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Upper Harms

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

**ENVIRONMENTAL ASSESSMENT NO. OR090-98-16**  
**Upper Harms Timber Sale**

## **I. INTRODUCTION**

### **A. PURPOSE OF AND NEED FOR THE ACTION**

This action proposes timber harvest and other forest management activities within a project area located in Section 25, Township 20 South, Range 2 West, Willamette Meridian, Lane County, Oregon, in the South Valley Resource Area of the Eugene District of the Bureau of Land Management (BLM).

The project area is within the Matrix Land Use Allocation and has management objectives for General Forest Management Activities (GFMA) and Riparian Reserves. The purpose of the proposed action within GFMA is to provide forest products while reducing stand density to optimize volume growth of the reserved stand. The need for the action is established in the "Eugene District Record of Decision and Resource Management Plan," June 1995 (RMP), which directs that timber be harvested from Matrix lands to provide a sustainable supply of timber.

The purpose of the Proposed Action within the Riparian Reserves is to reduce stand density to accelerate diameter growth; develop canopy layering toward providing late successional structural characteristics; provide adequate growing conditions for the establishment and growth of shade tolerant conifers; and enhance stream habitat conditions. The need for the action is established in the RMP, which directs that silvicultural practices be applied in Riparian Reserves to acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives; and by the fact that stand density is approaching the point at which suppression mortality occurs.

### **B. CONFORMANCE WITH LAND USE PLAN**

The proposed action and alternatives are in conformance with the RMP. The RMP makes land use allocations and allows for commercial thinnings in the GFMA land use allocation and silvicultural practices within Riparian Reserves.

On November 4, 1996, "Interim Guidance for Survey and Manage Component 2 Species: Red Tree Vole" was issued to implement component 2 of the Survey and Manage Standard and Guideline under the Northwest Forest Plan Record of Decision (BLM Instruction Memorandum No. OR-97-009). This memorandum contained both the management recommendations (interim guidance) and the survey protocol for the red tree vole. Instruction Memorandum No. OR-98-105 extended the interim guidance through FY99 or until superseded by revised direction. The Proposed Action and alternatives are in conformance with this guidance.

Plan maintenance documentation postponing surveys for 32 Component 2 and Protection Buffer species was recently completed ("Plan Maintenance Documentation, USDI Bureau of Land Management, To Change the Implementation Schedule for Survey and Manage and Protection

Buffer Species," approved March 3, 1999). The Proposed Action and alternatives are in conformance with the direction provided in the Plan Maintenance Documentation. The implementation of the plan maintenance is provided for by BLM planning regulations (43 CFR 1610.5-4).

The effect of the plan maintenance action was analyzed in an environmental assessment (EA), "To Change the Implementation Schedule for Survey and Manage and Protection Buffer Species," issued October 7, 1998 ("Schedule Change EA"). The analysis contained in the Schedule Change EA is incorporated into this document by reference.

Additional site-specific information is available in the Upper Harms Timber Sale project analysis file. This file and the above referenced documents are available for review at the Eugene District Office. The Schedule Change EA and the Plan Maintenance Documentation are also available for review on the internet at <http://www.or.blm.gov/nwfp.htm>.

## **II. PROPOSED ACTION AND ALTERNATIVES**

This proposed action and its alternatives consider timber harvest and other forest management activities on approximately 320 acres (see map).

### **A. PROPOSED ACTION - commercial thin with Riparian Reserve treatment**

This alternative proposes thinning the GFMA lands from below; treating the Riparian Reserves with density management by thinning Douglas-fir from below; and treating the Riparian Reserves of four streams by falling and leaving large woody debris. Approximately 2.7 million board feet (MMBF) (5,000 CCF) of timber would be offered for sale. Approximately 166 GFMA acres would be harvested with the commercial thinning and approximately 41 Riparian Reserve acres would be harvested with the density management treatment.

#### **Silviculture**

All trees not specifically identified for retention would be cut.

No site preparation would be needed.

#### **Retention**

In the GFMA uplands, conifers would be retained at an average density of 130 trees per acre (TPA). Conifer retention would be based on spacing and diameter only, with no species preference.

In the Riparian Reserves, Douglas-fir trees would be retained at an average density of 45 TPA. Spacing would vary as needed to reserve the larger trees. In addition, western hemlock and western redcedars would be reserved except in areas where these species have formed thickets. These thickets would be thinned to the above density with the larger diameters preferred for retention.

Throughout the treatment area, hardwoods would be retained where possible. Decay class 3, 4 and 5 downed logs would be retained where possible. Snags which do not pose a safety hazard would be retained; those felled for safety reasons would be retained as large woody debris.

#### **Reserves**

The height of one site-potential tree in the Row River Watershed has been determined to be 200 feet slope distance. Riparian Reserve widths of 200 feet on

either side of non-fishbearing streams and the wetland associated with Stream 10 would be managed in accordance with the standards and guidelines in the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (NSO ROD) (Appendix C, pp. 31-38). Management activities within Riparian Reserves would include road construction, road decommissioning, timber harvest, and large woody debris creation. No ground-based yarding would occur within the Riparian Reserves.

Because they are developing adequate structure and complexity, Riparian Reserves for all streams, wetlands, and springs north of Road No. 20-2-25 would not be treated with density management.

Riparian Reserves for Streams 1 and 6 south of Road No. 20-2-25; Streams 7-9, Stream 10 and associated wetland; Stream 11 south of the Reserve confluence with Stream 13; and Streams 14-19 and 21-23 would receive density management treatment to within approximately 50 feet of the streams. The actual density management treatment boundary would be based on vegetation and topography. Riparian Reserves for Streams 1 (north and south of Road No. 20-2-25), 7, 9 and 11 would receive a large woody debris creation treatment. This treatment would occur within a range of 25-75 feet from stream's edge. The wetlands (20, Stream 9) and springs (24, 25, and 26) would be reserved to their extents.

Four *Helvella compressa* populations would be reserved. One *Sarcosoma latahense* population would be reserved. Three *Sarcosoma mexicana* populations would be reserved. *Ulotia megalospora* would be protected within the untreated Riparian Reserve for Stream 10.

In the approximate center of the project area, an approximately two acre open grassy area would be reserved to its extents.

Three *Prophysaon* slug sites (representing two species) would be reserved and 11 *Megomphix* snail sites would be reserved consistent with the Eugene District Wildlife Working Group interim recommendations for management of Survey and Manage mollusk sites. These interim recommendations are included in the project analysis files and are incorporated herein by reference. The reserves would be either established by the untreated Riparian Reserves or created around the site centers and would be approximately a quarter acre in size. The 10 *Megomphix* sites not reserved would be protected by reserving the site tree and 2 to 5 trees within 25 feet of it.

The osprey nest tree is within the Riparian Reserve for Stream 12. If the osprey nest were to be active at the time harvest operations were under way, it would receive a one-quarter mile seasonal restriction on potentially disturbing management activities (March 1-August 31, or until the young leave the nest).

### **Large Woody Debris Creation**

In the Riparian Reserves of Streams 1, 7, 9 and 11, a total of 50 trees with diameters ranging from 14-28 inches would be felled and left on site. These trees would be felled at angles that would provide optimum channel structure to the streams.

### **Roads and Yarding**

Approximately 8,720 feet of natural surface road (Spurs B1, C-J, K1) would be constructed, and 5,400 feet of rock road (Roads 20-2-25.2, -25.3, -25.4, -25.5, -25.6, -25.7, -25.8, and -25.9) would be constructed to allow winter cable logging. Natural surface roads would be built to minimum width standards (14-foot subgrade)

with no ditch and outsloped where possible. Rocked roads would be built to a 16-foot subgrade and ditched. Approximately 7,495 feet of dirt road (Road No. 20-2-27.1) would be renovated. Spurs B1, C-J and K1 would be waterbarred between logging seasons. Road No. 20-2-27.1 would be waterbarred between logging seasons; upon completion of the project, it would be waterbarred and blocked at its junctions with Road Nos. 20-2-25 and 20-2-25.1, effectively blocking Spurs B1-I. Upon completion of the project, Spurs B1, C-J, and K1 would be subsoiled; Spurs J and K1 would be blocked. Landings would be of minimum size and would be subsoiled upon completion of the project.

Approximately 1,070 feet of Spur J would be constructed in a privately owned clearcut.

Approximately 270 feet of Spur K1 would be located within the Riparian Reserve for Stream 14. It would be approximately 150 feet away from the stream at the closest point.

Spur G would be located in the Riparian Reserve for Stream 9, approximately 80 feet from the stream at the closest point.

