No impacts on American Indian social, economic, or subsistence rights are anticipated. No impacts are anticipated on the American Indian Religious Freedom Act. Management action information was sent to the Confederated Tribes of the Grand Ronde, and Confederated Tribes of the Siletz.

**4.4.7 Environmental Justice** – To comply with Executive Order 12898 of February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the Bureau of Land Management, Eugene District, will ensure that the public, including minority communities and low income communities, have adequate access to public information relating to human health or environmental planning, regulations, and enforcement as required by law.

The District has not identified any environmental effects, including human health, economic and social effects of Federal actions, including effects on minority populations, low income populations, and Native American tribes, in this analysis.

**4.4.8 Invasive and Non-Native Species** – No noxious weeds occur along any of the roads adjacent to any of the harvest areas or in the project area.

**4.4.9 Solid Or Hazardous Materials** – There are no hazardous materials issues in the proposed project area.

During operations described in the proposal, spill containment kits would be available at the site in the event of any diesel, hydraulic fluid, or other petroleum product release into soil and/or water. Notification, removal, transport, and disposal would be accomplished in accordance with U.S. Environmental Protection Agency and Oregon Department of Environmental Quality Laws, and regulations.

## 5.0 LIST OF AGENCIES AND PERSONS CONSULTED

This Environmental Analysis is being mailed to the following members of the public or organizations that have requested to be on the mailing list:

John Bianco	Harold Schroeder
Oregon DEQ	Sierra Club - Many Rivers Group
Jim Goodpasture	Swanson Superior Forest Products Inc.
Pam Hewitt	Craig Tupper
Charles & Reida Kimmel	Governor's Forest Planning Team
Lane County Land Management	Jan Wroncy
Carol Logan, Kalapooya Sacred Circle Alliance	Ann Mathews
Oregon Dept of Fish & Wildlife	American Lands Alliance
Oregon Dept of Forestry	Kris and John Ward
Oregon Natural Resources Council	Sondra Zemansky
The Pacific Rivers Council	Robert P Davison
John Poynter	Tom Stave, U of O Library
Leroy Pruitt	John Muir Project
Roseburg Forest Products Co.	James Johnston
Peter Saraceno	Scott Lucas

A letter was sent to the adjacent landowners on December 22, 1997 that identified specific areas being considered, project issues, and time lines for providing input. A summary was sent to those receiving the "Eugene BLM Planning and Project Focus," Winter 1997 (approximately 250 mailings – a complete listing is available at the Eugene District Office). Another summary describing how this environmental analysis has changed was sent out in July 2000 announcing that the EA has been released and open for comments.

Maps of the Proposed Action were sent to the Confederated Tribes of the Grand Ronde and Confederated Tribes of Siletz in December 1997. No comments were received.

## 6.0 LIST OF PREPARERS

### THE INTERDISCIPLINARY TEAM

NAME	TITLE	RESOURCE/ DISCIPLINE
Rudy Wiedenbeck	Soil Scientist	Soils
Roger Wilson	Forester	Timber
Mike Blow	Wildlife Biologist	Wildlife
Michael Southard	Archaeologist	Cultural Resources
Jill Williams	Forest Ecologist	Silviculture
Cheshire Mayrsohn	Botanist	Botany
Glen Gard	Natural Resource Protection Specialist	Hazardous Materials Coordinator
Nikki Swanson	Fisheries Biologist	Fisheries
Mike Sabin	Engineering	Roads/Transportation
Kris Ward	Hydrologist	Water Resources
Don Wilbur	Natural Resource Protection Specialist	Team Leader/EA Writer

## DESIGN FEATURES FOR ACTION ALTERNATIVES AND MONITORING

Design features include timber sale design, contract stipulations, and prescribed activities to be accomplished by the BLM or timber sale purchaser. The objective of these design features is to maintain or enhance the quality, quantity, and productivity of the resources in the analysis area.

