ENVIRONMENTAL ASSESSMENT and FINDING OF NO SIGNIFICANT IMPACT

School House Creek Restoration Project

Environmental Assessment Number OR080-04-22

January 20, 2005

United States Department of the Interior
Bureau of Land Management, Oregon State Office
Salem District, Marys Peak Resource Area, Benton County, Oregon

Responsible Agency:	USDI - Bureau of Land Management
Responsible Official:	Brad Keller Marys Peak Resource Area 1717 Fabry Road SE Salem, OR 97306 (503) 315-5968
For further information, contact:	Ashley La Forge, Project Leader Marys Peak Resource Area 1717 Fabry Road SE Salem, OR 97306 (503) 375-5716

Abstract: This environmental assessment discloses the predicted environmental effects of four projects on federal land located in Township 14 South, Range 8 West, Section 3, Willamette Meridian and one project which occurs in the same location and also includes additional BLM lands in Township 14 South, Range 8 West, Section 5 and Township 13 South, Range 8 West, Sections 33 and 35; all are within the Lower Alsea River Watershed. Project 1 is a proposal to remove a trash rack located in School House Creek, an anadromous fish-bearing stream. Project 2 would entail felling conifers along existing roads and using them to place approximately 9 log structures in School House Creek. Project 3 would include alder and maple thinning, brush cutting and conifer planting within Riparian Reserve of School House Creek. Project 4 is a proposal to decommission approximately 0.4 mile of BLM road 14-8-10.2.

FINDING OF NO SIGNIFICANT IMPACT

Introduction

The Bureau of Land Management (**BLM**) has conducted an environmental analysis (Environmental Assessment Number OR080-04-22 for proposals to do four projects located on BLM lands within Township 14 South, Range 8 West, Section 3, Willamette Meridian and one project which also includes lands in Township 14 South, Range 8 West, Section 5 and Township 13 South, Range 8 West, Sections 33 and 35:

Project 1 – Trash Rack Removal: Removal of a trash rack in School House Creek not affiliated with a stream crossing (EA section 2.0).

Project 2 – Large Woody Debris Placement: The placement of approximately 9 log structures in School House Creek (EA section 3.0).

Project 3 – Riparian Restoration: Riparian treatment of 3 areas totaling approximately 3.4 acres. Treatments would include alder and maple thinning, conifer planting, and brush cutting (EA section 4.0).

Project 4 – Road Decommission: Decommissionning of approximately 0.4 mile of BLM 14-8-10.2 road by removing all culverts and blocking road access to vehicular traffic (EA section 5.0).

The School House Creek Restoration Project Environmental Assessment (**EA**) documents the environmental analysis of the proposed projects. The EA is attached to and incorporated by reference in this Finding of No Significant Impact determination (**FONSI**). The following documents direct and provide the legal framework for management of BLM lands within the Salem District: 1/ *Salem District Record of Decision and Resource Management Plan,* May 1995; 2/ *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; 3/ *Lower Alsea River Watershed Analysis,* 1999; 4/ *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. All action alternatives of the proposed projects are designed to comply with the management goals, objectives, and direction (e.g. standards and guidelines) of the above documents (EA section 1.3).

The EA and FONSI will be made available for public review January 31st, 2005 to March 1st, 2005. The notice for public comment will be published in a legal notice by the Corvallis Gazette Times newspaper; and posted on the Internet at http://www.or.blm.gov/salem/html/planning/index.htm under Environmental Assessments. Comments received by the Marys Peak Resource Area of the Salem District Office, 1717 Fabry Road SE, Salem, Oregon 97306, on or before March 1st, 2005 will be considered in making the final decisions for this project.

Finding of No Significant Impact

Based upon review of the EA and supporting documents, I have determined that the Proposed Actions for Project 1 - Trash Rack Removal, Project 2 - Large Woody Debris Placement, Project 3 - Riparian Restoration, and Project 4 - Road Decommission, are not major federal actions and would 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 and unless otherwise specified, the following apply to all projects:

Context: Potential effects resulting from the implementation of the proposed action have been analyzed within the context of the Lower Alsea River Watershed, and the project area boundaries. The proposed action would occur on approximately 5 acres of the Riparian Reserve (RR) land use allocations (LUA), encompassing approximately 0.005 % of the forest cover in the watershed [40 CFR 1508.27(a)].

Intensity:

1. Projects 1, 2, 3 and 4 are unlikely to a have any significant adverse impacts on the affected elements of the environment [40 CFR 1508.27(b) (1)]. The affected elements for project 1-4 are: invasive/non-native plants, Riparian Reserves and forest stand characteristics (Project 3 only), soils, hydrology, wildlife, fisheries and aquatic habitat, and fire hazard/risk (EA sections 2.3, 3.3, 4.3, and 5.3).

    - The following is a summary of the design features that would reduce the risk of adverse effects to the above resources for Projects 1-4 (EA section 2.2.2.2, 3.2.2.2, 4.2.2.2, and 5.2.2.2).
        - All activities would utilize the Best Management Practices (BMPs) (RMP Appendix C, pp. C-1 to C-10) required by the Federal Clean Water Act (as amended by the Water Quality Act of 1987).
        - Power equipment would be refueled at least 200 feet (or as far as possible) from the stream, and immobile equipment would have absorbent pads placed to capture any fuel/oil spillage. During periods of non-use, equipment would be stored a minimum of 200 feet from the stream.
        - Project activities would occur during the late summer period with low stream flow and low precipitation (generally July 1 to September 15), and comply with *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources (ODFW, 2000).*
        - If wet weather should occur during operations and sediment transport should become a threat to water quality, all yarding and decommissioning activities would stop.
        - Following project completion, any access roads/trails constructed would be decommissioned (may include ripping, water barring, blocking access, piling slash, and/or grass seeding as needed).
        - All exposed mineral soil areas would be grass seeded with Oregon Certified (Blue Tagged) red fescue (*Festuca rubra*) at a rate equal to 40 pounds per acre.
        - Disturbed areas may also be planted with conifers upon project completion.
        - All operations would require compliance with the Oregon Department of Forestry Industrial Fire Precaution regulations.

- Inventory of the project area for federal and Oregon state threatened and endangered and bureau special status vascular plant, lichen, bryophyte and fungal species would be accomplished through intuitive controlled surveys. Specific surveys for T&E and SS listed species would be completed prior to implementation of the project in the spring of 2005.
- Site management of any T&E Bureau SS botanical, fungal, or other terrestrial or aquatic species found as a result of additional inventories would be accomplished in accordance with, BLM Manual 6840 - *Special Status Species Management* and the *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).*
- Felling and hauling conducted between August 6 and September 15 would be restricted to the period from two hours after sunrise to two hours before sunset.
- If any sites of cultural significance are discovered in the project area, appropriate mitigation measures as described in the RMP would be implemented.

Projects 1-4: As a result of implementing the design features described in the EA sections 2.2.2.2, 3.2.2.2, 4.2.2.2, and 5.2.2.2, any potential operational effects to the affected resources are anticipated to be site-specific and/or not measurable (i.e. undetectable over the watershed, and/or outside of the project area vicinity) for a significant period of time (greater than days) [40 CFR 1508.27(b) (1)], - EA sections 2.5, 3.4, 4.4, and 5.4).

Projects 1-4 would not affect:

- Public health or safety [40 CFR 1508.27(b)(2)];
- Unique characteristics of the geographic area [40 CFR 1508.27(b)(3)] - There are no historic or cultural resources, parklands, prime farmlands, wild and scenic rivers, wilderness, or ecologically critical areas located within the project area;
- Districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor would the proposed action cause loss or destruction of significant scientific, cultural, or historical resources [40 CFR 1508.27(b)(8)] (EA sections 2.3, 3.3, 4.3, and 5.3).

2. Projects 1-4 are not unique or unusual. The BLM has experience implementing similar actions in similar areas without highly controversial [40 CFR 1508.27(b) (4)], highly uncertain, or unique or unknown risks [40 CFR 1508.27(b) (5)].

3. Projects 1-4 do not set a precedent for future actions that may have significant effects, nor do they represent decisions in principle about future considerations [40 CFR 1508.27(b) (6)].

4. The interdisciplinary team evaluated Projects 1-4 in the context of past, present and reasonably foreseeable actions [40 CFR 1508.27(b) (7)]. Potential cumulative effects are described in the attached EA. These effects are not likely to be significant because of the project's scope (effects are likely to be too small to be measurable), scale (total project area of approximately 5 acres, less than 0.04% of the total Lower Alsea River 5th-field watershed), and duration (direct effects from project implementation would occur over a period of several days, however the results of the projects are expected to last many years (decades)) (EA sections 2.5, 3.4, 4.4, and 5.4).

5. Projects 1-4 are not expected to have a significant adverse effect on Endangered or Threatened Species or habitat under the Endangered Species Act (ESA) of 1973 [40 CFR 1508.27(b) (9)].

   Wildlife: The proposed actions have been described in two different programmatic Biological Assessments (BA) that have been used to facilitate consultation with the U.S. Fish and Wildlife Service, as required under Section 7(a) of the Endangered Species Act. The resulting Biological Opinions (BO) issued from the Service, contain specific Terms and Conditions (including design standards from BAs) that have been incorporated into the design features of all proposed projects. Projects 1, 3, and 4 are covered by BO# 1-7-2004-F-1113. Project 2 is covered by a BO# 1-7-2005-F-0005.

   Fish: Projects 1, 2, and 4 would meet the terms and conditions established in the Endangered Species Act Section 7 Formal Consultation for U.S. Forest Service and Bureau of Land Management Programmatic Activities in Northwest Oregon, February 25, 2003.

   For Project 3, as directed in IB OR-2004-155, a Biological Assessment (BA) will be submitted to the NOAA Fisheries Level 1 team for conferencing. This conferencing is required by Bureau policy (6840.06 B.1) for actions that could adversely affect proposed fish species and/or proposed critical habitat. A conference opinion responding to the BA is expected in the spring of 2005. No decision would be made on Project 3 until a conference opinion is received. Currently there are no listed fish species in the project area. Oregon Coast Coho are present in the project area and have been proposed for listing, with a determination of listing expected in June 2005. If Oregon Coast Coho are listed, the conference opinion may be converted into a letter of concurrence or Biological Opinion.

   Botany: There are no known sites of any T&E species within the project area. All areas would be surveyed prior to any ground disturbance. If any T&E species were found within the project area, the sites would be protected from any project activities that could potentially impair the site.

6. Projects 1-4 do not violate any known Federal, State, or local law or requirement imposed for the protection of the environment [40 CFR 1508.27(b) (10)] (EA section 1.3).

Prepared by: Ashley La Forge, Team Lead — Date: 1/26/05

Reviewed by: Carolyn Sands, NEPA Coordinator — Date: 1/26/05

Approved by: Brad Keller, Field Manager, Marys Peak Resource Area — Date: Jan 26, 05

ENVIRONMENTAL ASSESSMENT

Table of Contents

1.0 INTRODUCTION

1.1 Projects Covered in This EA

Four projects will be analyzed in this EA. Project 1 is a proposal to remove a trash rack located in School House Creek, an anadromous fish-bearing stream. Project 2 entails felling conifers along existing roads and using them to place approximately 9 log structures in School House Creek downstream from the trash rack site. Project 3 would include alder and maple thinning, brush cutting and conifer planting within approximately 3.4 acres of Riparian Reserve. Project 4 is a proposal to decommission BLM road 14-8-10.2 on BLM lands.

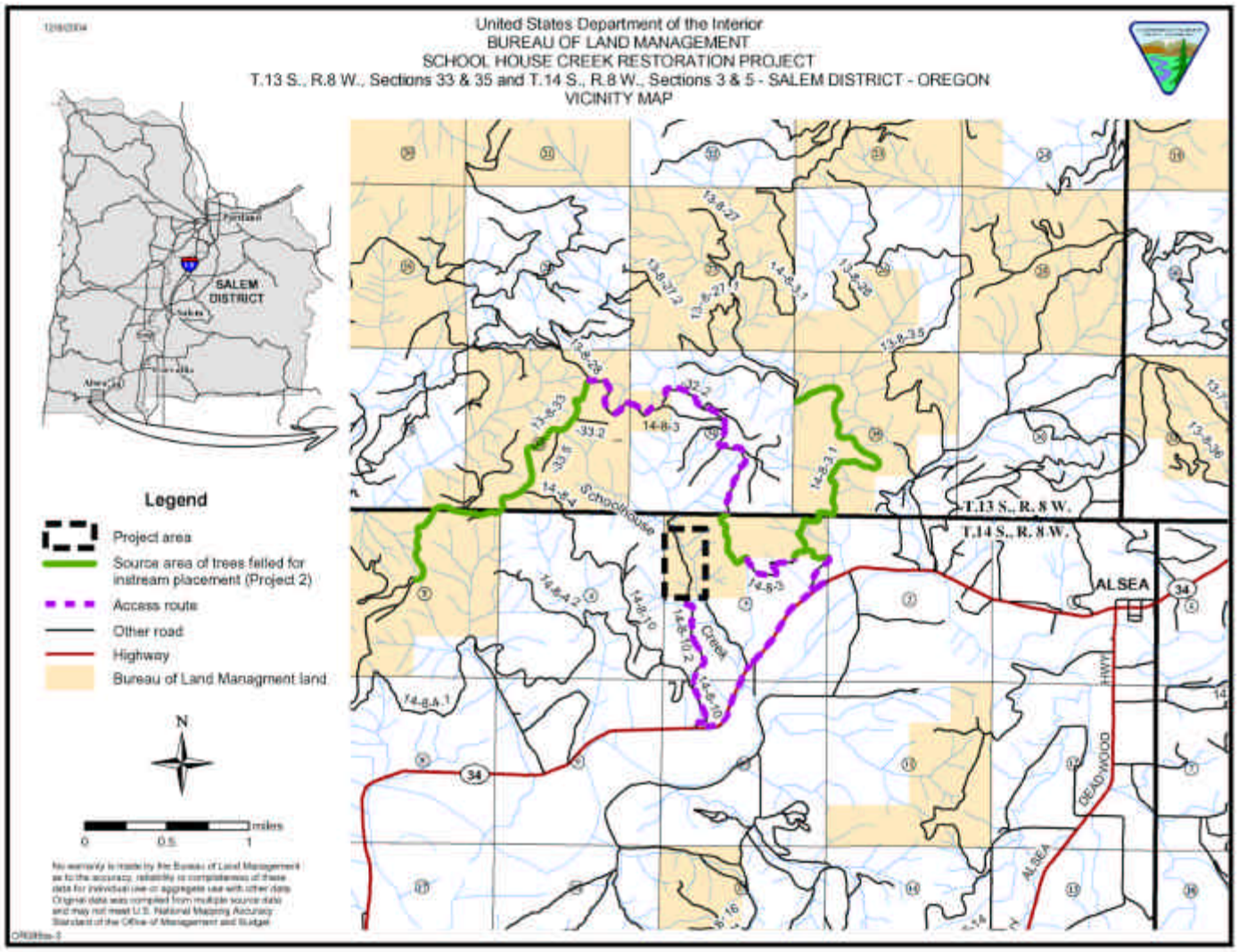
1.1.1 Relationship between Projects

Projects 1-4 would occur within the same project area, adjacent to or within School House Creek. Project 2 also includes harvesting conifers along roads near the area. Projects 1-3 are anticipated to be implemented during the same work period, during late summer 2005. Project 4, Road Decommissioning, would be implemented upon completion of projects 1-3.

1.2 Project Area Location

The School House Creek Restoration Project is located on BLM managed lands in Township 14 South, Range 8 West, Sections 3 and 5, and Township 13 South, Range 8 West, Sections 33 and 35, Willamette Meridian. The primary project area, located in T 14 S, R 8 W, Section 3, is approximately 2 air miles west of the town of Alsea, Benton County, Oregon, along the 14-8-10.2 BLM Road. The BLM land in this area is allocated as General Forest Management Area (GFMA) and Riparian Reserve (RR). Small areas along the 14-8-3, 14-8-3.1, and 13-8-33 roads in the remaining sections would serve as source stands for instream log structures (project 2). These areas are classified as Late Successional Reserve (LSR) land use allocation.

Map 1: Vicinity and Location Map



1.3 Conformance with Land Use Plan, Statutes, Regulations, and other Plans

The School House Creek Restoration Project is subject to the following documents, which direct and provide the legal framework for management of BLM lands within the Salem District:

1. *Salem District Record of Decision and Resource Management Plan,* May 1995 (**RMP**). This plan has been reviewed and it has been determined that all action alternatives of all proposed projects conform with the land use plan terms and conditions (e.g. comply with management goals, objectives, direction, standards and guidelines) as required by 43 CFR 1610.5 (BLM Handbook H1790-1, Illustration 3). Implementing the RMP is the reason for doing this project. The proposed projects are located within the Riparian Reserve and Late Successional Reserve LUAs, as identified on page 9 of the RMP. RMP references for this Environmental Assessment (EA) are described in the section titled Major Sources (EA section 9.0).

2. *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 (NWFP); including many of the standards and guidelines from the NWFP as well as the analysis from the associated EIS (NFWP) as incorporated into the RMP. The relationship between the NWFP and the RMP is described on page 1 of the RMP and RMP Appendix A-2, p. A-2-1.

3. *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 (SSSP). This document amends that portion of the RMP addressing Survey and Manage species (SSSP, p. 30-32).

This EA incorporates the analysis and tiers, where applicable, to the following documents: 1/ *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS), 2/ *Supplemental Environmental Impact Statement on Management of Habitat of Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (NWFP/SEIS)*, February 1994; and 3/ *Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines*, January 2004 (SSSP/SEIS). The discussion in this EA is site-specific and supplements analysis found in these documents.

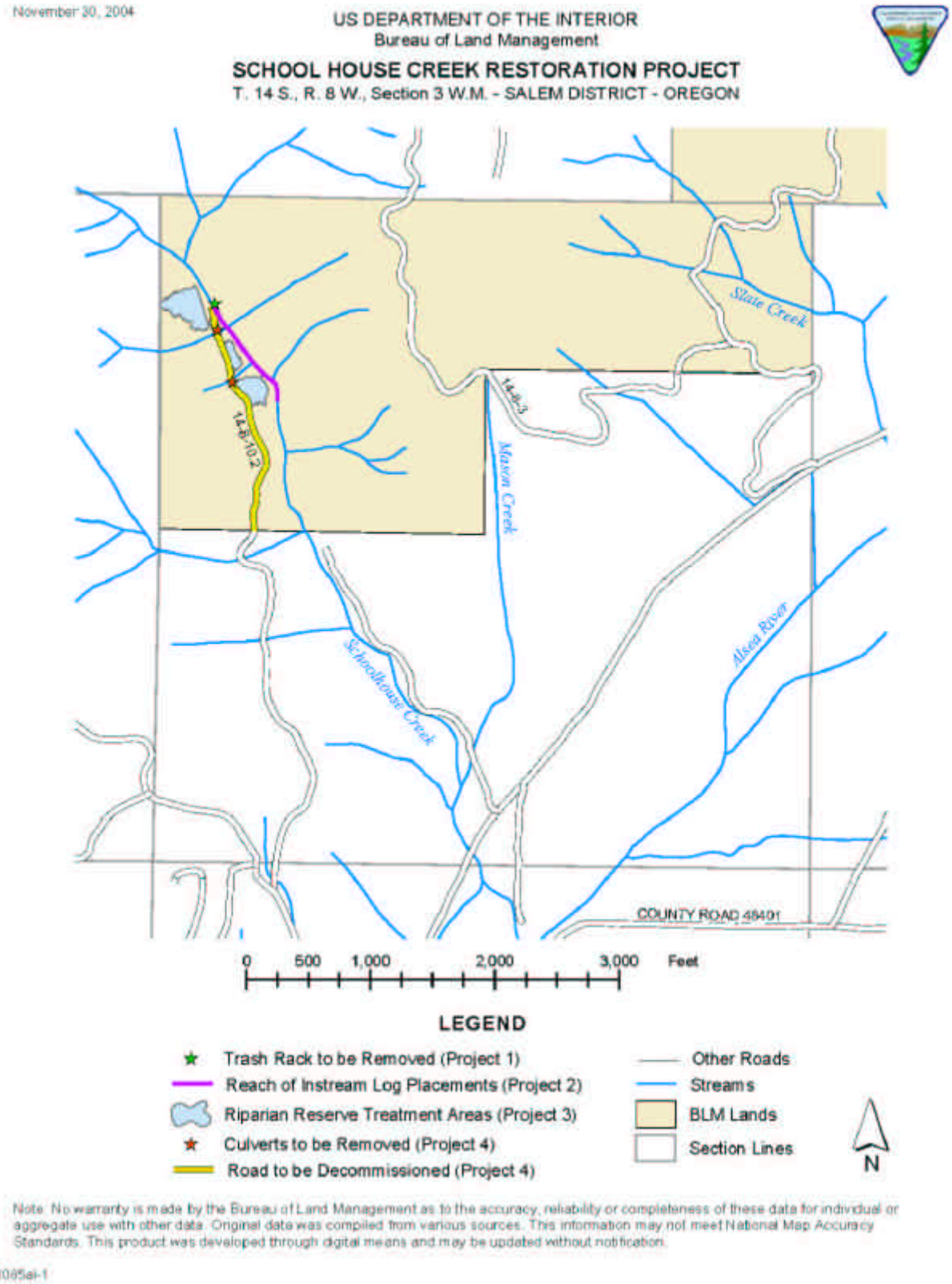
In addition, the *Lower Alsea River Watershed Analysis (LAWA)*, dated September 1999 provided specific recommendations, supporting the proposed actions, which include to: provide in-stream large wood structure to reconnect floodplains; manage riparian zones using a variety of methods including planting conifers; treat hardwood dominated stands which have the site potential to grow conifers; "accelerate development of large conifers by…releasing understory conifers from dense hardwood canopies"; decommission or stabilize roads, particularly in valley bottom and mid-slope positions (pgs. x, xiv, 87, 91). In addition, the watershed analysis designates School House Creek as a "high priority restoration area" (pg. 89 & Map 29).

These documents are available for review in the Salem District Office. Additional information about the proposed projects is available in the School House Creek Restoration Project NEPA/EA File (SCRP), also available at the Salem District Office.

1.4 Decision to be Made

The Marys Peak Resource Area Field Manager is the official responsible for deciding whether or not to prepare an environmental impact statement, and whether to approve Projects 1-4 as proposed, not at all, or to some other extent.

Map 2: School House Creek Restoration Project Proposed Action



2.0 PROJECT 1 – Trash Rack Removal

2.1 Purpose of and Need for Action

Salem District Record of Decision and Resource Management Plan (RMP) direction for Riparian Reserves includes designing and implementing watershed restoration projects in a manner that promotes long-term ecological integrity of ecosystems, conserves the genetic integrity of native species, and attains Aquatic Conservation Strategy Objectives (ACS) (RMP, p.6). The trash rack (I-beam structure) installed in School House Creek is preventing the natural transport of materials through the stream system. School House Creek is identified by the Lower Alsea River Watershed Analysis (1999) as a "transport" reach, functioning to supply sediment and other materials to the Alsea River system. Whereas the trash rack was originally installed to protect a road crossing from debris and prevent debris torrent materials from moving downstream, the road crossing has since been removed and only small amounts of debris have been trapped by the trash rack during the past decade. There is a need to remove the trash rack to restore the hydrologic conductivity and transport function of School House Creek.

2.2 Alternatives

2.2.1 Alternative Development

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." No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA) were identified during the planning and scoping process. No alternatives were identified that would meet the purpose and need of the project and have meaningful differences in environmental effects from the proposed action. Therefore, this EA will analyze the effects of the "proposed action" and the "no action alternative".

2.2.2 Proposed Action

The BLM proposes to remove a trash rack (I-beam structure) located in School House Creek to a maximum depth below the stream bed elevation, to restore the natural transport of LWD and substrate materials downstream. To the extent possible, all metal components of the trash rack would be removed from the stream channel and hauled offsite. Upon removal of the trash rack, the stream channel proportions, gradients, and side slopes would be restored to approximate pre-installation conditions.

Photo 1: Upstream of trash rack looking downstream.

Photo 2: Downstream of trash rack looking upstream.

2.2.2.1 Connected Actions

A temporary access / skid road approximately 100 feet in length would be needed to access the trash rack from the existing road and to haul the trash rack material to the road. To limit soil compaction, the total width and surface area of the road would be kept to the minimum dimensions needed to accomplish the job. Following project completion, the access trail/road constructed would be decommissioned (which may include ripping, water baring, blocking access, piling slash, conifer planting, and/or grass seeding as needed).

2.2.2.2 Project Design Features

The proposed activities would follow the standards and guidelines described in the RMP from the pages specified in Table 13. The following is a summary of the design features that reduce the risk of effects to the affected elements of the environment. These design features also apply to Projects 2-4, except where noted.

- *Project 1 only:* Trash rack removal activities would occur during the late summer period (generally July 1 to September 15) with low stream flow and dry weather conditions. All work would comply with *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources (ODFW, 2000).*
- All activities would utilize the Best Management Practices (BMPs) (RMP Appendix C, pp. C-1 to C-10) required by the Federal Clean Water Act (as amended by the Water Quality Act of 1987).
- Power equipment would be refueled at least 200 feet (or as far as possible) from streams, and immobile equipment would have absorbent pads placed to capture any fuel/oil spillage. During periods of non-use, equipment would be stored a minimum of 200 feet from streams.
- All exposed mineral soil areas would be grass seeded with Oregon Certified (Blue Tagged) red fescue (*Festuca rubra*) at a rate equal to 40 pounds per acre.
- Where appropriate, disturbed areas may be planted with conifers upon project completion.
- All operations would comply with the Oregon Department of Forestry's Guide to Legal Requirements for Preventing and Controlling Fires in Operations on and Near Forest Land in Oregon (available on the Internet).
- Inventory of the project area for federal and Oregon state threatened and endangered and bureau special status vascular plant, lichen, bryophyte and fungal species would be accomplished through intuitive controlled surveys. Specific surveys for Threatened and Endangered (T&E) and Special Status (SS) listed species would be completed prior to implementation of the project in the spring of 2005.
- Site management of any T&E Bureau SS botanical, fungal, or other terrestrial or aquatic species found as a result of additional inventories would be accomplished in accordance with, BLM Manual 6840 - *Special Status Species Management* and the *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).*
- If any sites of cultural significance are discovered in the project area, appropriate mitigation measures as described in the RMP would be implemented.

2.2.3 No Action Alternative

The proposed action would not be implemented. This alternative serves to set the environmental baseline for comparing effects to the proposed action.

2.3 Identification of Affected Elements of the Environment

The interdisciplinary team reviewed the elements of the human environment, required by law, regulation, Executive Order and policy, to determine if they would be affected by the proposed action. Table 1 (Critical Elements of the Environment) and Table 2 (Other Elements of the Environment) summarize the results of that review. Affected elements are **bold**. All entries apply to the action alternative, unless otherwise noted.

Table 1: Review of Critical Elements of the Environment (BLM H-1790-1, Appendix 5) for Project 1

Table 1: PROJECT 1- Trash Rack Removal			
Critical Elements Of The Environment	*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Air Quality (Clean Air Act)	Not Affected	No	The proposed action is not anticipated to have any effect on air quality as no burning would take place.
Areas of Critical Environmental Concern	Not Present	No	The Project is not located in or adjacent to an ACEC.
Cultural Resources	Not Present	No	Cultural Resource sites in the Coast Range, both historic and prehistoric, occur rarely. Of the Salem District's Resource Areas, the fewest sites have been found on / in the Marys Peak Resource Area. This is probably due to its very rugged steep terrain, rainforest vegetation, inaccessibility, and lack of attractive resource utilization opportunities, in historic and perhaps prehistoric times. (Cultural Resource/ Archeological Report pp.1)
Energy (Executive Order 13212)	Not Affected	No	There are no known energy resources located in the project area. The proposed action would have no effect on energy development, production, supply and/or distribution.
Environmental Justice (Executive Order 12898)	Not Affected	No	The proposed action is not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and/or low-income populations.
Prime or Unique Farm Lands	Not Present	No	The project does not involve any farm lands.
Flood Plains (Executive Order 11988)	**Affected**	**No**	**Effects to Floodplains are described in EA section 2.5.3. (School House Creek Hydrology Report, pp. 1-13)**
Hazardous or Solid Wastes	Not Present	No	No hazardous materials or solid waste were observed in the project area, nor would they be created by the proposed action. Any chemicals or fuels used on site would be handled using best management practices (see Project Design Features).

Table 1: PROJECT 1- Trash Rack Removal				
Critical Elements Of The Environment		*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks* *If not affected, why?*
Invasive, Nonnative Species (plants) (Executive Order 13112)		**Affected**	**No**	**Effects to invasive/nonnative species are described in EA section 2.5.1.** **(Marys Peak Resource Area Botanical Report, pp. 6)**
Native American Religious Concerns		Not Affected	No	No Native American religious concerns were identified during the public scoping period.
Threatened or Endangered (T/E) Species or Habitat	**Fish**	**Affected**	**Yes**	**Effects to threatened or endangered fish are described in EA section 2.5.5.** **(Fisheries Evaluation of School House Projects, pp. 5)**
	Plant	Not Present	No	This project would not directly affect any T&E or bureau special status vascular plant, lichen, bryophyte or fungi species. The project area was surveyed for botanical and fungal species during 1995 for the School House Creek Fish Habitat Enhancement Project. Past surveys of this project and subsequent literature searches reveal there are no "known sites" of any T&E or Bureau special status vascular plant, lichen, bryophyte or fungi species within any of the project areas. This project could affect species that are not practical to survey for and/or sites which could not be located during subsequent surveys. These species would mainly include special status hypogeous fungi species. However, the majority of these fungi species have no known sites within the Marys Peak Resource Area or the Northern Oregon Coast Range Mountains. In addition, the project area generally is not considered habitat for bureau special status fungi species due to its young age and dominant hardwood component.
	Wildlife (including designated Critical Habitat)	Not Present	No	There are no known T&E wildlife sites affected by this project, nor suitable habitat in the project vicinity. The project is not within a critical habitat unit for T&E species.
Water Quality (Surface and Ground)		**Affected**	**Yes**	**Effects to Water Quality (Surface and Ground) (including stream temperature & sedimentation) are described in Section 2.5.3.** **(School House Creek Hydrology Report pp. 1-13)**

Table 1: PROJECT 1- Trash Rack Removal			
Critical Elements Of The Environment	*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks* *If not affected, why?*
Wetlands/Riparian Zones (Executive Order 11990)	Not Affected	No	Removal of the trash rack would not create any major disturbance to riparian vegetation or habitat, as only the vegetation in the vicinity of the trash rack would be affected. There would be some minimal disturbance to vegetation (mostly blackberry and salmonberry) where the trash rack pieces are yarded from the stream to the road. A few incidental alders may also need to be removed if they are obstructing yarding to the road. Conifers would be planted if disturbed areas are large enough to warrant it. There are no wetlands present in the project area.
Wild and Scenic Rivers	Not Present	No	
Wilderness	Not Present	No	

Table 2: Review of Other Elements of the Environment for Project 1

Table 2: PROJECT 1- Trash Rack Removal			
Other Elements of the Environment	*Status: (i.e., Not Present , Not Affected or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks* *If not affected, why?*
Coastal zone	Not Affected	No	The proposed action is within the coastal zone as defined by the Oregon Coastal Management Program. This proposal is consistent with the objectives of the program and the state planning goals which form the foundation for compliance with the requirements of the Coastal Zone Act. Management actions/directions found in the ROD/RMP were determined to be consistent with the Oregon Coastal Management Program.
Fire Hazard/Risk	**Affected**	**No**	**Effects to Fire Hazard/Risk are described in EA section 2.5.6.** **(School House Creek Enhancement Proposal Fuels/Soils Report pp. 1-8)**
Other Fish Species with Bureau Status and Essential Fish Habitat	**Affected**	**Yes**	**Effects to Fish Species with Bureau Status and Essential Fish Habitat are described in EA section 2.5.5.** **(Fisheries Evaluation of School House Projects, pp. 5)**
Land Uses (right-of-ways, permits, etc)	Not Present	No	
Late Success ional and Old Growth Habitat	Not Present	No	
Mineral Resources	Not Present	No	
Recreation	Not Affected	No	There is no designated recreation in or adjacent to the project area and no frequent recreation is known to occur in the area.

Table 2: PROJECT 1- Trash Rack Removal				
Other Elements of the Environment		*Status: (i.e., Not Present , Not Affected or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Rural Interface Areas		Not Affected	No	This project is in a Rural interface area according to the RMP (Map 8). Impacts of the proposed action would be confined to the project area or the School House Creek stream channel and would be unlikely to alter adjacent properties or conflict with the objectives of the rural interface. The project results would not be visible beyond the BLM project area.
Soils		**Affected**	**No**	**Effects to Soils (Site Productivity and Erosion Potential) are described in EA section 2.5.2 (School House Creek Enhancement Proposal Fuels/Soils Report pp. 1-8)**
Special Areas outside ACECs (Within or Adjacent) (RMP pp. 33-35)		Not Present	No	
Other Special Status Species / Habitat	Plants	Not Present	No	There are no known sites of any Special Status botanical or fungal species known from within the project area. The project area would be surveyed prior to any ground disturbing activity. If any sites are located they would be protected. Much of this project area was surveyed in the 1990's when woody material was added to School House Creek and no sites were found. It is not anticipated that any sites would be found within this project area.
	Wildlife	Not Present	No	There are no known sites of any Special Status wildlife species in the project area. Surveys for Special Status Mollusk species were completed 11/09/04 and 12/28/04, and no sites were found that require protection. (Biological Evaluation for Terrestrial Wildlife pp. 1-7)
Visual Resources		Not Affected	No	There is no effect on visual resources as the proposed action of removing a trash rack would not greatly alter the landscape. The project is in a visual resource management class 4 area and this action is consistent with this designation.
Water Resources – Other (303d listed streams, DEQ 319 assessment, Downstream Beneficial Uses; water quantity, Key watershed, Municipal and Domestic)		**Affected**	**Yes**	**Effects to Water Resources and Aquatic Conservation Strategy Objectives are described in the EA section 2.5.3 and 6.0.** **(School House Creek Hydrology Report pp. 1-13)**
Wildlife Structural or Habitat Components - Other (Snags/CWD/ Special Habitats, road densities)		**Affected**	**No**	**Effects to wildlife habitat are described in the EA section 2.5.4.** **(Biological Evaluation for Terrestrial Wildlife pp. 1-7)**

Those elements of the human environment that were determined to be affected by Project 1 are invasive/non-native plants, soils, hydrology, wildlife, fisheries and aquatic habitat, and fire hazard/risk.

