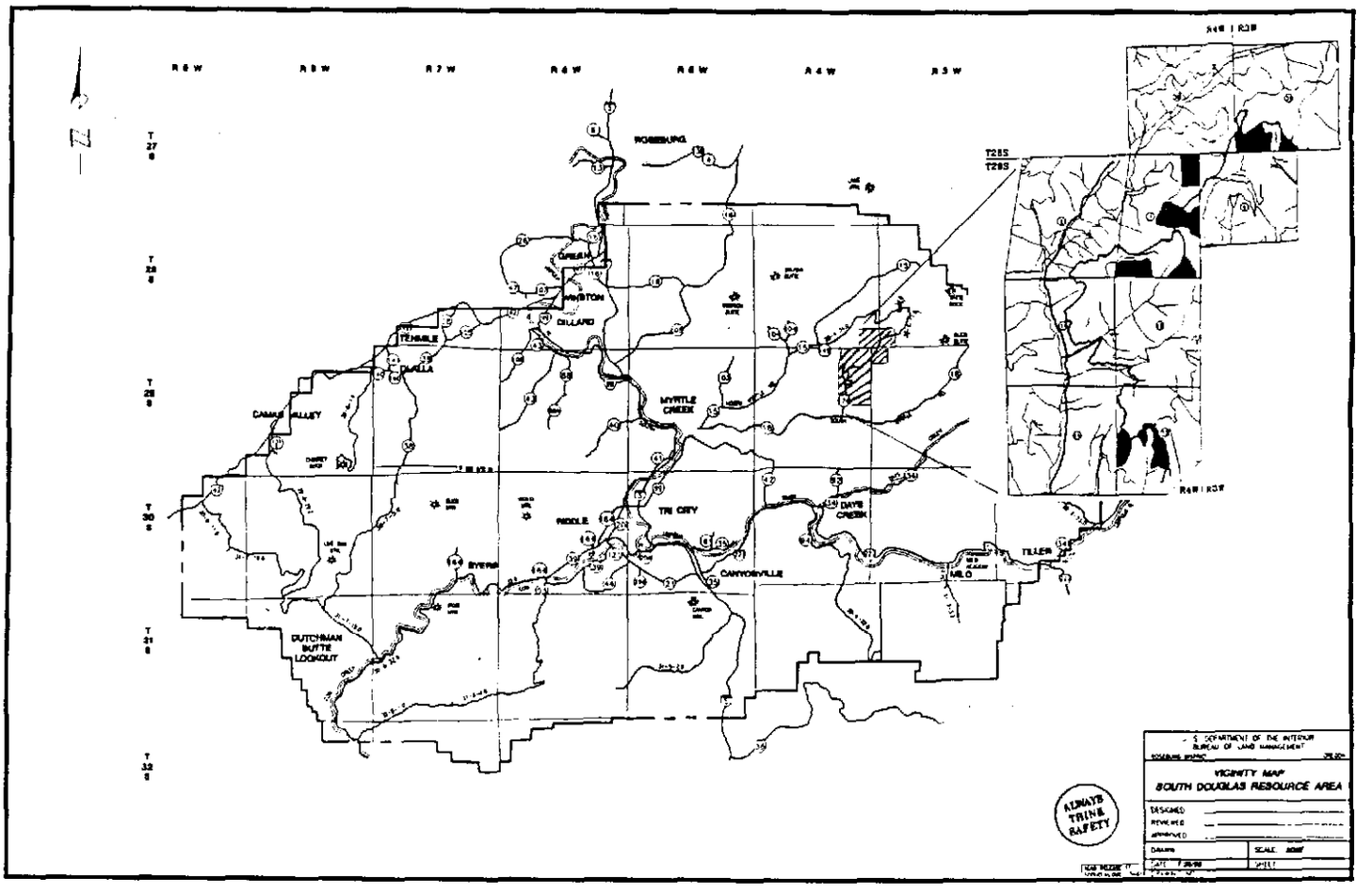
LEAN LOUIS TIMBER SALE

Environmental Assessment
OR105-94-20

South Douglas Resource Area
Roseburg District BLM

T28S R3W Section 31
&
T29S R4W Sections 1 & 13



February 27, 1995

Table of Contents

Chapter 1

Purpose of and Need For Action 1

- I. Decision To Be Made 1
- II. Scoping 2
- III. Scope of Analysis 2

Chapter 2

Discussion of Alternatives

- I. Process Used to Formulate Alternatives 2
- II. Project Design Features 3
- III. Description of Alternatives 5
  - Table 1-Comparison of Alternatives 6

Chapter 3

Existing Environment

- I. Special Status Species
  - A. Animals 7
  - Table 2-Northern Spotted Owl Habitat & Occupation Summary 8
  - B. Plants 9
- II. Wildlife 9
- III. Vegetation/Timber Resources 9
- IV. Transportation 10
- V. Water Resources 10
- VI. Riparian/Fish 10
- VII. Soils 10

Chapter 4

Environmental Consequences

Alternative 1-No Action

- I. Special Status Species
  - A. Animals 11
  - B. Plants 11
- II. Wildlife 11
- III. Vegetation/Timber Resources 11
- IV. Transportation 11
- V. Water Resources 11
- VI. Riparian/Fish 12
- VII. Soils 12

Consequences Common To Alternatives 2-4
I. Special Status Species
A. Animals 12
B. Plants 12
II. Wildlife 12
III. Vegetation/Timber Resources 13
IV. Transportation 13
V. Water Resources 13
VI. Riparian/Fish 13
VII. Soils 14

Alternative 2
Issue 1 14
Issue 2 14

Alternative 3
Issue 1 14
Issue 2 15

Alternative 4
Issue 1 15
Issue 2 15
Table 3-Summary of Impacts to Habitat 15

Cumulative Impacts Common to Alternatives 2, 3, & 4 16

Chapter 5
List of Preparers 17

Chapter 6
Future Public Notification 18

Appendix A-Maps
Alternative 2 . . . . . A-1
Alternative 3 . . . . . A-2
Alternative 4 . . . . . A-3

Appendix B-Critical Elements of the Human Environment Checklist B-1

Appendix C-Road Construction Details . . . . . C-1 & 2

Chapter 1
PURPOSE AND NEED FOR ACTION

The South Douglas Resource Area of the Roseburg District of the Bureau of Land Management, proposes a timber harvest in the Upper South Myrtle Watershed Analysis Unit (WAU). The legal description is; 28-3-31, 29-4-1 & 13 (see vicinity map, front cover). The removal of harvested trees would be conducted in a manner that would provide for the protection of the retention trees, snags, and other resources.

