BLM

Salem District

Coleman Creek Bridge Installation

Environmental Assessment and Finding of No Significant Impact

Environmental Assessment (EA) Number: DOI-BLM-OR-S050-2011-0001

May 24, 2011

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

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As the Nation's principal conservation agency, the Department of Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering economic use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

BLM/OR/WA/AE-11/040+1793

FINDING OF NO SIGNIFICANT IMPACT

Introduction

The Bureau of Land Management (BLM) has conducted an environmental analysis for a proposal to implement one project to improve aquatic habitat and storm flow capacity at the Coleman Creek crossing on the South Fork Alsea Access Road. The project is located on BLM lands in T. 14 S., R. 7 W., Section 36, W.M. in Benton County, Oregon.

The Coleman Creek Bridge Installation Environmental Assessment (EA) (# DOI-BLM-OR-S050-2011-0001) documents the environmental analysis of the proposed action. The EA is attached to and incorporated by reference in this Finding of No Significant Impact (FONSI) determination. The EA and FONSI will be made available for public review from June 1, 2011 to June 16, 2011.

Finding of No Significant Impact

Based upon review of the Coleman Creek Bridge Installation EA and supporting documents, I have determined that the proposed action is not a major federal action 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, supplemental or additional information to the analysis in the RMP/FEIS in the form of a new environmental impact statement is not needed. This finding is based on the following discussion:

Context [40 CFR 1508.27(a)]**:** Potential effects resulting from the implementation of the proposed action have been analyzed within the context of the project area boundaries, and the following Upper Alsea River 5th field watershed. This project would affect approximately 0.6 percent of the 56,118 acre combined 6th field watersheds listed above.

Intensity refers to severity of impact [40 CFR 1508.27(b)]. The following text shows how that the proposed project would not have significant impacts with regard to ten considerations for evaluating intensity, as described in 40 CFR 1508.27(b).

1. The *Project* is unlikely to a have any significant adverse impacts on the affected elements of the environment (EA section 3.2 – vegetation, fuels/air quality, wildlife, soils, water, and fisheries/aquatic habitat).

   With the implementation of the project design features described in EA section 2.2.2, potential effects to the affected elements of the environment are anticipated to be site-specific and/or not measurable (i.e. undetectable over the watershed, downstream, and/or outside of the project areas). The project is designed to meet RMP Standards and Guidelines, modified by subsequent direction (EA section 1.3); and the effects of the project would not exceed those effects described in the RMP/FEIS [40 CFR 1508.27(b)(1), EA section 3.2].

2. The *Project* 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)] because there are no historic or cultural resources, parklands, prime farmlands, wild and scenic rivers, wilderness, or ecologically critical areas located within the project areas (EA section 3.1);
   - ✓ 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 section 3.1).

3. The *Project* is 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)].

4. The *Project* does not set a precedent for future actions that may have significant effects, nor do they represent a decision in principle about a future consideration [40 CFR 1508.27(b)(6)]. The BLM has experience implementing similar actions in similar areas without setting a precedent for future actions.

5. The interdisciplinary team evaluated the *Project* in 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 (proposed action would occur at one stream crossing located within the RR LUA, altering access on approximately 0.6 percent of the roads and 0.1 percent of the streams within the Lower Alsea River Watershed and approximately 0.3 percent of the roads and 0.2 percent of the streams within the Upper Alsea River watershed) and duration (direct effects would occur over a maximum period of one year following replacement) (EA section 3.2).

6. The *Project* is not expected to adversely affect Endangered or Threatened Species listed under the Endangered Species Act (ESA) of 1973 [40 CFR 1508.27(b) (9)].

US Fish and Wildlife Service

The proposed crossing replacement occur approximately 1 mile upstream of listed fish and critical habitat. A determination has been made that this proposed project would be a 'May Affect' on OC Coho Salmon. The "May Affect" determination is based on the proximity of listed fish and designated critical habitat to each treatment site. Due to the "May Affect" determination, this project would need to have consultation completed with the NMFS prior to implementation. Compliance of the proposed projects with guidance described in *Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Fish Habitat Restoration Activities in Oregon and Washington, CH 2007- CY 2012* (NMFS 2008) would provide consultation coverage for the "May Affect" actions of the Colman Creek Replacement project.