2.4 Affected Environment

This section describes the current condition and trend of the affected elements of the environment identified in section 2.3. These descriptions also apply to Projects 2-4, except where noted.

2.4.1 Invasive/Non-Native Plants

From: Marys Peak Resource Area Botanical Report, pp. 6 with Appendix 1 "Use of Native Plants".

The following noxious weeds are known from within or adjacent to the project area, Tansy ragwort (*Senecio jacobaea*), bull and Canadian thistles (*Cirsium vulgare* and *C. arvense*), St. John's wort (*Hypericum perforatum*), Himalayan blackberry (*Rubus discolor*) and Scot's broom (*Cytisus scoparius*). Himalayan blackberry is rampant along the 14-8-10.2 road and, just south of the project area, extends from the road prism down to the School House Creek stream banks.

To help ameliorate this problem, the area is currently being targeted for the removal of blackberry (by grubbing), as well as any other State listed noxious weeds. This control effort is within the standards contained in the Marys Peak Resource Area Integrated Non-native Plant Management Plan (EA# OR080-03-10). The blackberry (and other noxious listed weeds) control in this area will continue through the next 3-5 years depending on continual funding.

2.4.2 Soils

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

The predominant soils in and around the School House Creek project area are unclassified colluvial and alluvial material adjacent to School House Creek, and Hatchery - Honeygrove complex soils in the uplands away from the channel floodplain.

The existing road surfaces are stable with minimal surface erosion and appear to be contributing little turbidity to project area streams.

2.4.3 Hydrology

From: School House Creek Hydrology Report, pp. 13.

Watershed

The primary project area includes a reach of the School House Creek mainstem, a tributary to the South Fork Alsea River. The entire project lies within the Lower Alsea River 5th-field watershed (HUC# 1710020504), which is not a key watershed.

Channel Morphology

School House Creek is a 3rd-order drainage (basin size approximately 939 acres). The project reach of School House Creek is classified as a Rosgen A4 stream type transitioning to a Rosgen B4 type. The channel is mod-high gradient, hillslope constrained, with rapid-glide morphology. Adjacent hillslopes are colluvial and moderately unstable with evidence of deep-seated slope failure on the west side.

The stream channel has low sinuosity, low width/depth ratio, and is dominated by gravel/sand substrate with periodic boulders. Pools are rare and LWD is infrequent, causing poor aquatic habitat conditions.

Floodplains

Because School House Creek is entrenched and valley-constricted along most of its reach in the project area, it has little floodplain access. Moderate floodplain development exists in the lower sections, associated with scattered LWD pieces, which have encouraged some sinuosity and channel widening.

Streamflow

Water yield, base flow, and peak flow were estimated for School House Creek by extrapolation from the Alsea River gauge, #14306500 (USGS, 2001). From these estimates, School House Creek has an approximate mean annual yield of 6.5 ft^3/sec. Baseflow is estimated at approximately 0.22 ft^3/sec and the estimated 10% exceedance flow is 17 ft^3/sec. Peak flow estimates are described under Project 3, section 4.4.3.

Water Quality

The Oregon Department of Environmental Quality's (DEQ) 2002 303d List of Water Quality Limited Streams is a compilation of streams that do not meet the state's water quality standards. A review of the listed streams for the Upper Alsea watershed was completed for this report. Neither School House Creek, nor its tributaries are listed on the 2002 303d list. However, the Alsea River mainstem is listed from river mile 15.2 to mile 47.4 for exceeding summer temperature standards for salmonid rearing. The Alsea River mainstem is also listed as not meeting water quality standards for fecal coliform and dissolved oxygen.

The DEQ published an assessment, the 319 Report, which identifies streams with potential non-point source pollution problems (ODEQ, 1988). No water quality concerns were identified for School House Creek or its tributaries. The Alsea River mainstem was identified as having moderate water quality conditions which may be affecting fish and aquatic habitat.

Beneficial Uses

Beneficial uses of the stream flow in the project area include anadromous fish, resident fish, recreation, and esthetic value. There are no known municipal or domestic water users in the project area and the project is not within a municipal watershed. There are two water rights for irrigation and livestock listed for School House Creek approximately 0.5 river mile downstream of the project area. Irrigation rights are listed along the Alsea River approximately 0.8 river mile downstream from the project area (Oregon Water Resources Department, 2004).

2.4.4 Wildlife

From: Biological Evaluation, pp. 7, with Appendix A.

The primary project area is composed of a 40-year old mixed hardwood/conifer stand on BLM lands bordering School House Creek. The stand was logged in the late 1950's to early 1960's, and large conifer stumps are still evident. Post-logging, the stand was most likely seeded or left to regenerate naturally. Hardwoods subsequently out-competed most conifer seedlings, resulting in a stand dominated by red alders.

An informal coarse woody debris survey of the primary project area found a small amount of down wood and snags, mostly consisting of large old pieces left from previous logging operations, and more recent small size hardwoods.

The project area lies outside of critical habitat units that have been designated for the northern spotted owl and marbled murrelet and no suitable habitat for the northern spotted owl or marbled murrelet would be affected by this project. There are also no special habitat features nor known special status wildlife species anticipated to be affected by this action.

2.4.5 Fisheries and Aquatic Habitat

School House Creek is identified as spawning and rearing habitat for Oregon Coast coho salmon which are proposed for listing under the Endangered Species Act (ESA) and Oregon Coast steelhead which are a candidate species under ESA. Chinook salmon distribution is mapped in the South Fork of the Alsea, with no use identified in School House Creek. All populations of coho and chinook salmon within this basin are also included in the Magnuson-Stevens Fishery Conservation and Management Act, which defines Essential Fish Habitat. Pacific lamprey (Bureau Assessment species) is present within the Alsea Basin however the extent of distribution is not known. River Lamprey (Bureau Tracking Species) may be present within this watershed as well, however data on this species is very limited. Resident and anadromous cutthroat trout (Bureau Tracking species) are present within the Alsea Basin and both life histories may be present in School House Creek.

School House Creek is poor in large woody debris (LWD), substrate, quality pools, and off-channel habitat. The amount of active stream bank erosion is high. Shade levels at the time of survey, as percentage of open sky was quite high ranging from 86 to 97%.

2.4.6 Fire Hazard/Risk

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

The proposed project area is presently occupied by a mixed stand of hardwoods (alder and maple) with some scattered small second growth Douglas fir timber. Undergrowth is a moderate growth of sword fern, salal, Oregon grape, vine maple, ocean spray and red huckleberry. There is also a considerable amount of blackberry growing on the sites. There is a moderate accumulation of dead woody material on the ground. Much of the existing down pole size material is rotten or only partially sound. There are very few small to moderate sized old, down logs left from the previous logging or from windthrow. Based on visual estimates, the total dead fuel load estimate for these stands is less than 10 tons per acre. Fuel model for these sites would be model 8 - closed timber litter. The fire hazard and risk is currently low.

2.5 Environmental Effects

This section describes the environmental effects of the alternatives on the affected elements identified in section 2.3.

2.5.1 Invasive/Non-Native Plants

From: Marys Peak Resource Area Botanical Report, pp. 6, with Appendix 1 "Use of Native Plants" and Riparian Reserves Report / Silvicultural Prescription, pp. 7.

2.5.1.1 Proposed Action

Any exposed mineral soil during the removal of the trash rack could provide habitat for the additional spread of noxious weeds (particularly during the hauling of the trash rack pieces). Grass seeding exposed soil with graminoid seed would help discourage any new infestations. Additionally, prior to, during, and post operations the area would continue to be treated for the spread of noxious weeds. Therefore, the risk rating for the long-term establishment or spread of noxious weed species resulting from Project 1 is low.

There would be no watershed-scale cumulative effects to the spread of invasive non-native plants resulting from this project, as the effects from the project would be small and localized. In the project area, additional ground disturbances created by Project 2 (from skid trails) and Project 3 (from yarding alder) could increase the risk of spreading non-native plant species. However, all these areas (together with the road prism during Project 4) would be grass seeded, planted with conifers, and continue to be treated for noxious weeds for the next 3-5 years. Over the long term, the growth of the conifers planted is likely to shade out these brush species and encourage the establishment of native species in the understory.

2.5.1.2 No Action Alternative

With no action, the area would continue to be treated for the spread of noxious weeds. However, no grass seeding or conifer planting would occur; retarding the re-establishment of native species.

2.5.2 Soils

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

2.5.2.1 Proposed Action

Constructing 100 feet of temporary access road by walking equipment on top of brush would result in minimal to no loss of top soil (some soil may be displaced a few feet where equipment turns). Compaction of soil would occur to a small degree, but not enough to create infiltration or erosion problems. The area of affected ground would be around 500 to 1000 square feet. Following completion of project 1, the majority of the vegetation and root systems would remain, along with the surface soil litter. The degree and aerial extent of surface soil displacement, surface erosion and compaction from the proposed action is expected to remain within accepted District guidelines (10% or less).

2.5.2.2 No Action Alternative

Under the No Action alternative, the debris rack would be left in place and there would be no effect on soil resources.

2.5.3 Hydrology

From: School House Creek Hydrology Report, pp. 13.

2.5.3.1 Proposed Action

Removing the trash rack in School House Creek would alter channel morphology and function and temporarily affect water quality.

Channel Morphology & Floodplains

Currently, the trash rack is capturing bedload and smaller sized coarse woody debris by slowing stream velocities through the structure. This has led to building up of the stream bed upstream of the structure (aggradation), and scour/entrenchment immediately downstream. Removing the trash rack would allow materials currently being retained above the rack to be transported downstream, essentially. "flushing" materials downstream. Initially, it is anticipated that there would be a loss of gravels and other smaller substrate materials from the upstream reach (headcutting)– as the water would be free to carry away these materials. This effect would not be expected to permanently degrade habitat conditions, as much of the material would be re-deposited in downstream reaches and sediment would continue to be supplied to the reach by upstream reaches (on private lands). Additionally, School House Creek, prior to the installation of the trash rack, would have naturally functioned as a "transport reach" for materials passing into the South Fork Alsea River.

Following trash rack removal, the stream channel is likely to readjust to its new condition. Readjustments may include some bank scour, lateral migration of the active channel within the stream valley, and gradient adjustments to the streambed. Once the stream channel is no longer constrained by the trash rack, it may migrate and/or widen (by changing its flow path and reconfiguring its banks). Widening of the stream channel could promote floodplain development and channel complexity, as is evident in lower reaches. However, because of the moderate grade of the stream at the site of the trash rack no substantial floodplain development is anticipated.

Water Quality

Activities associated with removal/reduction of the trash rack may have short term impacts on water quality. During removal of the trash rack, increases in stream sedimentation and resulting turbidity would be expected as equipment is operating in the stream channel. However, such increases are likely to be of local extent and short duration. Construction would occur under minimal flow conditions and sediment increases are not expected to greatly exceed current levels (i.e. are unlikely to be measurable within days following project completion). BMPs (see Project Design Features) would be implemented to minimize any potential sedimentation into stream channels from these activities.

Over the long term, removing the trash rack is likely to help restore channel function and improve water quality by restoring the natural flow path in School House Creek and its ability to transport materials through the stream system.

Cumulative Effects

In the short term, removal of the trash rack is likely to alter the distribution of sediments and CWD materials in the School House Creek watershed and increase the amount of these materials entering the Alsea River system.

At the site scale, removing the trash rack could cause a loss of substrate materials which are currently being held back by the structure. In order to prevent a substantial loss of substrate from the site, a LWD structure would be placed at the former site of the rack to help stabilize some of the sediment present (see Project 2).

The LWD placed during Project 2 would have a similar function as the rack (retarding water velocities and retaining some materials), but would not be as rigid as the metal structure. The logs could shift over time in response to changes in streamflow and could naturally evolve and decay.

Over the longer term, the transportation of materials through the system is likely to improve hydraulic conditions and aquatic habitat as more natural sediment and nutrient transport processes are restored.

2.5.3.2 No Action Alternative

Under the No Action alternative the trash rack would continue to trap small materials upstream and enhance scour immediately downstream. Future CWD and LWD deposits would be trapped by the rack and unable to maneuver in the stream system. School House Creek's channel would continue to be constrained by the rack, unable to migrate/evolve naturally.

2.5.4 Wildlife

From: Biological Evaluation, pp. 7 with Appendix A.

2.5.4.1 Proposed Action

A minor disturbance would be expected to coarse woody debris and riparian vegetation in a very small area between the trash rack site and the road. The amount of disturbance would be discountable, since it would affect a very small area in the short-term, and it would not noticeably diminish the current structure and function of riparian habitats available to wildlife species within the project area.

2.5.4.2 No Action Alternative

This alternative would avoid the anticipated minor site disturbance, but it is of negligible consequence to wildlife habitat conditions in the project area.

2.5.5 Fisheries and Aquatic Habitat

From: Fisheries Evaluation of School House Projects Report, pp. 5.

2.5.5.1 Proposed Action

The implementation of this project would have direct and indirect impacts to fish and/or fish habitat. Direct impacts would include an estimated day of pulses of turbid water as the I-beams and cement anchors are removed from the stream channel. Anticipated impacts to fish may include an aversion response from pulses of turbid water or from the proximity of equipment near the channel. Due to the limited nature of this work and the stream gradient at this location, fish presence in direct proximity would involve few individuals during the low flow instream work period.

Indirect effects of this action would be both beneficial and adverse to fish and their habitat. After removal of the trash rack, the stream at this location would likely adjust to its new gradient. A short segment of head cutting would be probable during the first larger winter storms of the year. As the substrates that would be mobilized are part of the natural bedload in this stream segment, their redistribution downstream would likely benefit downstream reaches.

Following short term pulses of turbidity and the anticipated minor headcutting, there are no anticipated adverse effects on fisheries that would persist through time. With the removal of this structure, both storage and routing processes as well as the natural configuration of the stream at this location would continue to evolve. While short-term impacts are anticipated at the site scale, the proposed action would not contribute to the need to list any species within the basin under the ESA.

To be consistent with ESA and EFH programmatic consultation, all Project Design Criteria identified within the February 25, 2003 BO for this action would be implemented.

Cumulative Effects
As this project would be accomplished at the same time as a road decommissioning (project 4) and instream restoration project (project 2) as well as a Riparian stand conversion from hardwoods to conifer species (project 3), cumulative effects would not exceed those described in this EA for each separate project. The placement of LWD at the site of the trash rack (Project 2) would help minimize headcutting of the stream, by retaining some of the bedload material. There are no other known projects within or adjacent to the project area that may be considered cumulative in nature.

2.5.5.2 No Action Alternative

With the No Action alternative the potential of short term impacts to fish species and habitat in the area would be avoided. The trash rack would continue to modify channel function, LWD and sediment storage and routing processes at a site scale.

2.5.6 Fire Hazard/Risk

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

2.5.6.1 Proposed Action

Project 1 would create a short term increase in fire risk during project implementation as some hardwood slash would be created during the construction of the temporary access trail / road. The amount of slash created is expected to be very small and any fire risk could be easily mitigated by complying with ODF fire regulations. Because of the small area affected, there would be no long term impacts affecting fire risk or fuel loading.

2.5.6.2 No Action Alternative

Under the "No Action" alternative, current fuel loading and fire risk would continue as described under the Affected Environment, section 2.4.6.

2.5.7 Comparison of Alternatives With Regard to Purpose and Need

The Proposed Action would fulfill all the objectives as outlined in section 2.1 of this EA. With the removal of the trash rack structure, both storage and routing processes as well as the natural configuration of School House Creek, at this location, would be allowed to evolve. The creek would regain its ability to naturally transport sediment and other debris (including leaf litter, pieces of wood, etc.) through the Lower Alsea River Watershed.

The No Action alternative would not fulfill any of the project objectives, as leaving the trash rack in place would not accomplish watershed restoration needs. The trash rack would continue to impede the natural transport of wood, substrate, and other materials downstream through the stream system. The School House Creek stream channel would be likely to continue to build up sediment upstream of the trash rack and erode sediment (entrench) immediately downstream.

3.0 PROJECT 2 – Large Woody Debris Placement

3.1 Purpose of and Need for Action

School House Creek supports populations of winter steelhead, coho, and anadromous and resident cutthroat trout. However, the stream channel currently is deficient in large woody debris needed for structural habitat diversity. Logging operations (e.g. yarding/skid trails, conifer removal from RR), road construction, and log jam removal/stream cleaning have combined to produce stream habitat that lacks large woody debris and quality pools. Consequently, School House Creek is specifically identified in the RMP and the Lower Alsea River Watershed Analysis (LAWA) for potential fish enhancement projects (RMP p. 29, LAWA Map 29). In addition, the LAWA provides specific recommendations to provide in-stream large wood structure to reconnect floodplains (pgs. x, xiv, 89, 90).

Based on data collected in 1995 by ODFW, habitat indicators within School House Creek considered Not Properly Functioning by NOAA Fisheries Matrix of pathways and indicators include: Large Woody Debris (LWD), substrate, pool (area, quality and frequency), off -channel habitat and stream bank condition. The reach surveyed is notably low in LWD, pools and off-channel habitat.

There is a need to reestablish or simulate habitat conditions existing prior to the impacts listed above and provide short term habitat until natural processes can supply the materials needed to recover good stream habitat. Log structures would help to rehabilitate the stream and enhance natural populations of anadromous and resident fish by improving spawning and rearing habitat (RMP p.27).

3.2 Alternatives

3.2.1 Alternative Development

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."

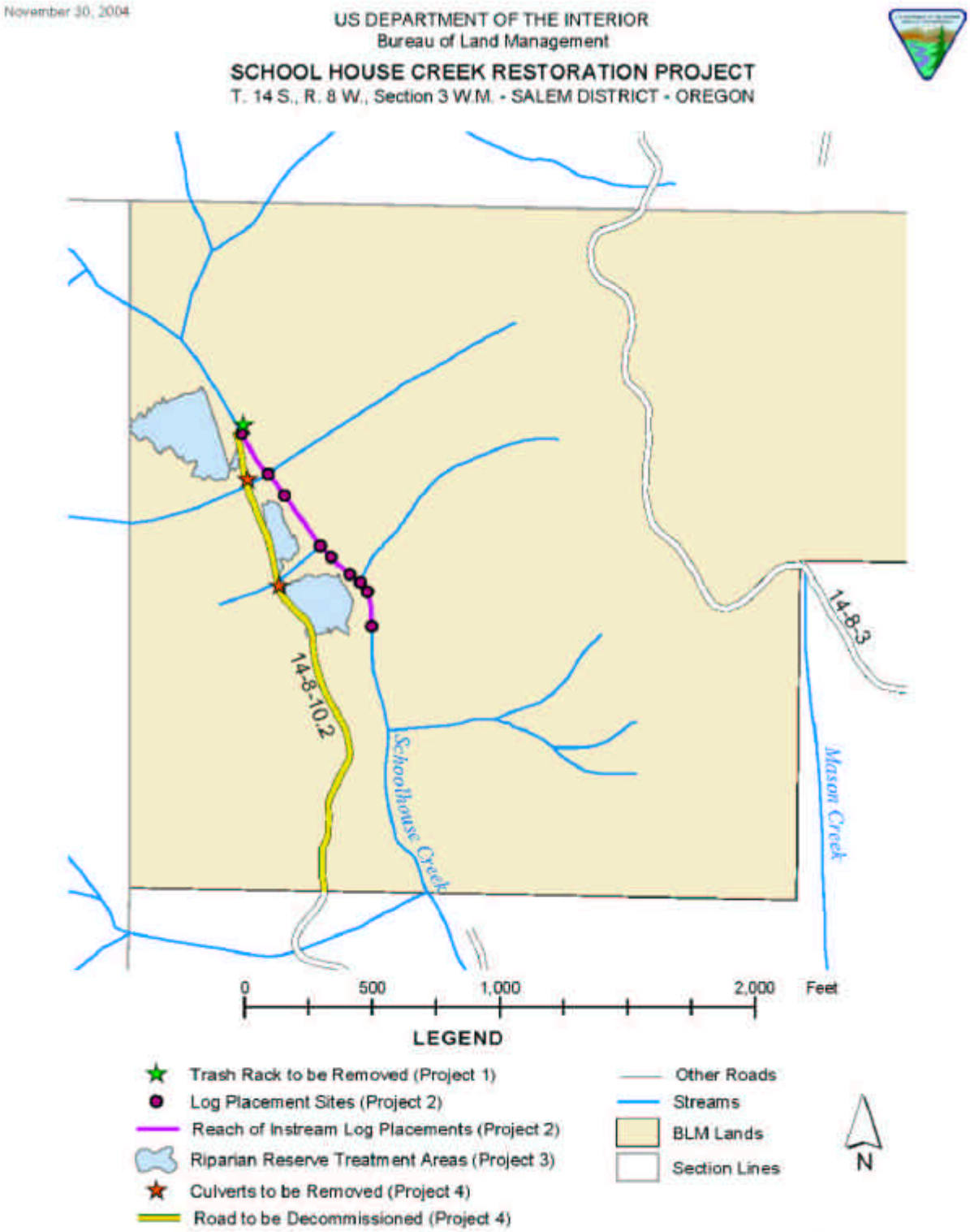
No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA) were identified during project planning and scoping. No alternatives were identified that would meet the purpose and need of the project and have meaningful differences in environmental effects from the proposed action. Therefore, this EA will analyze the effects of the "proposed action" and the "no action alternative".

3.2.2 Proposed Action

The BLM proposes to create log jams, deflector logs, and scour logs at up to 9 sites within the stream channel of School House Creek. Map 3 below shows the approximate locations of the structures which would be placed.

Up to 40 conifer trees having a diameter between 15 and 36 inches would be selected for cutting and placement into the stream channel. Trees would be selected from along roads and forest edges on BLM lands in Sections 33 and 35 of Township T13S, R8W, and Sections 3 and 5 of Township T14S, R8W. Several smaller diameter trees may need to be incidentally felled to facilitate yarding and transport of the selected trees. Incidentally felled trees that are not of sufficient size for in-stream placement would be left on site as coarse woody debris. Selected trees would be cut into logs of the appropriate length, yarded to the existing roads, and delivered to the project area by a self-loading log truck. The logs would then be transported down the 14-8-10.2 road by a skidder and dropped at designated sites along the road (as it may not be possible for the log truck to turn around on the 14-8-10.2 road). The skidder and/or excavator would then transport the logs from their piles along the 14-8-10.2 road to the stream channel, using pre-existing skid trails to the extent possible. An excavator would then place the logs into the stream channel. Where topography does not allow direct access to the stream channel (due to steep slopes), the logs would be cable yarded into the channel.

Map 3: Map of Proposed Action – Project 2



3.2.2.1 Connected Actions

Some individual hardwood trees along School House Creek and adjacent to the log placement sites may be felled to facilitate placement operations and to provide planting sites for streamside conifers.

The yarding of the source logs (when cut) to the road and the yarding of the logs from the 14-8-10.2 road to School House Creek may require the creation of temporary skid trails, if pre-existing skid trails are inaccessible. The total width of the trails would be kept to the minimum needed to accomplish the task. Upon project completion yarding corridors and skid trails may be decommissioned by ripping, water barring, blocking, piling slash, and/or grass seeding. Where appropriate, yarding corridors would also be planted with conifer seedlings.

3.2.2.2 Project Design Features

Unless otherwise indicated, the design features in EA section 2.2.2.2 also apply to Project 2. The following is a summary of additional design features that reduce the risk of effects to the affected elements of the environment.

- All heavy equipment operations would be confined to the dry season of the year (late summer) and operate on top of slash and brush to the extent possible. Disturbance and soil compaction to the area would be kept to a minimum by using track equipment operating on the road and/or existing skid roads, where possible.
- In-stream activities would occur during the summer period with lowest stream flow (generally July 1 to September 15th), and comply with *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources*.
- Hardwood trees felled to facilitate placement operations would be felled towards and/or placed in the stream.
- All green trees selected for stream structure enhancement would be inspected and approved by a Resource Area Biologist to ensure that they do not currently provide nesting structure for spotted owls or marbled murrelets.
- Felling and hauling of selected trees would occur after August 5 and before March 1 to avoid the critical breeding season of the northern spotted owl and marbled murrelet. No potential nest trees for red tree voles, northern spotted owls, or marbled murrelets would be felled.
- Felling and hauling conducted between August 6 and September 15 would be restricted to the period from two hours after sunrise to two hours before sunset.

3.2.3 No Action Alternative

The proposed action and connected actions would not be implemented. Management activities and other uses (e.g. road use, harvest of special forest products on public land) would continue on BLM lands within the project area. This alternative also serves to set the environmental baseline for comparing effects to the proposed action.

3.3 Identification of Affected Elements of the Environment

The interdisciplinary team reviewed the elements of the human environment, required by law, regulation, Executive Order and policy, to determine if they would be affected by the proposed action. Table 3 (Critical Elements of the Environment) and Table 4 (Other Elements of the Environment) summarize the results of that review. Affected elements are **bold**. All entries apply to the action alternatives, unless otherwise noted.

Table 3: Review of Critical Elements of the Environment (BLM H-1790-1, Appendix 5) for Project 2

Table 3: PROJECT 2 – Large Woody Debris Placement				
Critical Elements Of The Environment		*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Air Quality (Clean Air Act)		Not Affected	No	See Project 1
Areas of Critical Environmental Concern		Not Present	No	See Project 1
Cultural Resources		Not Present	No	See Project 1
Energy (Executive Order 13212)		Not Affected	No	See Project 1
Environmental Justice (Executive Order 12898)		Not Affected	No	See Project 1
Prime or Unique Farm Lands		Not Present	No	
Flood Plains (Executive Order 11988)		**Affected**	**No**	**Effects to Floodplains are described in EA section 3.4.3 (School House Creek Hydrology Report, pp. 1-13)**
Hazardous or Solid Wastes		Not Present	No	See Project 1
Invasive, Nonnative Species (plants) (Executive Order 13112)		**Affected**	**No**	**Effects to invasive/nonnative species are described in EA section 3.4.1. (Marys Peak Resource Area Botanical Report, pp. 6)**
Native American Religious Concerns		Not Affected	No	See Project 1
Threatened or Endangered (T/E) Species or Habitat	**Fish**	**Affected**	**Yes**	**Effects to listed fish species are described in EA section 3.4.5. (Fisheries Evaluation of School House Projects pp. 5)**
	Plant	Not Present	No	See Project 1
	Wildlife (including designated Critical Habitat)	**Affected**	**No**	**Effects are described in EA section 3.4.4. (Biological Evaluation for Terrestrial Wildlife pp. 1-7)**
Water Quality (Surface and Ground)		**Affected**	**No**	**Effects to Water Quality (Surface and Ground) are described in EA section 3.4.3 (School House Creek Hydrology Report pp. 1-13)**
Wetlands/**Riparian Zones** (Executive Order 11990)		**Riparian Zones: Affected**	**No**	**Effects to Riparian Zones (are described in EA section 3.4.3 and 3.4.5. (Riparian Reserves Report/Silvicutural Prescription, pp. 1-7)**
		Wetlands: Not Present	No	See Project 1
Wild and Scenic Rivers		Not Present	No	
Wilderness		Not Present	No	

Table 4: Review of Other Elements of the Environment for Project 2

Table 4: PROJECT 2 – Large Woody Debris Placement				
Other Elements of the Environment		*Status: (i.e., Not Present , Not Affected or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Coastal zone		Not Affected	No	See Project 1
Fire Hazard/Risk		**Affected**	**No**	**Effects to fire hazard and risk are described in EA section 3.4.6. (School House Creek Enhancement Proposal Fuels/Soils Report pp. 1-8)**
Other Fish Species with Bureau Status and Essential Fish Habitat		**Affected**	**Yes**	**Effects to Fish Species with Bureau Status and Essential Fish Habitat are described in EA section 3.4.5. (Fisheries Evaluation of School House Projects, pp. 1-5)**
Land Uses (right-of-ways, permits, etc)		Not Present	No	
Late Successional and Old Growth Habitat		Not Affected	No	The removal of scattered roadside, mature Douglas Fir would not substantially alter stand structure or habitat conditions. Individual tree removal would mimic natural disturbance, such as windthrow. Any potential openings created would likely quickly fill in with brush species, thereby enhancing stand diversity.
Mineral Resources		Not Present	No	
Recreation		Not Affected	No	There is no designated or known frequent recreation in or adjacent to the project area.
Rural Interface Areas		Not Affected	No	See Project 1
Soils		**Affected**	**No**	**Effects to Soils are described in EA section 3.4.2. (School House Creek Enhancement Proposal Fuels/Soils Report, pp. 1-8)**
Special Areas outside ACECs (Within or Adjacent) (RMP pp. 33-35)		Not Present	No	
Other Special Status Species / Habitat	Plants	Not Present	No	See Project 1
	Wildlife	Not Present	No	(Biological Evaluation for Terrestrial Wildlife pp. 1-7)
Visual Resources		Not Affected	No	There is no effect on visual resources as the proposed action of placing logs in School House Creek would not alter the landscape for the public. The project is in a visual resource management class 4 area and this action is consistent with this designation.
Water Resources – Other (303d listed streams, DEQ 319 assessment, Downstream Beneficial Uses; water quantity, Key watershed, Municipal and Domestic)		**Affected**	**Yes**	**Effects to Water Resources are described in EA section 3.4.3, and 6.0. (School House Creek Hydrology Report, pp. 1-13)**
Wildlife Structural or Habitat Components - Other (Snags/CWD/ Special Habitats, road densities)		**Affected**	**No**	**Effects described in the EA section 3.4.4. (Biological Evaluation for Terrestrial Wildlife pp. 1-7)**

3.4 Affected Environment and Environmental Effects

Those elements of the human environment that were determined to be affected by Project 2 are invasive/non-native plants, soils, hydrology, wildlife, fisheries and aquatic habitat, and fire hazard/risk. A description of the current condition and trend of the affected elements is provided in section 2.4, under Project 1, unless otherwise noted. This section describes additional current conditions and trends for the affected elements and the environmental effects of the alternatives on the affected elements.

3.4.1 Invasive/Non-Native Plants

From: Marys Peak Resource Area Botanical Report, pp. 6 with Appendix 1 "Use of Native Plants" and Riparian Reserves Report / Silvicultural Prescription, pp. 7.

The primary project area is currently being targeted for the removal of a large infestation of blackberry and any other State listed noxious weeds. The heaviest blackberry occurs adjacent to the 14-8-10.2 road.

3.4.1.1 Proposed Action

Any soil exposed during the skidding of the in-stream logs down the 14-8-10.2 road and yarding of the logs to the stream, could provide habitat for the additional spread of noxious weeds. However, grass seeding any exposed soil would help discourage any new infestations.

Cumulative Effects

There would be no watershed-scale cumulative effects to the spread of invasive non-native plants resulting from this project, as the effects from the project would be small and localized. In the project area, additional ground disturbances created by Project 1 (hauling the trash rack pieces to the road) and Project 3 (yarding hardwoods) could increase the risk of spreading non-native plant species. However, all these areas (together with the road prism during Project 4) would be grass seeded, planted with conifers (where appropriate), and continue to be treated for noxious weeds for the next 3-5 years. Over the long term, the growth of the conifers planted is likely to shade out these brush species and encourage the establishment of native species in the Riparian understory.

3.4.1.2 No Action Alternative

With no action taken, there would not be any mineral soil exposed and less potential for non-native species to become established within skid roads.

3.4.2 Soils

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

3.4.2.1 Proposed Action

Falling scattered trees to existing roads would cause little disturbance to soil resources. Some slight compaction may occur as trees are yarded onto the roadway. However, the selected trees would be scattered in the stand, with existing brush/duff between them. This would minimize any yarding impacts to soils.

Skidding the logs up the 14-8-10.2 road would displace some soil from the road prism.

There would also be impacts to soil from yarding the logs from the road to the School House Creek stream channel. Some compaction of soil is expected, but not enough to create infiltration or erosion problems. Using existing skid roads would result in a loss in the recovery of these areas from past yarding. However, little additional compaction would be expected beyond what has already occurred from past logging activities. The total area of affected ground from Project 2 would be approximately 0.3 acre.

Following completion of the project, the majority of the vegetation and root systems would remain intact, along with some surface soil litter. The degree and aerial extent of surface soil displacement, surface erosion, and compaction from operations would be expected to remain within accepted district guidelines (10% or less).

Following completion of wood placement, any exposed areas in the access roads both old and new would be seeded or covered with slash and debris to hasten recovery of the site. In addition, some ripping, water barring and/or blocking of skid trails would be done if needed. However, little rehabilitation work would be anticipated as the equipment would be operating on top of slash and brush.

Cumulative Effects
Project 2 would not contribute to watershed-level cumulative effects to soils. At the site-scale, some soil displacement/compaction would occur along the 14-8-10.2 road, as logs would be skidded down the road and piled during Project 2 (in addition to the road being operated on for Projects 1, 3, and 4). However, Project 4 entails decommissioning this stretch of road and closing it to vehicular traffic. Loosening of the soil in the road prism could help prepare it for grass seeding and possibly conifer planting and help to restore infiltration. The 14-8-10.2 road would be decommissioned after Project 2 was completed.

3.4.2.2 No Action Alternative

No action would result in a continuation of the soil conditions as described under the Affected Environment in section 2.4.2. No additional disturbance to soil resources would be generated.

3.4.3 Hydrology

From: School House Creek Hydrology Report, pp. 13.

3.4.3.1 Proposed Action

Measurable effects to stream flow, channel conditions, and water quality as a result of felling the source trees onto existing roads would be highly unlikely. Trees would be felled away from streams and either loaded off of the road or yarded a very short distance (feet) towards the road for loading and hauling.

Channel Morphology and Floodplains

The placing of LWD structures and individual logs in School House Creek would be likely to impact channel morphology during both the short term (during project implementation) and long term (years following project completion). Immediately following project implementation, channel complexity would be increased (more pools and low-velocity zones, areas of sediment deposition, bank undercutting and channel scour).

To mitigate potential increases in bank erosion due to the addition of wood in the channel, log placements would be done with consideration for bank erosion processes. Attempts would be made to place trees in a manner to direct flows away from unstable banks.

Lateral channel migration could lead to increased floodplain development and off-channel rearing areas. Actual channel adjustments would be determined primarily by stream flows in the years following project implementation. During this time, some of the logs placed would be likely to shift from their original positions. Storm events large enough to cause the structures to move downstream at high velocity, or for large distances (more than a few feet) are rare, occurring perhaps once a century or greater. Nevertheless, the movement of large debris downstream is a natural and inevitable process and some logs could travel short distances downstream from their original locations. These effects would be anticipated to meet or exceed ACS objectives and to lead to an overall improvement in channel conditions for aquatic species.

Water Quality

Project 2 would also impact water quality in School House Creek. The placed log structures would alter the sediment transport regime and could slightly alter summer stream temperatures and/or levels of dissolved oxygen from the current regime.

During project implementation, increased suspended sediment and turbidity in the creek, in association with minor bank scour, would be expected. This increase would likely be short-term (days) and localized (within the watershed and may extend for a short distance into the Alsea River mainstem during and immediately following project implementation). In addition, some compaction and disturbance to the surface soil would be anticipated while the logs are yarded from the road to the stream (increasing the potential for sedimentation into School House Creek). However, skid trails would be kept to a minimum by requiring that tractors use pre-designated skid tails and use existing skid trails as much as practical (see Project Design Features). These trails have already been compacted from past logging and restoration activities and are surrounded by areas with high surface roughness (duff/slash) which could trap any displaced sediment or surface runoff before reaching project area streams.

Effects of the proposed action on stream temperature and dissolved oxygen are difficult to quantify. Studies have shown that log structures can provide enough shading of the stream's surface to reduce water temperatures. Over time, increases in the quantity of stored substrates and pools (deeper water) could lead to a slight decrease in summer stream temperatures. Increases in flow turbulence, as the water passes through, around, and/or over the log structures, could also slightly increase dissolved oxygen levels in School House Creek.

Cumulative Effects

The placement of large woody debris in School House Creek would likely have a positive cumulative effect by improving overall aquatic habitat conditions in the watershed. Private land owners are likely to continue to harvest lands in the headwaters of School House Creek, which will continue to supply the stream system with finer-grained materials.

3.4.3.2 No Action Alternative

Under the No Action alternative, conditions and trends for hydrologic resources would be expected to continue as described in the Affected Environment section of this report, and the *Lower Alsea River Watershed Analysis* document. School House Creek would continue to be depleted of functioning large woody debris, as there is little potential for LWD recruitment from the existing riparian vegetation.

3.4.4 Wildlife

From: Marys Peak Resource Area Botanical Report, pp. 6 and Biological Evaluation, pp. 7 with Appendix A.

In addition to the primary project area described in section 2.4.4, Project 2 also includes mid-seral and late-seral conifer forest habitat along roads on nearby BLM lands in the watershed. In these areas, trees would be felled to be used in creating stream structures in School House Creek. These are all typical late-successional stands with large older trees and scattered smaller understory trees. Most are two-story stands with Douglas-fir the oldest component aged 90 to 200 years old. All are classified RLR1 in the TPCC system, which means they are located on moist fertile sites with competing vegetation as the primary reforestation problem. Over 41% of the forested federal lands within this watershed are comprised of late-seral and old-growth stands.

3.4.4.1 Proposed Action

The removal of up to 40 trees scattered along the edges of nearby roads would not appreciably reduce the structure and function of late-seral forest conditions within the watershed. Some of the roads where selected fish logs would be taken from fall within critical habitat units that have been designated for the northern spotted owl (CHU= OR-47), and marbled murrelet (CHU=OR-04-k). These areas may have unsurveyed habitat that is suitable for spotted owls and marbled murrelets, however none of these older forest patches are known to be occupied by breeding murrelets or nesting spotted owls. Removal of large conifer trees along roads would be considered a “may affect, but not likely adverse affect” to northern spotted owls and marbled murrelets. Since these trees would be widely spaced along roads and clearcut edges, none of the selected trees would contain suitable nest structure for listed species and because felling of the trees would be conducted outside of the critical nesting periods for these species, this project would not be anticipated to have any adverse effects to these listed wildlife species or their suitable habitat. There are no known special habitat features nor other special status wildlife species anticipated to be affected by the removal of the selected fish logs.

The placement of the logs into School House Creek would involve transporting the logs from the existing roadway down pre-designated skid trails to the stream channel. This would remove or compact the existing vegetation within the skid roads and may disturb existing coarse woody debris. Additionally, some incidental overstory trees could need to be cut or knocked down near the stream during yarding operations. Stands adjacent to School House Creek are dominated by alder, so few (if any) existing conifers would be felled to provide access to the creek. The amount of disturbance would be discountable, since it would affect a very small area in the short-term, and it would not noticeably diminish the current structure and function of riparian habitat in the project area.

To address concerns for impacts to federally listed wildlife species and their critical habitat, the proposed action has been consulted on with the U.S. Fish and Wildlife Service (The Service), as required under Section 7(a) of the Endangered Species Act. This proposed action has been designed in accordance with standards set forth in a Biological Assessment (BA, USDA-FS and USDI-BLM 2004b) that was used to facilitate consultation. The resulting Biological Opinion (BO# 1-7-2005-F-0005) issued by the Service concluded that this action and associated activities would not result in jeopardy to any listed wildlife species and would not cause any adverse modification of critical habitat.

3.4.4.2 No Action Alternative

This alternative would avoid the anticipated loss of some older conifer trees along nearby BLM roads, and would avoid potential impacts to federally listed wildlife species.

3.4.5 Fish and Aquatic Habitat

From: Fisheries Evaluation of School House Projects Report, pp. 5.

3.4.5.1 Proposed Action

The cutting and hauling of the LWD source logs would be unlikely to impact fisheries resources, as the action would entail removing a small number of scattered trees and would occur away from streams.

The placement of large wood into School House Creek, using an excavator, would both increase the amount of habitat and also provide the key elements necessary to maintain that habitat. In-stream work of this type is considered to be beneficial to both the habitat and fish populations as they respond to the improved habitat, however some short-term impacts to individual fish could occur. The equipment used to place large wood and the placement of the wood itself often mobilize fine sediments; the direct effect of these sediment pulses can change fish behavior, or result in individual mortality. With the use of BMP's (see Design Features) such as working during ODFW low flow periods and maintaining equipment outside of the stream channel as much as possible, some effects would be anticipated at the site and within a short distance downstream.

The indirect effects of the action are anticipated to include improved sorting and routing processes, an increase in the amount of pool habitat, greater access of the stream to its floodplain, and greater summer and winter rearing potential for juvenile salmonids within this stream segment. As pool habitat is so limited in School House Creek, based on data collected by ODFW in 1995, any increase would be an important benefit to rearing salmonids.

To be consistent with ESA and EFH programmatic consultation all Project Design Criteria identified within the February 25, 2003 BO for this action would be implemented.

Cumulative Effects

As this project would be accomplished at the same time as a Road Decommissioning and Trash Rack removal project and Riparian stand conversion from hardwoods to conifer species, all effects should be analyzed within this document. There are no other known projects within or adjacent to this action that may be considered cumulative in nature.

3.4.5.2 No Action Alternative

With the No Action alternative the current condition of School House Creek would be maintained. As the amount of pool area is so low, species that depend on pool habitat including coho, steelhead and cutthroat would not likely increase their use of this stream segment.

3.4.6 Fire Hazard/Risk

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

3.4.6.1 Proposed Action

Effects of this project would be the same as described for Project 1 – Proposed Action. A small increase in fuel loading would occur from slash generated by falling the source logs and yarding the logs from the 14-8-10.2 road to the stream channel.

3.4.6.2 No Action Alternative

The No Action alternative would result in a continuation of current trends and conditions to fire risk.

3.4.7 Comparison of Alternatives With Regard to Purpose and Need

The Proposed Action would fulfill all the objectives as outlined in section 3.1 of this EA. School House Creek supports populations of winter steelhead, coho, and anadromous and resident cutthroat trout. However, the stream channel currently is deficient in large woody debris needed for structural habitat diversity. School House Creek has been identified as a high priority for fish habitat restoration due to its lack of adequate LWD, substrate, pool (area, quality and frequency), off channel habitat and stream bank condition. Adding LWD to the stream channel would help to restore these parameters in School House Creek and improve habitat conditions for anadromous and resident fish.

The No Action alternative would not fulfill any of the project objectives, as watershed restoration needs would not be met. School House Creek would continue to provide poor fish habitat with the potential for conditions to further degrade, as natural recruitment of LWD from the adjacent alder-dominated stands is unlikely.

4.0 PROJECT 3 – Riparian Restoration

4.1 Purpose of and Need for Action

Historically, the School House Creek project area supported a riparian stand of mature conifer, which is essential for providing large woody debris material to the stream system (LAWA, Map 7). At present, the riparian canopy is dominated by hardwoods and areas adjacent to the 14-8-10.2 road and stream have become dominated by Himalayan blackberry.

The Lower Alsea River Watershed Analysis provided specific recommendations to manage riparian zones in the watershed using a variety of methods including planting conifers; treating hardwood dominated stands which have the site potential to grow conifers; and accelerating the "development of large conifers by…releasing understory conifers from dense hardwood canopies" (pgs. x, xiv, 88). There is a need to restore Riparian Reserve habitat and function by increasing tree species diversity, restoring conifers, and curtailing brush in the project area.

4.2 Alternatives

4.2.1 Alternative Development

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." No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA) were identified during project development or scoping. No alternatives were identified that would meet the purpose and need of the project and have meaningful differences in environmental effects from the proposed action. Therefore, this EA will analyze the effects of the "proposed action" and the "no action alternative".

4.2.2 Proposed Action

The BLM proposes to treat approximately 3.4 acres of Riparian Reserve by removing hardwoods, planting conifers, and cutting brush. Hardwoods in 3 treatment areas (from north to south: Unit 1 = 1.8 acres, Unit 2 = 0.5, & Unit 3 = 1.1 acres) would be cut and removed, with approximately 5% of the hardwoods being reserved (see Map 3 for unit locations). Logs would be yarded using a skidder winch line, a small mobile yarder, or similar equipment. Equipment would operate on the 14-8-10.2 road and use pre-existing skid trails to the extent possible. All tree species other than big leaf maple and alder would be reserved.

Western red cedar, western hemlock and small numbers of Douglas-fir would be planted on a variable spacing, ranging from 10-20 feet apart; for an estimated 110 conifers/acre. All brush in the treatment areas would be cut in order to create openings in which western red cedar, western hemlock and Douglas-fir would be planted.

4.2.2.1 Connected Actions

Standard stocking surveys would be done after the first season's growth of planted conifers, and at least every other year following planting until the trees are considered free to grow. Subsequent surveys would assess spacing and determine density management needs.

The vine maple and salmonberry (and other brush) may be cut prior to the removal of hardwoods from the treatment units. Because the brush is currently suppressed by a closed overstory canopy, it may recover with less vigor, than if it were to be "released" by opening of the canopy.

If the recommendation to cut vine maple and salmonberry ahead of logging is implemented, surveys would asses whether or not it is an effective tool for creating planting spots and alleviating problems with competing vegetation. It is likely that several future maintenance treatments, including brushing, would be necessary to assure the survival and growth of the planted conifers.

4.2.2.2 Project Design Features

The design features in EA section 2.2.2.2 also apply to Project 3. The following is a summary of additional design features that reduce the risk of effects to the affected elements of the environment.

- Yarding would occur at least 50 feet away from School House Creek and 25 feet away from tributaries. There would be no yarding through/across any streams.
- No alders would be cut from the immediate stream bank or from any area that would decrease stream bank stability.
- All tree species other than big leaf maple and red alder would be reserved in the treatment areas. Approximately 5% (15 trees per acre) of those hardwoods would be reserved, most likely in groups so as to create openings large enough for the survival and growth of understory conifers.
- Existing green conifers would be protected from damage during the falling and yarding of hardwoods.
- All operations would occur during the later summer, (dry weather) to limit the potential for erosion and sedimentation. If wet weather should occur during operations and sediment transport should become a threat to water quality, all yarding activities would stop.
- Disturbance and soil compaction to the area would be kept to a minimum by operating track equipment on the existing road and on existing skid roads used for Project 2, where feasible.
- Limbs, tops, brush and slash resulting from the project would be scattered on site.

4.2.3 No Action Alternative

Project 3 would not be implemented. The condition of the School House Creek Riparian Reserve would exist as described under the Affected Environment section 2.4 of this EA.

4.3 Identification of Affected Elements of the Environment

The interdisciplinary team reviewed the elements of the human environment, required by law, regulation, Executive Order and policy, to determine if they would be affected by the proposed action.

Table 5 (Critical Elements of the Environment) and Table 6 (Other Elements of the Environment) summarize the results of that review. Affected elements are bold. All entries apply to the action alternative, unless otherwise noted.

Table 5: Review of Critical Elements of the Environment (BLM H-1790-1, Appendix 5) for Project 3

Table 5: PROJECT 3 – Riparian Restoration				
Critical Elements Of The Environment		*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Air Quality (Clean Air Act)		Not Affected	No	See Project 1
Areas of Critical Environmental Concern		Not Present	No	See Project 1
Cultural Resources		Not Present	No	See Project 1
Energy (Executive Order 13212)		Not Affected	No	See Project 1
Environmental Justice (Executive Order 12898)		Not Affected	No	See Project 1
Prime or Unique Farm Lands		Not Present	No	
Flood Plains (Executive Order 11988)		Not Affected	No	No activity would take place on or adjacent to an active floodplain. Yarding would occur at least 50 feet from School House Creek and 25 feet from tributaries.
Hazardous or Solid Wastes		Not Present	No	
Invasive, Nonnative Species (plants) (Executive Order 13112)		**Affected**	**No**	**Effects to invasive/nonnative species are described in EA section 4.4.1. (Marys Peak Resource Area Botanical Report, pp. 6)**
Native American Religious Concerns		Not Affected	No	See Project 1
Threatened or Endangered (T/E) Species or Habitat	**Fish**	**Affected**	**Yes**	**Effects to threatened or endangered fish are described in EA section 4.4.5. (Fisheries Evaluation of School House Projects, pp. 1-5)**
	Plant	Not Present	No	See Project 1
	Wildlife (including designated Critical Habitat)	Not Present	No	There are no known listed wildlife sites or suitable habitat in the project vicinity which would be affected by Project 3. The project is not within critical habitat for any species.
Water Quality (Surface and Ground)		**Affected**	**Yes**	**Effects to Water Quality are described in EA section 4.4.3. (School House Creek Hydrology Report, pp. 1-13)**
Wetlands/**Riparian Zones** (Executive Order 11990)		**Riparian Zones: Affected**	**Yes**	**Effects to Riparian Zones (including stand structural diversity) are described in EA section 4.4.1and 4.4.3. (Riparian Reserves Report / Silvicultural Prescription, pp. 1-7)**
		Wetlands: Not Present	No	There are no wetlands present in the project area.
Wild and Scenic Rivers		Not Present	No	
Wilderness		Not Present	No	

Table 6: Review of Other Elements of the Environment for Project 3

Table 6: PROJECT 3 – Riparian Restoration				
Other Elements of the Environment		*Status: (i.e., Not Present , Not Affected or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Coastal zone		Not Affected	No	See Project 1
Fire Hazard/Risk		**Affected**	**No**	**Effects to Fire Hazard/Risk are described in EA section 4.4.6. (School House Creek Enhancement Proposal Fuels/Soils Report, pp. 1-8)**
Other Fish Species with Bureau Status and Essential Fish Habitat		**Affected**	**Yes**	**Effects to Fish Species with Bureau Status and Essential Fish Habitat are described in EA section 4.4.5. (Fisheries Evaluation of School House Projects, pp. 1-5)**
Land Uses (right-of-ways, permits, etc)		Not Present	No	
Late Successional and Old Growth Habitat		Not Present	No	
Mineral Resources		Not Present	No	
Recreation		Not Affected	No	There is no designated or known recreation in or adjacent to the project area.
Rural Interface Areas		Not Affected	No	See Project 1
Soils		**Affected**	**No**	**Effects to Soils are described in EA section 4.4.2. (School House Creek Enhancement Proposal Fuels/Soils Report, pp. 1-8)**
Special Areas outside ACECs (Within or Adjacent) (RMP pp. 33-35)		Not Present	No	
Other Special Status Species / Habitat	Plants	Not Present	No	See Project 1
	Wildlife	Not Present	No	There are no known sites for any Special Status wildlife species. Surveys for Special Status Mollusk species completed 11/09/04 and 12/28/04, and no sites found that require protection. (Biological Evaluation for Terrestrial Wildlife, pp. 1-7)
Visual Resources		Not Affected	No	There is no effect on visual resources as the proposed action of thinning hardwoods, brush cutting, and planting would not largely alter the landscape. The project is in a visual resource management class 4 area and this action is consistent with this designation.
Water Resources – Other (303d listed streams, DEQ 319 assessment, Downstream Beneficial Uses; water quantity, Key watershed, Municipal and Domestic)		**Affected**	**Yes**	**Effects to Water Resources are described in EA section 4.4.3 and 6.0. (School House Creek Hydrology Report, pp. 1-13)**
Wildlife Structural or Habitat Components - Other (Snags/CWD/ Special Habitats, road densities)		**Affected**	**No**	**Effects to wildlife habitat are described in the EA section 4.4.4. (Biological Evaluation for Terrestrial Wildlife, pp. 1-7)**

4.4 Affected Environment and Environmental Effects

Those elements of the human environment that were determined to be affected by Project 3 are riparian reserve forest stand characteristics and invasive/non-native plants, soils, hydrology, wildlife, fisheries and aquatic habitat, and fire hazard/risk. A description of the current condition and trend of the affected elements is provided in section 2.4, under Project 1, unless otherwise noted. This section describes additional current conditions and trends for the affected elements and the environmental effects of the alternatives on the affected elements.

4.4.1 Riparian Reserve Forest Stand Characteristics and Invasive / Non-Native Plants

From: Marys Peak Resource Area Botanical Report, pp. 6 with Appendix 1 "Use of Native Plants" and Riparian Reserves Report / Silvicultural Prescription, pp. 7.

Project 3 would occur within 3 areas dominated by Red alder and big leaf maple totaling 3.4 acres within the same stand as Project 1 (EA section 2.4.4). The area is comprised of the western hemlock/vine maple/sword-fern plant association. No previous botanical surveys or inventories have been conducted in this area.

4.4.1.1 Proposed Action

Reducing the dense hardwood canopy through hardwood removal would allow the existing and planted conifers to become dominant in the future, thereby increasing species diversity. Ideally the conifers would eventually overtop the remaining hardwoods, creating potential high quality terrestrial and aquatic down wood. However, because of the small average size and number of existing conifers in the project area, there is little potential for immediate large down wood/snag creation and, therefore, there is no proposal to create down wood at this time.

Creating canopy openings could also increase shrub and forb layer growth within and adjacent to the project area. It is anticipated that the increased growth in the shrub layer would result in the need for future contracts to slash competing vegetation with the preferred conifer species.

Falling and removal of the hardwoods would result in some disruption of native vegetation and exposure of mineral soil. These operations could also damage or kill some reserved trees, although every precaution would be taken to prevent this from occurring. The amount of disruption or exposure of mineral soil and forest duff would be anticipated to be small and not amount to any large scale disruption of the organic layer. Because native vegetation tends to become re-established quickly (1-3 years) on small scale disturbances in the Pacific Northwest temperate rain forests, and because any anticipated vegetation disturbances would be isolated or scattered, the disruption to native shrubs and forbs project-wide would be minor.

<u>Threatened and Endangered or Bureau Special Status Species</u>
This project would not directly affect any T&E or bureau special status vascular plant, lichen, bryophyte or fungi species since there are no known sites within the project area or adjacent to the project area. However, this project could affect any species that are not practical to survey for and sites which may not be located during subsequent surveys. These species would mainly include special status hypogeous fungi species. The majority of these fungi species have no known sites within the Marys Peak Resource Area or the Northern Oregon Coast Range Mountains.

In addition, this project area generally is not considered habitat for bureau special status fungi species due to its young age and dominant hardwood component. However, the conversion of these areas from hardwoods to conifers could provide habitat in the future for bureau special status species.

Invasive/Non-Native Plants

Any exposed soil during operations could provide habitat for the additional spread of noxious weeds. Grass seeding any exposed soil with graminoid seed would help discourage any new infestations. In addition, the tops and limbs of the felled trees would increase the volume of small diameter slash in the project area, further covering the ground surface. Additionally, the blackberry (and other noxious weeds) in this area will continue to be treated during the next 3-5 years depending on continual funding. Therefore, the risk rating for the long-term establishment of noxious weed species and consequences of any adverse effect on the project area is low.

Cumulative Effects

The proposed action would increase the percentage of suitable Riparian Reserve habitat in the Lower Alsea River watershed. However, because this site is spatially disconnected from adjacent Riparian stands (by rural interface and private industry), it is unlikely to contribute to an uninterrupted riparian corridor.

4.4.1.2 No Action Alternative

No trees would be cut or yarded and a hardwood canopy would remain dominant in the project area. Existing understory western red cedar would likely slow in growth and possibly die before overstory hardwoods fall out of the canopy. The resulting future stand would likely have relatively few Douglas fir in small groups surrounded by vine maple and salmonberry. Natural understory conifer establishment would be a very slow process, or possibly unlikely in such a stand. The area would remain as "non-habitat" for the majority of bureau special status plant species. No mineral soil would be disturbed and few additional non-native species would likely become established.

4.4.2 Soils

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp.8.

The slopes in Project 3 Unit 1 (northernmost unit) average approximately 50%. In Units 2 and 3 the slopes average approximately 25%. The short slopes immediately adjacent to the stream are fairly steep, in some areas up to 80% (for distances <30 feet). Generally on benches of the moderate slopes ranging from 0 to 30% and at the base of some additional slopes, the soils are deep and finer textured with thick top soils (Honeygrove series). With increasing slope, the soils are shallower and are coarser textured (Hatchery series). The entire project area appears to be stable.

The 14-8-10.2 road is located on moderate to gentle terrain and is currently stable. There are several old tractor skid roads in the area between the stream and the 14-8-10.2 road where compacted soils have persisted to some degree.

4.4.2.1 Proposed Action

Since all logging equipment would remain on the existing road and skid roads used for the Fish Enhancement Project (1995) and for Project 2, there would be no impacts from heavy equipment outside of the road prism. Logs would be decked alongside and in the road. Yarding corridors would be short, so very little ground disturbance would be expected from yarding activity. This has been the case on several similar operations completed in the near vicinity over the past 10 years – virtually no compaction and very little or no soil disturbance. Even on steeper slopes there would be very little to no disturbance due in part to the short yarding distances over heavy brush and slash.

4.4.2.2 No Action Alternative

There would be no impacts to soil resources under the "No Action" alternative.

4.4.3 Hydrology

From: School House Creek Hydrology Report, pp. 13.

Peak flow/flood events for various recurrence intervals were estimated for the School House Creek catchment by three methods: 1) extrapolating from the Alsea River flow gage to an equivalent area basis for the School House Creek watershed, 2) using the USGS regression equations with coefficient values for the Coast Range, and 3) using the Oregon Water Resource Department (OWRD) flood gage analysis model.

Table 7 presents a comparison of the peak discharge estimates calculated by the three methods. The peak flow estimates are all within a similar range. The OWRD model may be over-estimating the total flow volume, as it uses a larger watershed boundary which encompasses three vegetated roadside ditches that were not included in the other two analyses.

Table 7: Comparison of peak flow estimates (cfs) for the School House Creek Watershed

Recurrence Interval	USGS Gage Equivalent to School House CR (939 acres)	USGS Regression Equation (Coast Range) Discharge	OWRD Flood Gage Analysis Model
Q2	90	73	103
Q5	120	104	152
Q10	138.	124	186
Q25	160.	151	230
Q50	175.	172	263
Q100	190	191	296

Because of the small scope of the project, a preliminary risk analysis for the risk of increases to peak flow as a result of forest harvest in the School House Creek catchment was conducted using the *Oregon Watershed Assessment Manual Watershed Analysis Methods for Forest Hydrology* (WPN 1999). The analysis determined that the watershed is currently at a low risk for enhancement of peak flows by forest harvest/timber removal.

4.4.3.1 Proposed Action

The proposed action is unlikely to have any long-term effects on channel morphology, water quality, or quantity.

Channel Morphology

Stream buffers would eliminate disturbance of streamside vegetation; no trees would be cut from the stream bank or where roots are stabilizing banks. Therefore it is unlikely that these actions would increase bank erosion or channel cutting by altering channel roughness, redirecting flows or altering bank-stabilizing vegetation.

Water Quality

Yarding corridors, if sufficiently compacted, may route surface water and sediment into streams. However, several factors would limit the potential for this to occur. The small number of trees being yarded would keep surface disturbance to minimal levels and stream buffers would act to filter any potential sediment from yarding activities. Even if compacted, high levels of residual slash left on yarding corridors, would reduce runoff by deflecting and redistributing overland flow laterally to areas where it would infiltrate into the soil. Limbs, tops, and brush would be scattered on the project site and yarding corridors would be grass seeded where necessary to prevent erosion and aid infiltration. Operating equipment would be restricted to existing skid roads, to the extent feasible, to reduce soil compaction. Yarding and hauling would be restricted to periods of low precipitation and soil moisture. In addition, tree removal is not proposed on steep, unstable slopes where the potential for mass wasting adjacent to streams is high. The timber would be left standing until as close to the time of yarding as possible.

Some local erosion may result from scalping circles around planting spots and during tree planting. However, the amount of sediment transport would be minimal and unlikely to reach streams. Areas around planting circles would remain vegetated and covered by brush, which would trap any loosened soil. In addition, site preparation and conifer planting would occur away from stream channels.

The small number of trees being removed in the three treatment areas is unlikely to have any measurable effect on stream temperatures, as small openings in the canopy are a natural component of forest ecology (as various local disturbances affect riparian forests). The riparian treatment areas all have an eastern aspect (School House Creek flows roughly north to south), and are unlikely to greatly affect solar radiation reaching School House Creek. Since the proposed actions are unlikely to result in any measurable increase in stream temperature, sedimentation, nor will place large amounts of fine organics in the stream channels, other water quality parameters (DO, pH, conductivity) are unlikely to be affected by this project.

Over the long term, thinning and increasing species diversity (enhancing/planting conifers) in the Riparian Reserve would likely increase riparian health and tree size. This could lead to increased future large wood recruitment for School House Creek and its tributaries.

Cumulative Effects

In almost all cases, removal of more than 20% of the vegetative cover over an entire watershed will result in increases in mean annual water yield. Removal of less than 20% of vegetative cover has resulted in negligible changes where it was not possible to detect any effect (i.e. the error in measurements was greater than the change) (Bosch 1982). Typically increases in stream flow occur during periods of low soil moisture and are attributed to reductions in evapotranspiration by nearby vegetation.

The School House Creek project lies entirely below the transient-snow-zone and is currently at a low risk for increases to peak flows due to vegetation removal. In addition, the proposed project would only affect approximately 0.005% of the forest cover in the Lower Alsea River 5th-field watershed. Therefore, direct affects from this project on cumulative effects to stream flow are too small to be measured with reasonable accuracy. Because other hydrologic variables (temperature, sediment, etc.) are unlikely to be effected by this proposed action, they are not likely to contribute to cumulative effects on these parameters.

4.4.3.2 No Action Alternative

No action would result in the continuation of current conditions and trends in the project area riparian stands and School House Creek as described in the Description of the Affected Resource section of this report and in the *Lower Alsea River Watershed Analysis* document. The Riparian Reserve would continue to be dominated by hardwood species, with very little future potential for conifer recruitment (LWD) into School House Creek.

4.4.4 Wildlife

From: Biological Evaluation, pp. 7 with Appendix A.

4.4.4.1 Proposed Action

The creation of three small patch openings within the hardwood riparian forest would enhance the structural complexity of these near-stream habitats. A minor loss of hardwood canopy cover would result from alder and big leaf maple removal and some short-term disturbance to coarse woody debris and shrub vegetation would be anticipated from yarding activities. The majority of native shrub species would likely begin to recover quickly (within a year), especially in response to the open canopy. The amount of ground disturbance would be discountable and the overall effect of patch creation and the establishment of conifers in these patches would likely enhance the quality of riparian forest habitat, thereby benefiting most wildlife species in the long-term. No special habitats and no special status wildlife species are anticipated to be affected by this project.

Cumulative Effects

Project 3 would increase the percentage of historic Riparian habitat in the watershed. However, this habitat would not provide a wildlife habitat corridor, as it is surrounded by disturbed landscapes.

4.4.4.2 No Action Alternative

This alternative would avoid the anticipated minor impacts to coarse woody debris and vegetation, but would forego the anticipated benefits to wildlife species from enhancement of forest stand structure in the project area.

4.4.5 Fisheries and Aquatic Habitat

From: Fisheries Evaluation of School House Projects Report, pp. 5.

4.4.5.1 Proposed Action

The potential impacts to fisheries resources in School House Creek are limited for Project 3, as there would be no expected measurable changes in temperature, sediment or other water quality parameters.

The short yarding distances, maintenance of slash on the ground, and no-treatment buffers, along with the use of BMP's, would preclude direct impacts to coho, steelhead or cutthroat which reside in School House Creek.

Cumulative Effects
As this project would be accomplished at the same time as Projects 1, 2, & 4, any cumulative effects should be within those analyzed in this document. There are no other known projects within this action area that may be considered cumulative in nature.

4.4.5.2 No Action Alternative

With the No Action alternative the current condition of the stream side vegetation would be maintained. As the current stand is limited in conifer stocking, hardwood species would likely continue to dominate the riparian stands. A lack of conifer recruitment would maintain low levels of LWD in School House Creek for a long time.

4.4.6 Fire Hazard/Risk

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

4.4.6.1 Proposed Action

Project 3 would create a short term increase in fire risk during project implementation from slash created by the falling and yarding of hardwoods. Fire risk would be mitigated by complying with ODF fire regulations. Hardwood slash loading would increase by 5 to 15 tons per acre in the under 6 inch diameter size class. The fuel model would be changed to a combination of models 8 and 11. Due to the brush and because of the nearly pure mix of hardwood slash, the risk of a fire start would be low and any resulting fire would have low flame lengths and low rates of spread. "Green-up" would be expected to occur rapidly (during one season) and fire risk and hazard would be expected to return to previous low levels within 5 years or less.

4.4.6.2 No Action Alternative

There would be no short-term elevated risk of fire in the project area. No accelerated fuel loadings would take place over natural conditions.

4.4.7 Comparison of Alternatives With Regard to Purpose and Need

The Proposed Action would fulfill all the objectives as outlined in section 4.1of this EA. Historically, the School House Creek project area supported a Riparian stand of mature conifer, which is essential for providing large woody debris (LWD) material to the stream system. Currently, the riparian canopy is dominated by hardwoods and areas adjacent to the 14-8-10.2 road and stream have become dominated by Himalayan Blackberries. The proposed action would help to restore Riparian conditions by removing hardwoods, re-establishing conifers and curtailing the spread of blackberry and brush.

The No Action alternative would not fulfill any of the project objectives. The Riparian Reserve would continue to be dominated by hardwood species, with very little future potential for conifer recruitment (LWD) into School House Creek.

5.0 PROJECT 4 – Road Decommission

5.1 Purpose of and Need for Action

The RMP direction for Riparian Reserves includes closing and stabilizing roads based on the ongoing potential affects to ACS objectives and considering short-term and long-term transportation needs (p. 11, 62). In addition, the Lower Alsea River Watershed Analysis recommends decommissioning or stabilizing roads in the Alsea River basin, particularly in valley bottom and mid-slope positions (pgs. x, xiv, 91). The BLM 14-8-10.2 road lies in the School House Creek valley bottom with 2 tributary crossings (culverts) on BLM lands. Without future maintenance, there is the potential for these culverts to fail; culvert failure could cause sedimentation in School House Creek and degrade water quality. There is a need to restore and improve the ecological health of the watershed by removing a road no longer needed for transportation or management.

5.2 Alternatives

5.2.1 Alternative Development

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." No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA) were identified during the planning or scoping process. No alternatives were identified that would meet the purpose and need of the project and have meaningful differences in environmental effects from the proposed action. Therefore, this EA will analyze the effects of the "proposed action" and the "no action alternative".

5.2.2 Proposed Action

The BLM proposes to decommission approximately 0.4 mile of the 14-8-10.2 road from the BLM southern property boundary to its northernmost extent. Decommissioning would include the removal of 2 culverts on tributary streams and blocking the road to vehicular traffic at the BLM property boundary. Other treatments may include ripping, water barring, scattering slash and/or grass-seeding the road surface.

5.2.2.1 Connected Actions

Following culvert removal, the two tributary channel proportions, gradients and side slopes would be restored to approximate pre-installation conditions.

5.2.2.2 Project Design Features

The design features listed in EA section 2.2.2.2 also apply to Project 4. The following is a summary of additional design features that reduce the risk of effects to the affected elements of the environment.

- Excess fill removed from the existing stream crossings would be used to restore contours and/or disposed of at stable locations.
- Heavy equipment operations would be confined to the dry season of the year. Disturbance and soil compaction to the area would be kept to a minimum by using track equipment operating on the road and/or existing skid roads.

- Culvert removals would occur during the summer period with lowest stream flow (generally July 1 to September 15th), and comply with *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources*.

5.2.3 No Action Alternative

The proposed action would not be implemented. The BLM 14-8-10.2 road would remain open to the public.

5.3 Identification of Affected Elements of the Environment

The interdisciplinary team reviewed the elements of the human environment, required by law, regulation, Executive Order and policy, to determine if they would be affected by the proposed action. Table 8 (Critical Elements of the Environment) and Table 9 (Other Elements of the Environment) summarize the results of that review. Affected elements are **bold**. All entries apply to the action alternative, unless otherwise noted.

Table 8: Review of Critical Elements of the Environment (BLM H-1790-1, Appendix 5) for Project 4

Table 8: PROJECT 4 – Road Decommission				
Critical Elements Of The Environment		*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Air Quality (Clean Air Act)		Not Affected	No	See Project 1
Areas of Critical Environmental Concern		Not Present	No	See Project 1
Cultural Resources		Not Present	No	See Project 1
Energy (Executive Order 13212)		Not Affected	No	See Project 1
Environmental Justice (Executive Order 12898)		Not Affected	No	See Project 1
Prime or Unique Farm Lands		Not Present	No	
Flood Plains (Executive Order 11988)		Not Affected	No	Road Decommissioning would occur entirely outside the active floodplain of School House Creek.
Hazardous or Solid Wastes		Not Present	No	See Project 1
Invasive, Nonnative Species (plants) (Executive Order 13112)		**Affected**	**No**	**Effects to invasive/nonnative species are further described in EA section 5.4.1. (Marys Peak Resource Area Botanical Report, pp. 6)**
Native American Religious Concerns		Not Affected	No	See Project 1
Threatened or Endangered (T/E) Species or Habitat	**Fish**	**Affected**	**Yes**	**Effects to threatened or endangered fish are described in EA section 5.4.5. (Fisheries Evaluation of School House Projects, pp. 1-5)**
	Plant	Not Present	No	See Project 1
	Wildlife (including designated Critical Habitat)	Not Present	No	No known listed wildlife sites would be affected as there is no suitable habitat in the vicinity; and the project would not be within critical habitat for any species.

Table 8: PROJECT 4 – Road Decommission			
Critical Elements Of The Environment	*Status: (i.e., Not Present , Not Affected, or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Water Quality (Surface and Ground)	**Affected**	**Yes**	**Effects to Water Quality (Surface and Ground) are described in EA section 5.4.3 (School House Creek Hydrology Report, pp.1-13)**
Wetlands/**Riparian Zones** (Executive Order 11990)	**Riparian Zones: Affected**	**Yes**	**Effects to Riparian Zones are described in EA section 5.4.3 and 5.4.5. (Riparian Reserves Report / Silvicultural Prescription, pp. 1-7)**
	Wetlands: Not Present	No	See Project 1.
Wild and Scenic Rivers	Not Present	No	
Wilderness	Not Present	No	

Table 9: Review of Other Elements of the Environment for Project 4

Table 9: PROJECT 4 – Road Decommission			
Other Elements of the Environment	*Status: (i.e., Not Present , Not Affected or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Coastal zone	Not Affected	No	See Project 1
Fire Hazard/Risk	**Affected**	**No**	**Effects to Fire Hazard/Risk are described in EA section 5.4.6. (School House Creek Enhancement Proposal Fuels/Soils Report, pp. 1-8)**
Other Fish Species with Bureau Status and Essential Fish Habitat	**Affected**	**Yes**	**Effects to Fish Species with Bureau Status and Essential Fish Habitat are described in EA section 4.4.5. (Fisheries Evaluation of School House Projects, pp. 1-5)**
Land Uses (right-of-ways, permits, etc)	Not Present	No	
Late Successional and Old Growth Habitat	Not Present	No	
Mineral Resources	Not Present	No	
Recreation	Not Affected	No	There is no designated or known recreation in or adjacent to the project area.
Rural Interface Areas	Not Affected	No	According to direction in the RMP, Project 4 would help to reduce "non-through roads close to existing dwellings" in the rural interface (RMP 39).
Soils	**Affected**	**No**	**Effects to Soils are described in EA section 5.4.2. (School House Creek Enhancement Proposal Fuels/Soils Report, pp. 1-8)**
Special Areas outside ACECs (Within or Adjacent) (RMP pp. 33-35)	Not Present	No	

Table 9: PROJECT 4 – Road Decommission				
Other Elements of the Environment		*Status: (i.e., Not Present , Not Affected or Affected)*	*Does this project contribute to cumulative effects? Yes/No*	*Remarks If not affected, why?*
Other Special Status Species / Habitat	Plants	Not Present	No	See Project 1
	Wildlife	Not Present	No	There are no known sites for any Special Status wildlife species in the project area.
Visual Resources		Not Affected	No	The project is in a visual resource management class 4 area and this action is consistent with this designation. Closing the portion of the 14-8-10.2 road on BLM land would not greatly alter the visual landscape.
Water Resources – Other (303d listed streams, DEQ 319 assessment, Downstream Beneficial Uses; water quantity, Key watershed, Municipal and Domestic)		**Affected**	**Yes**	**Effects to Water Resources are described in EA section 5.4.3. (School House Creek Hydrology Report, pp. 1-13)**
Wildlife Structural or Habitat Components - Other (Snags/CWD/ Special Habitats, road densities)		**Affected**	**No**	**Effects to Wildlife Habitat are described in EA, section 5.4.4. (Biological Evaluation for Terrestrial Wildlife, pp. 1-7)**

5.4 Affected Environment and Environmental Effects

Those elements of the human environment that were determined to be affected by Project 4 are invasive/non-native plants, soils, hydrology, wildlife, fisheries and aquatic habitat, and fire hazard/risk. A description of the current condition and trend of the affected elements is provided in section 2.4, under Project 1, unless otherwise noted. This section describes additional current conditions and trends for the affected elements and the environmental effects of the alternatives on those elements affected.

5.4.1 Invasive/Non-Native Plants

From: Marys Peak Resource Area Botanical Report, pp. 6 with Appendix 1 "Use of Native Plants" and Riparian Reserves Report / Silvicultural Prescription, pp. 7.

The project area is adjacent to and dominated by *Rubus discolor* (Himalayan blackberry), a noxious weed listed species. Blackberry in this area was grubbed and/or slashed in the fall of 2004. It is anticipated that many of the slashed blackberries will return. However, it is expected that the Marys Peak Resource Area will continue with their efforts in blackberry control in this area for the next several years until the native vegetation is well established and the blackberries infestations are small.

5.4.1.1 Proposed Action

Very little vegetation, both native and non-native, would be disturbed as a result of Project 4. The ripping of the road surface would reduce compaction and provide less compacted soil for the establishment of native plant species.

However, because both activities (road ripping and culvert removal) would disrupt the mineral soil, they could allow for the establishment of non-native species in these areas. If these areas are not controlled, the blackberries would most likely spread to the roadway and other disturbed areas. Essentially, the project area could become a monoculture of blackberries. Because of the proximity of the blackberries and the need for continual treatments over the next 2-3 years, the risk rating for the long-term establishment of noxious weed species and consequences of adverse effects on this project area over the long term is moderate.

Although there are no known T&E or Bureau special status vascular plant, lichen, bryophyte or fungi species within the project area or adjacent to the project area, this restoration activity could provide for future suitable habitat for these species.

Cumulative Effects
Project 3 would establish conifers in areas adjacent to the 14-8-10.2 road prism. With increased conifer canopy in the area, it is anticipated that the available light to the shrub layer would diminish over time. A heavy canopy cover (80%+) is generally detrimental to thickets of blackberries and/or shrub/forb layers. It is possible that the blackberry could be shaded out over time.

5.4.1.2 No Action Alternative

The 14-8-10.2 road would not be decommissioned. The roadway would remain compacted, retarding the establishment of native vegetation in the area.

5.4.2 Soils

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

5.4.2.1 Proposed Action

Removal of the two culverts would create some short-term erosion and sediment loss into the stream channels. With proper armoring, seeding and placement of slash in these locations erosion and impacts to the stream should be minor and of short duration. Within one season, there would be no measurable increases in erosion rates in these areas.

Ripping, water barring, blocking access, scattering slash and / or grass seeding the road surface would reduce the risk of overland flow and soil erosion. Vegetation would be expected to invade the old road bed quickly following treatment. Recovery of the area back to a forested condition would occur over several decades, during which time effects of vegetation growth would begin to rebuild soil structure and reduce much of the soil compaction. In the short term, no soil erosion would be expected to occur except at the culvert removal sites.

5.4.2.2 No Action Alternative

Under the “No Action” alternative, there would be no elevated risk of erosion and sediment loss to the stream due to culvert removal. The potential return of approximately 1 acre of land designated as non-forest roadway to moderately productive forest land as a result of road decommissioning would not be achieved.

5.4.3 Hydrology

From: School House Creek Hydrology Report, pp. 13.

5.4.3.1 Proposed Action

Activities associated with road decommissioning could cause short-term disturbance to water quality and channel function. During culvert removal and associated tributary channel restoration work increases in stream sedimentation and resulting turbidity would be expected as equipment is operating in the stream channel. However, such increases would likely be of local extent and short duration. Construction would occur under minimal flow conditions and sediment increases would not be expected to largely exceed current levels (i.e. would likely be immeasurable upon project completion). Blocking, and felling alders into the roadbed would not greatly alter water quality or channel function. BMPs (see Project Design Features) would be implemented to minimize any potential sedimentation into stream channels from these activities.

In the long term, road decommissioning would likely help restore channel function and improve water quality. Culvert removal and tributary re-contouring would help restore natural hydrologic flow paths. Scattering slash and felling hardwoods into the roadbed would likely reduce runoff channeling, thereby reducing the potential for soil erosion and sedimentation into streams.

Cumulative Effects

Road decommissioning would not likely contribute to cumulative effects in the watershed, as any direct or indirect effect would likely be short term (during project implementation) and localized (restricted to the project area).

5.4.3.2 No Action Alternative

The no action proposal would result in a continuation of the current state of the BLM 14-8-10.2 road. The road would continue to provide for public access along School House Creek and encourage the spread of invasive Himalayan Blackberry in the Riparian Reserve.

5.4.4 Wildlife

From: Biological Evaluation, pp. 7 with Appendix A.

5.4.4.1 Proposed Action

Reduced road densities within the watershed, even at the local scale, would improve the quality of adjacent habitat for a variety of wildlife species over the long-term.

5.4.4.2 No Action Alternative

This alternative would make no change to the existing road condition. Human disturbance and potential dumping would continue to have a slightly negative effect on the quality of habitat available to wildlife species in the vicinity.

5.4.5 Fisheries and Aquatic Habitat

From: Fisheries Evaluation of School House Creek Projects Report, pp. 5.

5.4.5.1 Proposed Action

The culvert removal portion of this project has the potential to affect fish directly downstream in School House Creek. Increases in turbid water and sediment transport would be probable at both the time the culverts are removed and again when the first major rains of the fall increase the flow in these small stream channels. Direct effects to fish in School House Creek may include behavioral changes or avoidance of the sediment. Due to the limited duration of probable sediment inputs and low stream flow when these culverts would be removed, impacts would not be expected to cause harm to individuals or change habitat conditions.

Indirect affects are anticipated to include a return to natural sediment storage and routing processes on these streams and the elimination of the risk of a culvert plugging. Road densities within the Alsea drainage are considered to be higher than the standard for "properly functioning condition". Therefore, the removal of this 0.4 mile road segment within Riparian Reserve would be beneficial to the aquatic system and help attain ACS Objectives.

To be consistent with the Endangered Species Act (ESA) and Essential Fish Habitat (EFH) programmatic consultation all Project Design Criteria identified within the February 25, 2003 Biological Opinion (BO) for this action would be implemented.

Cumulative Effects

As this project would be accomplished at the same time as the Trash Rack removal project, instream restoration and Riparian stand conversion from hardwoods to conifer species, all effects have been analyzed within this document. There are no other known projects within this action area that may be considered cumulative in nature.

5.4.5.2 No Action Alternative

With the No Action alternative the current condition of the road and two stream crossings would be maintained. As the road at this site is currently used very little, the maintenance of this road on our transportation system is not anticipated to have adverse impacts on fisheries resources during the short term. Without maintenance however, the culverts in this road would likely fail which often leads to greater adverse effects to fisheries resources and habitat downstream.

5.4.6 Fire Hazard/Risk

From: School House Creek Enhancement Proposal Fuels/Soils Report, pp. 8.

5.4.6.1 Proposed Action

No fuels treatments are planned under this Project. Some slash, debris and logs would be scattered over the old road bed or used for blocking access. This slight increase in fuel loading would have no appreciable effect on fire risk or fire hazard. Blocking access to motorized vehicles would reduce the risk of a fire start from human causes, but could delay fire suppression actions by reducing direct access to the site.

5.4.6.2 No Action Alternative

This alternative would result in a continuation of the current condition and trends of fire risk in the project area.

5.5 Comparison of Alternatives With Regard to Purpose and Need

The Proposed Action would fulfill the objectives as outlined in section 5.1of this EA. Both the Salem District RMP and the Lower Alsea River Watershed Analysis recommend the closing of roads in Riparian Reserve, particularly in valley bottoms. The BLM 14-8-10.2 road lies in the School House Creek valley bottom with 2 tributary crossings (culverts) on BLM lands. Without future maintenance, there is the potential for these culverts to fail; culvert failure could cause sedimentation into School House Creek and degrade water quality. The proposed action would decommission this road on BLM lands, including removal of the two tributary culverts, and help to restore habitat in the Riparian Reserve.

The No Action alternative would not fulfill the project objectives as road densities in the Riparian Reserve would not be decreased and the potential for culvert failure would not be abated.

6.0 COMPLIANCE WITH COMPONENTS OF THE AQUATIC CONSERVATION STRATEGY

Table 10 shows the projects' compliance with the four components of the Aquatic Conservation Strategy (1/ Riparian Reserves, 2/ Key Watersheds, 3/ Watershed Analysis and 4/ Watershed Restoration). Unless otherwise specified, this table applies to all four projects.

Table 10: Compliance of Components of the Aquatic Conservation Strategy

ACS Component	Project Consistency
Component 1 - Riparian Reserves	Projects 1-3 seek to enhance Riparian Reserve function by increasing plant species diversity, reducing invasive brush, and establishing conifers to restore pre-existing riparian habitat conditions and the recruitment of LWD for School House Creek. In addition, Project 4 would reduce road mileage in the RR.
Component 2 - Key Watershed	The projects are located within the Lower Alsea River Watershed, which is not designated as a key watershed.
Component 3 - Watershed Analysis	The Lower Alsea River Watershed Analysis document was completed in September 1999. The projects are consistent with the Watershed Analysis' recommendations.
Component 4 - Watershed Restoration	The projects are specifically designed for watershed restoration. Project 1 would restore natural stream function (transporting materials through the stream system) and hydraulic conductivity. Project 2 would maintain and restore stream habitat conditions and help restore stream flows. Project 3 would increase stand diversity in the Riparian Reserve and provide for future LWD recruitment into the stream system. Project 4 would help restore Riparian Reserve habitat and function by removing a valley bottom road adjacent to a fish-bearing stream.

Each of the four projects' consistency with each of the nine Aquatic Conservation Strategy Objectives is presented in Table 11.

6.1.1 Documentation of the Projects' Consistency with the Nine Aquatic Conservation Strategy Objectives

Unless otherwise specified, the No Action Alternative for each project would not prevent the attainment of any of the nine ACS objectives. Current conditions and trends would continue and are described in EA Sections (2.4 for all projects except where noted in EA sections, 3.4, 4.4, and 5.4). Table 11 describes the proposed projects' consistency with the nine Aquatic Conservation Strategy Objectives.

Table 11: Projects' Consistency with the Nine Aquatic Conservation Strategy Objectives

Aquatic Conservation Strategy Objectives (ACSOs)	Project 1 – Trash Rack Removal	Project 2 – Large Woody Debris Placement	Project 3 – Riparian Restoration	Project 4 – Road Decommission
1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features.	Does not prevent the attainment of ***ACSO 1***. Removing the trash rack would increase watershed complexity over the landscape by allowing for the natural transport of materials through the system, which would continually modify channel morphology and hydrologic features. (EA sections 2.5.3, 2.5.5).	Does not prevent the attainment of ***ACSO 1***. The addition of LWD into School House Creek would help to restore the diversity and complexity of watershed features to which native aquatic and riparian species are uniquely adapted. Current levels of LWD are severely depleted compared to historic ("natural") conditions. (EA sections 3.4.3, 3.4.5)	Does not prevent the attainment of ***ACSO 1***. Currently riparian vegetation in the watershed is dominated by hardwood species. Restoring conifers to these areas would help to restore species diversity and the natural complexity of riparian habitat in the watershed. (EA sections 4.4.1, 4.4.4)	Does not prevent the attainment of ***ACSO 1***. Road decommissioning would help restore the watershed's landscape-scale features by removing the influences of a valley bottom road and restoring more natural riparian conditions. (EA sections 5.4.4, 5.4.3)
2. Maintain and restore spatial and temporal connectivity within and between watersheds.	Does not prevent the attainment of ***ACSO 2***. The spatial connectivity within the watershed would be restored by providing an unobstructed physical route (for both inorganic and organic material) to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species. (EA sections 2.5.3, 2.5.5)	Does not prevent the attainment of ***ACSO 2***. The spatial connectivity within the watershed would be restored by providing an unobstructed physical route (habitat) to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species. The project would restore temporal connectivity in the watershed by restoring a more natural streamflow regime. (EA sections 3.4.3, 3.4.5)	Does not prevent the attainment of ***ACSO 2***. The spatial connectivity within the watershed would be restored by enhancing a corridor for riparian-dependent species. (EA sections 4.4.1, 4.4.4)	Does not prevent the attainment of ***ACSO 2***. Removing a road from the riparian reserve and two tributary culverts would help to restore the spatial connectivity of riparian and aquatic habitat within and between watersheds. (EA sections 5.4.3, 5.4.5)

Aquatic Conservation Strategy Objectives (ACSOs)	**Project 1 – Trash Rack Removal**	**Project 2 – Large Woody Debris Placement**	**Project 3 – Riparian Restoration**	**Project 4 – Road Decommission**
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.	Does not prevent the attainment of ***ACSO 3***. The physical integrity of the aquatic system would be restored, by restoring the system's ability to transport materials (allowing modifications of stream banks and bottom configurations). (EA sections 2.5.3, 2.5.5)	Does not prevent the attainment of ***ACSO 3***. LWD placements and individual hardwood felling along School House Creek would enhance variability in stream flow velocities. This in turn would help restore the physical integrity of the aquatic system by causing sediment deposition in some areas and sediment scour in others (including banks, floodplains, and the stream bed). (EA section 3.4.3)	Does not prevent the attainment of ***ACSO 3***. Project 3 would occur away from stream banks (outside of stream buffers) and would not affect the physical integrity of the aquatic system. (EA sections 4.4.1, 4.4.3, 4.4.5)	Does not prevent the attainment of ***ACSO 3***. Road decommissioning is not likely to impact the physical integrity of the aquatic system over the watershed. However, following culvert removal, the physical integrity of tributary channels would be restored. (EA sections 5.4.3, 5.4.5)
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.	Does not prevent the attainment of ***ACSO 4***. The proposed project would help to restore water quality by removing a large, rusting metal structure from the stream channel. (EA section 2.5.3)	Does not prevent the attainment of ***ACSO 4***. By shading the stream from solar radiation, log structures could reduce stream temperatures, thereby maintaining and restoring water quality conditions necessary to support healthy aquatic ecosystems. Regulating stream temperatures would benefit the survival, growth, reproduction, and migration of the aquatic community. (EA section 3.4.3)	Does not prevent the attainment of ***ACSO 4***. Project 3 is not likely to affect water quality, as the project would occur away from stream channels and the amount of canopy cover affected by the proposed action would not result in any measurable changes to stream temperatures. (EA sections 4.4.3, 4.4.5)	Does not prevent the attainment of ***ACSO 4***. Project 4 would help to maintain/restore water quality conditions by removing a stream valley road and culverts, which currently pose a threat of increasing sedimentation into streams and impairing water quality. (EA sections 5.4.3, 5.4.5)
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved.	Does not prevent the attainment of ***ACSO 5***. The sediment regime of School House Creek would be restored, including the timing, volume, rate and character of sediment input, storage, and transport. (EA sections 2.5.3, 2.5.5)	Does not prevent the attainment of ***ACSO 5***. Log structures would trap gravels and other substrate materials, thereby restoring the stream's sediment regime; includes the timing, volume, rate and character of sediment input, storage, and transport. (EA sections 3.4.3, 3.4.5)	Does not prevent the attainment of ***ACSO 5***. Project 3 would maintain the sediment regime of School House Creek and its tributaries as the project would occur outside of stream buffers and there would be no yarding across any streams. (EA sections 4.4.3, 4.4.5)	Does not prevent the attainment of ***ACSO 5***. Road decommissioning would remove any potential sedimentation from road use or culvert failure. (EA sections 5.4.3, 5.4.5)

Aquatic Conservation Strategy Objectives (ACSOs)	Project 1 – Trash Rack Removal	Project 2 – Large Woody Debris Placement	Project 3 – Riparian Restoration	Project 4 – Road Decommission
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing.	Does not prevent the attainment of ***ACSO 6***. Removing the trash rack would maintain in-stream flows and would restore patterns of sediment, nutrient, and wood routing, by allowing the movement of woody debris and other materials through the aquatic system. (EA sections 2.5.3, 2.5.5)	Does not prevent the attainment of ***ACSO 6***. By regulating stream flows, structures would maintain and restore in-stream flows sufficient to create and sustain riparian and aquatic habitats and to retain patterns of sediment, nutrient, and wood routing (the movement of woody debris through the aquatic system). (EA sections 3.4.3, 3.4.5)	Does not prevent the attainment of ***ACSO 6***. Project 3 would occur away from stream banks and would not impact stream flows or material routing. (EA sections 4.3, 4.4.3)	Does not prevent the attainment of ***ACSO 6***. Road decommissioning and culvert removal would restore stream flows and material routing on the two tributaries to School House Creek. (EA section 5.4.3)
7. Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.	Does not prevent the attainment of ***ACSO 7***. Trash rack removal is likely to maintain flow volumes and floodplain inundation. There are no meadows or wetlands in the project area. (EA sections 2.3, 2.5.3)	Does not prevent the attainment of ***ACSO 7***. The presence of LWD structures is likely to increase the frequency, and possibly the duration of floodplain inundation, as well as promote floodplain development. (EA sections 3.3, 3.4.3)	Does not prevent the attainment of ***ACSO 7***. Riparian treatments are not likely to affect the timing, variability, or duration of flooding. (EA sections 4.3, 4.4.3)	Does not prevent the attainment of ***ACSO 7***. Road decommissioning would help to restore the timing and duration of floodplain inundation as tributaries' flows would no longer be restricted by culverts or the road prism. (EA sections 5.3, 5.4.3)
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands.	Does not prevent the attainment of ***ACSO 8***. Project 1 is unlikely to greatly impact riparian species composition or diversity. No major impacts to riparian areas are anticipated during or after this project, as only one "trail" would be used to access and remove the trash rack. There are no wetlands in the project area. (EA section 2.5.1)	Does not prevent the attainment of ***ACSO 8***. LWD placement is not likely to greatlly affect riparian plant species diversity or composition as the amount of riparian vegetation disturbed (during project implementation) would be very small. (EA sections 3.3, 3.4.1, 3.4.3)	Does not prevent the attainment of ***ACSO 8***. The project would restore the species composition (conifer) and structural diversity of plant communities in the riparian zone and over the longer term increase the supply and distribution of coarse woody debris sufficient to sustain physical complexity and stability. (EA sections 4.4.1, 4.4.3)	Does not prevent the attainment of ***ACSO 8***. Road decommissioning would allow for riparian species development in the roadway and increase riparian habitat. (EA sections 5.3, 5.4.1, 5.4.2, 5.4.4)

Aquatic Conservation Strategy Objectives (ACSOs)	**Project 1 – Trash Rack Removal**	**Project 2 – Large Woody Debris Placement**	**Project 3 – Riparian Restoration**	**Project 4 – Road Decommission**
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.	Does not prevent the attainment of ***ACSO 9***. Project 1 is not likely to impact riparian-dependent species. Any disturbance to riparian areas during trash rack removal are likely to be localized (a very small area) and short-term (only during actual project implementation). (EA section 2.5.4)	Does not prevent the attainment of ***ACSO 9***. LWD structures would provide additional habitat for populations of native invertebrate and vertebrate riparian-dependent species. (EA sections 3.3, 3.4.5)	Does not prevent the attainment of ***ACSO 9***. The project would maintain and restore populations of native plant, invertebrate, and vertebrate riparian-dependent species by restoring historic riparian habitat conditions. (EA section 4.4.1)	Does not prevent the attainment of ***ACSO 9***. Removal of the road would increase riparian habitat for all species. (EA sections 5.4.1, 5.4.4)

7.0 LIST OF PREPARERS

Table 1: List of Preparers

Resource	Name	Initial	Date
Silviculture & Riparian Ecology	Amy Haynes	AH	1/24/05
Cultural Resources	Tom Vanderhoof	TMV	1/24/05
Team Lead/Hydrology/Water Quality	Ashley La Forge	AL	1/24/05
Botany TES and Special Attention Plant Species	Ron Exeter	RE	JAN 24 2005
Wildlife TES and Special Attention Animal Species	Scott Hopkins	SH	1-24-05
Fire & Soil Resources	Tom Tomczyk	TT	1/24/05
Fisheries	Matt Walker	MJW	JAN 20,05
NEPA	Carolyn Sands	CDS	1/25/05
Engineering	Steve Cyrus & Steve Baldwin	SBC SB	1/24/05 1/24/05

8.0 CONTACTS AND CONSULTATION

8.1 Consultation

8.1.1 ESA Section 7 Consultation

8.1.1.1 US Fish and Wildlife Service

The proposed actions have been described in two different programmatic Biological Assessments (BA) that have been used to facilitate consultation with the U.S. Fish and Wildlife Service (the Service), as required under Section 7(a) of the Endangered Species Act. The resulting Biological Opinions (BO) issued from the Service, contain specific Terms and Conditions (including design standards from the BAs) that have been incorporated into the design features of all proposed projects. Projects 1, 3, and 4 are covered by BO# 1-7-2004-F-1113, Project 2 is covered by BO# 1-7-2005-F-0005.

8.1.1.2 NOAA Fisheries (NMFS) – Endangered Species Act Determination of Effect for Lower Columbia River steelhead trout, Lower Columbia River Chinook salmon and Upper Willamette River Chinook salmon.

Projects 1, 2, & 4: These projects would meet the Project Design Criteria established in the *Endangered Species Act Section 7 Formal Consultation for U.S. Forest Service and Bureau of Land Management Programmatic Activities in Northwest Oregon*, February 25, 2003. An Essential Fish Habitat determination is covered by this Programmatic.

The effect determination for trash rack removal, instream large wood placement, and road decommissioning in the Coast Range Province is likely to adversely affect coho salmon in the coast range.

Project 3: Section 7 formal consultation is not required for Project 3 at this time, as there are no listed fish species in the project vicinity. However, the Oregon Coastal coho, which is present in the project area, has been proposed for listing. A decision on this proposal is expected in June 2005. ESA consultation will be conducted with the Level 1 team, which assesses the potential impacts to listed fish, in case Coastal coho are listed. A Biological Assessment (BA) will be submitted to the Level 1 team and no decision will be made on this project until a Letter of Concurrence is received. The BA, which will include the Essential Fish Habitat determination, will be available in the project NEPA file.

8.1.2 Cultural Resources - Section 106 Consultation and Consultation with State Historical Preservation Office:

The project would follow the Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon; Appendix D dated August 5, 1998. A Cultural Resource / Archeological Report is available in the project NEPA file.

8.2 Public Scoping and Notification

8.2.1 Tribal Governments, Adjacent Landowners, General Public, and State County and local government offices:

1. A description of the project was included in the Salem Bureau of Land Management Project Update mailed in September 2004 and December 2004 to more than 1200 individuals and organizations.
2. A Scoping letter was mailed September 22, 2004 to 66 potentially interested parties. One telephone call was received requesting additional information about the projects and a project area map. A map and project description was mailed to the party and no further comments were received.
3. 30-day public comment period: The EA and FONSI will be made available for public review January 31st, 2005 to March 1st, 2005. The notice for public comment will be published in a legal notice by the Corvallis Gazette Times newspaper; and posted on the Internet at http://www.or.blm.gov/salem/html/planning/index.htm under Environmental Assessments. Comments received by the Marys Peak Resource Area of the Salem District Office, 1717 Fabry Road SE, Salem, Oregon 97306, on or before March 1st, 2005 will be considered in making the final decisions for this project.

9.0 MAJOR SOURCES AND COMMON ACRONYMS

9.1 Major Sources

Specialists' reports can be found in the School House Creek Restoration Project NEPA/EA file. These reports are available for review at the Salem District Office.

Exeter, Ron. 2004. *Marys Peak Resource Area Botanical Report*, Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, Oregon.

Haynes, Amy. 2004. *Riparian Reserves Report / Silvicultural Prescription*, Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, Oregon.

Hopkins, Scott. 2004. *Biological Evaluation*, Marys Peak Resource Area, Salem District, Bureau of Land Management, Salem, Oregon.

La Forge, Ashley. 2004. *School House Creek Hydrology Report*, Marys Peak Resource Area, Salem District, Bureau of Land Management, Salem, Oregon.

Oregon Department of Fish and Wildlife (ODFW). 2000. *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources.* Salem, Oregon.

Tomczyk, Tom. 2004. *School House Creek Enhancement Proposal Fuels / Soils Report*, Marys Peak Resource Area, Salem District, Bureau of Land Management, Salem, Oregon.

USDA. Forest Service, USDI. Bureau of Land Management. 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.* Portland, Oregon.

USDA. Forest Service, USDI. Bureau of Land Management. 2000. *Delineation and Management of Reserve Pair Areas within Oregon's Northern Coast Range Adaptive Management Area*. Salem, Oregon.

USDA. Forest Service, USDI. Bureau of Land Management. 1998. *Late Successional Reserve Assessment for Oregon's Northern Coast Range Adaptive Management Area* (Late-Successional Reserve RO269, RO270 & RO807). Salem, Oregon.

USDA. Forest Service, USDI. Bureau of Land Management. 1994. *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.* Portland, Oregon.

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

USDI Bureau of Land Management. 1999. *Lower Alsea River Watershed Analysis.* Salem, Oregon.

USDI. Bureau of Land Management. 1995. *Salem District Record of Decision and Resource Management Plan* (RMP). Salem, Oregon. See Table 13 for a summary of RMP references.

Table 13: Summary of RMP References

RMP Topic	RMP page #
Air Quality	p. 22
Aquatic Conservation Strategy	pp. 5-7
Best Management Practices	Appendix C pp. C-1 to C-9
Cultural Resources	p. 36
Fire/ Fuels Management	pp. 65-67
Major Land Use Allocations	pp. 7-9
Matrix Land Use Allocation	pp. 20-22
Noxious Weeds	p. 64
Recreation	pp. 41-45
Riparian Reserve Land Use Allocation	pp. 9-15
Roads	pp. 62-64
Rural Interface Areas	pp. 39-40
Silvicultural Systems and Harvest Methods	Appendix D pp. D-1 to D-6
Special Forest Products	pp. 49-50
Special Status and SEIS Special Attention Species and Habitat –amended March 2004- see SSSP	pp. 29-33; Appendix B-1 pp. B-1-1 to B-1-7; Appendix B-2 pp. B-2-1 to B-2-2
Timber Resources	pp. 46-48
Visual Resources	pp. 36-37
Water and Soils	pp. 22-24
Wild and Scenic Rivers	pp. 37-38
Wildlife Habitat	pp. 24-26
Wilderness	pp. 38-39

USDI Bureau of Land Management. 1995. *Schoolhouse Creek Fish Habitat Enhancement Project*. Environmental Assessment Number OR-080-95-14. Salem, Oregon.

USDI. Bureau of Land Management. 1994. *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement.* Salem, Oregon.

USDI. Bureau of Land Management. 1992. *Final Record of Decision for Western Oregon Program Management of Competing Vegetation.* Portland, Oregon.

USDI. Fish and Wildlife Service 2002. *Programmatic Biological Assessment in the North Coast Province for Fiscal Year 2003-2004 Projects Which Would Modify the Habitats of Bald Eagles, Northern Spotted Owls, and Marbled Murrelets.* Biological Opinion – FWS reference: 1-7-02-F-956]. Portland, Oregon.

Vanderhoof, Tom. 2004. *Cultural Resource / Archeological Report*, Marys Peak Resource Area, Salem District, Bureau of Land Management, Salem, Oregon.

Walker, Matt. 2004. *Fisheries Evaluation of School House Projects*, Tillamook Resource Area, Salem District Tillamook Field Office, Bureau of Land Management, Tillamook, Oregon.

9.2 Common Acronyms

ACS – Aquatic Conservation Strategy
BLM – Bureau of Land Management
BMP – Best Management Practice(s)
BO – Biological Opinion
CWD – Coarse Woody Debris
DBH – Diameter Breast Height
EA - Environmental Assessment
EFH – Essential Fish Habitat
ESA – Endangered Species Act
FONSI – Finding of No Significant Impact
GFMA – General Forest Management Area land use allocation (Matrix)
HUC# - Hydrologic Unit Code Number (US Geological Survey)
LAWA – Lower Alsea River Watershed Analysis (1999)
LSRA/LSR – Late Successional Reserve Assessment (1996)
LWD – Large Woody Debris
NEPA – National Environmental Policy Act (1969)
NOAA – National Oceanic Atmospheric Administration [the former National Marine Fisheries Service (NMFS) is now called NOAA Fisheries]
NWFP – 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 Related Species within the Range of the Northern Spotted Owl (1994) [Northwest Forest Plan]
ODEQ – Oregon Department of Environmental Quality
ODF – Oregon Department of Forestry
RMP – Salem District Record of Decision and Resource Management Plan (1995)
RMP/FEIS – Salem District Proposed Resource Management Plan / Final Environmental Impact Statement (1994)
ROS – "Rain on Snow" zone, the transient snow zone designated approximately 2000-3000 feet in elevation
ROW – Right-of-Way (roads)
RR – Riparian Reserves (land use allocation)
SPZ – Stream Protection Zone [no-cut protection zone/no-cut buffer/no-treatment Zone /stream buffer]
USDI – United States Department of the Interior
USFS – United States Forest Service
USFWS – United States Fish and Wildlife Service