Culverts would be installed at the two locations where Road No. 20-2-27.1 crosses Stream 9. A log culvert would be used at the south crossing and would be removed upon completion of the project.

The sale area would be logged with both cable and ground-based yarding systems. Ground-based yarding would not be allowed within Riparian Reserves (200 feet of the streams). The Best Management Practices (BMPs) listed in Appendix C of the RMP that are relevant to both yarding systems would be followed.

### **Fuels Reduction**

Roadside and landing piles would be covered and burned if needed. Pile burning would take place in the fall after rains have begun.

## **B. ALTERNATIVE A - commercial thin only**

This alternative proposes treating only the GFMA portion of the tract by thinning. The Riparian Reserves would not be treated. Approximately 1.9 MMBF (3,325 CCF) on approximately 166 acres would be offered for sale.

### **Reserves**

All trees in the Riparian Reserves would be reserved except those felled for construction of Spur K1 near Stream 14. There would be no large woody debris creation project for Streams 1, 7, 9 and 11.

## Roads and Yarding

Spur G would not extend into the Riparian Reserve of Stream 9. New road construction would be decreased to approximately 8,600 feet.

All other design features, including **Silviculture; Retention** (in GFMA uplands); **Reserves** for *Helvella*, *Sarcosoma*, the open grassy area, *Prophysaon* and *Megomphix*; and **Fuels Reduction** would be the same as the Proposed Action.

### C. ALTERNATIVE B - commercial thin with Riparian treatment (road surfacing)

This alternative proposes the same treatment as the Proposed Action except that rocking of roads would not be allowed. Natural surfaced Spurs L-S would be built instead of Roads -25.2 through -25.9 and would be subsoiled upon completion of the project. All other design features would be the same as the Proposed Action.

### D. ALTERNATIVE C - no action

All timber harvest activities would be deferred; no management activities described under the Proposed Action, Alternative A, or Alternative B would occur, and no timber would be offered for sale at this time. Because the project area is within the Matrix land use allocation, it would likely be considered for future timber harvests even if this alternative is selected at this time.

### E. ALTERNATIVES CONSIDERED BUT NOT ANALYZED

A restoration alternative was suggested by the Oregon Natural Resources Council. This alternative was considered but not analyzed because it would not meet the purpose of the action. Additionally, the Proposed Action and Alternative B both contain restoration activities, such as placing down wood into selected streams and stream crossing repairs.

The American Lands Alliance/Santiam Watershed Guardians suggested an alternative be analyzed that would not require new road construction. Such an alternative was not analyzed because of the existing road bisecting the project area.

The American Lands Alliance/Santiam Watershed Guardians also suggested an alternative that would leave trees felled in the Riparian Reserves in place to provide down wood. This alternative was considered but not analyzed because it would create an abnormally high risk of catastrophic fire or disease infestation that could adversely affect the health of the remaining Riparian Reserves, the adjacent uplands, and the adjacent private lands.

## III. ISSUES NOT ANALYZED

No site specific surveys were completed for any of the 32 Component 2 or Protection Buffer species listed in the Schedule Change EA. Individuals of *Sarcosoma mexicana* were found, incidental to other surveys, and appropriate management actions to protect these sites would be implemented under all alternatives. However, it is possible that additional individuals may reside in the project area. The issue of how the Proposed Action and alternatives would impact potential locations of this species was not analyzed because impacts are not expected to exceed those anticipated in the Schedule Change EA.

## IV. AFFECTED ENVIRONMENT

The project area is in the Willamette Province and in the Row River Watershed. Watershed analysis has been completed (BLM Eugene District, Row River Watershed Analysis, June, 1995). Most forest stands in the Row River Watershed are currently in early or mid-seral stages, with approximately 11.8% of the federally managed forested land in the watershed in late-successional forest condition.

The plants and animals in this project area do not differ significantly from those discussed in the Eugene District Proposed Resource Management Plan/Environmental Impact Statement (RMP EIS) (Chapter 3). The following resources are also discussed in greater detail in the project file.

### **Vegetation**

The project area is well-stocked with an overstory of Douglas-fir, scattered western redcedar and western hemlock. The stand originated from natural regeneration following harvest in the 1940s and was precommercially thinned in 1974; average age is approximately 48 years. There are approximately 308 trees per acre in the north 1/3 of the project area and 204 trees per acre in the south 2/3 of the project area. Suppression mortality of small diameter trees (less than 10 inches) is occurring. Hardwoods occur in riparian areas but are mostly absent in upland areas.

Western hemlock and western redcedar regeneration is well distributed throughout the stand at moderate densities. Bigleaf maple and chinkapin seedlings were observed at sparse densities. Understory vegetation consists of salal, sword fern, and Oregon-grape. A few remnant seed trees are widely scattered, as are associated large snags. Large woody debris is abundant.

The project area is surrounded by privately owned industrial forest lands. To the west, north and east are recent (less than 10 years) clearcuts interspersed with approximately 50-year-old timber. To the south is a recent clearcut (less than 5 years).

### **Wildlife (including Special Status and Special Attention Species)**

The southeast corner of Section 25 is just within the provincial home range (1.2 miles) of the Smith Creek East owl site. A breeding pair of spotted owls has been residing there for at least seven years. The project area is not identified as critical habitat for spotted owls, but it is spotted owl dispersal habitat and foraging habitat for the Smith Creek East owls. The Row River Watershed Analysis indicates that there are approximately 5,500 acres of public land usable for northern spotted owl dispersal in the watershed.

Dispersal habitat is defined as coniferous forest greater than 11 inches in diameter at breast height (dbh) with 40% canopy closure. On the Eugene District, forest stands that are greater than 40 years old meet that definition. Foraging habitat is also dispersal habitat.

An osprey nest is located along the western edge of the stand near Stream 12. Over the years, several osprey nests have been found in the surrounding sections.

A great blue heron rookery is located in Section 23 to the northwest. Neotropical birds are known to nest in forested lands throughout western Oregon and may nest within the stand. Birds that have been observed in the general area are a great horned owl, screech owl, saw-whet owl, pygmy owl, red-tailed hawk, sharp-shinned hawk, Cooper's hawk, western bluebird, downy woodpecker, pileated woodpecker, varied thrush, band-tailed pigeon, blue grouse, Townsend's warbler, and one of Dorena Reservoir's resident bald eagles.

Surveys for Survey and Manage mollusks were completed in the spring of 1998. Mollusks

were found at 24 sites: 21 had Oregon Megomphix snails (*Megomphix hemphilli*), two had blue-gray tail-dropper slugs (*Prophysaon coeruleum*), and one had a Papillose tail-dropper slug (*Prophysaon dubium*). These species appear to be associated with bigleaf maple and large pieces of downed wood.

## Soils

The project area contains soils of the Peavine (approximately 40% of the project area) and Honeygrove (approximately 60% of the project area) series. The Honeygrove series are deep, red, well-drained, clayey soil found on stable landscapes. They are among the most highly productive forest soils found in Oregon. The Peavine series are moderately deep, well-drained, red, clayey soils found on slopes less than 60%. Peavine soils are highly productive.

The overall topography of the unit is benchy, with slopes ranging from 0-80%. Most of the project area slopes are between 20-60%.

## Aquatic and Riparian Resources and Fisheries

The elevations in the project area range from 1,750 to 2,560 feet. The majority of the project area is at elevations that are considered to be in the transient snow zone, which is the elevation band where snow may fall but melts quickly.

There are 23 streams (numbers 1-19, 21-23, 27) within or immediately adjacent to the project area. Wetlands associated with Streams 2 and 3 are less than 1 acre and are in the untreated Riparian Reserves at the north end of the project area. Wetland 20 and the wetland associated with Stream 9 are each less than 1 acre. The wetland associated with Stream 10 is greater than 1 acre. Three springs (24, 25, and 26) are also located within the project area.

Streams 15, 16, and 17 drain south and southeast to the Smith Creek basin. The remaining streams drain to Harms Creek, which drains into Rat Creek. Both Smith and Rat Creeks flow into Dorena Reservoir.

South of its junction with Road No. 20-2-25, Road No. 20-2-27.1 has a light surface of rock, is not overgrown, and has gradients up to 20%. The steeper portions of this road are rutted and have experienced some erosion.

There are five stream crossings within the project area that are associated with the existing roads. The lower (northernmost) crossing over Stream 9 has experienced a fill failure from the existing log culvert. The upper (southernmost) crossing of Stream 9 is an area of normally low flow. There is no drainage structure at this location. Flow appears to have been diverted from its natural course and into the ditch line of this road. The current situation is inadequate for handling higher flow conditions. There is an 18-inch culvert at the crossing of Stream 6. There is a 36-inch culvert at the upper crossing of Stream 1 and a 36-inch culvert at the lower crossing of Stream 1. Flow overtopped the banks at the lower crossing of Stream 1 during the high flows in November 1996. A side "channel" was created for about 200 feet down the dirt portion of Road 20-2-27.1 northwest of the project area. The stream and road are confined in this area. It is likely that the side channel will continue to occur during high flow conditions.