1. Log lengths would be limited to 40 feet in order to protect residual trees, snags, and down logs during yarding.
2. A moderate to heavy low thinning technique will be used to regulate stand density. When thinning from below, trees are removed from the lower crown classes. (suppressed, intermediate, and some co-dominants). Co-dominants will be harvested when they are competing with a better formed, healthier, tree. The larger dominant/older trees will be reserved as residual trees. Tree vigor and crown position are the main factors that will determine reserve tree selection. Form and vigor will not be selection factors when reserving residual trees. Approximately 90 to 120 trees per acre will be reserved. Douglas-fir is the dominant species within the stands. Minor species (Western hemlock, incense cedar, Western red cedar, and grand fir) will be reserved at the same rate as their representation within the stand.
3. To minimize loss of soil productivity and reduce the potential for surface erosion and runoff during yarding:
  - Lead-end (front-end) suspension of logs is required wherever topography permits.
  - Intermediate supports would be required, if necessary, to achieve lead-end suspension on a portion of Unit 3 located at the end landing on Spur 3C.
4. Falling and yarding requirements: Directional falling and yarding would be utilized for the protection of retention trees, snags, and reserve areas (including TPCC withdrawals).
5. Consistent with IM No. OR-99-036 (“E-4 Special Provisions”), apply seasonal restrictions or suspension of all harvest and road activities that would occur within 1/4 mile of a known nest of a:
  - a. peregrine falcon, spotted owl, great grey owl, accipiter hawk, merlin, or other owl, hawk or raptor AND
  - b. within a 1/4 mile of bald eagle winter roost locations and suitable nesting habitat for spotted owls.

Seasonal restriction times and distances vary by species and anticipated impacts to the species should they occur in the area. These restrictions may be waived or extended by the Area wildlife biologist based on survey or other information.

6. Spotted Owls: Consistent with program consultation with the U.S. Fish and Wildlife Service, apply Reasonable and Prudent Measures to minimize disturbance to spotted owl pairs and their progeny, including:

Apply seasonal restrictions on habitat alteration and noise producing activities (e.g., road construction or improvement, felling, yarding, hauling), including helicopter activities, within 1/4 mile of all proposed harvest areas and haul routes (Road Nos. 20-1-4 and 20-1-4.1) during the critical nesting period (March 1-July 15). These restrictions may be waived or extended by the Area wildlife biologist based on survey information regarding occupation and nesting activity.

7. To achieve the goal of insignificant (i.e., less than 1% per decade) growth-loss effects from soil compaction (2% or less of any treated area compacted after amelioration practices) the following operational restrictions and mitigation measures would be applied to all acres harvested or yarded with ground based machines:

- Commercial thinning would be conducted using a cable logging system. One-end suspension of logs would be required whenever topography permits to reduce the potential for erosion and run-off during yarding. Intermediate supports would be required, if necessary, to achieve front-end suspension. Ground based yarding operations can occur where slopes are less than 35 percent.
- Restrict all ground-based cutting or yarding to seasonally dry periods when soil moisture levels are less than 25 percent, as approved by the Authorized Officer in consultation with the Area Soil Scientist (usually July 15 to October 15).
- Preplan and designate all skid trails (to be approved by the Authorized Officer and the Area Soil Scientist) to occupy less than 10 percent of the ground based harvest area. Any route where machines make multiple passes (2 or more) is considered “primary” and applies towards this 10 percent rule. Require felling of trees to lead to the skid trails, maximize winching distances up to 100 feet, and the distances between trails up to 200 feet where feasible. Use existing skid trails wherever possible.
- Other methods of ground based harvest (i.e., shovel logging, harvester processor, cut-to-length systems), where there are restrictions to a single pass over the ground when operating off of designated primary skid trails, may be utilized with the approval of the Resource Area Soil Scientists.
- Till all compacted skid trails and temporary native surface roads with a winged subsoiler or excavator during the same summer season as felling and yarding, when soil moisture conditions are 25 percent or less, or as approved by the Authorized Officer in consultation with the Resource Area Soil Scientist. If tillage cannot be accomplished the same operating season, all temporary native surface roads would be left in an erosion resistant condition and blocked prior to the onset of wet weather.

