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Jasper Creek

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

ENVIRONMENTAL ASSESSMENT NO. OR090-02-22
Jasper Creek Timber Sale

I. INTRODUCTION

A. BACKGROUND

This action proposes timber harvest and associated activities in a project area located in Section 35, Township 22 South, Range 3 West, Willamette Meridian, Lane County, Oregon in the South Valley Resource Area of the Eugene District, Bureau of Land Management. The project area is in the Matrix Land Use Allocation and has management objectives for Connectivity and Riparian Reserves. This project was first proposed in 1999, in Environmental Assessment (EA) No. OR-090-99-24. However, no final decision was made. Since then, new policies regarding Survey and Manage Species have been implemented and the configuration of the project area has changed. This EA replaces EA No. OR-090-99-24.

B. PURPOSE AND NEED FOR THE ACTION

The purpose of the action within Connectivity is to provide a sustainable flow of forest products, reduce stand density to promote diameter growth and stand volume growth, promote canopy retention and layering, improve growing conditions for shade tolerant conifers, and promote species diversity. The need for the action is established in the "Eugene District Record of Decision and Resource Management Plan" (RMP), June 1995, which directs that timber be harvested from Matrix lands in a sustained yield manner.

The purpose of the action within the Riparian Reserves is to hasten development of late-successional forest structural characteristics by reducing stand density to promote diameter growth, canopy retention and layering, improve growing conditions for shade tolerant conifers, and promote species diversity. The need for the action is established in the RMP, which directs that silvicultural practices be applied in Riparian Reserves to acquire desired vegetative and structural characteristics needed to attain Aquatic Conservation Strategy (ASC) objectives.

C. CONFORMANCE WITH LAND USE PLAN

The Proposed Action and alternatives are in conformance with the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl, April 1994 (NSO ROD), and the RMP as amended by the Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, USDA Forest Service and USDI Bureau of Land Management, January 2001 (S&M ROD). The RMP makes land use allocations and allows for density management thinnings in the Matrix land use allocation and silvicultural practices within Riparian Reserves.
Additional site-specific information is available in the Jasper Creek Timber Sale project analysis file. This file and the above referenced documents are available for review at the Eugene District Office.

II. ISSUES SELECTED FOR ANALYSIS

Issue 1: ***How would timber harvest and road construction affect the Attainment of Aquatic Conservation Strategy Objectives at the watershed scale?***

In order for a proposal to comply with the Northwest Forest Plan, it must be shown that the project, at a minimum, does not prevent or retard attainment of the nine ACS Objectives on a watershed or landscape scale, and that silvicultural practices in Riparian Reserves are needed to attain ACS Objectives. Activities described in the Proposed Action and alternatives may have some effect on BLM's ability to meet these objectives.

Issue 2: ***How would timber harvest and road construction affect northern spotted owl habitat?***

The project area is located within the home range of the Jasper Creek owl site. Harvesting timber may affect habitat for owls utilizing that site. The project area may also provide dispersal habitat for owls seeking unoccupied territory. Timber harvests may affect the quantity and quality of foraging and dispersal habitat within the project area.

III. PROPOSED ACTION AND ALTERNATIVES

The Proposed Action and Alternatives consider forest management activities including density management by commercial timber harvest.

A. PROPOSED ACTION - Density Management

This is a density management alternative with two thinning prescriptions designed to provide a sustainable flow of forest products, reduce stand density to promote diameter growth and stand volume growth, promote canopy retention and layering, improve growing conditions for shade tolerant conifers, and promote tree species diversity. Approximately 1.4 million board feet(MMBF) or 2,700 hundred cubic feet (CCF) of timber from an estimated 70 acre harvest area would be offered for sale.

Silviculture

All trees not specifically identified for retention would be cut. Areas to be harvested would be thinned from below, reserving the largest and most vigorous trees, except where some larger trees would be harvested as needed to achieve the stocking objectives and to clear road right-of-ways. Retention would favor conifers other than Douglas-fir, while harvested trees would be primarily Douglas-fir. Some Riparian Reserves would be treated by thinning to the same density as the adjacent uplands.

- In the Moderately thinned areas (approximately 55 acres of Matrix and 8 acres of Riparian Reserves), approximately 100 trees per acre (TPA) would be retained. Canopy closure would be approximately 60% after treatment
- In the Heavily thinned areas (approximately 4 acres of Matrix and 3 acres of Riparian Reserves), approximately 50 TPA would be retained. Canopy closure would be approximately 45% after treatment.
- Covering and burning of landing piles along Road Nos. 22-3-35 and 22-3-3 would be done to reduce the roadside fire hazard. Pile burning would commence after the onset of autumn rains to insure moist soil conditions. Any landing piles generated along natural surfaced spurs would be left untreated for wildlife habitat.

Retention

- Coarse woody debris (CWD) of decay classes 3, 4 and 5 would be retained where

possible.

- Hardwoods and snags which are not a safety hazard to woods workers would be retained. Those felled for safety reasons would be retained on site.

Reserves

- The height of one site-potential tree in the Upper Coast Fork Willamette watershed has been determined to be 200 feet. Riparian Reserve widths of 200 feet on either side of non-fishbearing streams would be established 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 treatments within the Riparian Reserves would include thinning, road construction, and road decommissioning.
- Portions of the Riparian Reserves for Hydrologic Features 6, 7, 9, and 13 would be thinned to within 100 feet, and Riparian Reserves for Hydrologic Features 4 and 5 would be thinned to within 50 feet to the same densities as the adjacent uplands.
- Thirty-seven sites containing Oregon *Megomphix* snails located within or adjacent to proposed harvest boundaries would be protected consistent with the Management Recommendations for Terrestrial Mollusk Species, Version 2.0 (November 1999). Each site would be protected by a one quarter acre reserve.

Roads

- On BLM-managed land, approximately 3,400 feet of road would be constructed. Road 23-3-3 would be improved by installing a cross-drain culvert for Stream 3 and replacing the existing culvert for Stream 4 with a larger culvert capable of draining a 100-year flood event. New roads would be natural surfaced, built to minimum width standards (14 foot subgrade), with no ditches, reduced clearing limits and outsloped where possible.
- Approximately 200 feet of Spur B would be constructed in the outer portion of the Riparian Reserves.
- All natural surfaced roads would be waterbarred and blocked at the end of each operating season.
- Upon completion of harvest operations, all newly constructed roads and landings would be subsoiled (i.e., mechanically breaking up the compacted area of the road) and blocked.
- No log hauling would occur on natural surfaced spurs or roads during periods of wet weather.