The WAU, which includes portions of the Louis Cr., Letitia Cr., and Wiley Cr. drainages, was the first watershed analysis completed in the resource area. The project area was selected in this WAU due to the fact that it contains a high percentage of federally managed lands, and that the private forest lands were primarily harvested about twenty years ago and are well on their way to reestablishment. Additionally, a substantial amount of field work had been completed in the Wiley and Louis Creek drainages, thus providing a good baseline of information for use in this particular project (Forest Manager's report).

The proposed harvest area is located within the Matrix land allocation as described in the April 13, 1994, Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl and Record of Decision (ROD). The ROD states that most timber harvest and other silviculture activities would be conducted in that portion of the matrix with suitable forest lands, according to the standards and guidelines. Scheduled timber harvest which contributes to the probable sale quality (PSQ), occurs in the Matrix lands. The purpose of this sale is to contribute approximately 5-8 MMBF to the PSQ for the resource area. The objectives in Matrix are to:

- produce a sustainable supply of timber and other forest commodities.
- provide connectivity (along with other allocations such as Riparian Reserves) between Late-Successional Reserves.
- provide habitat for a variety of organisms associated with both late-successional and younger forests.
- provide for important ecological functions such as dispersal of organisms, carryover of some species from one stand to the next, and maintenance of ecologically valuable structural components such as down logs, snags, and large trees (6-8 live conifers per acre).
- provide for early-successional habitat.

(Roseburg District Proposed Resource Management Plan/Final Environmental Impact Statement, October 1994, (PRMP/FEIS), Vol. I, p. ix).

I. Decisions To Be Made

A. Which stands should be harvested to best meet the timber production goal of approximately 5-8 MMBF for the resource area?

B. How to best design the harvest of existing stands while considering the above

objectives and direction from the Roseburg Management Framework Plan (MFP, May 1983) as amended by the ROD?

II. **Scoping**

In an attempt to involve the public in preparing and implementing the NEPA process, notification of the project proposal was made, via mail, to landowners adjacent to the project area, and the US Fish & Wildlife Service, Oregon Department of Fish & Wildlife and National Marine Fisheries Service. The Old Growth Defense Council and the Pacific Rivers Council were notified via mail, as requested. The Douglas County Soil and Water Conservation District was notified via phone call. The Roseburg District Project Planning Update (Winter 1995), containing a brief description of the project, was also sent to approximately 1300 addresses. The Planning Update, along with a cover letter offering opportunities for briefings on the project, was also sent to the; Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz Indians, Coquille Indian Tribe, Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians, and Cow Creek Band of Umpqua Tribe of Indians.

III. **Scope of Analysis**

The Interdisciplinary Team members brought forward concerns related to resources that had the potential of being affected by the proposed action. All but two concerns were determined to not be significant issues because they would be mitigated through project design and application of Best Management Practices (BMP's, PRMP/FEIS, Volume II, Appendix J). The two significant issues which will be analyzed in this environmental assessment (EA) are:

A. Reduction of suitable habitat within the median home range (1.3 miles) of three owl sites (Letitia, Long Wiley, and Slide Creeks).

B. Loss of habitat linkage due to isolation of dispersal quality habitat.

These significant issues will be discussed in detail in Chapter 4. The appropriate method of site preparation and reforestation will also be incorporated into the analysis of the proposed action.

Chapter 2
DISCUSSION OF ALTERNATIVES

I. **Process Used to Formulate Alternatives**

The ID team developed a range of alternatives for the proposed action, including no action. All alternatives would meet the objectives stated above. The alternatives were developed in response to the significant issues for the proposed action. There were no alternatives considered and eliminated from further analysis. Mitigation has been determined and would be incorporated into implementation of the chosen alternative.

II. Project Design Features

The following information is common to all alternatives except the No Action.

A. The project would be designed to meet the Aquatic Conservation Strategy Objectives, for Riparian Reserves and Matrix (ROD, C-31 to 33 & C-39 to C-48). These are:

RIPARIAN RESERVES

1. On all intermittent streams, within the harvest units, Riparian Reserves would have a width of approximately 160 feet, slope distance, (based on a site potential tree height), on either side of the channel (Upper South Myrtle Watershed Analysis, Roseburg District, South Douglas Resource Area, Nov. 1994, p. 11).

2. All wetlands, less than one acre (specifically in unit 5 of alt. 2, & unit 4 of alt. 3), would receive protection "from the edges of the wetland to the outer edges of the riparian vegetation" (ROD, C-31).

MATRIX

3. To retain 6 to 8 green trees/acre greater than 20 inches, diameter breast height (DBH), irregularly scattered and/or grouped.

4. Where safety allows, to retain snags at levels sufficient to support species of cavity-nesting birds at 40 percent of potential population levels. Additional green trees would be left where snags do not already exist and/or cannot be safely retained.

5. To retain coarse woody debris (minimum of 120 linear feet/acre, greater than or equal to 16 inches (large end) and 16 feet in length (Instruction Memorandum (IM-95-028, 11/94)).

6. Road construction & maintenance would meet standards and guidelines as stated in the ROD (p. C-32 & 33) and the Best Management Practices (BMP's) listed in the PRMP/FEIS (Appendix J45-51).

7. If bats are found, the species would be identified and determination would be made as to the reason the site is being used by the bats. As an interim measure, timber harvest would be prohibited within 250' of sites containing bats (ROD, C-43).

B. Best Management Practices would be required for ground based activities, including harvest and/or site preparation (BMP's, p. 44 & 51).

C. Natural surface roads would be tilled.

D. Where harvest occurs adjacent to wet areas, or riparian reserves, timber would be felled away from the protected areas.

E. Green trees would be left adjacent to wetlands less than one acre in size to help maintain and protect the integrity of these wetland areas.

F. Unstable or potentially unstable areas would be buffered as part of the riparian reserve.

G. Leave trees would be "clumped" around significant advanced regeneration pockets to minimize the need for logging entry or to provide a buffer against the occurrence of falling/yarding induced damage.

H. Harvest areas immediately adjacent to advanced regeneration pockets and their associated leave trees, would be directionally felled away, where logging entry is necessary.

I. Advanced regeneration pockets and their associated leave trees would be firetrailed, where feasible to avoid damage during broadcast burning.

J. Prescribed fire treatments for site preparation, in order to create planting spots and for initial vegetation control, would be planned and implemented after harvest. Plans would be developed using the interdisciplinary team approach. Treatments would be planned in order to minimize; intensive burns, consumption of litter and coarse woody debris, damage to residual live trees, and impacts to air quality (PRMP/FEIS). A combination of piling (machine or hand)/burning and broadcast burning would be utilized. Areas machine piled/burned, would be tilled. Specific treatments are discussed per each alternative (Fire Management Specialist report).