National Marine Fisheries Service

Protection of EFH as described by the Magnuson/Stevens Fisheries Conservation and Management Act and consultation with NOAA NMFS is required for all projects which may adversely affect EFH of Chinook and coho salmon. The proposed project areas in Coleman Creek are approximately one mile from habitat utilized by Chinook and coho salmon (StreamNet GIS Data 2009). Due to distance the proposed project is not expected to adversely affect EFH. Therefore consultation with NOAA NMFS on EFH for restoration is not required.

7. The *Project* does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment [40 CFR 1508.27(b)(10)].

Approved by: _____ _____

Patricia Wilson, Marys Peak Resource Area Field Manager Date

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ENVIRONMENTAL ASSESSMENT

1.0 INTRODUCTION

The actions described and analyzed herein are proposed for the purposes of meeting Riparian Reserve and Aquatic Conservation Strategy (ACS) objectives as stated in the *Salem District Resource Management Plan and Record of Decision* (RMP, May 1995). The proposed action would be located in Benton County within the Upper Alsea River watershed. (See Figure 1 - General Vicinity Map)

1.1 Purpose of and Need for Action and Decision to be Made

1.1.1 Purpose of and Need for Action

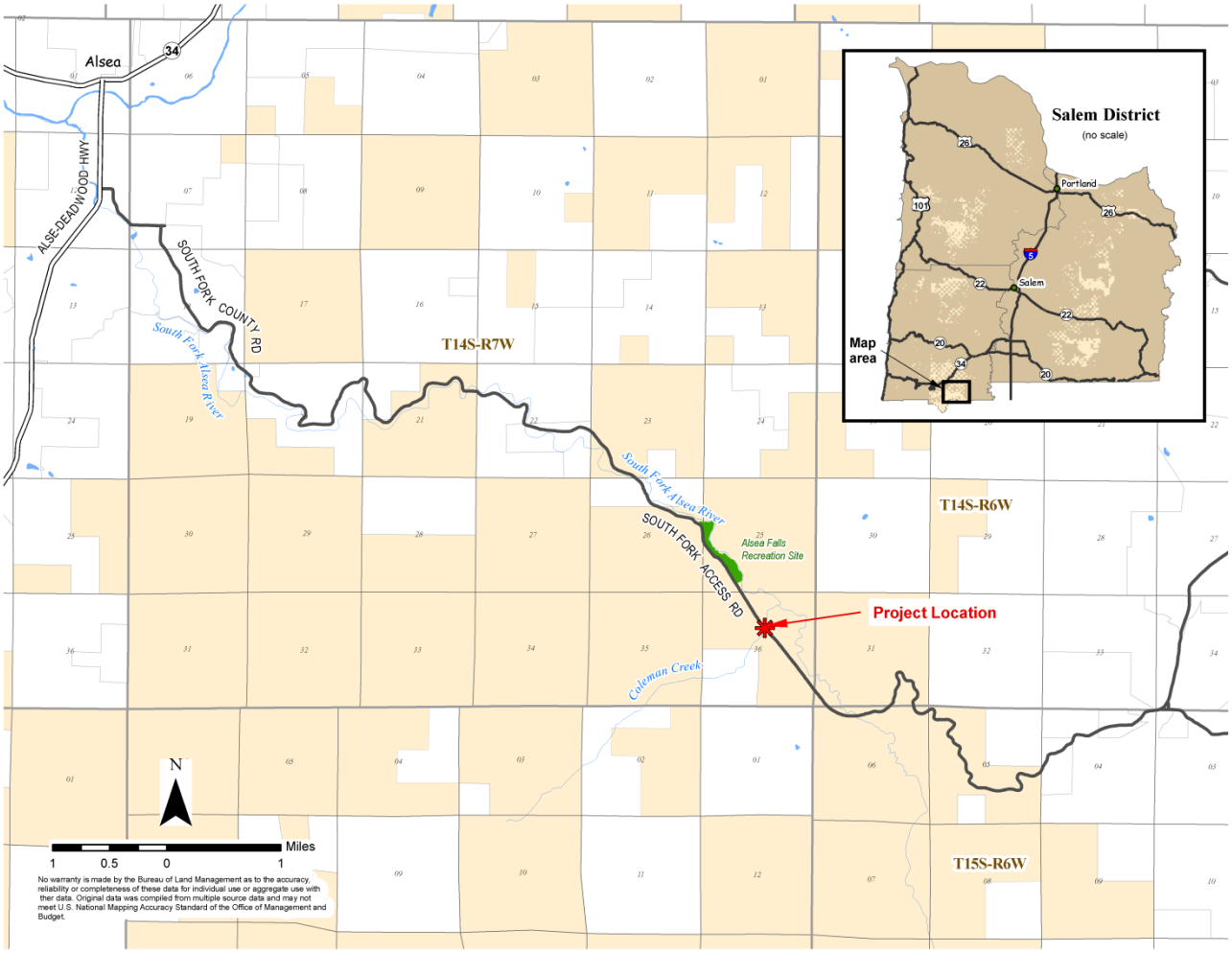
The primary goal of the proposed project is to assist in restoring and improving ecological health of watersheds and aquatic systems by removing a failing culvert and constructing a bridge to improve fish passage and storm flow capacity. The proposed project would meet ACS direction to "design and construct new culverts, bridges and other stream crossings that pose a substantial risk to riparian conditions" (RMP, p. 63).