The closest filed water rights are for irrigation use and fisheries on Harms Creek and Rat Creek approximately 1-1/2 miles downstream. The flow for the fisheries water rights holder is diverted from Rat Creek above the confluence of Harms Creek.

Fish surveys detected no fish within the proposed project area. Amphibians are known to reside in Streams 1, 9, 10, and 11. High falls and a cascade are located on the main

tributary (Stream 1) north of and below the road downstream from the northwest corner of the sale. Habitat in Stream 1 would be adequate for fish except for the natural passage barrier at the falls. Pools, riffles, gravel and moderate to high amounts of wood are available. Streams 10 and 11 contain moderate to high amounts of logs within the project area near the west boundary.

The closest beneficial use for fisheries is on Harms Creek to the northwest of the unit. Cutthroat trout (*Onchorhynchus clarki*) spawn and rear in Harms Creek downstream from the project area tributaries. They also use the lower part of Stream 11 downstream from the project area.

### **Botany**

All botanical surveys have been completed. No Threatened, Endangered or Special Status species were found. Surveys for *Ulota megalospora*, a Protection Buffer species of moss, were conducted during the fall of 1998 according to survey protocols established by the Eugene District Botany Work Group. Protocols were developed using information from Appendix J2 of the SFEIS and local expertise. A small clump of trees hosting *Ulota* was found within the Riparian Reserve for Stream 10.

Four *Helvella compressa* populations, three *Sarcosoma mexicana* populations, and one *S. latahense* population were found incidental to general botanical surveys and Survey and Manage mollusk surveys. *Helvella compressa* and *Sarcosoma latahense* are both Survey and Manage Component 1 and 3 species; under the Survey and Manage Standard and Guideline, surveys for these species prior to ground disturbing activities are not required. *Sarcosoma mexicana* is a Survey and Manage Component 3 species and a Protection Buffer species. Northwest Forest Plan Standards and Guidelines for Protection Buffer species require surveys prior to ground-disturbing activities. However, consistent with the Plan Maintenance Documentation referenced earlier, site specific surveys for *Sarcosoma mexicana* were not conducted in the proposed harvest unit.

A grassy open area (approximately 2 acres) is located west of the proposed landing location at the end of Spur H. This grassy area is not a special habitat area.

### **Visual Resources**

The project area is classified as Visual Resource Management Class IV, which allows major modifications of existing character of landscapes.

### **Cultural Resources**

A survey of the project area found no cultural resources.

### **Air Resources**

Air resources that would be affected by the alternatives are discussed in the RMP EIS (Chapter 3, pp. 14-20).

## V. ENVIRONMENTAL CONSEQUENCES

The Proposed Action and alternatives would have environmental effects. However, none of the alternatives would have effects beyond those described in the RMP EIS and the NSO FEIS. Impacts based upon site specific analysis of the alternatives are shown below.

### A. UNAFFECTED RESOURCES

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

### B. DIRECT AND INDIRECT EFFECTS OF THE PROPOSED ACTION (commercial thin with Riparian Reserve treatment)

#### Vegetation and Wildlife (including Special Status and Special Attention Species)

A commercial thin of the uplands would promote growth of the reserve trees by removing competition for growing space through harvesting the suppressed trees. Maintaining the growing stock at the density prescribed would promote stand level volume growth toward an eventual final harvest (approximately 20-30 years). Canopy closure would be greater than 50% after treatment so the uplands would continue to function as spotted owl dispersal habitat, but it would be degraded. Additionally, foraging habitat for the Smith Creek East owl site would be degraded.

Density management of the Riparian Reserves would promote stand development toward a structure more characteristic of a later seral stage by increasing growing space for retention trees and by increasing the amount of light penetrating the canopy. Increased light levels promote growth and development of vegetation at midcanopy and ground levels. Managing the Riparian Reserves would promote diameter growth and crown retention of the Douglas-fir overstory and the western redcedar/western hemlock midcanopy layer. It would also promote growth of the shade tolerant seedlings, which would increase canopy layering.

Because canopy closure would be less than 40% after treatment, approximately 41 acres of northern spotted owl dispersal and foraging habitat in the Riparian Reserves would be eliminated for approximately 10 years. Crown growth is expected to increase canopy closure to greater than 40% within 10 years after treatment, restoring dispersal habitat. When the young conifers have grown into the midcanopy (approximately 30-40 years), the resulting canopy layering would provide nesting/roosting/foraging habitat.

Neotropical birds would be affected in one of two ways. First, birds requiring closed canopy coniferous forest (e.g., hermit warbler) would decrease in number or move elsewhere; and secondly, those species associated with open and highly fragmented forests may increase. Upland amphibians would be disturbed by the harvest but should persist due to the amount of downed wood in the stand.

The reserves and retained trees around the *Prophysaon* and *Megomphix* sites would provide shade and mechanical protection from yarding for those population sites. Overall habitat conditions would be degraded until conditions return to acceptable levels based on amount of down woody debris, moisture regimes, canopy closure,

and temperature. Suitable habitat would remain in unharvested areas, including the riparian reserves and protected known site locations, allowing for survival of many resident individuals. In both the Coast Range and the Cascade foothills of the Eugene District, it has been observed that reducing the number of conifers ultimately favors bigleaf maples and the associated mollusk fauna. Populations of these mollusks are capable of surviving disturbances such as thinning and regeneration harvests, especially if habitat components such as downed wood are left. The unharvested areas can provide a population source to recolonize the harvested areas if the population drops due to the thinning.

Pile burning would eliminate large concentrations of fuel, which are point sources of intense fire behavior in the event of an unplanned fire start within the project area.

### **Soils**

Approximately three acres of compaction lasting for the life of harvest operations could be expected from the construction of natural surface roads and from yarding operations. However, minimizing landing and road bed size and subsoiling temporary roads, landings, and skid roads would greatly reduce compaction and would restore infiltration rates.

There would be approximately two acres of permanent compaction resulting from the construction of rocked spurs L-S. The majority of this rocked road would be ridgetop construction, which would eliminate almost all potential for road-related sediment to access a stream channel.

Any increase in erosion/sedimentation resulting from this action would be low. Many of the mitigation measures that would reduce compaction would also minimize erosion effects. Waterbarring would minimize increases in erosion. Existing roads may contribute to erosion and sedimentation as long as they are in use. However, treatment of the existing roads upon completion of operations, such as waterbarring Road No. 20-2-27.1, would diminish current levels of erosion.

### **Aquatic and Riparian Resources and Fisheries**

The Proposed Action includes management within Riparian Reserves that promotes attainment of Aquatic Conservation Strategy (ACS) objectives. No adverse effects to the continued viability of cutthroat trout in Harms Creek and other tributaries are expected. The following is a site-specific analysis of the effect of the Proposed Action on attainment of the ACS objectives:

1. The thinning treatment in the Proposed Action in both the Riparian Reserves and upland areas and the large woody debris creation in the Riparian Reserve would likely contribute to the restoration of the distribution and complexity of watershed and landscape-scale features. Stands such as those to be thinned in the project area constitute the most common vegetation class in the watershed (Row River Watershed Analysis, Chapter 4, page 26). These stands are low in species diversity and structural complexity, which thinning would be expected to increase.
2. The management activities in the Riparian Reserves would be highly unlikely to cause any degradation of connectivity or increase in landscape fragmentation because of the influence of the residual stand, the untreated portion of the Riparian Reserves, and the temporary nature of the majority of the road construction.
3. The Proposed Action would not adversely affect the physical integrity of the aquatic systems because the residual trees in areas thinned would maintain root

strength; the untreated portion of the Riparian Reserves would ensure that thinning would not affect streambank integrity; and management activities throughout the project area would not cause any alteration in water flows that could negatively affect channel morphology. Beneficial effects would result from the replacement of the drainage structure on the northern crossing of Stream 9 and the re-establishment of the natural stream channel at the southern crossing of Stream 9. These would help to improve the physical integrity of the system by reducing the potential for channel failure in these locations. Additionally, trees felled for large woody debris into or near Stream channels 1, 7, 9, and 11 would create an immediate supply of large woody debris, and thinning in Riparian Reserves would speed the development of a future supply of larger woody debris, which would contribute to the restoration of the physical integrity of the aquatic system. Providing an immediate and future supply of woody debris to the streams would also help restore the sediment regime, the flow regime, the deposition of gravels, and the formation of deep pools, back-water and off-channel aquatic habitat.

4. The Proposed Action would maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. All streams and wetlands would have an untreated reserve around them. There are no new stream crossings proposed. No yarding corridors are proposed. The Proposed Action is expected to have little to no impact on stream temperatures because of the untreated reserves adjacent to the streams and the retention of 45 trees per acre in the harvested portions of the Riparian Reserves.
5. The Proposed Action would not prevent or retard restoration of the sediment regime under which this aquatic ecosystem evolved. The untreated portion of the Riparian Reserves would adequately filter any sediment from the uplands before it reaches the stream because of the generally gentle topography, the low risk of hillslope erosion, and the low risk of substantial sediment inputs from upland areas. The direct disturbance of road reconstruction and decommissioning could result in production of a minor amount of sediment during the immediate periods of reconstruction and decommissioning, which would have negligible effects on the aquatic ecosystem. The probability of sediments entering streams from the new spurs is low due to the distance the new spurs would be from streams, the design features of outsloping the roads, waterbarring, and subsoiling the roads upon completion of the project, and the filtering effects of untreated reserves around the streams. Very little new road construction would occur within the Riparian Reserves, and existing roads would be only temporarily reconstructed. The restoration of the crossings of Stream 9 could reduce the potential for future sedimentation.
6. The Proposed Action may contribute to a minor increase in summer low flows, and overall water yield because of reduction in evapotranspiration and interception due to the removal of some of the trees. The effect is expected to be low because much of the canopy would be retained. There is likely to be little or no effect of greater snow accumulation and snow melt that is associated with rain-on-snow events because of the high retention of overstory. Effects on the timing and magnitude of peak flows are expected to be low to non-existent. Impacts to stream flow from compaction effects are expected to be low.
7. The Proposed Action would not alter existing patterns of floodplain inundation and water table elevation because it would have little effect on existing flow patterns and stream channel conditions.

8. The Proposed Action would not prevent or retard the restoration of the species composition and structural diversity of plant communities, and habitat to support well-distributed populations of some riparian-dependent species by speeding the development of late-successional forest characteristics within the Riparian Reserves. The Proposed Action would cause a reduction in canopy closure for several decades in the thinned areas, which could result in some micro-climatic alteration or other adverse effects for species that prefer complete canopy closure or that do not tolerate disturbance. Any such effect would be minor because of the effect of the residual trees, the extensive untreated reserve areas, and because of the current poor habitat condition of the stands for most species associated with late-successional forests.
9. The Proposed Action would maintain or restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species. The untreated Riparian Reserves would provide adequate habitat for these species.

Based on the above analysis of the effect on attainment of the ACS objectives, the Proposed Action is consistent with the ACS and the objectives for the Riparian Reserves, and would not prevent or retard attainment of any of the ACS objectives.

### **Botany**

The Proposed Action would let in more light and disturb the organic layer, changing microclimate factors which support forest floor native species and encourage the colonization of non-native species.

The grassy opening would not be affected since there would be no activity in it.

Impacts to *Ulotia megalospora* would be minimal. Regarding this species, the Northwest Forest Plan states, "Protect known occupied sites if distribution patterns are disjunct and highly localized." The Proposed Action would protect the small clump of trees on which *Ulotia* was found. This would protect the single population found during surveys within the proposed unit.

For *Helvella compressa*, under the Proposed Action, one site is secure within a Riparian Reserve, two are located within approximately 60 foot x 60 foot reserves, and one located near a proposed landing has a 30 foot x 30 foot reserve. Northwest Forest Plan goals for this species include the maintenance of habitat and microclimate, but there is evidence that some disturbance is tolerated by the species. The reserves outlined above are adequate to maintain the species' range of habitats within the project area.

Sites known to have had populations of *Sarcosoma mexicana* would be protected with an approximately 120 foot diameter area around each site, consistent with district interim management guidelines. These guidelines were developed utilizing information from Appendix J2 of the FSEIS and local expertise. The protected area would be a no-entry, no-yard area in which protection of the duff layer would be the main objective. These reserves would adequately protect the duff layers of the known sites.

Little is known about the ecology and life cycle of *Sarcosoma mexicana*, a species of winter-fruiting fungus. At the writing of the Northwest Forest Plan, *S. mexicana* was thought to occur in deep conifer litter layers in older forests. However, from its occurrence in disturbed, compacted soils and second-growth forests, it can be deduced that *S. mexicana* can either survive or re-establish into the kind of

environment caused by timber harvest, road construction, burning, and (in one known case) plowing. Therefore, it is unlikely that exposing some percentage of potential habitat to management actions as described under the Proposed Action would compromise the viability of the species. Additionally, based on the analysis presented in the Schedule Change EA, it is likely that this species would continue to persist in the stand after harvest.

*Sarcosoma latahense* is listed as *Plectania latahensis* in the Northwest Forest Plan. The management objective for this species is to “maintain habitat conditions at all known sites on Federal land” (BLM Instruction Memorandum No. OR-98-003). Under the Proposed Action, a one-acre reserve would be established to protect the site. As a result, impacts to the known site are not anticipated.

#### **Air Quality**

The Proposed Action may affect air quality; this effect has been analyzed generally in the RMP EIS (Chapter 4, pp. 10-14). The amount of smoke released from pile burning in the Proposed Action would cause a negligible effect on air quality.

### **C. DIRECT AND INDIRECT EFFECTS OF ALTERNATIVE A (commercial thin only)**

#### **Vegetation and Wildlife (including Special Status and Special Attention Species)**

The effects on the GFMA portion of the project area would be similar to the effects of the Proposed Action.

Failure to treat the Riparian Reserves would continue current trends in stand development in these areas. Competition for growing space would continue to impede diameter growth, reduce live crown ratios, and self-thin the stand. A persistent closed canopy would retard the growth of understory western hemlock and western redcedar regeneration and slow the development of canopy layering relative to the Proposed Action.

The immediate effects on wildlife would be similar to the Proposed Action. In the Riparian Reserves, small species requiring a dense, closed canopy would persist and large species would continue to forage. Without treatment the Riparian Reserves would take several decades longer to develop large diameter, large crown overstory trees and canopy layering associated with shade-tolerant understory conifers.

#### **Soils**

Compaction would be slightly lower with this alternative than the Proposed Action because of the smaller area involved in yarding. Erosion/sedimentation effects are expected to be similar to slightly lower than the Proposed Action because of the smaller area yarded and the increased distance from yarding activities to streams.

#### **Aquatic and Riparian Resources and Fisheries**

Effects on ACS objectives would be similar to the Proposed Action except there would be no immediate increase of large woody debris, and development of late-successional characteristics in the Riparian Reserves would not be accelerated. Therefore the development of a future supply of larger woody debris would not be accelerated to help restore the sediment regime, the flow regime, the deposition of gravels, and the formation of deep pools, back-water and off-channel aquatic habitat; and restoration of species composition and structural diversity of plant communities

would not occur as quickly relative to the Proposed Action.

**Botany**

The effects on botanical resources would be similar to the Proposed Action.

**Air Quality**

The effects on air quality would be similar to the Proposed Action.

**D. DIRECT AND INDIRECT EFFECTS OF ALTERNATIVE B (commercial thin with Riparian treatment - road surfacing)**

**Vegetation and Wildlife (including Special Status and Special Attention Species)**

The effects on vegetation due to implementation of Alternative B would be similar to the effects of the Proposed Action.

The effects on wildlife would be similar to the effects of the Proposed Action, with the following exceptions: 1) reclamation of Spurs L-S would provide habitat in the future; and 2) without rocked roads, winter logging would not be possible. This may add additional summers of operating time, extending the period of disturbance caused by the presence of humans and machinery.

**Soils**

Waterbarring Spurs L-S between logging seasons and subsoiling them upon completion of the project would eliminate about 2 acres of permanently compacted surface that would result if the Proposed Action were selected. Erosion effects would be similar to or slightly lower than the Proposed Action. Sedimentation effects would be expected to be similar to the Proposed Action.

**Aquatic and Riparian Resources and Fisheries**

The effects of Alternative B would be similar to the effects of the Proposed Action.

**Botany**

The effects on botanical resources would be similar to the Proposed Action.

**Air Quality**

The effects on air quality would be similar to the Proposed Action.

## **E. DIRECT AND INDIRECT EFFECTS OF ALTERNATIVE C (No Action)**

### **Vegetation and Wildlife**

Selecting Alternative C and deferring treatment at this time would continue current trends in stand development. Stand density is at the point at which suppression mortality occurs. Trees which suffer mortality would be lost as an opportunity to harvest that volume.

The effects on vegetation within Riparian Reserves would be similar to Alternative A.

This action would have no immediate effects on wildlife. However, those species which prefer late-successional characteristics would be affected by the delay in development of the Riparian Reserves. They would not be able to move into the Riparian Reserves as quickly as if the Proposed Action or Alternative B were implemented.

### **Soils**

Alternative C would have no effect on soils. This alternative would not have the beneficial effect of diminishing current sources of erosion on the existing roads that could be achieved through installing culverts at the crossings of Stream 9 and by waterbarring Road No. 20-2-27.1.

### **Aquatic and Riparian Resources and Fisheries**

Alternative C would have no effect on stream temperature, sedimentation, riparian vegetation, erosion, flow, channel/bank stability, or compaction. This alternative would not have the potential benefit of installing culverts on Stream 9. The potential benefit of adding structure to the stream to provide physical characteristics and habitat necessary for the stream ecosystem would also not be achieved.

### **Botany**

The effect on botanical resources would be the same as the Proposed Action.

### **Air Quality**

Alternative C would have no effect on air quality.

## **F. CUMULATIVE EFFECTS**

This analysis incorporates by reference the analysis of cumulative effects in the NSO FSEIS (Chapter 3 & 4, pp. 4-10) and the RMP EIS (chapter 4). Those documents analyze most cumulative effects of timber harvest and other related management activities. Neither the Proposed Action nor any of the alternatives would have cumulative effects beyond those effects analyzed in the above documents. The following section supplements those analyses, providing site-specific information and analysis particular to the alternatives considered here.

It is likely that this stand would be regeneration harvested in 20-30 years, given the GFMA land use allocation. It is also likely that other stands on BLM-administered lands within the Row River Watershed would be harvested, either through regeneration or thinning, over the next several years. Smaller Ones (T21S-R1W-S35) was sold in late spring 1998. Other sales that have occurred in the past five years include Row River (T21S-R1W-S33), completed in 1995; Hawling Cedar (T21S-R1W-S19 and T21S-R1W-29), completed in 1995; Pitcher Perfect Thinning

(T21S-R2W-S25 and T21S-R2W-S27), completed in 1997; and King Hawley (T21S-R2W-S35), completed in 1998. Total treatment from 1992 through the year 2004 is anticipated to be 1,205 acres, or 11% of all BLM land in the watershed.

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

The Proposed Action, together with past and anticipated harvests, could contribute to a cumulative loss of habitat for species that prefer complete canopy closure. The amount of acres providing complete canopy closure would vary from year to year as some stands are harvested and others age sufficiently to reach complete canopy closure. However, the Row River Watershed Analysis indicates that Riparian Reserves and other reserves account for over 30% of the public forest land in this watershed. Given the percentage of BLM-managed lands that are predicted to be harvested over the next several years, moderated by the acres maturing to a closed canopy condition, the incremental decrease in canopy closure resulting from the Proposed Action would be negligible.

Cumulative impacts on Survey and Manage mollusk populations are expected to be minimal to nonexistent. Within the Willamette Province portion of the South Valley Resource Area, five project areas were surveyed in 1998 resulting in the discovery of 98 *Megomphix hemphilli*, 23 *Prophysaon coeruleum*, and 5 *Prophysaon dubium*. *Megomphix hemphilli* snails were found at three of the project areas. All three project areas contained large pieces of downed wood and the snails occurred in moderate numbers. *Prophysaon coeruleum* were found at all five project areas in low numbers; this species appears to be fairly well distributed across the resource area. *Prophysaon dubium* were found at two project areas in low numbers; they appear to be more rare throughout the resource area. In both the Coast Range and the Cascade foothills of the Eugene District, field observations indicate that releasing bigleaf maples by reducing the number of conifers ultimately favors the associated mollusk fauna. Populations of these mollusks are known to have survived disturbances such as thinning and regeneration harvests. The action alternatives, together with other federal harvests, are not expected to pose a risk to local viability or distribution of the three mollusk species because sites would be protected in Riparian Reserves and through the management recommendations. Private harvests most likely will cause population declines due to the low amount of downed wood left and the size of the riparian Reserves.

Cumulative impacts on known sites of Survey and Manage and Protection Buffer botanical species would also be minimal. The known populations would be given long term protection because of the reserves established around each site. There is a slight risk that by conducting harvest in areas for which surveys have not been completed, some loss of individuals could occur. However, there is substantial habitat provided by Riparian Reserves and other reserves in the watershed. It is unlikely that exposing some percentage of potential habitat to management actions as described in the action alternatives would compromise the viability of the species known to occur in the project area.

Approximately 41 acres of dispersal and foraging habitat in the Riparian Reserves would be eliminated for approximately 10 years. However, the U.S. Fish and Wildlife

Service has determined that the Proposed Action, together with other habitat modification projects planned for fiscal year 1999 in the Willamette Province, is “not likely to jeopardize the continued existence of the spotted owl or result in the adverse modification of spotted owl critical habitat.”

Sedimentation effects as a result of road construction associated with the Proposed Action would be anticipated to be very minor to non-existent and are likely to be of short duration. In addition, cumulative effects on downstream flows would be very minor to nonexistent. Any changes in flow that would be attributed to the Proposed Action would be greatly modified by the influence of Dorena Reservoir, which is located about three miles downstream.

Road construction associated with the Proposed Action (rocking spurs L-S) would increase road densities in the watershed from 5.50 miles of road per square mile to 5.52 miles per square mile, an increase of .02 miles per square mile. Construction of temporary roads would not result in cumulative effects on road densities after three years because they would be subsoiled and blocked after harvest operations.

The proposed thinning within the Riparian Reserves would accelerate the growth of trees for future wildlife habitat and future large in-stream structure for aquatic habitat, while adequately maintaining species and structural diversity; riparian and aquatic function; and water quality. This acceleration would contribute to the process of riparian recovery within the Row River Watershed.

Alternative A would have cumulative effects on vegetation, wildlife, and water resources similar to the Proposed Action, but of slightly lower magnitude. Cumulative loss of stands with complete canopy closure would be less than under the Proposed Action because the Riparian Reserves would not be treated. Alternative A would not contribute to riparian recovery in the Row River Watershed. Fish habitat in the watershed would not receive the beneficial effects of the large woody debris creation treatment that they would receive with the Proposed Action.

Alternative B would have cumulative effects on vegetation, wildlife, and water resources similar to the Proposed Action.

Alternative C would have no cumulative effects on soils or water. This alternative would have no immediate cumulative affect on wildlife species. Alternative C may result in slower attainment of late-successional forest characteristics within Riparian Reserves. Fish habitat in the watershed would not receive the beneficial effects of the large woody debris creation treatment that is part of the Proposed Action.

## **G. MITIGATION MEASURES**

The Fish and Wildlife Service (FWS) has authorized taking of northern spotted owls that is incidental to this Proposed Action. To minimize any take, the FWS believes that it is necessary and appropriate to prevent disturbance to spotted owl pairs and their progeny during the nesting season. To implement this reasonable and prudent measure, the FWS provided the following non-discretionary terms and conditions: prohibit timber harvest activities within 0.25 miles of an active nest site during the nesting season, from March 1 to June 30 (or later if deemed necessary by the BLM biologist); and report on the progress of the activities described in the Biological Opinion to the FWS.

Surveys for the 32 species listed in the Schedule Change EA will begin if technical feasibility problems can be solved. If it is determined by species experts that survey feasibility issues have been resolved throughout the suspected range of any of the

32 species, and if a letter of direction is received prior to issuance of a Decision Record, surveys and appropriate management actions would be implemented.

## VI. CONSULTATION AND COORDINATION

### A. PUBLIC PARTICIPATION

A public notice advertising the availability of this EA and preliminary FONSI appeared in the Eugene Register-Guard on March 17, 1999. Additionally, the environmental assessment was sent to the following list of groups, agencies and individuals:

Ann Mathews, Eugene, OR  
Carol Logan, Kalapooya Sacred Circle Alliance, Springfield, OR  
Charles and Reida Kimmel, Eugene, OR  
Confederated Tribes of the Siletz, Siletz, OR  
Confederated Tribes of the Grand Ronde, Grand Ronde, OR  
Craig Tupper, Eugene, OR  
David Hale, Cottage Grove, OR  
David Simone, Eugene, OR  
Governor's Forest Planning Team, Salem, OR  
Harold Schroeder, Eugene, OR  
Jan Wroncy, Eugene, OR  
John Bianco, Creswell, OR  
John Poynter, Lorane, OR  
Lane County Land Management, Eugene, OR  
Leigh Anne Lipscomb, Eugene, OR  
Neal Miller, Eugene, OR  
Oregon Dept. of Forestry, Springfield, OR  
Oregon Dept. of Fish and Wildlife, Springfield, OR  
Oregon Dept. of Environmental Quality, Portland, OR  
Oregon Natural Resources Council, Eugene, OR  
Pacific Rivers Council, Eugene, OR  
Pam Hewitt, Marcola, OR  
Peter Saraceno, Eugene, OR  
Roseburg Forest Products, Roseburg, OR  
Sierra Club - Many Rivers Group, Eugene, OR  
Swanson-Superior Forest Products, Inc., Noti, OR  
Western Environmental Law Center, Eugene, OR

A 30-day public comment period for the EA closed on April 16, 1999. Letters were received from:

Nicole Czarnomski, Oregon Natural Resources Council, Eugene, OR  
George Sexton, American Lands Alliance/Santiam Watershed Guardians,  
Eugene, OR.

The paragraphs below summarize the public comments and the response to the comments. Comments addressed five major categories: the need for roads; lack of surveys for certain species; activities in Riparian Reserves; general forest health issues, and the adequacy of the NEPA analysis.

#### **The Need for Roads**

**Comment:** Both commenters expressed concerns about the need for new road construction. Both commenters were concerned about the impacts caused by roads and the impacts to attainment of ACS objectives. ALA/SWG expressed concern about construction of Spur G in the Riparian Reserve and suggested an alternative that would not require new road construction.

**Response:** No lasting impacts from road construction were identified (see pages 9-14). No new stream crossings would be constructed under any action alternative (see pages 4-5). Beneficial impacts to repairing existing stream crossings are discussed on page 11.

The EA points out on page 11 (ASC Objective #5) that the Proposed Action would not prevent or retard restoration of the sediment regime. In addition, increased snow accumulation and snow melt associated with rain-on-snow events is expected to be low. Thus, effects to peak flow are expected to be low to non-existent (see page 11).

An alternative that does not require road construction (helicopter logging, for example) was not considered because of the presence of the existing road through the proposed harvest unit. The EA has been clarified regarding this point (see page 5).

Regarding Spur G, the Northwest Forest Plan recognizes that roads may be necessary in Riparian Reserves. Standards and Guidelines state "For each existing or planned road, meet Aquatic Conservation Strategy objectives by...minimizing road and landing locations in Riparian Reserves" (RF-2a, page C-32). Under the Proposed Action, Spur G would be approximately 875 feet long, with only about 50 feet within the outer 50 feet of the Riparian Reserve of Stream 9.

### Lack of Surveys

**Comment:** Both commenters were concerned about the lack of surveys for red tree voles and the 32 Survey and Manage and Protection Buffer species described in the Schedule Change EA. Both suggested that surveys be completed before the project is implemented. ONRC expressed the opinion that the RMP amendment and red tree vole interim survey protocol are violations of NEPA and not in compliance with the Northwest Forest Plan. ALA/SWG suggested an alternative that completes surveys for these species before a decision is made. ONRC also suggested that surveys for bats should be conducted prior to implementation.

**Response:** As stated in the EA at page 2, the Proposed Action and alternatives are consistent with current BLM policy in regards to S&M surveys and red tree vole surveys. The EA also notes (page 18) that surveys will be completed for those species for which technical feasibility problems can be solved prior to issuance of a decision. There is no need to provide for an alternative that simply postpones an action until some future point. Whether or not the RMP amendment is in violation of NEPA is beyond the scope of this EA.

Regarding surveys for bats, the NSO ROD standard and guideline states,

“Conduct surveys of crevices in caves, mines, and abandoned wooden bridges and buildings for the presence of roosting bats...” (NSO ROD, page C-43). The reference to “crevices and voids large enough to fit a human” stems from the actual definition of a “cave” as used in the Federal Cave Resources Protection Act of 1988. During field reconnaissance of the proposed project area, no crevices or voids were found; therefore no specific surveys for bats were necessary. Bats do use snags, and snags which do not pose a safety hazard would be retained (EA page 2).

### Activities in Riparian Reserves

**Comment:** Both commenters expressed concerns regarding management activities in Riparian Reserves. ONRC suggested that BLM avoid activities in Riparian Reserves unless needed to attain ACS objectives. ALA/SWG was concerned that new road construction would adversely affect attainment of ACS objectives. ALA/SWG also suggested an alternative that would leave trees felled in the Riparian Reserves in place.

**Response:** The stated purpose of activities within the Riparian Reserves are to acquire desired vegetation characteristics needed to attain ACS objectives (see pages 1, 10-12 and 14). Impacts of new road construction on attainment of ACS objectives are discussed on pages 10-12 and 14. The ACS analysis concludes that the actions proposed would contribute to the process of riparian recovery in the Row River Watershed.

An alternative to leave all felled trees in the Riparian Reserves in order to avoid impacts from yarding was considered but not analyzed because it would create an abnormally high risk of a catastrophic fire or disease infestation that could affect the health of the remaining stand in the Riparian Reserves, the adjacent uplands, and adjacent private lands (see page 5).

### General Forest Health Issues

**Comment:** ONRC and ALA/SWG commenters expressed several concerns about the impacts to soils, compaction, sedimentation, wildlife, and fisheries. ONRC expressed specific concerns regarding ground-based yarding, connectivity, incidental take of northern spotted owls, Survey and Manage and Protection Buffer fungi species, and cutthroat trout. Both commenters were concerned about the impacts that timber harvests might have on peak flows and sediment regimes.

**Response:** The Proposed Action, Alternative A and Alternative B specify restrictions on ground-based yarding in Riparian Reserves (see pages 4-5). Two important BMPs that would be followed include (1) no skid trails in Riparian Reserves except at designated crossings, and (2) new skid trails should be limited to slopes less than 35%.

Because of the design features described in the alternatives, no lasting effects on soils, sedimentation, or peak flow were identified. Impacts to peak flows are expected to be low to non-existent (see page 11).

Impacts to connectivity are discussed under the ACS analysis, page 10. In addition, impacts to owl dispersal habitat are discussed under “Vegetation and Wildlife” in terms of canopy closure. Impacts to connectivity are expected to be very minor due to the influence of the residual stand, the untreated portion of the Riparian Reserves, and the temporary nature of the majority of the road construction (see page 10).

The US Fish and Wildlife Service has issued reasonable and prudent measures to minimize the likelihood of incidental take of northern spotted owls, including a restriction on activities that could disturb nesting owls. Under the Northwest Forest Plan, not every acre was intended to provide for all the life needs of northern spotted owls. The proposed project area contains dispersal and foraging habitat. The Row River Watershed Analysis indicates that there are approximately 5,500 acres of dispersal habitat on public lands within this watershed (see EA page 6). The EA describes impacts to dispersal habitat from the Proposed Action and alternatives.

Impacts to known sites of Survey and Manage and Protection Buffer fungi are described on pages 9-10. The analysis concludes that all known sites would be adequately protected. The 41 acres of dispersal habitat referred to is northern spotted owl dispersal habitat. The EA has been clarified to show that the affected habitat is northern spotted owl dispersal habitat (see page 9).

No fish bearing streams are located within the project area. Because there were no fish bearing streams in the project area, and because the ACS analysis did not reveal any off-site impacts, the viability of cutthroat trout was not discussed. However, the EA has been clarified to make this more explicit (see page 10).

### **Adequacy of the Analysis**

**Comment:** ALA/SWG and ONRC suggested that the EA does not contain a sufficient number of alternatives. ONRC suggested that a restoration alternative be considered. Both commenters stated that the cumulative impact analysis was inadequate. ONRC expressed the opinion that an EIS must be done because of numerous significant environmental impacts. ALA/SWG commented that the EA was “unnecessarily vague” and quoted the EA in its description of an open grassy area approximately 2 acres in size.

**Response:** NEPA requires that a reasonable range of alternatives be considered. The Proposed Action contains both commercial timber harvests, some rocky roads, and restoration activities. Alternative A contains only commercial timber harvest, and Alternative B contains timber harvests and restoration activities, but restricts all new road construction to natural surface. During the interdisciplinary discussions of this proposal, no other alternatives were revealed that addressed the stated purpose of the action. A restoration alternative was not considered because it would not meet the purpose of the action as described on page 1. The EA has been clarified on this point (see page 5).

Both the NSO FSEIS and the RMP EIS considered the cumulative effects of timber harvest on public and private lands. Those analyses are incorporated into this EA by reference (see page 15). No cumulative effects beyond those already

described in the two EISs were identified.

An EIS is not necessary because none of the impacts described in the EA are beyond those already described in the NSO FSEIS and the RMP EIS. The EA has been clarified regarding this point (see page 9). See also page 15 (Cumulative Effects).

Approximate measurements or locations are used to describe a feature's characteristics. For the purpose of analysis, it does not matter that a grassy opening is approximately 2 acres or exactly 2.2 acres. Such features are delineated on the ground so that field crews can easily identify the feature.

### General Comments

**Comment:** ONRC commented that reaching the timber target is not the number one goal of the Northwest Forest Plan, and that harvests within areas specified for habitat protection will be greatly curtailed. The commenter also suggested that roadless areas greater than 1,000 acres should be protected and kept as wilderness.

**Response:** The proposed project area is in the Matrix Land Use Allocation, in which the Northwest Forest Plan expected most timber harvest would occur (NSO ROD, page 7). The project area is 320 acres (see page 2). No other public lands are contiguous to the project area to comprise 1,000 acres.

## B. AGENCIES, GROUPS AND INDIVIDUALS CONSULTED

Pursuant to the Endangered Species Act, formal consultation was completed with the Fish and Wildlife Service on this Proposed Action, along with other actions proposed in the Eugene District for Fiscal Year 1999. The Fish and Wildlife Service issued its Biological Opinion on September 29, 1998.

The State Historic Preservation Office (SHPO) has been notified of this proposal and has determined, in accordance with 36 CFR 800.5(b), that the proposed undertaking would have no effect on cultural resources.

The Confederated Tribes of the Siletz and the Confederated Tribes of the Grand Ronde were notified of this project during the scoping process, requesting information regarding tribal issues or concerns relative to the project. No response was received.

## C. LIST OF PREPARERS

The proposed action and alternatives were developed and analyzed by the following interdisciplinary team of BLM specialists.

Jeff Apel	Engineering
Alison Center	Threatened and Endangered Wildlife Species
Rick Colvin	Landscape Planner
Alan Corbin	Timber Management
Richard Hardt	Ecology
Pete O'Toole	Silviculture
Mike Southard	Cultural Resources
Steve Steiner	Hydrology
Chuck Vostal	Fisheries

Molly Widmer  
Barry Williams

Botany  
Soils

## VII. REFERENCES

USDA, Forest Service and USDI Bureau of Land Management. February 1994. Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. Portland, Oregon.

USDA, Forest Service and USDI Bureau of Land Management. April 1994. Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl.

USDI, Bureau of Land Management. November 1994. Eugene District Proposed Resource Management Plan/Environmental Impact Statement. Eugene District Office, Eugene, Oregon.

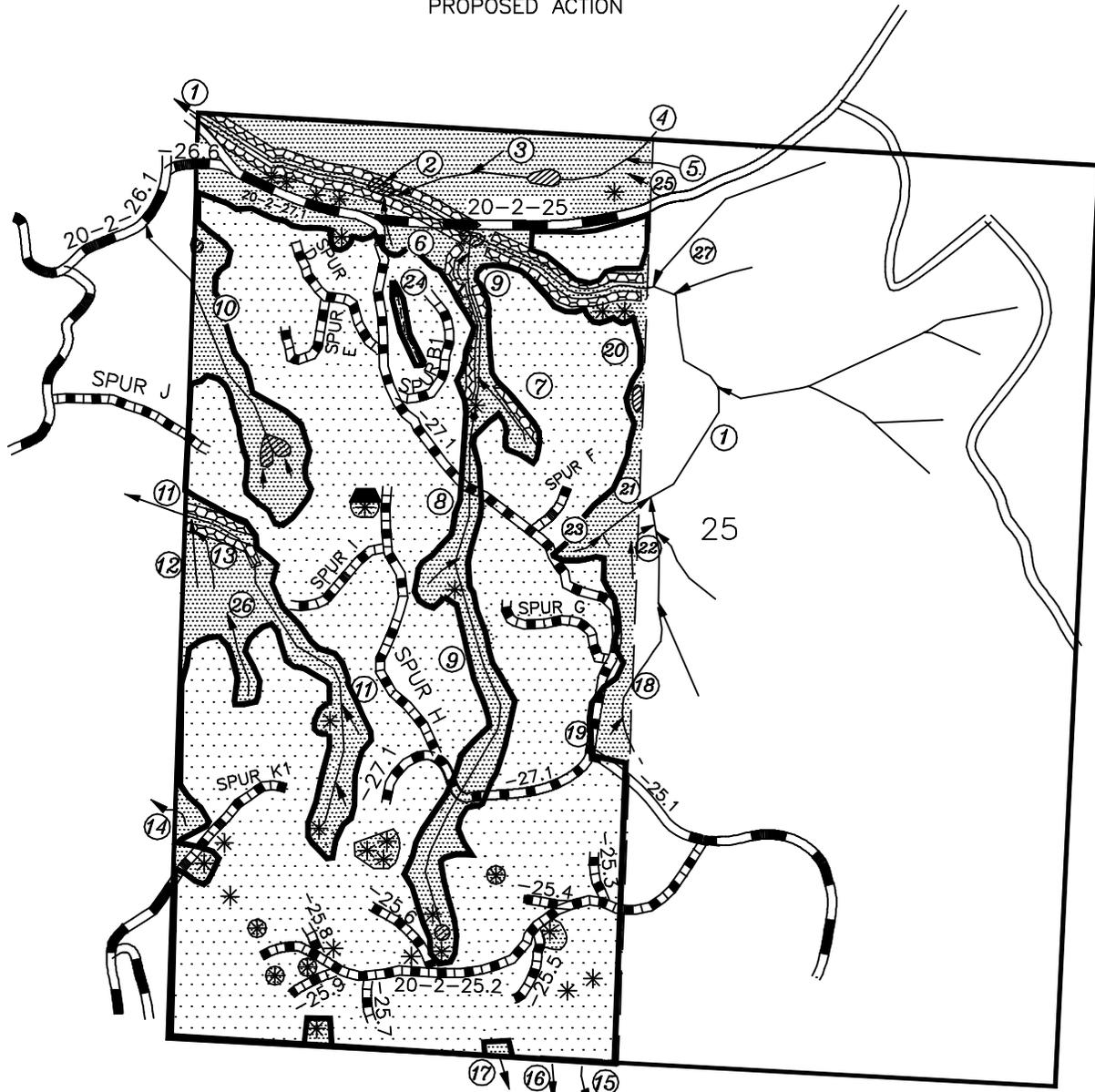
USDI, Bureau of Land Management. June 1995. Eugene District Record of Decision and Resource Management Plan. Eugene District Office, Eugene, Oregon.

USDA Forest Service and USDI Bureau of Land Management. October 1998. Environmental Assessment To Change the Implementation Schedule for Survey and Manage and Protection Buffer Species. Portland, Oregon.

BUREAU OF LAND MANAGEMENT

UPPER HARMS  
 T20S, R2W, Section 25  
 PROPOSED ACTION

3/3/99



LEGEND

SCALE: 1" = 1,000 FT.

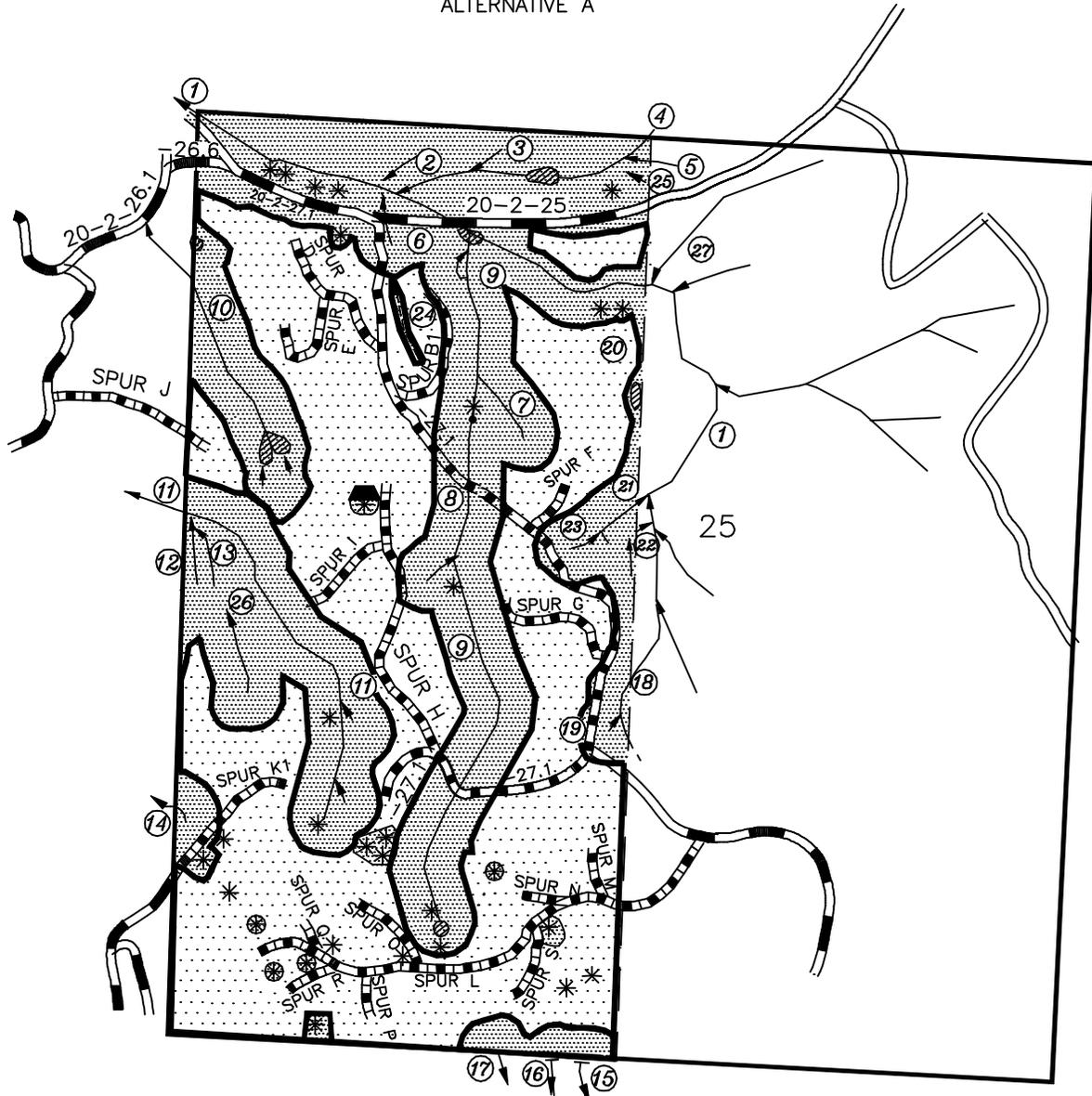
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-  RESERVE AREA
-  WETLAND
-  LARGE WOODY DEBRIS  
CREATION AREAS
-  APPROXIMATE LOCATION OF  
OPEN GRASSY AREA
-  APPROXIMATE LOCATION OF  
S&M SPECIES

-  PROPOSED BOUNDARY
-  DIRT ROAD
-  STREAM
-  HYDROLOGIC FEATURE NUMBER;  
CORRELATES TO HYDROLOGIC DESCRIPTION
-  ROADS TO BE CONSTRUCTED
-  ROAD TO BE RENOVATED
-  ROCKED ROADS

BUREAU OF LAND MANAGEMENT

UPPER HARMS  
T20S, R2W, Section 25  
ALTERNATIVE A

3/3/99



LEGEND

SCALE: 1" = 1,000 FT.

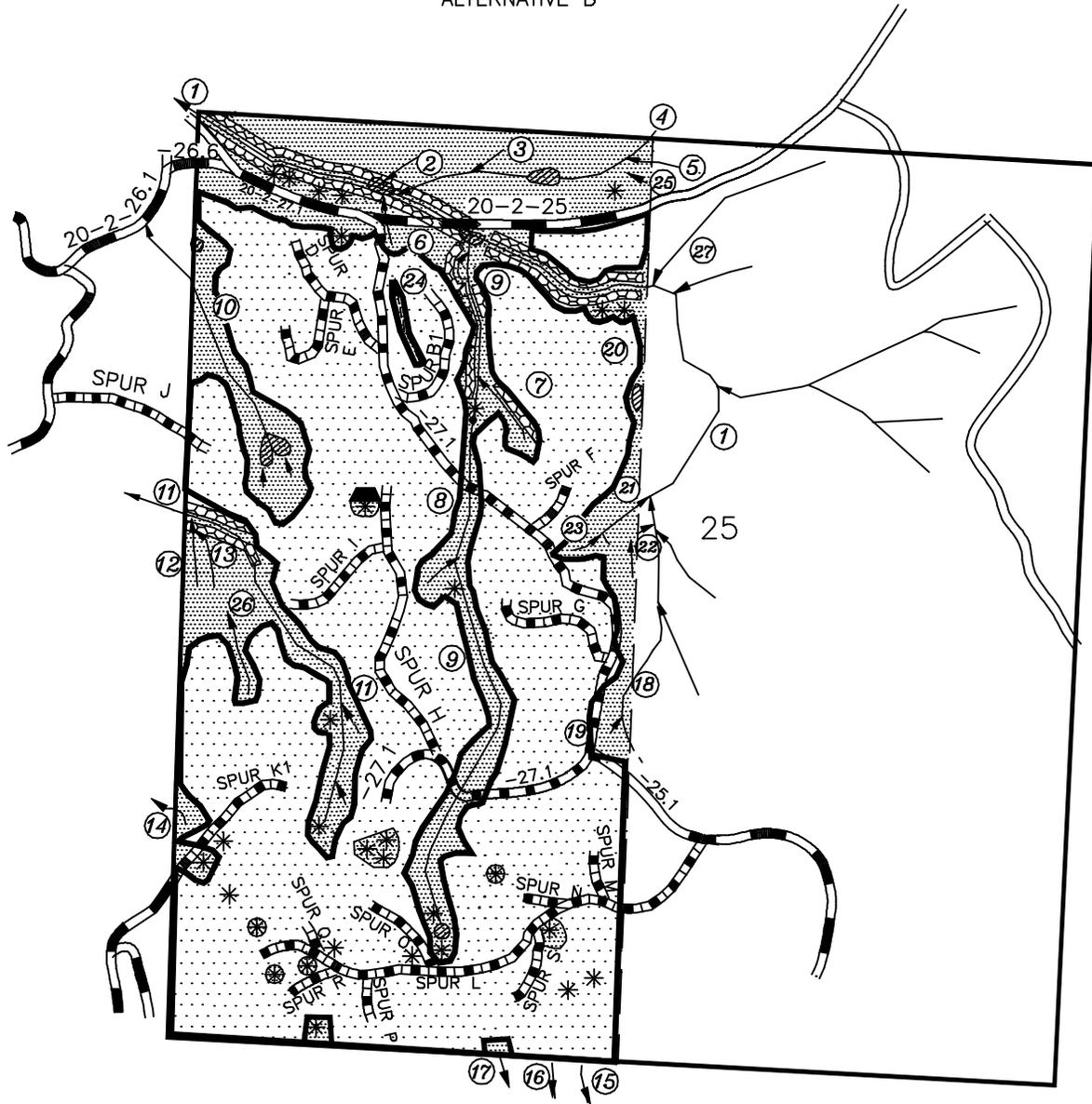
-  PROPOSED HARVEST AREA
-  RESERVE AREA
-  WETLAND
-  APPROXIMATE LOCATION OF OPEN GRASSY AREA
-  APPROXIMATE LOCATION OF S&M SPECIES

-  PROPOSED BOUNDARY
-  DIRT ROAD
-  STREAM
-  HYDROLOGIC FEATURE NUMBER;  
CORRELATES TO HYDROLOGIC DESCRIPTION
-  ROADS TO BE CONSTRUCTED
-  ROAD TO BE RENOVATED
-  ROCKED ROADS

BUREAU OF LAND MANAGEMENT

UPPER HARMS  
T20S, R2W, Section 25  
ALTERNATIVE B

3/3/99



LEGEND

SCALE: 1" = 1,000 FT.

-  PROPOSED HARVEST AREA
-  RESERVE AREA
-  WETLAND
-  LARGE WOODY DEBRIS  
CREATION AREAS
-  APPROXIMATE LOCATION OF  
OPEN GRASSY AREA
-  APPROXIMATE LOCATION OF  
S&M SPECIES

-  PROPOSED BOUNDARY
-  DIRT ROAD
-  STREAM
-  # HYDROLOGIC FEATURE NUMBER;  
CORRELATES TO HYDROLOGIC DESCRIPTION
-  ROADS TO BE CONSTRUCTED
-  ROAD TO BE RENOVATED
-  ROCKED ROADS

**ENVIRONMENTAL ASSESSMENT NO. OR090-98-16**

Upper Harms  
Timber Sale Tract No. E-98-354

Prepared by  
Janet Zentner  
Forester

June 1999

United States  
Department of the Interior  
Bureau of Land Management  
Eugene District Office  
South Valley Resource Area