K. Regeneration would occur through planting and/or natural seeding. Mulching and brushing (if needed), would be employed in order to suppress, grass and other competing vegetation. Seedling shading and tubing would be utilized to protect the seedling from heat and moisture loss, and control animal damage.

L. Douglas-fir would be the primary leave tree species selected. In addition, a natural mix of minor conifer species (ponderosa pine, sugar pine and incense cedar) and occasional large hardwoods (madrone, chinkapin and big leaf maple) would be left. This would assure within stand diversity and promote natural regeneration. Diverse species seed sources would help contribute to the natural regeneration success, thereby supplementing artificial regeneration efforts.

M. If the Umpqua River cutthroat, coho salmon or steelhead trout are listed by the National Marine Fisheries Service (NMFS) as *Threatened* or *Endangered* under the ESA, prior to completion of the project, the project would be subject to modification in order to meet the guidance of BLM manual **6840 - Special Status Species Management** /.06 Section B. Species Proposed For Federal Listing.

N. For all of the proposed alternatives, special status plant surveys would be conducted during the blooming periods. Special Status Plant populations would be buffered to protect from timber harvest and surface disturbance.

O. The contractor would be required to operate in a manner that prevents pollution and minimizes waste. This would include, but is not limited to insuring that all chemicals to be stored on site (including petroleum products); have a Material Safety Data Sheet (MSDS) with them, are in closed containers and secondary containment, and quantities would be kept to minimum.

III. Description of Alternatives

Alternative 1-No Action

Harvest would not occur in this location at this time. Harvest would occur in another location within the Matrix lands in order to meet harvest obligations.

Alternative 2

This alternative consists of seven units located in sections 1, 13, & 31, (Appendix A-1). Approximately 7.9 MMBF would be cable harvested from 228 acres. Table 1 summarizes a comparison of the alternatives. There would be 7335 feet of new road construction, of which 6235 would be permanent, rocked roads. Approximately 1100 feet would be natural surface roads. There would be 4200 feet of road renovation for this alternative (Forester report). Design of the 29-3-6.0 road, would determine the need for geofabric installation to overcome soil drainage problems. Design of the landing for the 300' spur in Unit #7, would restrict fill and divert surface water (reference Appendix C). No roads would be constructed in Riparian Reserves.

Approximately 176 acres of broadcast burning is planned for this alternative. Units 1 and 2 in section 13, are on granitic soils where broadcast burning should be avoided. These units (approximately 52 acres) would be piled/burned.

Harvest units would be planted within one year of the completion of site preparation. The need for plantation protection, maintenance, and release, would be determined through survival surveys to meet stocking standards (MFP, p. 19).

Table 1

COMPARISON OF ALTERNATIVES

NOTE: All values are approximate.

ACTION ALTERNATIVES:		ALT #1	ALT #2	ALT #3	ALT #4
ACRES HARVESTED		0	228	191	108
SUITABLE HABITAT HARVESTED (Acres)		0	228	191	108
SUITABLE HAB. W/IN 1.3 MI.* OF THE THREE OWL SITES (Acres)		0	148	64	56
TIMBER VOLUME YIELD (MBF)		0	7,900	5,800	3,200
ROAD CONSTRUCTION (Feet)		0	7,335	6,550	2,100
ROAD RENOVATION (Feet)		0	4,200	4,500	3,900
No# OF ROAD STREAM CROSSINGS		0	0	0	0
ROAD REMOVAL (Feet)		0	1,100	700	1,100
NET ROAD GAIN (Feet) (Acres)		0 0	6,235 4.3	5,850 4.0	1,000 0.7
FEET OF STREAMS NEAR UNITS		0	2,800	1,600	2,800
SITE PREPARATION	BROADCAST BURN	0	176	79	56
	MACHINE/HAND PILE	0	52	112	52
TOTAL APPROX. ACRES SITE PREPARATION			228	191	108

* 1.3 miles is the median home range of the Klamath Province in which this sale is located.

Alternative 3

This alternative consists of four units located in sections 1 & 13 (Appendix A-2). Approximately 5.8 MMBF would be cable harvested from 191 acres. There would be 6550 feet of new road construction, of which 5850 would be permanent, rocked roads. Approximately 700 feet would be natural surface roads. There would be 4500 feet of road renovation for this alternative (Forester report). Table 1 summarizes a comparison of the alternatives.

Approximately 79 acres of broadcast burning is planned for this alternative. Unit 1 in section 13, is located on granitic soils. This unit (approximately 112 acres) is planned for piling/burning.

Harvest units would be planted within one year of the completion of site preparation. The need for plantation protection, maintenance, and release, would be determined through survival surveys to meet stocking standards (MFP, p. 19).

Alternative 4

This alternative consists of three units located in sections 13 & 31 (Appendix A-3). Approximately 3.2 MMBF would be cable harvested from 108 acres. There would be 2100 feet of new road construction, of which 1000 would be permanent, rocked roads. Approximately 1100 feet would be natural surface roads. There would be 3900 feet of road renovation for this alternative (Forester report). Table 1 summarizes a comparison of the alternatives.

Approximately 56 acres of broadcast burning is planned for this alternative. Units 1 and 2 in section 13, are on granitic soils. These units (approximately 52 acres) are planned for piling/burning.

Harvest units would be planted within one year of the completion of site preparation. The need for plantation protection, maintenance, and release, would be determined through survival surveys to meet stocking standards (MFP, p. 19).

Chapter 3
EXISTING ENVIRONMENT

This chapter will summarize the existing environment in the project area, prior to project implementation. It will describe the resources site specific to the project area, that would be affected by the alternatives.

I. SPECIAL STATUS SPECIES

A. ANIMALS

Within the Roseburg District a list of special status animal species has been identified (PRMP/FEIS, Vol. 1, Table 3-19, p. 3-35). Of the listed special status animals, twelve species are not expected to occur within the project area due to the fact that they are outside their expected range (Wildlife Biologist report-Table 2, Appendix B).

Of the five species federally listed as threatened or endangered, only the Northern Spotted Owl has been observed within this WAU. A total of nine spotted owl sites have been identified within the watershed boundary. Eight more sites are located outside, but adjacent to the watershed boundary. Three spotted owl sites (Long Wiley, Slide Creek, and Letitia Creek) are located within 1.3 miles of the proposed project (Wildlife Biologist report, Figure 2, Appendix A). None of the proposed harvest units are located within 0.7 miles of the known core areas. All three sites are below the 1,336 acre threshold (within 1.3 miles) and the 500 acre threshold (within 0.7 miles) of site center. A suitable habitat summary by owl site is presented Table 2, below. Dispersal habitat in the SW quarter of T. 28 S, R.3 W is at 61%, and in the NE quarter of T. 29 S, R. 3 W, is at 31%.

Occupation at the three sites has been sporadic over time, but the Long Wiley site has been the most productive site since 1991 (Wildlife Biologist report & Table 2, below).