This would include construction of drainage dips, water bars, lead off ditches, and possibly brush piles to prevent Off Highway Vehicle entry until final tillage and blocking.

8. For the purpose of long-term productivity and maintenance of biological diversity, all coarse woody debris of advance decay (class 3, 4, & 5) would be retained on site or disturbed as little as possible. Recent wind-thrown Class 1 coarse woody debris would be salvaged and removed. Coarse woody debris that presents a hazard to logging operations may be relocated within the project area.
9. Snags and large remnant trees would not be cut, except those in the temporary road construction right-of-way, and those posing a safety hazard.
10. Yarding restriction during sap flow is April 1 through June 15.
11. Helicopter landings would be located 200 feet from all watercourses.
12. Helicopter logging would be utilized in portions of Harvest Areas 1 and 2 and all logs would be suspended free and clear of the ground and treetops en route to landing.
13. Retain all Pacific yew trees in the harvest areas. Hardwoods are to be retained in proportion to their occurrence.

#### **DESIGN FEATURES FOR ROAD PLANNING, DESIGN AND CONSTRUCTION ACTIVITIES**

These Design features would be utilized to maintain water quality (ACS Objective #4), natural sediment transport in stream channels (ACS Objective #5), and to maintain in-stream flow (ACS Objective #6), that include:

1. Road Improvements: Place cross drain relief culverts immediately upgrade of stream crossings where necessary to prevent cut slope ditch sediment from entering streams. Replace existing stream crossing culverts that are (1) failing and otherwise depositing excess sediment into streams, or (2) are undersized and located in an area with moderate to high potential for slope failures. Use the theoretical 100 year storm event as design criteria for permanent stream crossing culverts. In-channel work is to be conducted during low flow periods (July 1 to October 15) prior to fall rains. Design adequate stream protection (i.e., riprap) where scouring could occur. Silt fences or straw bales should be used to minimize sediment transport from the excavation area to downstream locations.
2. Road construction would be limited to the dry season (generally between July 1 and October 15), as well as any harvest operations conducted from temporary native surface roads. Permanent roads would be surfaced with rock aggregate to reduce the potential for sediment delivery. Use rock that is as soil free as possible for fill material when installing temporary culverts. Whenever possible, use washed river rock covered by crushed rock as a compacted running surface.

3. Road Closures or Road Decommissioning: Remove all stream crossings and cross drain relief culverts. In channel work is to be conducted during low flow periods (July 1 to October 15) prior to fall rains. At stream crossings, recontour the channel side slopes and seed or plant exposed soils with native plant species in conjunction with erosion control blankets as needed. Establish drain dips at the cross drain removal locations. If closed roads are not to be tilled, construct drainage dips, water bars, or lead-off ditches, to direct surface water to the forest floor and otherwise leave the road in an erosion resistant condition. Construct blockage(s) to adequately limit off highway vehicle traffic.

### **DESIGN FEATURES FOR SURVEY AND MANAGE SPECIES COMMON ALL ACTION ALTERNATIVES**

**Mollusks** – All *Megomphix hemphilli* sites would be managed with Habitat Areas consistent with direction in “Strategy 1” in the current Management Recommendations (version 2.0, 11/23/99). No habitat disturbance (e.g., harvest, yarding, equipment use) would occur within Habitat Areas that would be  $\geq 0.25$  acres in size for each known site. Hardwoods, especially bigleaf maples, and down logs would be retained throughout the proposed harvest areas where possible.

## APPENDIX B

### HARVEST AREA DETAILS FOR THE PROPOSED ACTION

Harvest Area	Land Use Allocation	Legal	Total Acres	Volume/Acre (MBF)	Total Volume (MBF)	Treatment Type	Harvest System (acres)	Timber Age
1	GFMA	20-1W-17	51	13	663	Thin	Skyline (25) Tractor (0) Helio (26)	57
2	GFMA	20-1W-17	115	15	1,725	Thin	Skyline (44) Tractor (0) Helio (71)	57
3	GFMA	20-1W-21	167	15	2,505	Thin	Skyline (73) Tractor (94) Helio (0)	57

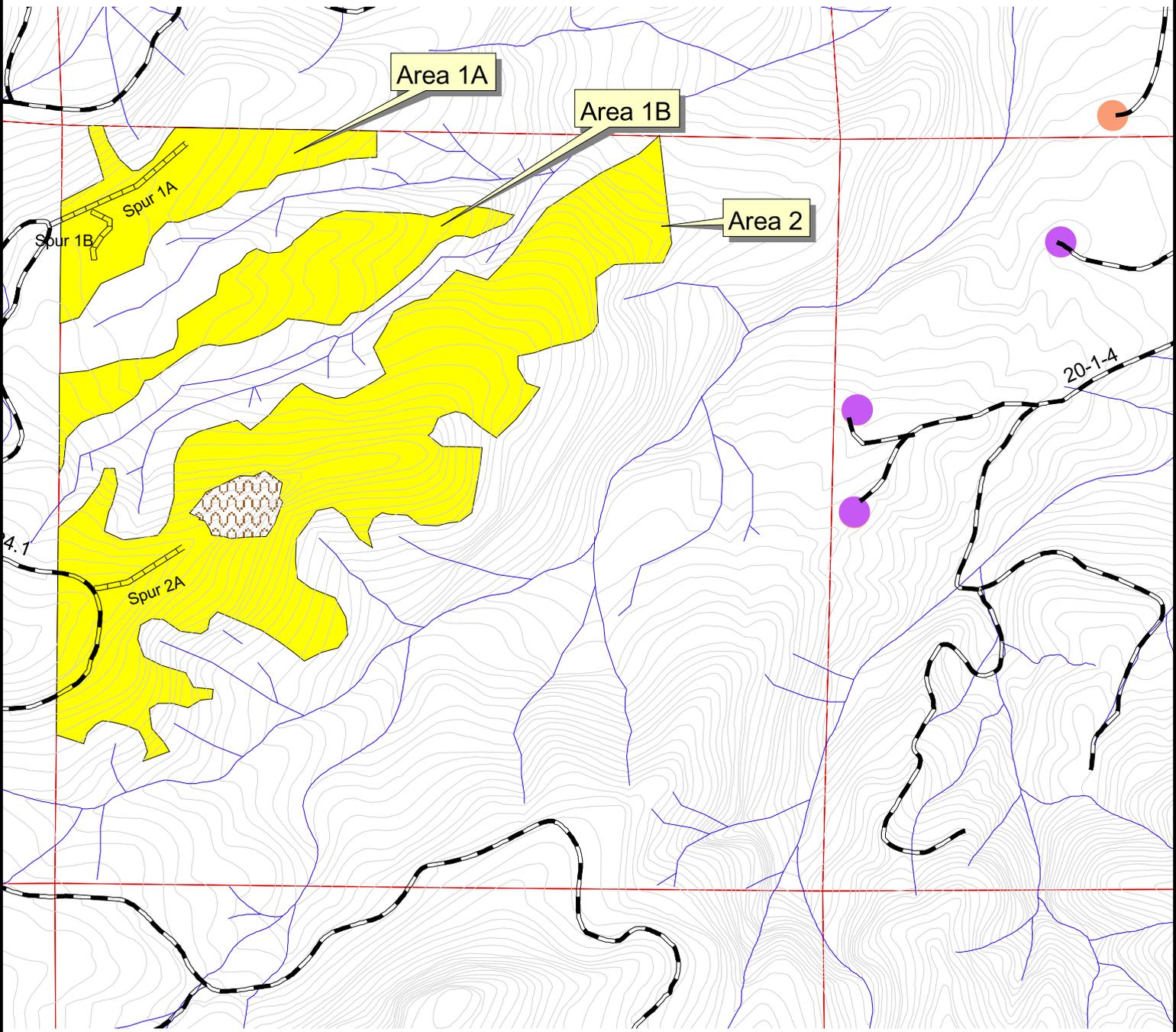
Thin = Commercial Thinning

GFMA=General Forest Management Area Land Use Allocation

### ROAD CONSTRUCTION AND CLOSURE SUMMARY FOR THE PROPOSED ACTION

Harvest Area #	Road No.	Native Surface Road Construction (Miles)	Native Surface Road Decommissioning (Miles)	Existing Road Improvement (Miles)	Existing Road Decommissioning (Miles)	Culverts Removed
1A&1B	Spur 1A, 1B, 1C	0.30	0.30	0.0	0.0	None
2	Spur 2A	0.12	0.12	0.0	0.0	None
3	Spur 3A, 3B, 3C, 3D	0.64	0.64	0.60	0.79	Two Log Culverts
<b>TOTALS</b>		1.06	1.06	0.60	0.79	