The culvert at the Coleman Creek crossing of the South Fork Alsea Access Road, a heavily used National Back Country Byway, has exceeded its design life and is currently in the process of failing. The culvert was installed in the early 1960s and designed to withstand only a 50-year flood event. The proposed action adheres to RMP direction that new structures be designed to accommodate at least the 100-year flood (RMP, p. 63).

1.1.2 Decisions to be Made

The decision maker will decide whether to implement the proposed project, which project design features would be incorporated into the project, and which alternative best meets the purpose of and need for the project.

Figure 1 - General Vicinity Map



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

The Salem District initiated planning and design for this project to conform and be consistent with the *Salem District Record of Decision and Resource Management Plan*, May 1995 (RMP); *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 (the Northwest Forest Plan, or NWFP); and *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, January 2001.

The proposed project is within the following RMP land use allocation (RMP pp. 9-15): Riparian Reserves.

The analysis in the Coleman Creek Bridge Installation EA is site-specific, and supplements and tiers to analyses found in the Salem District Proposed Resource Management Plan/Final Environmental Impact Statement, September 1994 (RMP/FEIS). The RMP/FEIS includes the analysis from the Final Supplemental Environmental Impact Statement on Management of Habitat for Late-

Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl, February 1994 (NWFP/FSEIS). The RMP/FEIS is amended by the Final Supplemental Environmental Impact Statement for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, November 2000.

The above documents are available for review in the Salem District Office. Additional information about the proposed activities is available in the Coleman Creek Bridge Installation EA Analysis File, also available at the Salem District Office.

Following the March 31, 2011 decision by the United States District Court for the District of Columbia in Douglas Timber Operators et al. v. Salazar, which vacated and remanded the administrative withdrawal of the Salem District's 2008 *Record of Decision and Resource Management Plan* (2008 ROD/RMP), we evaluated this project for consistency with both the 1995 RMP and the 2008 ROD/RMP. Based upon this review, the proposed action contains some design features not mentioned specifically in the 2008 ROD/RMP. The 2008 ROD /RMP did not preclude use of these design features, and the use of these design features is clearly consistent with the goals and objectives in the 2008 ROD/ RMP. Accordingly, this project is consistent with the Salem District's 1995 RMP and 2008 ROD/RMP.

Survey and Manage Review: Following the Court's December 17, 2009 ruling, the Pechman exemptions are still in place. Judge Coughenour deferred issuing a remedy in his December 17, 2009 order until further proceedings, and did not enjoin the BLM from proceeding with projects. Nevertheless, I have reviewed the Coleman Creek Bridge Installation project, in consideration of both the December 17, 2009 and October 11, 2006 orders.