Table 2

NORTHERN SPOTTED OWL HABITAT & OCCUPATION SUMMARY

Site	Acres of Nesting and Foraging Habitat		Occupation History				
	1.3 mi	.07 mi	90	91	92	93	94
Long Wiley	774	457	-	S	P/1	P/0	P/2
Slide Cr.	383	174	-	P/0	-	S	-
Letitia Cr.	1032	474	S	-	-	-	-

S=Single, P/0=Pair no young, P/1=Pair w/ one young, P/2=Pair w/ two young, - No Response

The two other special status species (bald eagle and Peregrine falcon) having potential to occur in the project area, have not be been observed. Inventories by Oregon State University, Bob Anthony (1993-1994), have not identified any sites within the Upper South Myrtle Watershed Analysis (USMWA, p.23). Peregrine falcons have not been observed. Habitat (cliffs and ledges) likely used by the falcon, does not exist in the project area.

No suitable bat roost and hibernacula sites (caves, mines, wooden bridges, or old buildings (ROD, C-43)) were sighted during field reviews for this analysis.

B. PLANTS

Potential special status plant species within the proposed project area are; wayside aster, Kincaids Lupine, and mountain lady's slipper. Wayside aster and Kincaids Lupine are Federal Candidate species, and, wayside aster and mountain lady's slipper are C-3 (Survey & Manage) species (ROD, C-61). All three suspected species have been sighted in areas approximately 1.5 miles from the proposed timber sale.

II. WILDLIFE

Alteration of habitat, impacts all wildlife species inhabiting or using the project area. An overview of the potential wildlife species in the area has been addressed in the PRMP/FEIS (Vol.1, Ch. 3-24 to 40).

Inventories have not been conducted on the majority of wildlife species present within Upper South Myrtle watershed, except for the Northern Spotted Owl.

III. VEGETATION/TIMBER RESOURCES

T.28S., R.3W., Sec. 31 - This stand has a predominately Douglas-fir overstory (120-190 years old), with a few scattered incense cedar, sugar pine and grand fir. The understory is comprised of smaller trees of the same species along with a mixture of hardwoods including, madrone, chinkapin and big leaf maple. Ground vegetation includes salal, swordfern, blackberry and poison oak. Coarse woody debris information was not documented.

T.29S., R.4W., Sec. 1 - The stands in this section are mainly single-storied with Douglas-fir (200 years) being the predominant overstory species along with a few scattered incense cedar and sugar pine. Hardwoods such as madrone, chinkapin and big leaf maple exist in the lower canopy of the overstory. Where previous management activity such as mortality salvage has created openings, a young second story of Douglas-fir and incense cedar has emerged. Brush and ground vegetation include ocean spray, hazel, salal, swordfern, blackberry and poison oak. Coarse woody debris is present within these stands.

T.29S., R4W., Sec. 13 - This stand is basically two-storied. Large scattered Douglas-fir, ponderosa pine and incense cedar (120-190 years) form the top stratum while a more continuous stand of Douglas-fir, grand fir, incense cedar, sugar pine and madrone comprise the second stratum. The area has a history of mortality salvage activity and is open enough in areas to have allowed for the development of some sapling sized conifers as well as significant encroachment by grass and poison oak. Very little coarse woody debris is present in this stand.

Timber harvest patterns on both public and private land have created a mosaic of vegetation age classes within the mixed conifer stands. Private lands along the valley bottoms, for the most part have been converted to pasture and are being maintained in that condition. Private uplands have been allowed to return to a forested condition supporting various levels of conifer stocking.

BLM lands within the watershed have been replanted with conifers following past harvest. A summary by ten year age classes, showing spatial arrangement, for the 16,180 BLM acres can be found in Figure 10, of the USMWA.

IV. TRANSPORTATION

Road densities for the WAU, average 3.9 miles per square mile on BLM lands. Transportation Management Objectives (TMO's) have been completed for all roads in the watershed. Existing roads in the area (to be renovated) have been identified as roads to remain open, with improvements needed (USMWA, p. 15).

V. WATER RESOURCES

There are no perennial streams located within any proposed harvest unit. The draws within the units are high gradient with intermittent streamflow. Additionally, two wetland/seep areas have been located within unit 4 of alternative 3 (same as unit 5, of alt. 2), that are less than one acre in size (Fisheries Biologist report).

VI. RIPARIAN/FISH

Watershed analysis of the Upper South Myrtle Creek WAU, identified that much of the area in riparian reserves, is currently in good functioning condition. Forty-seven percent of the area is in mature stands (over 80 years of age). Eighty-three percent of the riparian reserve areas in Wiley Creek and Letitia Creek sub basins has an age class greater than 30 years (USMWA, Table 3).

A list of amphibians potentially found in these habitat types, is presented in the Wildlife Biologist report (Table 3 of Appendix B). This list is not based on confirmed observations in the project area, but the presence of habitat and the fact that the project area is within known distribution areas of the species.

The Umpqua River cutthroat trout *Oncorhynchus clarki* inhabit and utilize the streams within the Upper South Myrtle WAU. Coho salmon and steelhead trout also utilize the basin. However, the proposed harvest units do not support fish. Topography, elevation, and size of the drainage basin within these harvest units are limiting factors influencing streamflow and the existence or presence of fish in these areas.

VII. SOILS

The unit(s) in 29-4-13 are comprised mainly of granite-textured igneous rock. These granitic soils are highly susceptible to surface erosion. Landforms are conducive to slope failures. Small, shallow seated slope failures are common.

The units in 29-4-1 and 28-3-31 are comprised mainly of Jurassic volcanic rocks. Slumpbench topography is common and deep seated, large earth slumps are the most common type of slope failure. Surface erosion is not as serious a hazard as in the granitics, but scattered areas of high water table soils are common. These wet areas are usually less than one acre in size, and occur in sag pond positions and other depressional areas in the landscape.

Chapter 4
ENVIRONMENTAL CONSEQUENCES

This chapter is the scientific and analytic basis for the alternative comparisons.

ALTERNATIVE 1 - NO ACTION

I. SPECIAL STATUS SPECIES

A. ANIMALS

No spotted owl habitat would be removed.

ISSUE 1-Spotted Owl Habitat Reduction: This alternative would not reduce suitable Northern Spotted Owl habitat.

ISSUE 2-Loss of Habitat Linkage: There would be no loss of habitat linkage due to isolation of dispersal quality habitat. Dispersal habitat, would not be reduced.

B. PLANTS

There would be no anticipated impacts to potential populations of plant species other than by natural selection.

II. WILDLIFE

Habitat would not be influenced and no beneficial nor detrimental impacts would be anticipated in the project area for the wildlife.