**MAPS AND LOCATION OF ROAD CONSTRUCTION AND HARVESTING ON  
ALL ACTION ALTERNATIVES**



Partial Harvest Area:  
 #1 - 51 acres  
 #2 - 115 acres  
 Total 166 acres

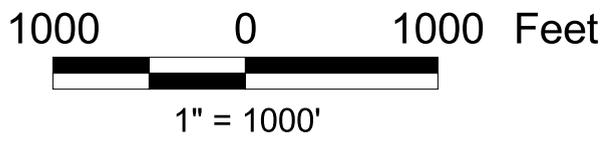
# 2002 Partial Harvest Area Map

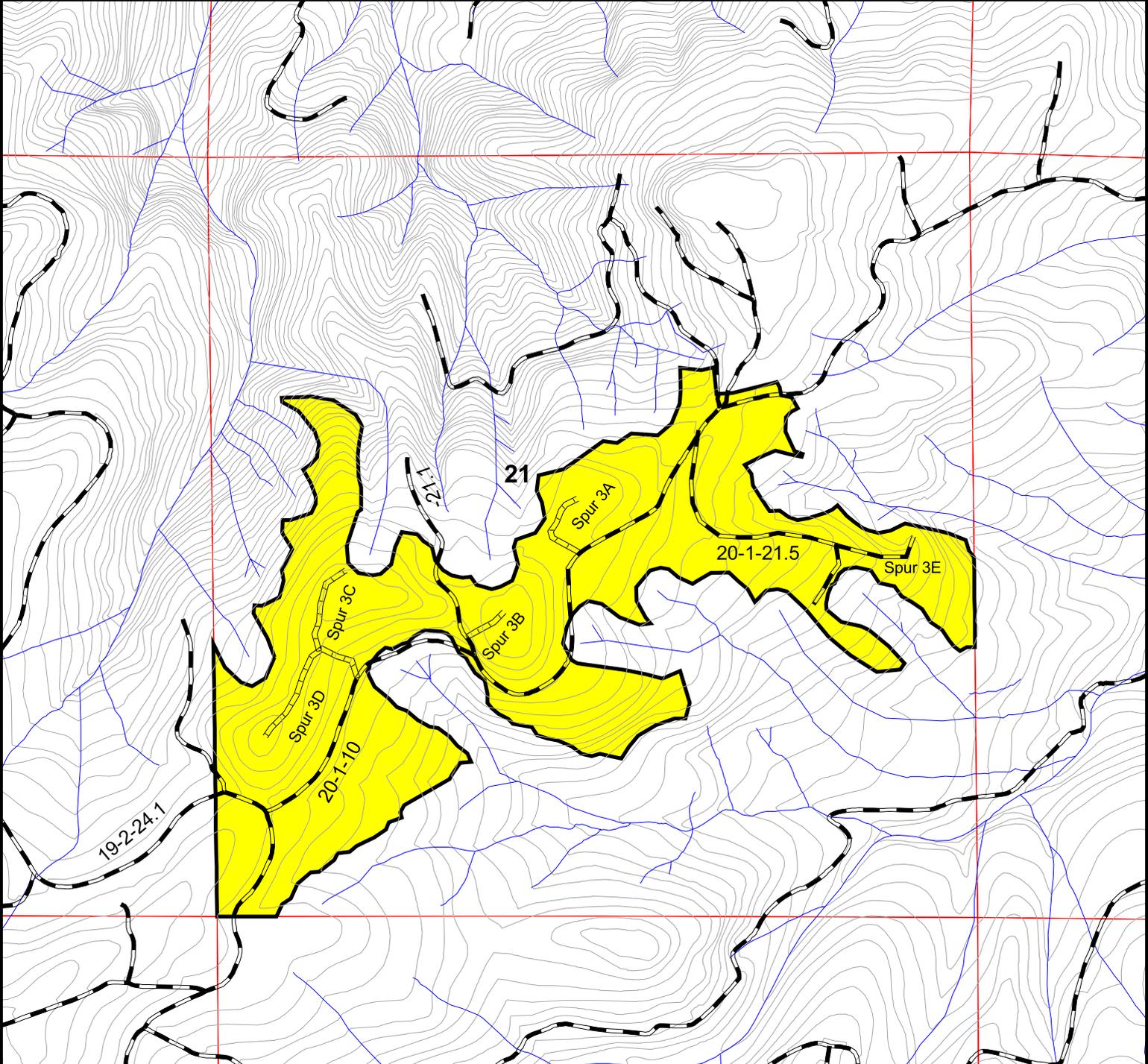
## Get Lost Proposed Action

### Partial Harvest Areas #1 and #2

### T.20S., R.01W., Sec.17

-  Roads
-  Native Surface Spurs
-  Helicopter Landing (Private)
-  Helicopter Landing (BLM)
-  Streams
-  Contour
-  Rock-outcrop
-  Harvest Area
-  Section Lines