I have determined that this project complies with the above court orders relating to the Survey and Manage mitigation measure of the Northwest Forest Plan, as incorporated into the Salem District Resource Management Plan, for the following reason. The proposed project meets Exemption B of the Pechman Exemptions (October 11, 2006 Order) because the proposed project entails replacing a culvert on a road that is in use and part of the road system.

Therefore, the Coleman Creek Bridge Installation project may still proceed even if the District Court sets aside or otherwise enjoins use of the 2007 Survey and Manage Record of Decision since the Pechman exemptions would remain valid in such case.

1.2.1 Relevant Statutes/Authorities

This section is a summary of the relevant statutes/authorities that apply to this project.

- **Federal Land Policy and Management Act (FLPMA) 1976 –** Defines BLM's organization and provides the basic policy guidance for BLM's management of public lands.
- **National Environmental Policy Act (NEPA) 1969 –** Requires the preparation of EAs or EISs on federal actions. These documents describe the environmental effects of these actions and determine whether the actions have a significant effect on the human environment.
- **Endangered Species Act (ESA) 1973 –** Directs Federal agencies to ensure their actions do not jeopardize threatened and endangered species.
- **Clean Air Act (CAA) 1990 –** Provides the principal framework for national, state, and local efforts to protect air quality.

- **Archaeological Resources Protection Act (ARPA) 1979 –** Protects archeological resources and sites on federally-administered lands. Imposes criminal and civil penalties for removing archaeological items from federal lands without a permit.
- **Clean Water Act (CWA) 1987 –** Establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water.

Additional authorities and management direction are described in Table 1 of EA section 4.5.3.

1.3 Scoping and Identification of Relevant Issues

1.3.1 Scoping

External scoping (seeking input from people outside of the BLM) for this project was conducted by means of a scoping letter sent out to tribal authorities and posted on the Salem District website on April 8, 2011. No comments were received during the scoping period of April 8th-April 27th, 2011. The Interdisciplinary Team (IDT) conducted internal scoping through record searches, field reviews, and the project planning process.

1.3.2 Relevant Issues

Based on input from the public, the Interdisciplinary Team, and information contained in the RMP, the following issues were identified. These issues provide a basis for comparing the environmental effects of the proposed project and aid in the decision-making process. The major issues brought forward were used to formulate alternatives, identify appropriate design features, or analyze environmental effects. The following major issues were identified:

1.3.2.1 *Issue 1: Recreation*

How will public access to the Alsea Falls recreation site and South Fork Alsea River National Back Country Byway be affected by the proposed bridge installation? This issue is addressed in the following sections of the EA: 2.3.1 – Project Design Features; 3.3 – Affected Environment for Recreation/Visual Resource Management, 4.3 – Environmental Effects for Recreation/Visual Resource Management.

1.3.2.2 *Issue 2: Visual Resource Management*

How will vegetation and soil disturbance associated with the proposed bridge installation affect the visual resource management (VRM) class 2 of the byway? This issue is addressed in the following sections of the EA: 2.3.1 – Project Design Features; 3.3 – Affected Environment for Recreation/Visual Resource Management, 4.3 – Environmental Effects for Recreation/Visual Resource Management.

2.0 ALTERNATIVES

2.1 Alternative Development

Pursuant to Section 102 (2) (E) of the National Environmental Policy Act (NEPA) 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 were identified, therefore, this EA will analyze the effects of the Alternative 1 (No Action) and Alternative 2 (Proposed Action).

2.2 No Action Alternative

The No Action alternative describes the baseline against which the effects of the proposed action can be compared, i.e. the existing conditions in the project area and the continuing trends in those conditions if the BLM does not implement the proposed project. The "No Action alternative" means not replacing the failing Coleman Creek culvert.

2.3 Proposed Action

The failing culvert would be removed and a 50-foot single span, double lane bridge would be constructed in its place. The bridge would be rated for heavy truckloads that are common on the South Fork Alsea Access Road and would meet all BLM and Oregon Department of Transportation requirements for travel way widths, railing, and signing. Further, it would be designed to accommodate at least the 100-year flood event and enhance riparian conditions for fish passage (RMP, p. 63).

The excavation/embankment associated with the improvements would be confined to the existing road prism, except that a narrow temporary bypass route would be constructed adjacent to the operation. The bypass route would be approximately 24 feet wide and 400 feet in length. The bypass route would require removal of native vegetation, minor excavation, and temporary crossing over Coleman Creek.

2.3.1 Project Design Features

To protect water quality and minimize soil erosion as a source of sedimentation to streams: All project activities will utilize the Best Management Practices (BMPs) required by the Federal Clean Water Act (as amended by the Water Quality Act of 1987). The BMPs listed below will be applied to this project (2008, FEIS, Appendix I). Road renovation will occur on approximately 500 feet of the South Fork Alsea Access Road.

- During periods of rainfall when water is flowing off road surfaces, the contract administrator may restrict hauling to minimize water quality impacts, and/or require the contractor to install silt fences, bark bags, or apply additional road surface rock **(R73)**.
- Repair damaged culvert inlets and downspouts to maintain drainage design capacity **(R39, 43)**.
- Equipment landings should be kept to the minimum size needed to accomplish the job and use existing road surfaces as much as possible **(R1, 4, 6)**.
- Design access routes for individual work sites to reduce exposure of bare soil and extensive streambank shaping. If fill material for bypass activities must be placed within the active channel, all material that could be in contact with the stream bed or flowing water must be free of fine sediments and removed after the work is completed **(RST4)**.
- Limit the amount of streambank excavation to the minimum necessary to ensure stability of enhancement structures. Soil material to be removed for the new bridge project area will be transported a minimum of 150 feet away from the project area and stockpiled above the floodplain level **(RST6)**.
- When replacing culverts, install instream grade control structures where excessive scour would occur **(RST13)**.
- Install turbidity control structures (exp; isolation from stream channel, diversion or silt curtains) downstream of instream work areas, remove when project is completed **(RST15)**.

To contain and/or reduce noxious weed infestations on BLM-managed lands using an integrated pest management approach:

- All soil disrupting equipment and transportation vehicles (low-boys, trailers, dump trucks etc.) will be required to be clean and free of dirt and vegetation prior to arriving on BLM managed lands as directed by the contract administrator **(SP1)**.
- All large areas of exposed mineral soil (temporary roads, fills, cuts, debris piles, borrow pits, etc), as determined by the contracting officer would be sown with Oregon Certified (blue tagged) red fescue (*Festuca rubra*) at a rate equal to 40 pounds per acre or sown/planted with other native species as approved by the resource area botanist. (*See botany report-Appendix 1 for justification*) Prior to applying seed, the contractor will supply the BLM with the seed certification (blue tag) and seed label **(R97)**.
- The resource areas biologist and/or botanist would be notified if any listed botanical, fungal or animal species are found occurring in or occupying stands proposed for treatment during project activities. If the species is a federal listed ESA, bureau sensitive species or Category A, B or E Survey and Manage species then all of the known sites would be withdrawn from any timber harvesting activity. If the species are other than a federal listed ESA, bureau sensitive species or Category A, B or E Survey and Manage species, then appropriate mitigation action would be taken.
- Required pre-disturbance surveys and known-site management for any listed botanical, fungal, or animal species would be accomplished in accordance with BLM Manual 6840- Special Status Species Management, and Record of Decision and Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (S&M ROD, January 2001) prior to project implementation.

To meet the objectives of the Riparian Reserves:

- Work would be completed during in-water working periods, generally between July and August, to minimize impacts to fish.
- No refueling will be allowed within 100 feet of any standing or running water **(SW8, 9, SP1, RST10)**.
- Woody material removed from stream crossing for culvert maintenance must be retained in the stream network.
- When felling trees, minimize disturbance to the stream channel. Store and retain trees to be placed in the channel below the project to help improve channel stability **(S3)**.
- Within Riparian Reserve Areas, design size, shape and placement of restoration areas to maintain as much effective shade as possible **(S9)**.

To protect Visual Resources:

- Cut all trees low to the ground, within 6 inches, and slant the cut away from view of visitors driving the byway.
- Do not mark trees for removal during the main recreation season of Memorial Day weekend through Labor Day weekend.
- Reduce visual impacts by disposing of slash, if created during operations, in ways other than by piling and burning. If piled, wait as long as possible to cover piles to reduce visual impacts along the byway. Alternative means of disposal includes chipping or off-site removal. Material would likely be transported to the Whitehouse Pit.
- Remove any gravel or riprap used in the temporary bypass route to speed re-growth and site restoration.

- Re-grade or level the dispersed campsite to restore as much as possible to the original condition to continue to provide this recreation opportunity.
- Reduce visual impacts by grass seeding exposed soil or planting native nursery stock to speed vegetative re-growth and site restoration.

2.4 Alternatives Considered But Eliminated from Detailed Analysis

Three alternatives to bridge construction were briefly considered, but they were removed from consideration because they did not meet the purpose of and need for action.

Metal Box Culvert

A 25 foot box culvert was studied. Two similar crossings on this road have been re-constructed using metal box culverts. The most recent one was replaced in 2001. This was a full galvanized metal box culvert. This option was studied for this location, because of the potential advantages of relatively simple quick construction that would have less of an impact on traffic and lower costs. Several disadvantages exist as well. The width of the structure is very close to the limits of a pre-fabricated structure. The height of fill over the structure is close to the minimum limits. A minimum amount of fill is required over metal structures to transfer loads from the crown down the sides and into the foundation. Material would have to be installed in culvert to match the natural stream bed material. The culvert would be resting on bedrock. A system would have to be designed to increase friction to eliminate sliding.

Concrete Box

A concrete box was briefly considered for this location. It was not given much further attention due to the facts that a box could not provide that 100 year flood height and length requirement in a single span. It was also removed from consideration due to the shallow depth to bedrock.

Bottomless Arch

A 25 foot bottomless arch could be constructed in this location. It would provide a natural stream bottom. The advantages of an open bottom structure are simple and fairly quick construction and the footings would be founded on bedrock. The cost is also comparable to a box culvert. Several disadvantages exist for this type of structure as well. The width of the structure is very close to the limits of a pre-fabricated structure. The height of fill over the structure is close to the minimum limits. A minimum amount of fill is required over metal structures to transfer loads from the crown down the sides and into the foundation.

3.0 AFFECTED ENVIRONMENT

This section of the EA describes the current condition and trend of the affected resources. The resources potentially affected by the proposed project are: Hydrology, Fisheries and Aquatic Habitat, Recreation/Visual Resources.

3.1 Fisheries/Aquatic Habitat

(IDT report incorporated by reference: Snedaker, 2011. Fisheries Report - pp. 1-8.)

Aquatic Habitat

The proposed projects are contained within one 5th field watershed; the Upper Alsea River 5th Field Watershed. The relevant fish bearing stream affected by the proposed project is Coleman Creek, which drains to the South Fork Alsea River.

ODFW habitat surveys have been conducted on Coleman Creek through the project area (see Fisheries Report - Table 2; ODFW 2010). Habitat features within surveyed reaches were variable in conditions. Pool abundance and shade were desirable in the surveyed reach. At risk or degraded habitat conditions were noted for fine sediment, key wood, and width to depth ratios.

Based on stream surveys cutthroat trout and sculpin fish species are present in the project area. Western brook lamprey and speckled dace are undocumented in the project area, but are considered likely to be present.

Chinook salmon, coho salmon, steelhead and Pacific lamprey are located at the base of Alsea Falls, approximately 1.5 miles downstream from project site.

Special Status Species
The Oregon Coastal (OC) Coho Salmon is listed as threatened under the Endangered Species Act (73 FR 7816-7873). OC Coho Salmon are present up to Alsea Falls in the South Fork Alsea River. Oregon Coast coho salmon are approximately 1.5 miles downstream from the project area.

3.2 Botany

(IDT Report incorporated by reference: Exeter, 2011.

Federal Threatened and Endangered and Bureau Special Status Botanical and Fungal Species
Inventory of the project area for bureau sensitive vascular plant, lichen, bryophyte and fungal species were accomplished through review of; 1) existing survey records and spatial data, 2) habitat evaluation and evaluation of species-habitat associations and presence of suitable or potential habitat, and 3) field clearances, field reconnaissance and inventories utilizing intuitive controlled surveys, in accordance with survey protocols for the specific groups of species. Specific field surveys for bureau sensitive species were accomplished on May 3, 2011. Field inventories for fungi have been determined as “not feasible” due to their ephemeral nature and are not required.

There are no “known sites” of any bureau special status vascular plant, lichen, bryophyte or fungi species within the project area nor were any found during subsequent surveys.

Non-native plants and noxious listed weeds
The following noxious weeds occur in the Coleman Creek area mainly along existing right-of-ways: bull and Canadian thistles (*Cirsium vulgare* and *C. arvense*), false brome (*Brachypodium sylvaticum*), Armenian blackberry (*Rubus armeniacus*), herb Robert (*Geranium robertianum*), Scot’s broom (*Cytisus scoparius*), St. John’s wort (*Hypericum perforatum*), and Tansy ragwort (*Senecio jacobaea*).

3.3 Recreation/Visual Resource Management

(IDT Report incorporated by reference: Meredith, 2011. Recreation/Rural Interface/Visual Resources Report - pp. 1-5.)

Recreation
The project area is within a recreational forest setting and accessed by the paved South Fork Alsea River National Back Country Byway (aka the South Fork Alsea Access Road). Management activities and modifications to the environment (roads, trails, timber harvest, utilities, buildings, and residential development) are common on both private and public lands within or near the project

area. Activities that occur within and adjacent to the project area include camping, picnicking, hiking, swimming, biking, horse riding, hunting, off-highway vehicle (OHV) use, target shooting, driving for pleasure, and special forest product collection. Two thirds of recreation use in the project area occurs during the months of May through October. The project area is not currently used by OHV users; visitors use the byway or other gravel roads near the project area.

The South Fork Alsea Access Road, where the project is located, is the South Fork Alsea River National Back Country Byway, which is an alternate, off the beaten path, route for travelers to the Oregon Coast by connecting the Willamette Valley to Highway 34. Vehicle use of the Byway increases during the months the Alsea Falls recreation site is open. Dispersed camping occurs along the byway, with one campsite located in the path of the temporary bypass route during construction. The site is large and open providing perfect group camping. No amenities such as a fire ring or picnic table exists.

Alsea Falls recreation site is located a half mile from the project area in Township 14 South, Range 7 West section 25 to the east of the falls on the South Fork of the Alsea River. Alsea Falls recreation site is adjacent to and visible while driving the South Fork Alsea River National Back Country Byway. This recreation area has an extensive 17-mile non-motorized trail system, 16 campsites, 22 picnic sites, 4 restrooms, a water treatment building and an administrative shop. The trails to the north and south of the byway include gravel forest roads and those along the river are primary links connecting the campground and picnic areas. Alsea Falls recreation site open season in 2011 is from May 10 through Labor Day, however walk-in day-use is allowed when the park is closed. Maximum recreation use occurs on summer weekends and holidays. Approximately 27,000 visitor days occur per year within the recreation site. Isolation from the sights and sounds of humans exists, with the opportunity to interact with the natural environment. Visitors hear and may see vehicles driving the byway.

McBee Campground is in Township 14 South, Range 7 West, Section 26 just off the byway on the 14-7-23.2 road. This private, primitive campground is open year round with reservations. The Green Peak trail is located at the north end of the campground and heads to Green Peak falls located to the east of the 14-6-17 road. This trail is primitive and receives very little maintenance and use.

Rural Interface

The projects are not in rural interface zones as defined in the Salem District Resource Management Plan (RMP p. 39). Residential houses are at the east and west ends of the South Fork Alsea River National Back Country Byway.

Visual Resource Management (VRM)

Visual resource values and opportunities to maintain scenic quality are greatest on BLM-administered lands seen from state and county scenic highways and roads, parks, rural residential areas, scenic ACECs, special recreation management areas, and recreation sites and trails. The intermixed land ownership pattern between public and private forest land in the vicinity of the proposed projects, greatly limits the BLM's ability to manage the project areas as a contiguous viewshed. Timber management operations near or adjacent to the project areas are observable from private and public lands, including the Alsea Falls recreation site and the South Fork Alsea River National Back Country Byway. The view from major roads and highways of the surrounding terrain is one of timber management, various age classes of trees are visible.

The proposed project occurs in VRM 2. "Manage visual resource management class 2 lands for low levels of change to the characteristic landscape. Management activities may be seen but should not attract attention to the casual observer. Changes should repeat the basic elements of form, line, color, texture, and scale found in predominant natural features of the characteristic landscape (RMP p. 37)." The project area is immediately visible from the South Fork Alsea River National Back Country Byway. The project is not observable from a distance and due to remaining vegetation and terrain.

BLM's responsibility to manage the scenic resources of the public lands is established by law:

- **The Federal Land Policy and Management Act of 1976 (FLPMA)** states, "...public lands will be managed in a manner which will protect the quality of the scenic (visual) values of these lands."
- **The National Environmental Policy Act of 1969 (NEPA)** requires that measures be taken to "...assure for all Americans...aesthetically pleasing surroundings...."

This responsibility is reinforced by BLM's mission statement:

> "It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations."

3.4 Soils

(IDT Report incorporated by reference: Wegner, 2011. Coleman Creek Water and Soil Environmental Assessment Input. pp 1-4.)

The road surface at the project site is paved. The bypass road will consist of existing disturbed soils (i.e., portions of surface soil and organic matter removed and remaining soil compacted and augmented with clean fill rock from off site sources). The culvert is corrugated metal and the fill material surrounding the culvert is previously disturbed soil from sedimentary, basalt, and intrusive rocks.

3.5 Water

(IDT Report incorporated by reference: Wegner, 2011. Coleman Creek Water and Soil Environmental Assessment Input. pp. 1-4.)

The project area is located in the Oregon Coast Range at an elevation of approximately 820 feet, below the transient snow zone (TSZ), an elevation zone subject to rain-on-snow events (ROS) that have the potential to increase peak flows during winter or spring storms. This zone varies but, in the coast range of Western Oregon it is assumed to lie between 2,000 to 3,000 feet in elevation. The general project area receives approximately 70 inches of rain annually. The project area is located in the 7th field watershed of Coleman Creek. The proposed culvert replacement ultimately drains to the South Fork of the Alsea River and is not located in a key watershed.

Project area stream flow

Coleman Creek is similar to other Western Oregon streams where the highest discharge takes place during winter storm events. Summer base-flow normally begins in perennial channels sometime in July and continues from August-October. Coleman Creek is perennial but is also ungaged, so no flow records were available for this review.

Project area stream channel conditions
The Coleman Creek stream channel in the project area is a 3rd order headwater stream (3.8 square miles in size); these types of streams are "source" reaches, following the classification of Montgomery and Buffington (1993). On the steeper slopes (20 to 70 percent), they have developed into constrained, step-pool channels. This type of channel generally has limited supplies of large wood from nearby riparian forests and are well shaded. Coleman Creek has ample supplies of gravel sized materials that are actively transported.

Project area wetlands
No wetland/pond complexes are identified within the project area. Wetland sites mostly coincide with high water tables identified in the BLM GIS Timber Production Capability Classification (TPCC).

Oregon Department of Environmental Quality (DEQ) Standards
The Oregon Department of Environmental Quality's (DEQ) 2004/2006 303d List of Water Quality Limited Streams (http://waterquality.deq.state.or/wq/303dpage.htm) is a compilation of streams which do not meet the state's water quality standards. Coleman Creek is not on the current 303d list.

The DEQ also published an assessment, the 319 Report, which identifies streams with potential non-point source water pollution problems (2004 Oregon Statewide Assessment of Nonpoint Sources of Water Pollution). