PRELIMINARY
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Elkhorn Creek Density Management Thinning, Wildlife Habitat Enhancement, and Fish Habitat Enhancement Projects

Environmental Assessment (EA) Number OR-086-05-01

December 3, 2004

INTRODUCTION

The BLM (Bureau of Land Management) has conducted an environmental analysis (EA Number OR-086-05-01) for a proposal to perform a density management thinning on approximately 1853 acres of 35-65 year old, relatively dense Douglas-fir stands. New temporary roads, and reconstructed roads that would be built to support the thinning as well as additional roads and skid trails would be decommissioned at the completion of the project, for a net decrease of 3.2 miles of roads within the project area. In addition, 150 acres of wildlife habitat enhancement would occur in stands that would not be treated with density management. The third project is a fish habitat enhancement treatment on 1/2 mile of Cruiser Creek, and 1.5 miles of Elkhorn Creek. These projects would occur in portions of T1S R6W sec 25 and 34; T1S R5W sec 31; T2S R5W sec 7; T2S R6W sec 4, 5, 8, 10, 16 and 19 Willamette Meridian..

Implementation of Alternative 1 would conform to the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl, April 1994 (Northwest Forest Plan); Trask Watershed Analysis, August 2003; Northern Coast Range Adaptive Management Area Guide, January 1997; Late-Successional Reserve Assessment for Oregon's Northern Coast Range Adaptive Management Area, January 1998 (LSRA); Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, January, 2001 Record of Decision Amending Resource Management Plans for Seven Bureau of Land Management Districts and Land and Resource Management Plans for Nineteen National Forests Within the Range of the Northern Spotted Owl, Decision to Clarify Provisions Relating to the Aquatic Conservation Strategy, March 2004; Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, March 2004 (S&M) Coastal Zone Management Act of 1974, as amended and Endangered Species Act of 1972, as amended (ESA).

The EA is attached to and incorporated by reference in this preliminary FONSI determination. The EA and preliminary FONSI will be made available for public review from December 3, 2004 to January 10, 2005.

The notice for public comment will be published in a legal notice by the *Headline Herald* newspaper of Tillamook; sent to those individuals, organizations, and agencies that have requested to be involved in the environmental planning and decision making processes; and posted on the Internet at http://www.or.blm.gov/salem/html/planning/index.htm. Comments received in the Tillamook Field Office, 4610 Third Street, Tillamook, Oregon 97141, **on or before January 10, 2005 at 4:00 PM, Pacific Daylight Saving Time**, will be considered in making the final decisions for these projects. Office hours are Monday through Friday, 7:30 A.M. to 4:00 P.M., closed on holidays.

Based upon the EA and supporting documents, the Field Manager of the Tillamook Resource Area, made a preliminary determination that Alternative 1, hereafter referred to as the "proposed action", is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, an environmental impact statement is not needed. This finding is based on the following discussion:

Context. The proposed action is a site-specific action directly involving 2003 acres of BLM administered land, that by itself does not have international, national, region-wide, or state-wide importance. Approximately 1350 acres of the the project area is located in the Elkhorn Key Watershed. The project area does not contain designated 'critical habitat' for the marbled murrelet, or northern spotted owl. The project area contains mostly 'dispersal' habitat for the northern spotted owl, and 80 acres in Section 16 of low-quality 'suitable northern spotted owl' habitat. The project is in the municipal watershed for the communities of Hillsboro and Yamhill. The project area does not contain the federally listed upper Willamette steelhead or upper Willamette Chinook, or potential habitat for these species. The project does contain 'Essential fish habitat' for the Oregon Coast Chinook Salmon and Oregon Coast Coho Salmon. The discussion of the significance criteria that follows applies to the intended action and is within the context of local importance. Chapter 4 of the EA details the effects of the proposed action. None of the effects identified, including direct, indirect and cumulative effects, are considered to be significant and do not exceed those effects described in the RMP/FEIS.

Intensity. The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27.

1. **Impacts may be both beneficial and adverse.** Due to the proposed action's design features, the predicted effects, most noteworthy, include: 1/ acceleration of the development of some late-successional forest structural features on about 1853 acres using density management and an additional 150 acres of wildlife habitat enhancement projects. These activities include the development of large trees, gaps in the canopy, snags and down wood, various levels of over story tree densities; 2/ enhancement of the overall level of diversity in the area; 3/ social and economic benefits to the local

communities through the supply of timber to local mills and some contract work associated with the road decommissioning project, the wildlife habitat enhancement project, and the fish habitat enhancement project; 4/ consistency with the ACS (Aquatic Conservation Strategy) objectives; and 5/ no loss in population viability of special status or special attention species (also see significance criteria #9 below); 6/ slight, short term increases in sediment are anticipated from road construction, road improvement and culvert removal, and timber harvest activities; 7/ no impacts to water temperature, streamflows or stream channel stability.