Partial Harvest Area:  
# 3 - 167 acres

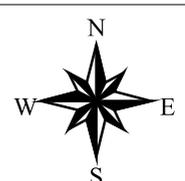
## 2002 Partial Harvest Area Map

### Get Lost Proposed Action and Alternative 3

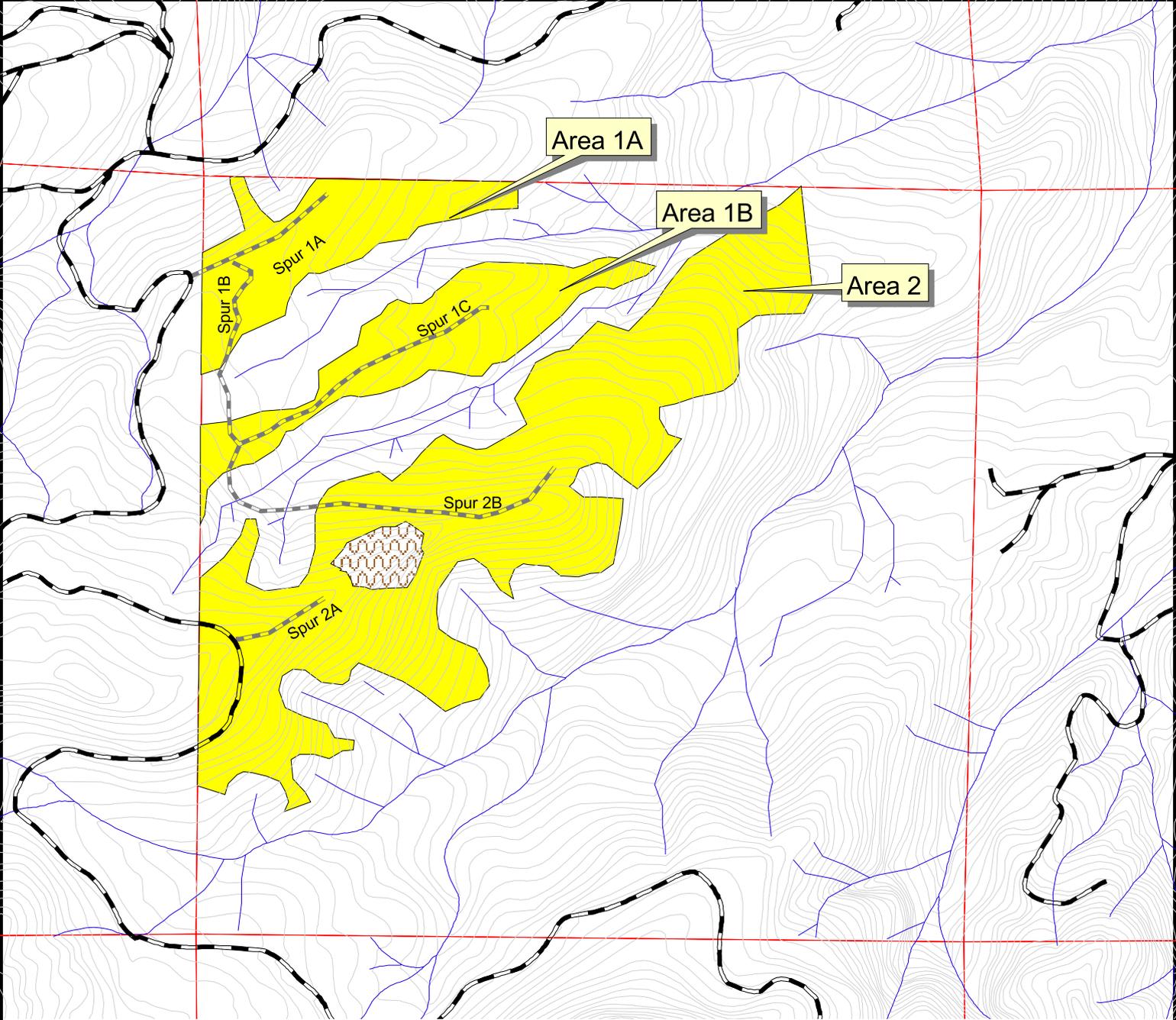
### Partial Harvest Area 3

## T.20S., R01W., Sec 21

- Roads
- Streams
- 20' Contour intervals
- Native surface spurs
- Harvest Area
- Section Lines



1' = 1000'



Partial Harvest Area:  
 #1 - 51 acres  
 #2 - 115 acres

Total 166 acres

# 2002 Partial Harvest Area Map

## Get Lost Alternative 3

### Partial Harvest Areas #1 and #2

## T.20S., R.01W., Sec.17

-  Roads
-  Native Surface Roads
-  Streams
-  Contour
-  Rock-outcrop
-  Harvest Area
-  Section lines

1000 0 1000 Feet N



1" = 1000'



### Aquatic Conservation Strategy Objectives

Forest Service and BLM-administered lands within the range of the northern spotted owl will be managed to:

1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.
2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.
7. Maintain and restore the timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability.
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

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

Finding of No Significant Impact  
for  
Get Lost Analysis Area

Determination:

On the basis of the information contained in the attached Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternative will not have significant environmental impacts not 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 by the Record of Decision (ROD) for Amendments to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, January 2001 with which this EA is in conformance, and does not, in and of itself, constitute a major federal action affecting the quality of the human environment. Therefore, a new EIS or supplement to the existing EIS is unnecessary and will no be prepared.

---

Field Manager, McKenzie Resource Area

---

Date