Yarding

- Falling and yarding would not be permitted during the sap flow period to avoid damage to the residual stand. Directional falling would be required to protect wetlands, springs, and adjacent reserve areas.
- No whole tree logging with limbs would be allowed. Limbs would be cut and left in the unit.
- Yarding would be by cable and tractor. The Purchaser would have the option of using ground-based equipment on slopes less than 35%. Best Management Practices (BMP's) for cable and tractor yarding would be followed, including use of intermediate supports and tail trees where necessary to obtain partial

suspension, predesignating skid trails, limiting tractor yarding to dry seasons, and not allowing tractor skid trails in Riparian Reserves (ROD/RMP Appendix C). Upon completion of logging, skid trails would be subsoiled and water-barred as needed.

B. ALTERNATIVE A - Density Management

This alternative would be similar to the Proposed Action, except no silvicultural treatment would occur in the Riparian Reserves. Approximately 1 million board feet(MMBF) or 1900 hundred cubic feet(CCF) of timber from an estimated 59 acre harvest area would be offered for sale.

Silviculture

- In the Moderately thinned areas (approximately 55 acres of Matrix), approximately 100 trees per acre (TPA) would be retained. Canopy closure would be approximately 60% after treatment
- In the Heavily thinned areas (approximately 4 acres of Matrix), approximately 50 TPA would be retained. Canopy closure would be approximately 45% after treatment.
- Riparian Reserves would not be treated.

All other silviculture features related to density management outside the Riparian Reserves would be the same as the Proposed Action.

Roads

- All road features would be the same as the Proposed Action.

All other design features related to density management outside the Riparian Reserves, including Retention, Reserves, and Yarding would be the same as the Proposed Action.

C. ALTERNATIVE B - No Action

All timber harvest activities would be deferred, and no management activities described under any alternatives would occur at this time. Because the project area is within the Matrix land use allocation, it may be considered for future timber harvests even if this alternative is selected at this time.

D. ALTERNATIVE C - No New Roads

Under this alternative, no new road construction would occur. Timber harvest would occur on those acres accessible from Road No. 23-3-3 only. Approximately 350 thousand board feet(MBF) or 650 hundred cubic feet (CCF) of timber from an estimated 23 acre harvest area would be offered for sale.

Silviculture

- Moderate thinning would occur on approximately 20 acres of Matrix. Green tree retention would be approximately 100 tpa.
- Heavy thinning (green tree retention approximately 50 tpa) would occur on 3 acres of Matrix and no Riparian Reserve acres.
- All other silvicultural features would be the same as the Proposed Action.

Roads

- No new road construction would occur. Landings would be constructed along Road No. 23-3-3.

Yarding

- Yarding would be by skyline cable systems only. Logs would be yarded to Road No. 23-3-3.

All other design features would be the same as the Proposed Action.

E. ALTERNATIVES CONSIDERED BUT NOT ANALYZED

Helicopter Logging. Helicopter logging was considered for those acres not accessible by existing roads in Alternative C, but was not analyzed further because of the small acreage remaining unaccessible by existing roads. It would not be economically feasible to utilize helicopters to remove small diameter logs from only 30 acres.

Table 1. Jasper Creek Alternative Comparison Table

	Proposed Action DM & RR Thin	Alternative A DM only-No RR Thin	Alternative B (No Action)	Alternative C No New Roads
Matrix Moderate Thinning (100 tpa)	55 acres 748 mbf	55 acres 748 mbf	None	20 acres 300 mbf
Matrix Heavy Thinning (50 tpa)	4 acres 68 mbf	4 acres 68 mbf	None	3 acres 51 mbf
Riparian Reserve Moderate Thinning (100 tpa)	8 acres 110 mbf	0	None	None
Riparian Reserve Heavy Thinning (50 tpa)	3 acres 51 mbf	0	None	None
Totals	70 acres 977 mbf	59 acres 816 mbf	N/A	23 acres 365 mbf
Road Construction and Decommissioning	3,400 feet of new construction–Spurs A, B, C, and D; all new spurs decommissioned upon project completion; approx 200 feet of Spur B would be within outer half of Riparian Reserve for Stream 5.	Same as Proposed Action	None	None
Yarding	Skyline and tractor; tractor yarding limited to slopes <35%, predesignated skid trails, dry season only; skid trails subsoiled upon completion of project	Same as Proposed Action	N/A	Skyline only

* mbf = thousand board feet

IV. EXISTING CONDITIONS

A. GENERAL SETTING

The project area is in the Upper Coast Fork Willamette Watershed in the Jasper Creek drainage, formerly known as the Cottage Grove Lake/Big River Watershed. Watershed analysis has been completed (BLM Eugene District, Cottage Grove Lake/Big River Watershed Analysis, May 1997). The Cottage Grove Lake/Big River Watershed Analysis analyzed the condition of the Riparian Reserves in the watershed and established guidelines under which they should be treated. (Cottage Grove Lake/Big River Watershed Analysis, Chapter 4, pages 4-6.)

The watershed contains 15.2% late successional forest. The Connectivity lands comprising the 25-30% to be managed to provide late succession forest conditions are located in the west portion of Section 35.

The project area is located near the edge of a Late Successional Reserve (LSR), which lies to the east and southeast of the project area. The drainage has been heavily harvested during the past decade. Sections adjacent to the project area are private industrial forest land or public land managed by the BLM.

The plants and animals in the project area do not differ significantly from those discussed in the "Eugene District Resource Management Plan\Environmental Impact Statement," November 1994 (Chapter 3). The following resources are also discussed in greater detail in the project file.

B. SPECIFIC RESOURCE DESCRIPTIONS

Vegetation

This is a well stocked stand of approximately 45 year old Douglas-fir which regenerated naturally following harvest in the mid 1950's. The stand has a fully stocked over-story of Douglas-fir with a well distributed western hemlock component comprising from 10 to 20 per cent of the stand. The few hardwoods are generally riparian associated red alder. Western hemlock regeneration is found at moderate levels throughout much of the stand. Common understory vegetation consists of rhododendron, salal, sword fern, and Oregon grape at generally low density. Much of the area was adequately stocked with conifers by 1960, but some areas required subsequent planting due to a reforestation failure. These planted areas currently exhibit lower stocking levels, canopy gaps and canopy closure of approximately 60%. Most of the initial well stocked area was pre-commercial thinned in 1970 to 300 TPA, and has a generally high canopy closure of 85% and greater, with minimal ground vegetation. Down woody debris is abundant throughout in pieces 20-60" diameter of various lengths. There are low numbers of snags.

Wildlife

The project area is located within the home range of the Jasper Creek owl site. A pair was last confirmed in 1996; a single female was located in 1997. A male was heard in 2002. For the past several years, a pair of barred owls has been occupying the site and were also heard in 2002. Section 35 likely functions as foraging habitat for the Jasper Creek owl site and dispersal habitat for owls seeking unoccupied territory, but is not designated as spotted owl critical habitat.

Red tree vole surveys were completed to protocol in early 2002. A total of 54 nests were found, 26 active and 28 inactive. Habitat areas were established according to current Management Recommendations and were excluded from the proposed harvest area.

The project area is suitable habitat and within the expected range of a Survey and Manage mollusk species, *Megomphix hemphilli* (Oregon megomphix). Thirty-seven sites containing

Oregon Megomphix snails were located within or adjacent to proposed harvest boundaries and would be protected consistent with the Management Recommendations for Terrestrial Mollusk Species, Version 2.0 (November 1999). Each site would be protected by a one-quarter acre reserve that maintained the amount of shade at the site.

Botany

All botanical surveys have been completed. No threatened, endangered, or sensitive vascular plants were detected. Survey and Manage (S&M) protocol surveys for non-vascular species were conducted through 1998. Species detected during those surveys included *Ulota megalospora* (a moss), *Otidea onotica*, *Helvella compressa*, and *Sarcosoma mexicana* (all fungi). The S&M ROD removed these four species from Survey and Manage mitigation due to high number of sites being documented in the region. A single *Gymnopilus punctifolius*, a fungus associated with very large downed wood, was also found. The 2001 Annual Species Review (ASR) removed this species from S&M mitigation in Oregon and Washington, because of the high number of sites found in these states, and the high proportion of sites within the reserve network. One fungus confirmed in the project area, *Otidea leporina*, is a category "D" species under S&M mitigation. It is located south of Martin Creek (Hydrologic Feature 8) in a Riparian Reserve.

A dry rocky bald located north of Martin Creek is a special habitat and is located within the untreated Riparian Reserve for Martin Creek. Other special habitats, such as wetlands and alder groves, are associated with hydrologic features.

Soils

The Peavine series comprises the predominant soils in the project area. Peavine is a moderately deep, red, clayey soil. The majority of the project area is located on gentle to moderately steep topography. Slopes range from 15 to 50%.

Steeper topography is located along Martin Creek (Hydrology Feature 8, the lower reach of Hydrology Feature 14 and portions of Hydrology Feature 11). Slopes range from 0 to 60%, with most of the area between 30 and 60%. The elevation for the proposed harvest area ranges from approximately 1,850 to 2,450 feet.

Timber Productivity Capability Class (TPCC) areas, classified as fragile non-suitable lands due to soil moisture deficiencies, are located within the Riparian Reserve between Martin Creek (Hydrology Feature 8) and Hydrology Feature 6.

Aquatic and Riparian Resources and Fisheries

Six perennial streams (1, 5, 8, 11, 14, and 23); 16 intermittent streams (3, 4, 6 , 9, 10, 13, lower 15, 17, 18, 20-22, 24, and 29-31); 6 springs (7, upper 15, 16, 19, 26, and 28); 1 seep (27); and 2 wetlands (12 and 25), are located within or immediately adjacent to the project area. Streams 2, 3, 4, 29, 30 and 31 drain northwest to west to Stream 1 (Jasper Creek), which drains west to southwest to Big River. Streams or springs/seeps 6-11, 13-24, 26 and 28 drain to Stream 8 (Martin Creek), which drains west to southwest to Big River. Stream 3 lacks a culvert at Road 23-3-3, routing flow approximately 200 feet to 250 feet down the ditch-line to Stream 4, which lacks a culvert at Road 22-3-36.

Three major streams are located within or immediately adjacent to the project area: mainstem Martin Creek, a large tributary or fork of Martin Creek, and a headwater tributary of Jasper Creek. All streams were surveyed for the presence of fish and suitable habitat. No fish were found in any of the streams in or near the project area due to high-gradient stream channels and numerous moderate/high falls downstream.

V. DIRECT AND INDIRECT EFFECTS

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 FSEIS. Impacts foreseen based upon site specific analysis of the alternatives, are described 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, flood plains, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, minority populations and low income populations.

Table 2. Jasper Creek Comparison of Effects

	Proposed Action DM & RR Thin	Alternative A DM Only	Alternative B No Action	Alternative C No New Roads
Issue 1–ACS Objectives	Would contribute to attainment of Objectives 1, 3, and 8. Would not prevent or retard Objectives 2, 4, 5, 6, 7, 9.	Would not retard attainment of Objectives 2, 4, 5, 6, 7 and 9. Would not contribute to attainment of Objectives 1, 3, and 8.	Same as Alternative A	Same as Alternative A.
Issue 2–Northern Spotted Owl Habitat	May affect, likely to adversely affect spotted owls in short term due to degradation of foraging and dispersal habitat. Would improve conditions over the long term by accelerating development of late-successional forest characteristics.	Same as Proposed Action, except in Riparian Reserves. In Riparian Reserves, existing dispersal and foraging habitat would not be affected; but there would be no acceleration of improvement of habitat conditions	No short term degradation of foraging or dispersal habitat. No accelerated improvement of habitat.	Same as Proposed Action, except in untreated areas. In untreated areas, existing dispersal and foraging habitat would not be affected; but there would be no acceleration of improvement of habitat conditions

B. PROPOSED ACTION - DENSITY MANAGEMENT

ISSUE 1: ***How would timber harvest and road construction affect the attainment of Aquatic Conservation Strategy Objectives at the watershed scale?***

The Proposed Action includes management in the Riparian Reserves that promotes attainment of ACS objectives. Site-specific conditions in the project area are consistent with the general discussion in the Cottage Grove Lake/Big River Watershed Analysis, which identified management opportunities for projects in Riparian Reserves. That analysis specifically addressed density management treatments in stands where thinning would promote faster development of trees with fuller crowns (Cottage Grove Lake/Big River Watershed analysis, Chapter 4, pages 4-5). The following is a site-specific analysis

of the effect of the Proposed Action on attainment of ACS objectives.

1. The Proposed Action would promote restoration of the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted. Riparian Reserves with a high density of conifers, such as those found at Jasper Creek, would approach and remain at a level of tree-to-tree competition for growing space, such that tree growth and structural development would be suppressed and delayed, both at the individual tree and stand level. Density management within the Riparian Reserves proposed for treatment would promote development of structural characteristics at the stand level, such as a wide spectrum of tree diameters (including large diameter trees, snags and down wood), large tree crowns with large branches, canopy depth with multiple canopy layers, and vegetative complexity at the forest floor, and would, over time, contribute to the restoration of diversity and complexity of the Riparian Reserve within the project area and thus the watershed as a whole. No immediate effects would be expected to the streams and their aquatic communities.

2. The Proposed Action would maintain the existing spatial and temporal connectivity within and between watersheds. Drainage network connections would be protected by the untreated portion of the Riparian Reserves and by the residual trees in the treated portion of the Riparian Reserves around all streams and other hydrology features. With no new stream crossings of any hydrology feature, the existing physical and chemical routes would be maintained.

3. The Proposed Action would contribute to restoration of the physical integrity of the aquatic system. Hastening the development of larger trees would contribute toward restoration of the physical integrity of the aquatic system by providing potential large woody debris sooner than if untreated. The untreated portion of the Riparian Reserves on all hydrology features would fully protect streambank integrity and tree/shrub root strength within the riparian areas. Improvements in stream channel and bank stability would be expected from replacing undersized culverts and installing culverts where they are currently lacking.

4. The Proposed Action would maintain water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. The action is unlikely to have an impact on stream temperatures because of the untreated reserves around all hydrology features. In addition, the retention of 100 trees per acre in the majority of the proposed harvest area would maintain adequate shading to prevent temperature impacts.

5. The Proposed Action would not prevent or retard restoration of the sediment regime under which this aquatic ecosystem evolved. Risk of sedimentation under this alternative would be expected to be low because of the untreated area around all streams. Directional falling and yarding away from all streams and wetlands would be required. No new stream crossings are proposed. Any erosion that occurred from new roads or yarding corridors within the Riparian Reserves would be unlikely to reach stream channels, because design features include: no yarding across hydrology features, outsloping, temporary use, water-barring and blocking new roads between logging seasons, locating new roads away from stream channels and wetlands on gentle to moderate slopes, and subsoiling and blocking new roads upon project completion. The use of existing roads as a result of this action would be expected to cause a low amount of erosion and sedimentation. Most of the log haul route would be over paved roads which have a very low erosion potential. Log haul would only occur during the dry season over a period of three seasons.

6. The Proposed Action would maintain existing in-stream flows. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows would be protected. The

Proposed Action may contribute to an 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. Impacts to the timing and magnitude of flows would be expected to be low. Changes in water yield due to forest management activities such as the Proposed Action are usually too small to be measured. Measurable increases have occurred in some stream studies where more than 20% of the forest cover has been removed. Changes in water yield are generally detectable only in the immediate proximity of the harvested land. The removal of forest cover usually results in an increase in summer low flows by reducing evapotranspiration and interception. Changes to water yield and summer low flow are usually temporary impacts that gradually diminish over time as forest regrowth occurs. Most of the factors associated with changes to peak flows would be minimally affected as a result of this action. New roads would be temporary use. Subsoiling road surfaces upon project completion would help restore infiltration rates and mitigate road and skid trail compaction. Outsloping temporary roads would prevent the extension of the stream channel network. Little interruption of sub-surface flow would be expected, because deep road cuts would not be needed, as new construction would be located on gentle to moderate slopes. The project area is at elevations that are within the transient snow zone. The retention of 100 trees per acre on the majority of the proposed harvest area would maintain a high percentage of forest canopy. The large openings usually associated with rain on snow events would not be created as a result of this action.

7. The Proposed Action would maintain the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands. Much of the vegetative cover of the project area would be retained. Riparian zone vegetation would remain undisturbed.

8. The Proposed Action would maintain species composition and restore structural diversity in riparian areas. Thinning the Riparian Reserves would increase growing space for residual trees and promote diameter growth and crown complexity, thus, over time, supplying larger diameter coarse woody debris sufficient to sustain and restore physical complexity and stability. No effects would be expected to species composition in riparian areas.

9. The Proposed Action would maintain habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species. The untreated portion of the Riparian Reserves would provide adequate habitat for these species. No effects would be expected to the present populations of invertebrate and vertebrate riparian-dependant species.

Based on the above analysis of the effects on attainment of the ACS objectives, the Proposed Action is consistent with the ACS and the objectives for the Riparian Reserves, would not prevent or retard attainment of any of the ACS objectives, and would contribute towards attainment of ACS Objectives 1, 3, and 8 over time.

ISSUE 2: ***How would timber harvest and road construction affect northern spotted owl habitat?***

The Proposed Action may affect and is likely to adversely affect the northern spotted owl. The amount of suitable habitat within the Jasper Creek site home range is presently below the incidental take threshold. The Proposed Action would degrade foraging habitat for the Jasper Creek owl site by opening the forest canopy, possibly falling snags that pose a safety hazard, and possibly disturbing existing down wood, all which could reduce the population of owl prey species. Dispersal habitat would be retained, but would be degraded because the canopy would be opened.

As the stand grows and the forest canopy closes, nesting and foraging habitat would improve.

Thinning the stand would increase growing space for residual trees, accelerate diameter growth and crown complexity, and in general increase the complexity of forest structure throughout the stand. This would improve habitat for owl prey species, and it would improve owl nesting habitat. Thus, accelerating the development of late-successional stand characteristics as a result of the density management thinning would ultimately benefit this species.

C. ALTERNATIVE A - DENSITY MANAGEMENT

ISSUE 1: ***How would timber harvest and road construction affect the Attainment of Aquatic Conservation Strategy Objectives at the watershed scale?***

Alternative A would have effects on attainment of ACS objectives 2, 4, 5, 6, 7 and 9 similar to the Proposed Action. The following is a site-specific analysis of the effect of Alternative A on attainment of other ACS objectives.

1. Alternative A would maintain the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted, by protecting the streams and wetlands. No immediate effects are expected to the streams and their aquatic communities.

3. Alternative A would not adversely affect the physical integrity of the aquatic system. The Riparian Reserves on all hydrology features would fully protect streambank integrity and tree/shrub root strength within the riparian areas.

8. Alternative A would maintain species composition and not prevent or retard restoration of the structural diversity in riparian areas, thereby sustaining the present physical complexity and stability of the riparian areas. No effects would be expected on species composition in riparian areas.

Based on the above analysis of the effect on attainment of the ACS objectives, Alternative A 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. However, Alternative A would not accelerate attainment of ACS objectives 1, 3, and 8.

ISSUE 2: ***How would timber harvest and road construction affect northern spotted owl habitat?***

Alternative A would have effects similar to the Proposed Action. The action may affect and is likely to adversely affect the northern spotted owl. However, less of the stand would be disturbed (20 fewer acres of harvest and 800 fewer feet of road construction than the Proposed Action), leaving more foraging and dispersal habitat unmodified. The development of late-successional stand characteristics as a result of the density management thinning would be accelerated as described under the Proposed Action, but would occur on 20 fewer acres.

D. ALTERNATIVE B - NO ACTION

ISSUE 1: ***How would timber harvest and road construction affect the Attainment of Aquatic Conservation Strategy Objectives at the watershed scale?***

Alternative B would have effects similar to Alternative A. This alternative would maintain the current conditions of the Riparian Reserves and would not prevent or retard attainment of any of the ACS objectives. However, acceleration of attainment of ACS objectives 1, 3, and 8 would not occur.

ISSUE 2: ***How would timber harvest and road construction affect northern spotted owl habitat?***

Alternative B would have no immediate effect to northern spotted owls. Spotted owl foraging habitat would remain intact, benefitting the Jasper Creek owl site in the short term. Dispersal habitat would not be degraded. However, accelerating development of late-successional stand characteristics over the long term would not occur.

E. ALTERNATIVE C - NO NEW ROAD CONSTRUCTION

ISSUE 1: ***How would timber harvest and road construction affect the Attainment of Aquatic Conservation Strategy Objectives at the watershed scale?***

Alternative C would have effects similar to Alternatives A and B. This alternative would maintain the current conditions of the Riparian Reserves and would not prevent or retard attainment of any of the ACS objectives. However, acceleration of attainment of ACS objectives 1, 3, and 8 would not occur.

ISSUE 2: ***How would timber harvest and road construction affect northern spotted owl habitat?***

Alternative C would have effects similar to the Proposed Action but on fewer acres. The action may affect and is likely to adversely affect the northern spotted owl. However, less of the stand would be disturbed (45 fewer acres of harvest than the Proposed Action and no road construction), leaving more foraging and dispersal habitat unmodified. The development of late-successional stand characteristics as a result of the density management thinning would be accelerated as described under the Proposed Action, but would occur on 45 fewer acres.

VI. CUMULATIVE EFFECTS

This analysis incorporates by reference the analysis of cumulative effects in the USDA Forest Service and USDI Bureau of Land Management 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, February 1994, (Chapter 3 &4) and in the Eugene District Proposed RMP/EIS November, 1994 (Chapter 4). These documents analyze most cumulative effects of timber harvest and other related management activities. None of the alternatives in this proposed action would have cumulative effects on resources beyond those effects analyzed in the above documents. The following section supplements those analyzes, providing site specific information and analysis particular to the alternatives considered here.

The Upper Coast Fork Willamette Watershed (formerly Cottage Grove Lake/Big River Watershed(CGL/BR)) is the southernmost fifth field watershed within the Willamette River Basin and the Willamette physiographic province, is located in Lane and Douglas Counties, and includes the communities of Cottage Grove and London Springs. The watershed includes the headwaters of the Big River and Little River drainages which flow together to form the Coast Fork Willamette River south of Cottage Grove. Cottage Grove Dam on the Coast Fork, operated by the U.S. Army Corps of Engineers (COE), is near the center of this watershed. The Umpqua River Basin lies immediately to the south and west, and the Siuslaw River Basin lies to the northwest. This watershed covers 97,420 acres; of this, slightly less than 24,400 are public land managed by BLM (CGL/BR Watershed Analysis, p. 1-1).

Most of the Upper Coast Fork Willamette Watershed is in forest industry ownership, with an equal amount being BLM-administered land and other private ownership. Land use in the watershed is primarily forest management in the higher elevation lands, rural residential and agriculture along the Interstate 5 corridor and along the Coast Fork Willamette River, and urban use concentrated in

and around the Cottage Grove city limits.

It is likely that stands on BLM-administered lands in the Upper Coast Fork Willamette Watershed will be treated with regeneration harvests and thinning harvests given the land use allocations and the stand conditions. The BLM has sold one timber sale in the watershed that is in close proximity to the proposed project area, "Black Butte Density Management," in FY 96. For Fiscal Years 2003-2004, approximately 550 acres within the watershed will be analyzed for timber harvest. Because the Jasper Creek project area is located within the Matrix LUA, it would be considered for additional future timber harvest.

Private forest lands within the watershed will most likely continue to be subject to intensive forest management, including clear cutting and burning. Also, it is possible that some forest stands on private land will be converted to nonforest land.

A. PROPOSED ACTION - Density Management

In the short term (approximately 10-40 years), the Proposed Action, together with current harvesting and other disturbances, would contribute to the degradation or elimination of habitat for species preferring heavy canopy cover stands (i.e. spotted owls). Mobile species which prefer heavy canopy cover would be displaced and concentrated into smaller, fragmented suitable habitat that may already be occupied. Competition for limited resources, such as food and nesting sites, would increase and could cause population declines. Species that prefer more open canopy, mid-seral stands, would benefit. In the long term (greater than 40 years), the Proposed Action and other thinning in the watershed would promote an increase in mature and late-successional habitats.

The cumulative effect of tree harvest is the set-back of the natural successional patterns of vegetation in the lower canopy and herbaceous layer. There is also a tendency for non-native and more aggressive native plant species to monopolize habitats once occupied by more complex communities of co-adapted natives. The exclusion of late-successional native species may be long term or permanent; habitat for and presence of some sensitive species continue to be reduced cumulatively across the landscape in this way.

Ground disturbance such as compaction and topsoil displacement would set back native herbaceous communities and could promote the spread of weedy non-native plants. Road construction would create soil disturbance, inviting quick-colonizing non-native species. Roads are known vectors for noxious weeds such as Scotch broom and St. John's Wort, both found in the area. Under the Proposed Action, noxious weeds could enter the stand via new road use or construction and remain viable until the residual canopy could close over time. In addition, scotch broom seed remains viable in the soil for 80 years or more. An eventual regeneration harvest, likely to occur in several decades, would open the canopy and create ground disturbance that would allow germination of scotch broom seed and it could spread throughout the unit.

The Proposed Action, together with other harvesting and road-construction, could cause a minor increase in water flows and overall water yield. Because of the density of trees retained on the landscape and the protection of riparian reserves, a cumulative effect of increased water flow and yield is unlikely. In addition, the Proposed Action's direct or indirect effects on water resources would be not only minor, but also short-lived, limiting the potential for cumulative effects with other actions.

Sedimentation effects as a result of road construction associated with the Proposed Action would be anticipated to be very minor to non-existent and would likely be of short duration. In addition, cumulative effects on downstream flows would be very minor to nonexistent.

Construction of temporary roads would not result in cumulative effects on road densities after three years, because the roads 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 this watershed.

The majority of private timber harvest in this area have been clearcuts; consequently, dispersal habitat for spotted owls in the area is low. In the short term (approximately 10-40 years), the Proposed Action, along with other harvests currently being considered by BLM in the watershed, would contribute to the degradation of 385 acres and loss of 75 acres of spotted owl dispersal habitat within the South Willamette/North Umpqua Area of Concern. Over the decade, within the South Willamette/ North Umpqua Area of Concern, harvests are being offset by the growth of young forest stands into dispersal habitat. Between 1996-2004, the Area of Concern would see a 9% increase in dispersal habitat if no harvests take place. If planned harvests do occur, dispersal habitat would increase 8 percent in the Area of Concern. The Area of Concern provides a "bridge" for spotted owl dispersal between the Cascades and Coast Range provinces. The majority of the suitable habitat (66%) in the matrix is protected and not available for timber harvest; half of the dispersal habitat in the matrix is protected. Although 50% of the dispersal habitat is protected and appears adequate for maintaining connectivity, it is not evenly distributed, leaving some townships with a paucity of dispersal habitat and others well supplied. Dispersal habitat for spotted owls on federal land in the quarter township is presently at 67%. The Proposed Action, as well as Laurel Curves (a 70-acre density management thinning scheduled to be sold in 2002 and located approximately 1 mile to the north), would degrade up to 7% (140 acres) of the dispersal habitat on BLM within the quarter township. In the long-term (40 plus years) the project could accelerate the development of mature and late-successional forest characteristics, thereby improving spotted owl habitat.

B. Alternative A - Density Management

Alternative A would have cumulative effects on vegetation, wildlife, noxious weeds, soil and water resources similar to the Proposed Action, but of slightly lower magnitude, due to fewer acres treated. Alternative A would result in slower attainment of late-successional forest structural characteristics within Riparian Reserves.

C. Alternative B - No Action

Alternative B would have no cumulative effects on soils or water. This alternative would have no immediate cumulative affect on wildlife species. Alternative B would result in slower attainment of late-successional forest structural characteristics. This alternative would have no effect on the spread of noxious weeds.

D. Alternative C - No New Roads

Alternative C would have cumulative effects similar to the Proposed Action, but of a lower magnitude, due to fewer acres treated. This alternative would result in slower attainment of late-successional forest structural characteristics within Riparian Reserves and untreated Matrix acres. Under this alternative, the vector effect roads have for weeds would be limited to the areas of existing road use and landing set-up, rather than areas of new construction or reconstruction.

VII. CONSULTATION AND COORDINATION

A. 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	Wildlife and Threatened and Endangered species
Rick Colvin	Landscape Planner
Al Corbin	Timber Management
Dave Reed	Fire
Richard Hardt	Ecology
Pete O'Toole	Silviculture
Kim Reviea	Timber
Mike Southard	Cultural Resources
Steve Steiner	Hydrology
Chuck Vostal	Fisheries
Molly Widmer	Botany
Barry Williams	Soils

B. CONSULTATION

Pursuant to the Endangered Species Act, formal consultation has been initiated with the Fish and Wildlife Service on this proposed action, along with other actions proposed in the Eugene District for Fiscal Year 2003. Any measures recommended by the USFWS to minimize impacts to Threatened or Endangered species would be incorporated into the Proposed Action.

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. PUBLIC PARTICIPATION

A public notice advertising the availability of this EA and preliminary FONSI will be published in the Eugene Register-Guard on October 2, 2002. Additionally, the environmental assessment will be sent to eight groups or businesses, six state or local government agencies, and 11 individuals. A 30-day public comment period for the EA closes on November 1, 2002.

VIII. 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 Resource Management Plan/Environmental Impact Statement. Eugene, Oregon: Eugene District Office.

USDI Bureau of Land Management. June 1994. Eugene District Record of Decision and Resource Management Plan. Eugene, Oregon: Eugene District Office.

USDI Bureau of Land Management. May 1997. Cottage Grove Lake/Big River Watershed Analysis. Eugene, Oregon: Eugene District Office.

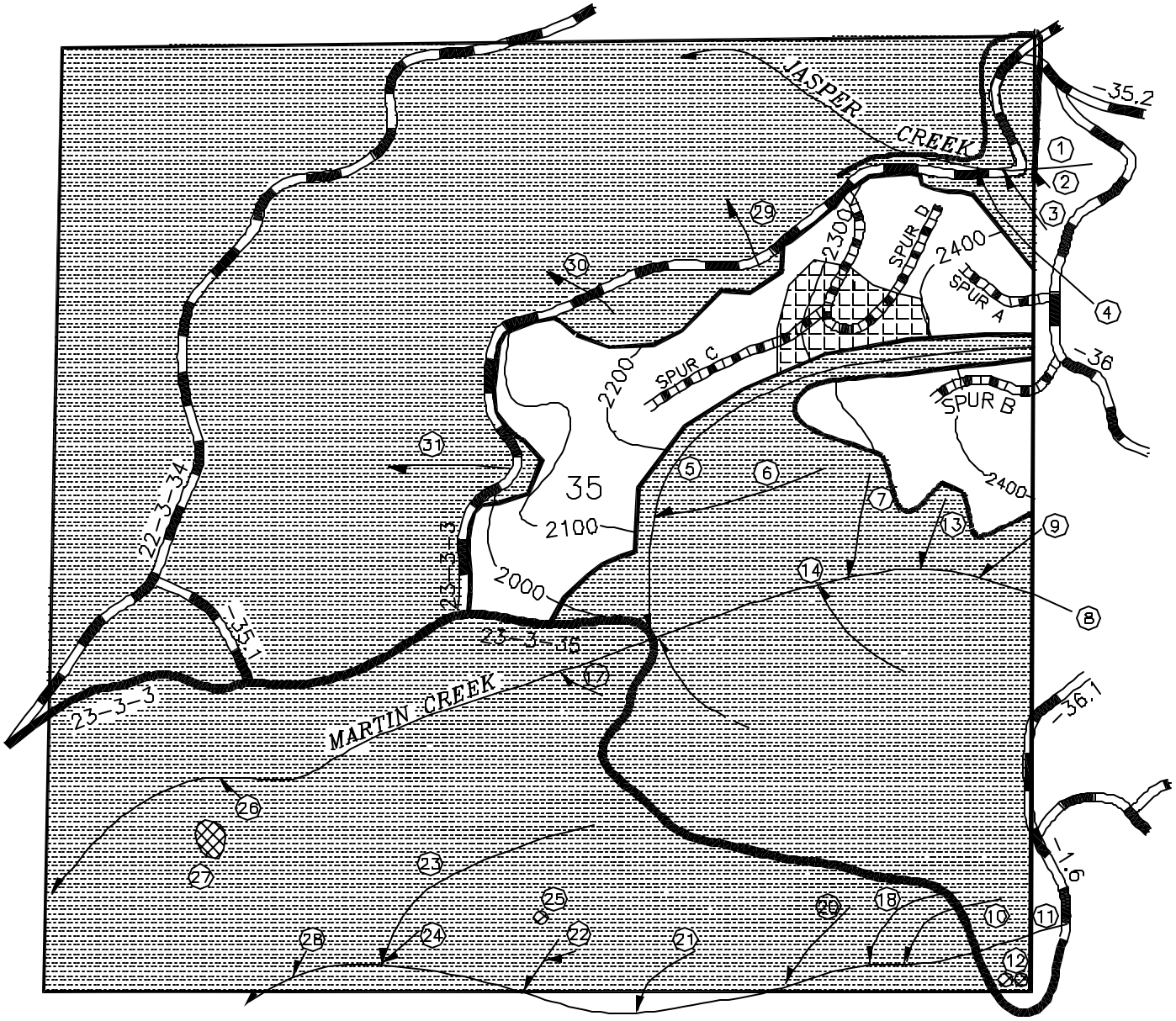
USDI, Bureau of Land Management. October 1998. Eugene District Interim Management Guideline For Three Survey and Manage Mollusks. Eugene District

USDA Forest Service and USDI Bureau of Land Management. January 2001. Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, Portland, Oregon.

Attachments
Maps

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JASPER CREEK EA MAP
PROPOSED ACTION
T. 22S., R. 3W., SEC. 35, WILL. MER. EUGENE DISTRICT



LEGEND

SCALE: 1" = 1,000 FT.

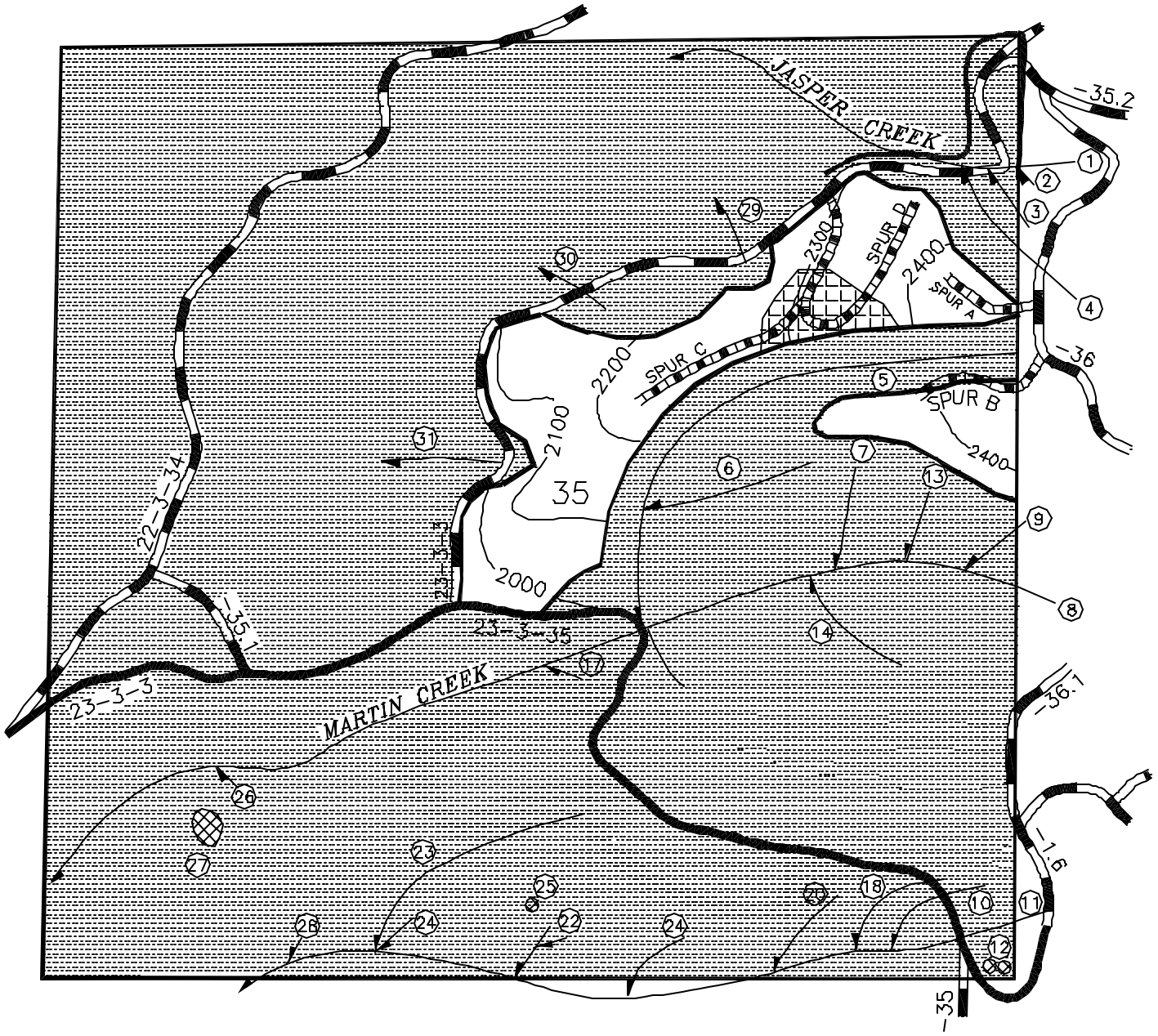
- MODERATE THIN AREA
- RESERVE AREA
- HEAVY THIN AREA
- WETLANDS
- BOUNDARY – PROPOSED ACTION
- ROCK SURFACED ROAD
- ROAD TO BE CONSTRUCTED
- PAVED ROAD
- STREAM