None of the environmental effects disclosed above and discussed in detail in Chapter 4 of the EA and associated appendices are considered significant, nor do the effects exceed those described in the RMP/FEIS.

2. **The degree to which the selected alternative will affect public health or safety.** Public health and safety were not identified as an issue. The proposed action is comparable to other wildlife habitat enhancement, fish habitat enhancement projects and density management projects which have occurred within the Salem District with no unusual health or safety concerns.

3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas**. There are no historic or cultural resources, park lands, prime farm lands, wild and scenic rivers, or wildernesses located within the project area (EA, Appendix 2).

The project area is located within the Adaptive Management Area and Riparian Reserve land use allocations, as identified in the RMP. Activities associated with the proposed action are predicted to accelerate the development of some late-successional forest structural features.

4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** Extensive scoping of the proposed action resulted in only four project specific comment letters. The disposition of public comments is contained in Appendix 4 of the EA.

The effects of the proposed action on the quality of the human environment were adequately understood by the interdisciplinary team to provide an environmental analysis. A complete disclosure of the predicted effects of the proposed action is contained in Chapter 4 of the EA and associated appendices.

5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The proposed action is not unique or unusual. The BLM has experience implementing similar actions in similar areas and have found effects to be reasonably predictable. The environmental effects to the human environment are fully analyzed in the EA. There are no predicted effects on the human environment which are considered to be highly uncertain or involve unique or unknown risks.

6. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The proposed action does not set a precedent for future actions that may have significant effects, nor does it represent a decision in principle about a future consideration. The

proposed action decommissions 3.2 miles of road no longer needed by the BLM and accelerates the development of some late-successional forest habitat characteristics on 2003 acres of land managed by the BLM. Any future projects will be evaluated through the NEPA (National Environmental Policy Act) process and will stand on their own as to environmental effects.

7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The interdisciplinary team evaluated the proposed action in context of past, present and reasonably foreseeable actions. Significant cumulative effects are not predicted. A complete disclosure of the effects of the selected alternative is contained in Chapter 4 of the EA.

8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The proposed action will not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will the proposed action cause loss or destruction of significant scientific, cultural, or historical resources (EA, Appendix 3).

9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

- In accordance with regulations pursuant to Section 7 of the Endangered Species Act of 1973, as amended, formal consultation with the USFWS concerning the potential impacts of the five timber sales described in the Elkhorn Density Management Project, Fish Habitat Enhancement Project and Wildlife Habitat Enhancement project upon the spotted owl, marbled murrelet and bald eagle will be completed by including the appropriate project within the annual programmatic habitat modification biological assessment prepared by the interagency Level 1 Team (terrestrial subgroup) for the North Coast Province. The alternative 1 is consistent with definitions for *light to moderate thinning* as found in the programmatic BA. Should the project not be implemented within FY 2006-9 as currently planned but rather in a subsequent year, the project(s) would likely be resubmitted for inclusion in the next appropriate programmatic consultation. If the project is determined to not be in compliance with the standards of the programmatic consultation, the project would be changed to be in compliance with the programmatic consultation or a project-specific consultation would be conducted. In either case, all of the appropriated Terms and Conditions of the appropriate Biological Opinion would be incorporated.

Any ESA consultation with USFWS required on the subsequent maintenance of trees planted as a part of this project, (such as in root disease centers or on landings) would likely be accomplished by inclusion of the maintenance work within the appropriate Programmatic Biological Assessment for Activities in the North Coast Province which

might disturb bald eagles, northern spotted owls or marbled murrelets which is prepared by the North Coast Province Interagency Level 1 Team.

- In accordance with regulations pursuant to Section 7 of the Endangered Species Act of 1973, as amended, formal or informal consultation concerning the potential impacts of the proposed action on Upper Willamette steelhead is anticipated to be initiated in 2006. Conferencing for Oregon Coast Coho salmon will be requested if needed in 2006.

Formal or informal consultation under the Magnuson-Stevens Fishery Conservation and Management Act is anticipated to occur for populations of coho and chinook that are located within the project area. This consultation for Essential Fish Habitat would likely occur concurrently with Section 7 consultation or conferencing.

10. **Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment**. The proposed action does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment. The EA and supporting Project Record contain discussions pertaining to the Endangered Species Act, National Historic Preservation Act, Clean Water Act, Clean Air Act, Coastal Zone Management Act, Executive Order 12898 (Environmental Justice), and Executive Order 13212 (Adverse Energy Impact). State, local, and tribal interests were given the opportunity to participate in the environmental analysis process. Furthermore, the proposed action alternative is consistent with applicable land management plans, policies, and programs.

APPENDIX 1 ALTERNATIVE DEVELOPMENT SUMMARY

Environmental Assessment Number OR-086-05-01

Pursuant to Section 102 (2) (E) of NEPA (National Environmental Policy Act of 1969, as amended), Federal agencies shall "Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." The CEQ (Council on Environmental Quality) regulations for implementing the procedural provisions of NEPA states, alternatives should be "reasonable" and "provide a clear basis for choice" (40 CFR 1502.14).

In light of the direction contained in both NEPA and the CEQ Regulations, the following questions were used to 1/ identify the alternatives to be analyzed in detail in this environmental assessment that are in addition to the "proposed action" and "no action" alternatives, and 2/ document the rationale for eliminating alternatives from detailed study.

1. **Are there any unresolved conflicts concerning alternative uses of available resources?** *If yes, document and go to Question #2. If no, document rationale and stop evaluation.*

   No. There were no unresolved conflicts identified from internal or external scoping efforts. However, the IDT thought that there might be an economic justification in developing an alternative that only included traditional logging methods such as skyline and ground-based systems, and did not include helicopter logging. However, the total difference in anticipated impacts was so minimal, that it did not warrant developing an additional alternative.

2. **What alternatives should be considered that would lessen or eliminate the "unresolved conflicts concerning alternative uses of available resources"?** *List alternatives and go to Question #3. If no alternative is identified other than the "no action" alternative, document and stop evaluation*.

3. **Of those alternatives identified in Question #2, are there reasonable alternatives for wholly or partially satisfying the need for the proposed action?** *If so, briefly describe alternatives and go to question #4. If no, document rationale and stop evaluation.*

4. **Of those alternatives identified in Question #3, will such alternatives have meaningful differences in environmental effects?** *If so, seek line officer approval to carry alternatives forward for detailed analysis in the environmental assessment. If no, document rationale and stop evaluation.*

APPENDIX 2 ENVIRONMENTAL ELEMENTS

Environmental Assessment Number OR-086-05-01

In accordance with law, regulation, executive order and policy, the interdisciplinary team reviewed the elements of the human environment to determine if they would be affected by the alternatives described in Chapter 2 of the EA (environmental assessment). The following three tables summarize the results of that review. Those elements that are determined to be "affected" will define the scope of environmental concern, Chapter 3 of the EA.

Table 1. Critical Elements of the Environment. This table lists the critical elements of the human environment (BLM Handbook 1790-1) which are subject to requirements specified in statute, regulation, or executive order and the interdisciplinary teams predicted environmental impact per element if the alternatives described in Chapter 2 of the Environmental Assessment were implemented.

Critical Element of the Human Environment	**Status** **1/ Not Present** **2/ Not Affected** **3/ Affected**	**Interdisciplinary Team Remarks** **1/ If not affected, why?** **2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix C of the RMP to reduce or avoid environmental harm**
Air Quality (Clean Air Act)	Not Affected	The proposed Density Management Thinning will create slash in the 1 hour (0 – 1/4"), 10 hour (1/4" – 1"), and 100 hour (1" – 3") fuels across the harvest units and associated landing areas. Hand piling and burning, swamper burning, and landing burning may occur in the harvest units where fuel loads are determined to be a fire hazard, or in *Phellinus werii* pockets where slash accumulations would hinder tree planting. . Since burning would be conducted in accordance with the Oregon State Implementation Plan and Oregon Smoke Management Plan the impact of smoke on air quality is predicted to be local and of short duration. As such, the proposed action would have no adverse impact on air quality and would comply with the provisions of the Clean Air Act.
Areas of Critical Environmental Concern	Not Present	There are no ACEC's within the project area, or along any haul routes.

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Cultural, Historic, Paleontological	Not Affected	There is one known cultural resource site located within the proposed project area (Site SHS 220, Carlton and Coast Railroad). Although the Elkhorn Creek Density Management Thinning project will utilize portions of the road built over the old railroad grade to haul timber, the action will not adversely affect Site SHS 220. Regarding pre-project surveys, the project area occurs in the Coast Range. Survey techniques for harvest actions are based on those described in Appendix D of the *Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon*. The Coastal Range Inventory Plan only requires post-harvest surveys based on slope. As such, surveys will not be conducted until the density management harvest activity is completed. If during the implementation of the density management project cultural resources are found, ground disturbing work will be suspended until an archaeologist can assess the significance of the discovery. The project may be redesigned to protect the cultural resource values present, or evaluation and mitigation procedures would be implemented based on recommendations from the District Archaeologist. Surveys will not be conducted for the Fish Habitat Enhancement, Wildlife Habitat Enhancement, and Watershed Restoration projects as these actions will not create new ground disturbance and are considered an exempt undertaking pursuant to the August 1998 protocol. If during the implementation of these actions cultural resources are found, ground disturbing work will be suspended until an archaeologist can assess the significance of the discovery. The project may be redesigned to protect the cultural resource values present, or evaluation and mitigation procedures would be implemented based on recommendations from the District Archaeologist. Specialist Report: Cultural Resource Assessment for the Elkhorn Projects prepared July 19, 2004
Energy (Executive Order 13212)	Not Affected	There currently are no energy developments within the proposed project area that would be affected and at the completion of the proposed project the area would maintain its current suitability for energy development opportunities. The proposed action will have no effect on energy development, production, supply and/or distribution.
Environmental Justice (Executive Order 12898)	Not Affected	The proposed action is not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.
Prime or Unique Farm Lands	Not Present	There are no Prime or Unique Farm Lands within the proposed project area.
Flood Plains (Executive Order 11988)	Not Affected	The proposed action does not involve occupancy and modification of floodplains, and will not increase the risk of flood loss. As such, the proposed action is consistent with Executive Order 11988.

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Hazardous or Solid Wastes	Not Present	There are no Hazardous or Solid Wastes sites within the proposed project area.
Invasive, Nonnative Species (Executive Order 13112)	Affected	Vascular plant surveys indicated existing populations of priority III noxious weeds within the project area. The proposed action will result in soil disturbance which provides an opportunity for the introduction of noxious weeds and/or invasive non-native plant species. The unit of measure is a narrative. Project design features to reduce the potential for introduction include seeding/planting of disturbed areas, and washing ground disturbing vehicles before they enter the project area.
Native American Religious Concerns	Not Present	No Native American religious concerns were identified during the public scoping period.
T/E (Threatened or Endangered) Fish Species or Habitat	Affected Not Affected	This project has the potential to affect Upper Willamette steelhead or their habitat through hauling activities that introduce sediment into streams near haul routes. Any adverse effects to steelhead habitat caused by sediment would be short term. The unit of measure to describe these potential effects is a narrative that describes impacts to habitat, individuals or a population. Upper Willamette chinook salmon are not known to be present anywhere near any of the proposed actions in the Yamhill Basin or Tualatin Basin. There is no potential of impacts to Upper Willamette chinook or steelhead from timber felling or yarding from the small area to be thinned within the Tualatin and Yamhill Watersheds. No impacts are anticipated as, there will be no change in stream temperature and minimal loss of functional wood with the planned 50 foot no harvest buffers. Stream sediment or turbidity levels are not anticipated to change with the implementation of this action. In unit 25-1and 31-1 the minimal loss of functional wood would include those trees that are from 50 to 60 feet from streams. The short term loss of wood from this 10 foot zone near 1st order streams should have no adverse effects to stream function as these units are already at high levels of CWD by LSRA standards. The 1st order streams within this thinning area are not likely to be flowing during harvest operations.As there is no known spawning and only limited rearing in the lower portion of the North and South Yamhill no impacts are anticipated to this species or their habitat. Oregon Chub (Federally Listed as Endangered) are not located near any of the potential activities and as such no impacts to this species or their habitat will occur.
T/E (Threatened or Endangered) Plant Species or Habitat	Not Present	Botanical surveys were completed in August 2002. Surveys included any species listed under the Endangered Species Act. No listed species were found.

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T/E (Threatened or Endangered) Wildlife Species, Habitat and/or Designated Critical Habitat	Affected	Bald Eagle – In Section 34 there are trees in and around the density management units that would be suitable for eagle nesting and are within ½ mile of Barney reservoir, which contains fish. After many visits by biologist and foresters, there has not been any eagle activity observed, either in the unit or around the reservoir. Although small, there is a possibility that eagles that could be using the reservoir and that may consider roosting or nesting on BLM land in section 34, could be disturbed by the proposed action. The unit of measure is acres of suitable nesting habitat disturbed. Spotted Owl – temporary degradation of dispersal habitat by thinning. Unit of measure is acres modified. Modification and disturbance of suitable habitat in section 16 and disturbance in suitable habitat in Section 34. Unit of measure is acres modified or disturbed. Protocol surveys of suitable habitat will be conducted in Section 16 prior to harvest. Marbled Murrelet – Individual suitable habitat trees in Secs. 31 and 34. Impacts would be from modification of stands adjacent to suitable habitat trees and potential disturbance. Unit of measure is trees impacted.
Water Quality (Surface and Ground)	Not Affected (Temperature & Chemical/Nutrient Contamination) Affected (Sediment/ Turbidity)	ODEQ has assigned TMDL (Total Maximum Daily Load) targets for temperature and for all lands with intermittent or perennial streams that drain into the Trask watershed. There are no water quality limited bodied listed within the Tualatin River sub-basin in the project area. Not Affected: Streams in the project area are generally well shaded. Substantial portions of the riparian canopy would be retained within riparian zones, thereby maintaining riparian microclimate conditions and protecting streams from increases in temperature. The proposed action would not have any affect on chemical or nturient contamination. Affected: Project activities (e.g., timber harvest, road construction, timber haul) would result in soil disturbance, thereby increase soil erosion and increases in short-term, localized turbidity and sedimentation in local streams. A narrative statement is used to describe these potential affects on water quality.
Wetlands (Executive Order 11990)	Not Affected	There are wetlands in the project planning area but they are mainly small (less than one acre) and not extensive. All wetland areas would be avoided, excluded, or otherwise protected in accordance with guidelines disclosed on page 10 of the RMP.

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Wild and Scenic Rivers	Not Present	
Wilderness	Not Present	

Table 2. Other Elements of the Environment. This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary teams predicted environmental impact per element if the alternatives described in Chapter 2 of the Environmental Assessment were implemented.

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Coastal Zone (Oregon Coastal Management Program)	Not Affected	The proposed action is consistent with the management guidelines of the Oregon Coastal Management Program.
Essential Fish Habitat (Magnuson-Stevens Fisheries Conservation and Management Act)	Affected Chinook and coho within the Coast Range Province and coho within the Willamette Province	This project has the potential to affect Essential Fish Habitat for coho and Oregon Coast chinook salmon by harvest, hauling and culvert replacement activities that could introduce sediment into streams near harvest units or haul routes; and the reduction in CWD potential outside of no-harvest buffers. The snag and CWD creation in both the harvest and wildlife enhancement units has the potential of affecting these anadromous fish directly. The instream restoration project is anticipated to have short term negative impacts directly to individual fish and long term beneficial impacts to both the fish and their habitat. The unit of measure to describe these potential effects is a narrative that describes impacts to habitat, individuals or a population.
	Not Affected Upper Willamette chinook salmon	Upper Willamette chinook salmon are not known to be present anywhere near any of the proposed actions in the Yamhill Basin or the Tualatin Basin. As there is no known spawning and only limited rearing in the lower portion of the North and South Yamhill no impacts are anticipated to this species or their habitat.

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Fire Hazard/Risk	Not Affected	The fuel load as measured in tons per/acre would increase to a minor degree in the 1 hour (0 – 1/4"), 10 hour (1/4" – 1"), and 100 hour (1" – 3") (fine) fuels classifications immediately following harvest but would return to acceptable levels on all Density Management Thinning units within a 5 to 10-year period. This small increase in fuel load would not be expected to result in an increase in fire hazard on the project level scale and the change would not be measurable on the watershed scale. A very small increase in tons per/acre will occur in the Wildlife Enhancement units with the addition of one down log per/acre but would not change the overall fuel loading to a point where it would increase the potential fire hazard.
Forest vegetation associated with Adaptive Management Area and Riparian Reserve	Affected	Implementation of the proposed density management thinning is expected to accelerate the development of some late-successional forest structural features and increase stand resistance to the impacts of Swiss needle cast disease on Douglas-fir. Treatment of pockets of laminated root rot greater than one acre in size though removal of most highly susceptible hosts (Douglas-fir and grand fir, if any), retaining existing hardwoods and less susceptible or resistant conifers, and planting diseased areas with resistant species will add to the species and structural diversity of the area, as well as reduce the impacts from the disease. The recruitment of smaller-sized snags would be largely curtailed for at least 20 years after thinning. The snag and coarse woody debris (CWD) treatment is expected to provide a slight short-term increase in the structural diversity of stands in the vicinity of the proposed density management thinning. The unit of measure is a narrative and acres treated.
Land Uses (right-of-ways, permits, etc)	Not Present	Weyerhaeuser has released their rights to the portion of road 2-5-10 located West of their ownership in section 5 T2S R6W, WM, therefore, there are no known land uses that will be affected by the density management thinning, fish project, watershed restoration project, or snag and CWD creation projects.
Mineral Resources	Not Affected	There currently are no mineral leases within the proposed project area that would be affected and at the completion of the proposed project the area would maintain its current suitability for mineral development opportunities.

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Recreation	Not affected	Primary recreation uses in the project area are hunting and OHV riding. The project is not expected to change habitat conditions such that it would have an impact on hunting opportunities. The project area is currently designated as "open" where all types of vehicle use are permitted at all times, anywhere in the area subject to operating regulations and vehicle standards. The new road construction and reconstruction is intended to be temporary and not to be added as an "existing" road to the current road inventory, therefore these roads are not intended to become available to OHV use and will be blocked from OHV use. Road decommissioning will incorporate temporary OHV closures for stabilization measures. In all other respects the area will remain the same for OHV uses.
Rural Interface Areas	Not Present	
Special Areas (not including ACEC, RMP pp. 33-35)	Not Present	
Special Status Species (not including T/E): Fish Species/Habitat	Affected	Pacific lamprey (Bureau Assessment species), Oregon Coast steelhead (Federal Candidate) and Oregon Coast coho salmon (petitioned as threatened under the ESA) Coastal cutthroat (Oregon Coast) Density management thinning may affect these species by varying degrees biased on the unit and its proximity to these species and the timing of the harvest and haul. These activities that could introduce sediment into streams near harvest units or haul routes; and the reduction in CWD potential outside of no-harvest buffers may have habitat impacts. Wildlife and instream restoration treatments to create snags and fish habitat have the potential of direct impacts to these species as these actions would occur in or near stream channels where and all of these species are present. Any adverse effects to these species habitat caused by sediment would be short term; in the long term effects to this habitat would be beneficial from the riparian thinning, wildlife treatments and instream restoration. The unit of measure to describe these potential effects is a narrative that describes impacts to habitat, individuals or a population.
	Not affected	Pacific chum salmon, coho and Coastal cutthroat trout (Lower Columbia / SW Washington), The distance to these species will preclude impacts to individuals or their habitat.

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Other Elements of the Environment	**Status** **1/ Not Present** **2/ Not Affected** **3/ Affected**	**Interdisciplinary Team Remarks** **1/ If not affected, why?** **2/ If affected, develop cause/effect statement, unit of measure, and if applicable, design features not already identified in Appendix C of the RMP to reduce or avoid environmental harm**
Special Status Species (not including T/E): Plant Species/Habitat	Not Present/ Not Affected	Surveys were conducted throughout the proposed project area and no Special Status Species were found.
Special Status Species (not including T/E): Wildlife Species/Habitat	Affected	Northern Goshawk – Potential disturbance. Now known to be within breeding range, marginal, but suitable habitat with long term improvement as a result of management actions. Columbia Torrent Salamander – potential impacts to suitable habitat resulting from yarding corridors cut through small streams and from fisheries enhancement project. Mollusks – Two slug species that were recently added to the Bureau's Special Status Species list as Bureau Sensitive have been found within the project area. One specimen of *Prophysaon vanattae pardalis* was found in the project area, and many specimens of *Hesperarion mariae* were found. The Density management would impact mollusk habitat by thinning the canopy, resulting in the potential for a small increase in drying from solar radiation and greater air movement within the stand, and from direct impact to soil and coarse wood resources. Unit of measure for impacts to special status species is a narrative discussion as to whether the impacts associated with the project would contribute to the need to list these species under the Endangered Species Act.
Soil (productivity, erodibility, mass wasting, etc.)	Affected	The project activities will result in soil disturbance (e.g., soil compaction, displacement, mixing) that will alter some soil properties which may reduce long-term soil productivity. The unit of measure is acres of soil disturbance.
Visual Resources	Not Affected	The project area is located in VRM Class IV, and the proposed action is consistent with this designation.

Table 2. Other Elements of the Environment. This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary teams predicted environmental impact per element if the alternatives described in Chapter 2 of the Environmental Assessment were implemented.

Other Elements of the Environment	**Status** **1/ Not Present** **2/ Not Affected** **3/ Affected**	**Interdisciplinary Team Remarks** **1/ If not affected, why?** **2/ If affected, develop cause/effect statement, unit of measure, and if applicable, design features not already identified in Appendix C of the RMP to reduce or avoid environmental harm**
Water Resources (not including water quality)	Affected (watershed hydrology, channel morphology)	The proposal is unlikely to alter the current condition of the aquatic system by effecting its in-stream flows or physical integrity. The unit of measure is a narrative discussion.
	Not Affected (municipal & domestic water use)	Water use present downstream from the project: Municipal use approx. 800 feet to Barney Reservoir (City of Hillsboro and the Tualatin Valley) and approx. 0.7 mile to Turner Creek water intake (City of Yamhill); Domestic use over 10 miles downstream of the project. The proposal is unlikely to affect municipal & domestic water use with retention of canopy cover and very limited ground disturbing activites in Riparian Reserves.

Table 3. Aquatic Conservation Strategy Summary. This table lists the four components of the Aquatic Conservation Strategy (RMP pp. 5-7), and the interdisciplinary teams predicted environmental impact per component if the alternatives described in Chapter 2 of the Environmental Assessment were implemented.

Components	Consistency with ACS	Remarks /References
Riparian Reserves	Consistent	The proposed action is consistent for the following reasons: a watershed analysis has been completed; road and landing locations have been minimized in Riparian Reserves; wetlands have been avoided when constructing new roads; sediment delivery has been minimized to streams from roads.
Key Watershed	Consistent	The project area contains a Teir 1, Key watershed. The net road mileage would be reduced by 2.5 miles in the key watershed as a result of the proposed action. (1/2 mile with fish enhancement project and 2 miles with the density management thinning). The proposed action includes 2 miles of fish habitat restoration which will improve fish access to approximately 2 miles of habitat, increase LWD, pool area and quality, improve substrate storage and routing processes. Removing portions of road 2-5-10, will provide for more refuge and alcove habitat.
Watershed Analysis	Consistent	A large number of the recommendations in the WA have been incorporated into the proposed action. These include but are not limited to: *When conducting forest density management projects inside Riparian Reserves, leave a no-harvest vegetation buffer along all intermittent and perennial stream channels. *Cooperate with private and state landowners to implement riparian and in-stream restoration projects and to retain and enhance riparian overstory. *Minimize or mitigate for road-building activities within Riparian Reserves that have the potential to impact water quality standards, including temperature and sediment, or fail to meet ACS objectives. *Road construction, upgrading, maintenance, and closure should be performed in accordance with Best Management Practices, as listed in Appendix C of the Salem District's RMP and the Salem District's Transportation Management Plan. * Maintain active participation in the Tillamook Bay Watershed Council. * Work on the long-term development of a more complex riparian zone. Strategies would include: developing multi-storied canopy layers, felling or placing larger diameter trees in strategic locations along the stream, underplanting small openings with conifers, and releasing existing conifers.* Plan and implement riparian silvicultural projects which are designed to accelerate the growth of riparian conifers and enhance species diversity and vertical stand structure. *Identify BLM roads that pose a present or future threat of blocking fish passage, contributing sediment, or otherwise degrading water quality. *Reduce road segments that alter flow by decommissioning roads that would not be required for access by BLM or neighboring landowners. *For future density management thinning projects, upgrade existing roads and use legacy roads, rather than constructing new roads, to reduce potential negative impacts. *Minimize disruption of natural hydrologic flow paths by installing drivable waterbars on roads that are expected to receive minimal or no maintenance.
Watershed Restoration	Consistent	Control and prevention of road related run-off and sediment – Road related run-off will be reduced by spot rocking on haul routes where the subgrade is soft, ruts are developing, and near stream crossings. This spot rocking would occur prior to and during periods of haul. The road mileage in the watershed will be reduced by 3.2 miles, and road improvement will occur on 7.8 miles. These actions will control and prevent road related run-off and sediment. Restoration of the condition of Riparian vegetation – 764 acres of Riparian reserve will be treate density management, to promote the development of late-successional forest characteristics on a accelerated timeframe. This will occur with negligible new road construction, or ground-based equipment off of existing roads and trails. Restoration of instream habitat complexity – The proposed action includes 2 miles of fish habitat restoration which will improve fish access to approximately 2 miles of habitat, increase LWD, pool area and quality, improve substrate storage and routing processes. Removing portions of road 2-5-10, will provide for more refuge and alcove habitat.

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APPENDIX 4 PUBLIC COMMENT

In compliance with NEPA, the proposed action was listed in the September, June and March 2004 editions of the *Salem District Project Update* which were mailed to over 1,000 addresses. As well, as a letter mailed on April 26, 2004 to 97 potentially affected and/or interested individuals, groups, and agencies (Project Record, Document 20 and 22). A presentation was also given to the Tillamook Watershed Council on May 25, 2004, which was attended by twelve people (Project Record, Document 44). A total of two letters, one e-mail, and one voice-mail were received as a result of this scoping (Project Record, Documents 24, 25, 26, 27). The IDT reviewed, clarified, and assessed the public comments. All comments presented in this document are direct quotes from the comments received.

Document 24 – David Horrax for Columbia Helicopter

Comment a: *"We would like to encourage you to helicopter log the inaccessible portions of the sale as outlined in 1.3.1.1. Pre-bunching small wood with a cut to length system works extremely well in this sort of application. By doing this you will get full loading of the helicopter with each turn maximizing it's efficiency and lowering the cost. Pre-bunched, processed logs fly faster, with less men and equipment. These turns are all paying weight as slash and unintended weight is kept to a minimum. Past experience has shown less than a 2% fall down in weight flown vs. trucked which is extremely efficient. Making one pass with a low-ground pressure machine with processing head cutting, bunching, and walking over the slash is hardly noticeable a year later. Small landings and roads work well for landings if these logs are processed in the woods, as there is not landing processing going on or slash accumulations to deal with. The logs go from the drop zone to the truck in one move saving space".*

BLM response: We considered your suggestion at length and believe that it would work well in a number of situations. However, the helicopter designated logging areas in this project are often on steeper ground, and in Riparian Reserves. We generally don't use ground-based equipment in either of these situations. We appreciate your suggestion, and will consider it in future projects.

Comment b: " *I don't understand what you mean by "minimize the length of choker cable to avoid dragging logs over the ground or rolling logs downhill" Since one is always lifting the logs vertically with a helicopter this makes no sense. We never drag logs over the ground, just straight up. We typically run 30' chokers so we can gather enough logs in a 60' circle to make weight…*"

BLM response: Thank-you for the explanation on how you operate. We have not included the language that you are concerned about in the EA.

Comment c *"You might also think about flying fish enhancement logs into the creeks while the helicopter logging is ongoing. We do a lot of this kind of work under the timber sale contract which would be more cost efficient for BLM.."*

BLM response: We have considered it, and it is a likely method for the 1.5 miles of fish enhancement work that is proposed.

Comment d: *"Allowing winter operations would be advantageous to an operator also, as we are always looking for work during that slower time of the year. "*

BLM response: The proposed action does include the possibility of helicopter logging year-round, as long as the conditions are met that are described in chapter 2, section 2.1.1.

Document 25 – Brian Steeves

Comment e: *"This is a good idea; the only thing I see wrong with it is you need to do more acres. My guess is most, if not all, acres in your Tillamook Resource Area would benefit from a similar plan…all I see are positives. You can not let your stands stagnate without causing a major catastrophe at some point. Burned forests benefit very few animals or people. When you sell timber you benefit nearly everyone in the state of Oregon, plus untold 1000's around the country…"*

BLM response: We appreciate your support of this project. We are in the process of planning other similar projects in the Tillamook Resource Area.

Document 26 – Department of Community Development, Tillamook County

Comment f: *"We are agreeable to the project as proposed. We are supportive of the riparian "no harvest" buffers which exceed the County's current standard…."*

BLM response: We appreciate your support of this project.

Document 27 – David Anderson , Boise Cascade.

Comment g: In a voice mail on 5/17/04, Mr. Anderson said that he has read the scoping report and in his opinion everything we are proposing sounds good, and he is glad that we are doing this project.

BLM response: We appreciate your support of this project.