III. VEGETATION/TIMBER RESOURCES

Under this alternative, no entry into the proposed project areas would occur. The units would continue to age with concurrent growth in diameter and height. Stand alteration would continue to occur through wind, insects and disease, creating small natural openings. Shade tolerant conifers (mainly grand fir and cedar) and brush would occupy these openings initiating a secondary canopy layer. If fire exclusion continues, conditions over time would become conducive for a catastrophic fire that would set back the successional process.

IV. TRANSPORTATION

Road restoration opportunities would not occur and erosion and sedimentation from existing roads would continue at its present level and possibly increase in the project area from those roads in need of renovation.

V. WATER RESOURCES

The hydrologic processes and water transporting capabilities would be maintained and allowed to function naturally. Existing streams, channels and draws would continue to provide downstream water bodies with natural inputs of sediment, nutrients, and coarse woody debris.

VI. RIPARIAN/FISH

There would be no significant direct impacts to the riparian nor the fisheries. All intermittent streams would be encompassed in Riparian Reserves.

VII. SOILS

If this project is not implemented, there would be no significant beneficial or detrimental impacts to the soil resource.

CONSEQUENCES COMMON TO ALTERNATIVES 2-4

I. SPECIAL STATUS SPECIES

A. ANIMALS

Removal or alteration of suitable habitat, is considered a "may affect" under the Endangered Species Act of 1973 (ESA) as amended. Determination of "may affect" requires consultation with the United States Fish and Wildlife Service (USFWS). If a proposed action results in suitable habitat being reduced below established threshold levels, the result would be an "incidental take" of a threatened species.

B. PLANTS

Since the special status species analysis was conducted prior to the blooming season, potential impacts are uncertain. Additional surveys would need to be conducted during the blooming season in order to confirm potential impacts and appropriate mitigation. No significant direct nor indirect impacts are anticipated due to application of the mitigation listed, beginning on p. 3.

II. WILDLIFE

Habitat manipulation is the major influence which impacts all animal species inhabiting or using the project area. The impacts which could be anticipated from timber harvest activities are discussed in the (PRMP/FEIS, p. 4-36 to 47).

Road construction would impact wildlife by direct elimination of vegetation within the right-of-way. Indirect impacts could also be anticipated by disturbance of wildlife caused by increased human access (PRMP/FEIS, p. 4-38). Species which use early-successional habitat for forage and nesting could benefit from this activity. Those species whose life cycle activities are

associated with late-successional habitat, would be negatively impacted (PRMP/FEIS, p. 4-44 to 47). These impacts are not expected to be significant.

III. VEGETATION/TIMBER RESOURCES

The proposed project would result in conversion of mature and old-growth forest, within the unit boundaries, to an early seral stage with retention of green trees and snags as prescribed for General Forest Management Areas (PRMP/FEIS, Vol 1, Chap. 2-19). The units would be disturbed sufficiently through harvest to create physical and biotic conditions that would favor the re-establishment and growth of conifers as well as the invasion of grass and brush species. Silvicultural activities and intensive management would promote higher growth rates and increases in total net yield for well stocked stands.

IV. TRANSPORTATION

Road construction would permanently remove acres from timber production (reference Comparison of Alternatives Summary-Net Road Gain, p. 6). Alternative 2, 3, and 4, remove from production; 4.3, 4.0, and 0.7 acres, respectively. Road renovation would be done on approximately 12600' (2.4 mi.) of existing road. Renovation will have direct impacts on sedimentation during implementation. In the long term, sedimentation potential would be decreased because the renovation would contribute to proper maintenance of the road. There are no anticipated significant impacts due to road construction and renovation, due to application of BMP's.

V. WATER RESOURCES

Most harvest units are located below 2000 feet elevation and high peak flows resulting from rain-on-snow events in the transient snow zone are not anticipated to have significant influence on stream channel morphology. The distribution of harvest activities over time and space mitigates impacts.

Implementation of Riparian Reserve Standards and Guides (ROD, C31-32) will mitigate significant sedimentation input and increases in temperature and peak flows within streams. Some short-term localized impacts of sedimentation may occur from road construction and ground based harvest practices. Implementation of Best Management Practices for all appropriate operations should minimize or eliminate sediment impacts (RMP/EIS, Appendix J 45-51).

VI. RIPARIAN/FISH

No negative impacts to riparian are anticipated since all riparian zones are protected with riparian reserves and removed from any activities. Retention of riparian reserves will have a beneficial impact by the potential recruitment of large woody debris indirectly through natural processes.

Direct impacts of the fisheries resource (including cutthroat trout, steelhead trout, coho salmon, and Umpqua chub) from timber harvest activities is these units are not expected. Riparian reserves would mitigate and protect the stream system within the units and maintain Aquatic Conservation Strategy objectives (ROD/FEIS).

reserves would mitigate and protect the stream system within the units and maintain Aquatic Conservation Strategy objectives (ROD/FEIS).

VII. SOILS

Implementation of the management prescriptions, would prevent unacceptable degradation of the soil resource. Monitoring and incorporating the latest information will determine whether the prescriptions are effective and are being correctly applied (PRMP/FEIS, p. 4-12).

ALTERNATIVE 2

This alternative consists of seven units located in sections 1, 13, & 31 and approximately 7.9 MMBF would be harvested from approximately 228 acres. See Table 1 (p.6) and Map A-1.

ISSUE 1-Spotted Owl Habitat Reduction:

This alternative will further reduce suitable habitat within 1.3 miles of three Spotted Owl sites. Of the approximately 228 acres to be harvested under this alternative, 148 acres are located within 1.3 miles of the three sites. The Long Wiley site would be reduced by 91 acres, the Slide Creek site would be reduced by 1 acre, and the Letitia Creek site would be reduced by 56 acres. The harvest in the SW Quarter of section 31 would not take the Quarter Township below the 50 percent threshold. Harvest in sections 1 and 13 will further reduce dispersal habitat, which is currently below the 50 percent threshold. This alternative would have the greatest impact on habitat reduction.

ISSUE 2-Loss of Habitat Linkage:

Harvest of Units 3, 4, 5, and 6, within section 1, would remove all but an estimated 35 acres of suitable habitat within the section. Given the young stand age of most of the land in section 1, dispersal habitat is limited to "old growth" islands that provide "stepping stones" of habitat for dispersal movements (Wildlife Biologist report, Appendix C, maps 1 & 2A). This alternative would have the greatest impact on habitat linkage between habitat remaining in sections 11 & 13 and habitat in section 31.

ALTERNATIVE 3

This alternative consists of four units located in sections 1 & 13, and approximately 5.8 MMBF would be harvested from approximately 191 acres. See Table 1 (p. 6) and Map A-2.

ISSUE 1-Spotted Owl Habitat Reduction:

This alternative will reduce suitable habitat within 1.3 miles of one owl site. Of the 191 acres to be harvested under this alternative, an estimated 62 acres are located within 1.3 miles of the Long Wiley Spotted Owl site. Habitat within 1.3 miles of the Slide Creek and Letitia Creek sites would not be impacted by this alternative. Harvest in sections 1 & 13 will further reduce dispersal habitat, which is already below the 50 percent threshold.

ISSUE 2-Loss of Habitat Linkage:

The proposed harvest units were located in such a way as to preserve a suitable habitat island along the east side of section 1 of T. 29 S., R. 4 W. and in the Southwest corner of Section 31, T. 28 S. R. 3 W.. Although this alternative further reduces suitable habitat compared to Alternative 2, the habitat linkage between the Long Wiley Site and other sites located to the Northeast is improved.

ALTERNATIVE 4

This alternative consists of three units located in section 13 & 31. Approximately 3.2 MMBF would be harvested from approximately 108 acres.
See Table 1 (p. 6) and Map A-3.

ISSUE 1-Spotted Owl Habitat Reduction:

This alternative would reduce suitable habitat within 1.3 miles of one Spotted Owl site. Of the 108 acres to be harvested, 56 acres are located within 1.3 miles of the Letitia Creek Spotted Owl site. Harvest in the SW Quarter of section 31 would not take the Quarter Township below the 50 percent threshold. This alternative would have the least impact on the reduction of spotted owl habitat.

ISSUE 2-Loss of Habitat Linkage:

This alternative has no harvest in section 1 of T. 29 S., R. 4 W.. In the NW Quarter of T. 29 S., R. 4 W., dispersal habitat would not be reduced. This alternative leaves the most habitat linkage in section 1, however, it increases the gap between suitable habitat in the Northwest corner of section 1 and section 31 of T. 28S., R. 3 W.

Table 3

SUMMARY OF IMPACTS TO HABITAT

Alternative	Habitat Reduction (Issue 1) (acres)				Loss of Habitat Linkage (Issue 2)
	Sites Impacted	Long Wiley	Slide Cr.	Letitia Cr.	
No Action	None	0	0	0	None
2	3	91	1	56	Most Impact
3	1	62	0	0	Least Impact
4	1	0	0	56	Moderate Impact

CUMULATIVE IMPACTS COMMON TO ALTERNATIVES 2, 3, & 4

The PRMP/FEIS (p. 4-7 to 4-100) discusses cumulative impacts of activities implemented collectively throughout the district. These impacts result from past, present, and reasonably foreseeable activities on BLM lands and other lands (other public & private).

This watershed currently meets or exceeds the desired future conditions for the landscape as described in the ROD and the PRMP/FEIS. Harvest of these units in the Matrix is not anticipated to significantly impact this WAU. With the application of BMP's where appropriate, the watershed condition would still meet Aquatic Conservation Strategy objectives including connectivity and dispersal goals.

There is a harvest/thinning project planned in this WAU at the current time. However, there are no other harvest activities planned in this WAU in the reasonably foreseeable future.

Chapter 5
LIST OF PREPARERS

Name	Title	Resource or Discipline	Initials	Date
Sigrid Barron	Environmental Coordinator	ID Team Leader & Project Initiator	SB	2/27/95
Dave Fehringer	Forester	Silviculture	DF	2/27/95
Rod Rickerd	Forester	Forestry/Timber	RBR	3/10/95
Frank Oliver	Wildlife Biologist	Wildlife/T & E Species	FMO	2/28/95
Rob Hurt	Fisheries Biologist	Fisheries	RH	2/28/95
Gary Basham	Special Status Plant Coordinator	Special Status Plants	GB	2/28/95
Dennis Hutchison	Soil Scientist	Soils/Water	DEH	3-7-95
Isaac Barner	District Archeologist	Cultural Resources	IWB	2/28/95
Steve Niles	Forest Manager	Forestry	SON	2-27-95
Bill Adams	Fire Management Specialist	Fuels Management	WJA	2/28/95

Analysis Compiled By: Sigrid M. Barron 2/27/95
Sigrid Barron — Date
Environmental Coordinator

Chapter 6
FUTURE PUBLIC NOTIFICATION

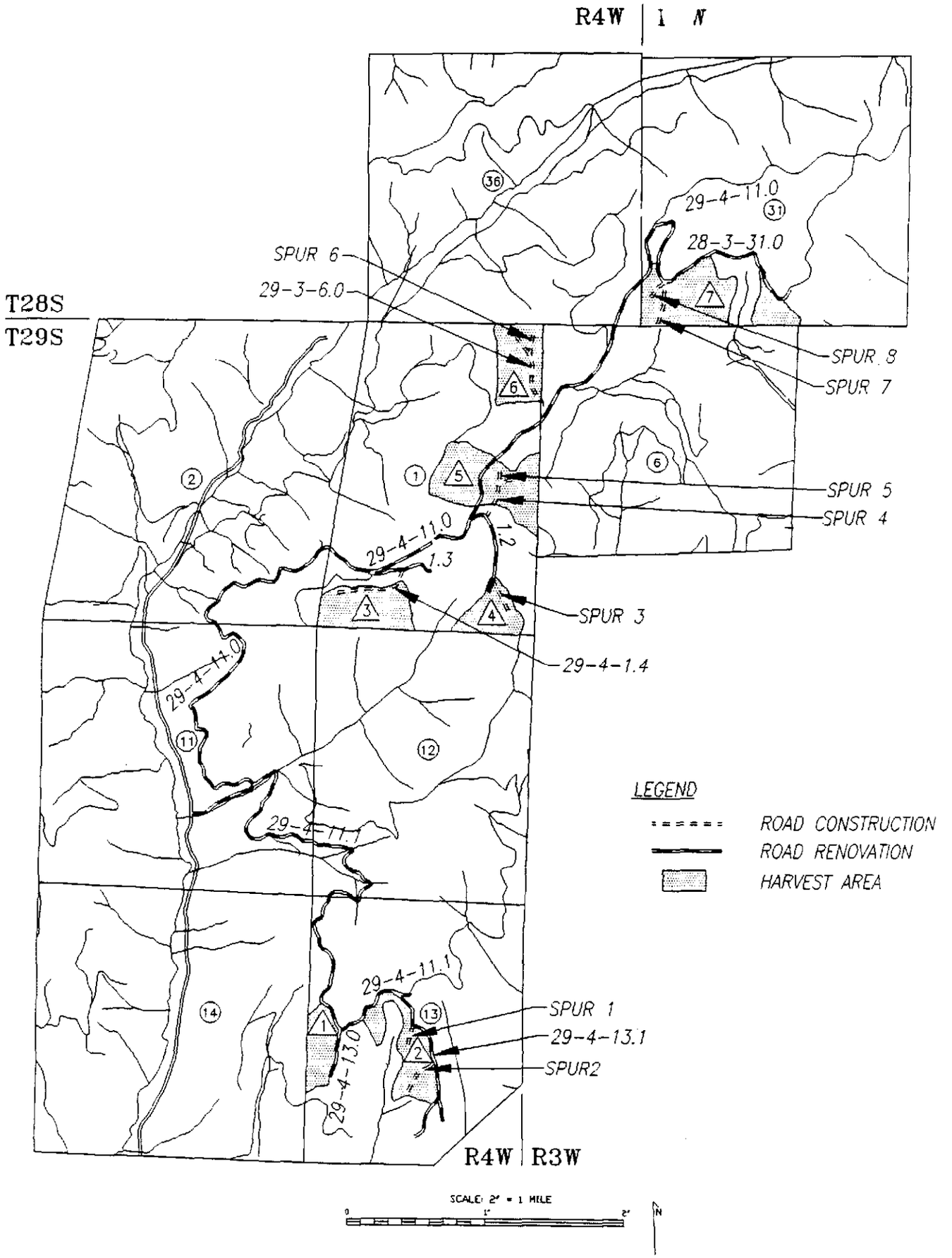
1. The following agencies, organizations, and individuals will be notified of this action if it is implemented:

Division of State Lands
Douglas County Planning Department
Douglas County Board of Commissioners
Justice Department
Oregon Department of Environmental Quality
Oregon Department of Fish and Wildlife
Oregon Department of Forestry
Oregon Department of Geology and Mineral Industries
Oregon Land Conservation & Development
Oregon Natural Resources Council
Pacific Rivers Council
US Environmental Protection Agency
US Fish and Wildlife Service
Umpqua Regional Council of Governments

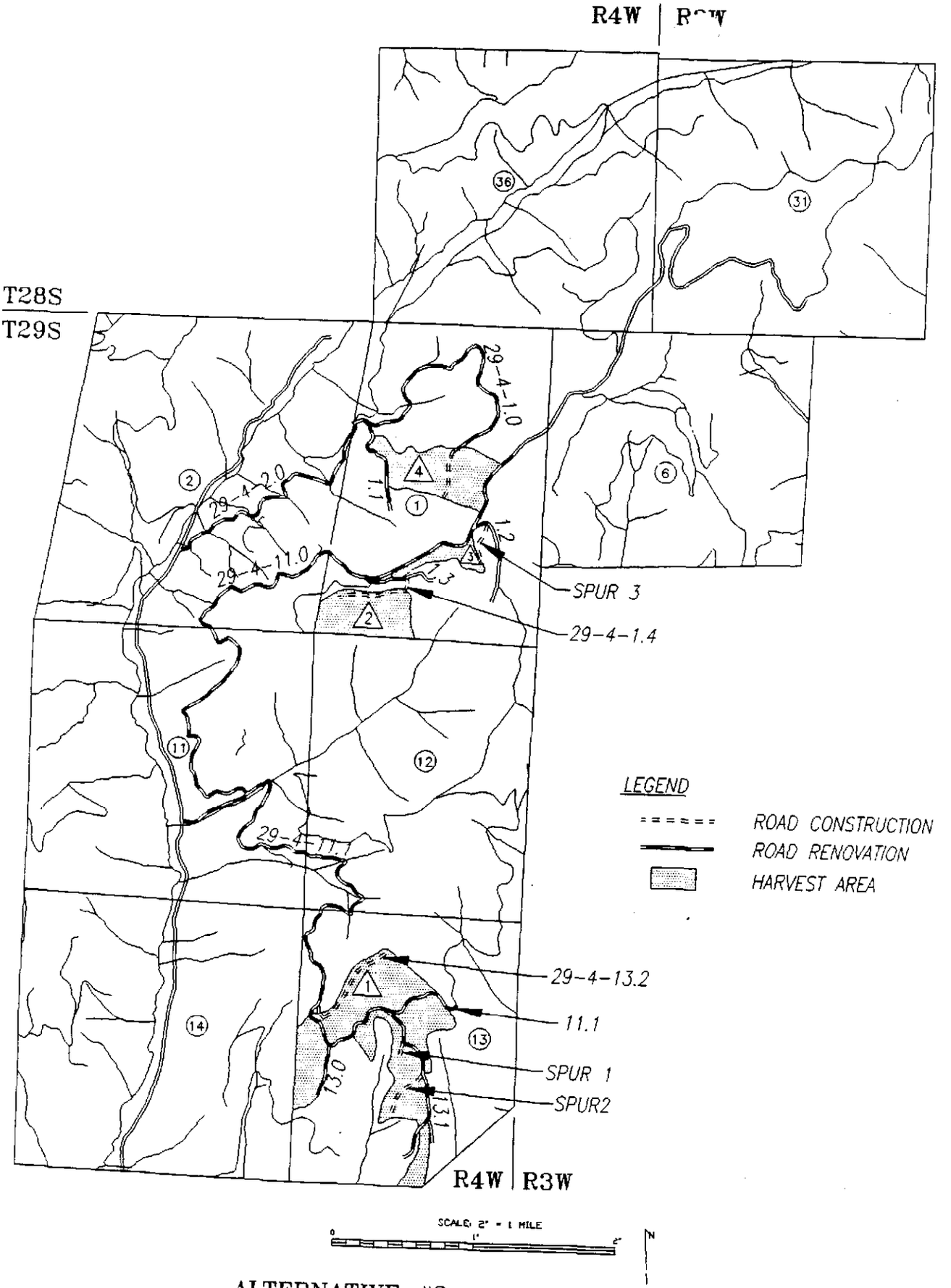
A notice of decision would be published in the News Review if the decision is made to implement the project.

APPENDIX A

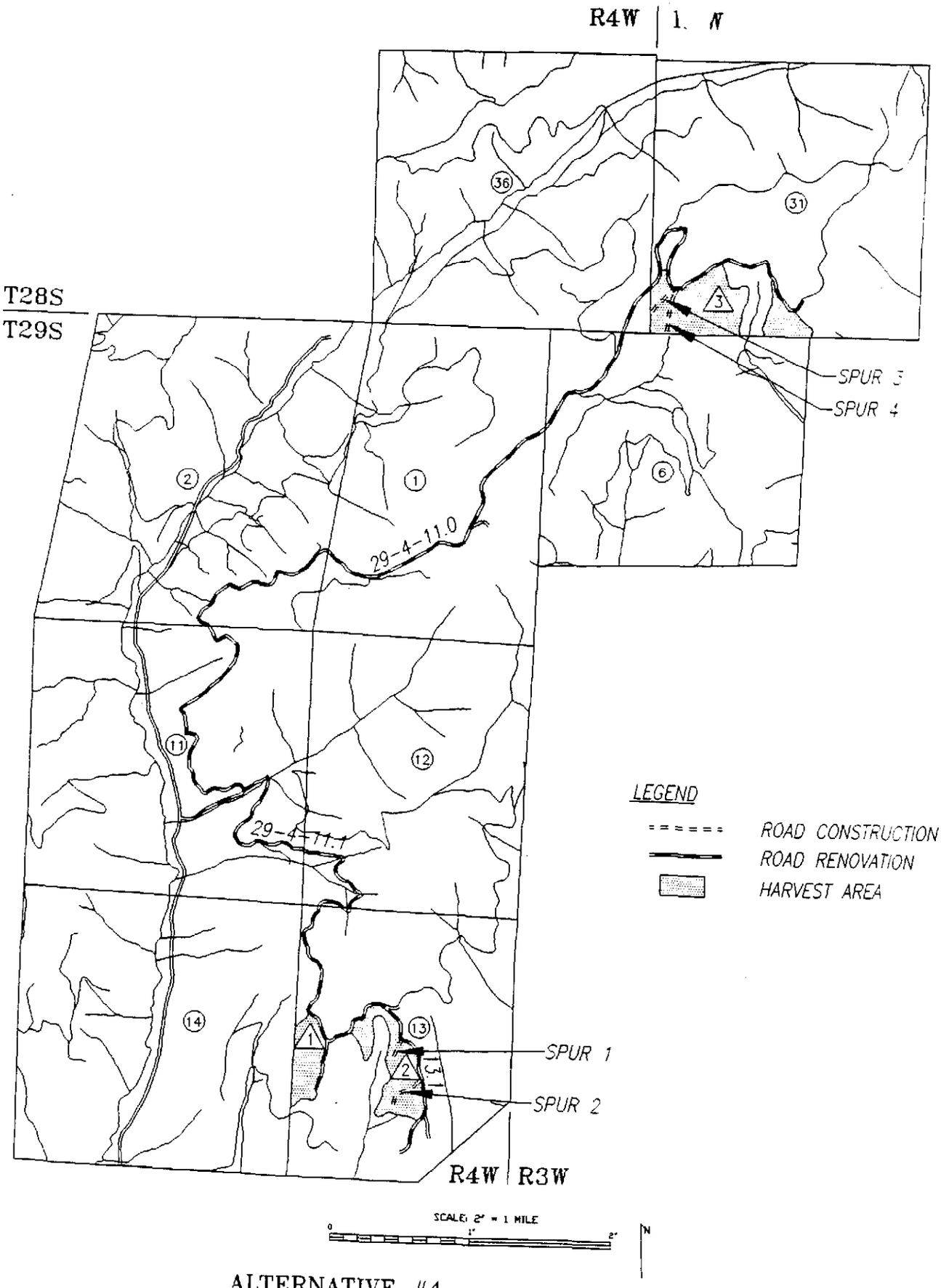
MAPS



ALTERNATIVE #2
LEAN LOUIS HARVEST AREA



ALTERNATIVE #3
LEAN LOUIS HARVEST AREA



ALTERNATIVE #4
LEAN LOUIS HARVEST AREA

APPENDIX B

CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order.

These resources or values are either **not present** or **would not be affected by the proposed actions or alternative**, unless otherwise described in this EA. This negative declaration is documented below by individuals who assisted in the preparation of this analysis.

ELEMENT	NOT PRESENT	NOT AFFECTED	IN TEXT	INITIALS	TITLE
Air Quality		X		WJA	Fuels Mgmt Specialist
Areas of Critical Environmental Concern	X			JSB	Resources Forester
Cultural Resources	X			[illegible]	District Archaeologist
Farm Lands (prime or unique)	X			DEH	SOIL SCIENTIST
Floodplains		X		DEH	SOIL SCIENTIST
Native American Religious Concerns	X			JSB	Resources Forester
Threatened or Endangered Wildlife Species			X	FMO RCH	Franklin M. Oliver Robert C. Hunt / FISH BIO
Threatened or Endangered Plant Species			X	JSB	Gary Barham Area Plant coordinator
Wastes, Hazardous or Solid			X	SB	Env Coord.
Water Quality Drinking/Ground		X		DEH	SOIL SCIENTIST
Wetlands/Riparian Zones		X		DEH	SOIL SCIENTIST
Wild & Scenic Rivers	X			SB	Env. Coord.
Wilderness	X			SB	"
Visual Resource Management		X		DPM	Outdoor Recreation Planner

APPENDIX C

ROAD CONSTRUCTION DETAILS

APPENDIX C

ROAD CONSTRUCTION DETAILS

ALTERNATIVE NO# 2

TOWNSHIP-RANGE-SECTION	UNIT #	ROAD ID	LENGTH (Feet)	SURFACE	PERMANENT
T 29 S, R 04 W, SEC. 13	2	SPUR #1	200	ROCK	200
	2	SPUR #2	800	ROCK	800
T 29 S, R 04 W, SEC. 1	3	29-4-1.4	1,850	ROCK	1,850
	4	SPUR #3	725	ROCK	725
	5	SPUR #4	955	ROCK	955
	5	SPUR #5	115	ROCK	115
	6	29-3-6.0	1,460	ROCK	1,460
	6	SPUR #6	130	ROCK	130
T 28 S, R 03 W, SEC. 31	7	SPUR #7	800	NATURAL	0
	7	SPUR #8	300	NATURAL	0
TOTAL ROAD CONSTRUCTION			7,335		6,235

ALTERNATIVE #3

TOWNSHIP-RANGE-SECTION	UNIT #	ROAD ID	LENGTH (Feet)	SURFACE	PERMANENT
T 29 S, R 04 W, SEC. 13	1	29-4-13.2	2,000	ROCK	2,000
	1	SPUR #1	200	ROCK	200
		SPUR #2	800	ROCK	800
T 29 S, R 04 W, SEC. 1	2	29-4-1.4	1,850	ROCK	1,850
	3	SPUR #3	700	NATURAL	0
	4	29-4-1.0	1,000	ROCK	1,000
TOTAL ROAD CONSTRUCTION			6,550		5,850

ALTERNATIVE #4

TOWNSHIP-RANGE-SECTION	UNIT #	ROAD ID	LENGTH (Feet)	SURFACE	PERMANENT
T 29 S, R 04 W, SEC. 13	2	SPUR #1	200	ROCK	200
	2	SPUR #2	800	ROCK	800
T 28S, R 03 W, SEC 31	3	SPUR #3	800	NATURAL	0
	3	SPUR #4	300	NATURAL	0
TOTAL ROAD CONSTRUCTION			2,100		1,000