8/02

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JASPER CREEK EA MAP
ALTERNATIVE A

T. 22S., R. 3W., SEC. 35, WILL. MER. EUGENE DISTRICT



LEGEND

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- MODERATE THIN AREA
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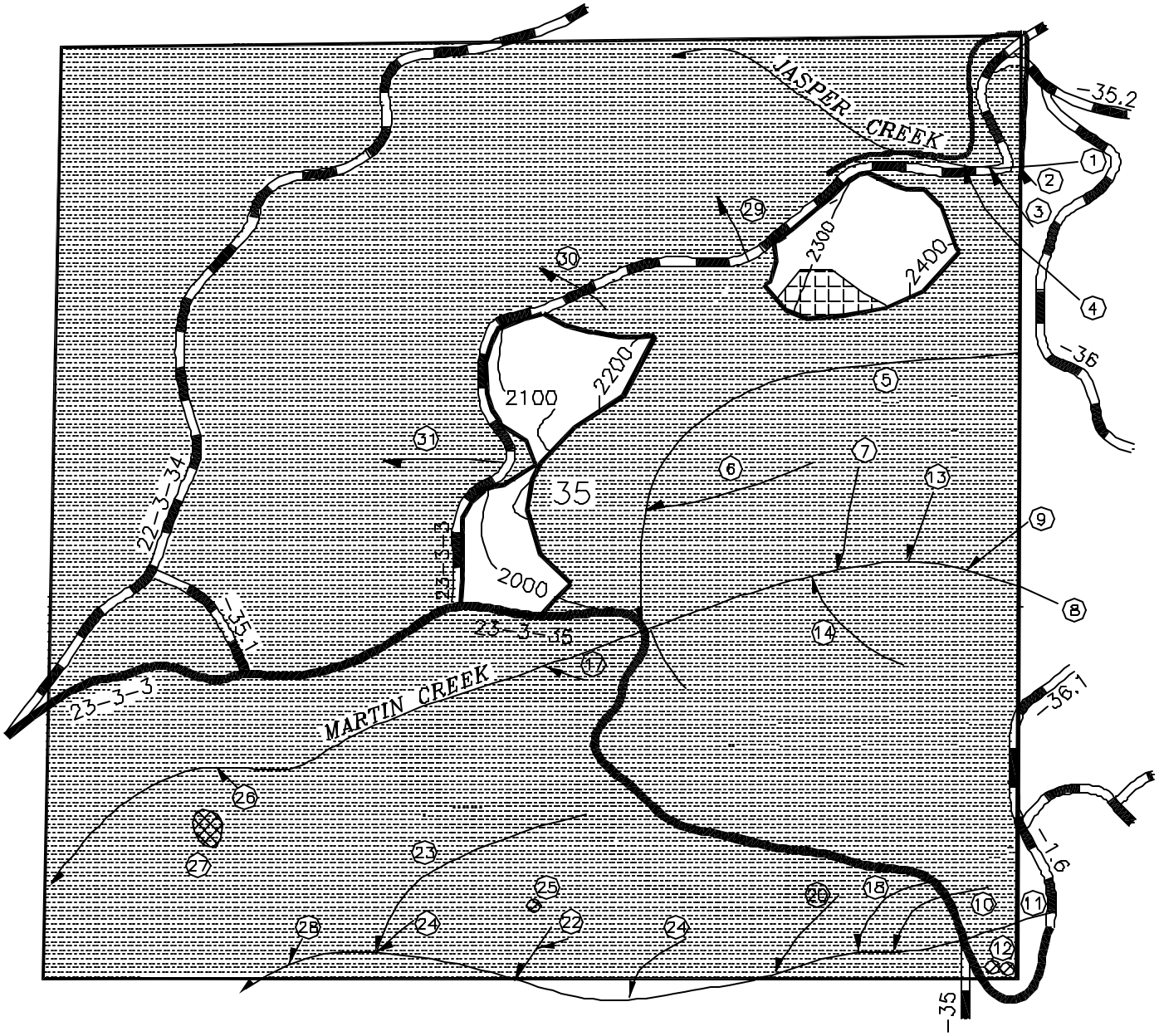
8/02

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
JASPER CREEK EA MAP
ALTERNATIVE C

T. 22S., R. 3W., SEC. 35, WILL. MER. EUGENE DISTRICT



LEGEND

SCALE: 1" = 1,000 FT.

- MODERATE THIN AREA
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- PAVED ROAD
- STREAM

8/02

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

Finding of No Significant Impact
for
Jasper Creek Timber Sale

Determination:

On the basis of the information contained in the Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternatives will not have significant environmental impacts not already addressed in the *Final Eugene District Timber Management EIS* (May 1983), and the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (April 1994) and the *Eugene District Record of Decision and Resource Management Plan* (June 1995), with which this EA is in conformance, and does not, in and of itself, constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

_____ Date: _____
Field Manager, Upper Willamette Resource Area

ENVIRONMENTAL ASSESSMENT NO. OR090-02-22

Jasper Creek
Timber Sale Tract No. E-00-302

September 2002

United States
Department of the Interior
Bureau of Land Management
Eugene District Office
Upper Willamette Resource Area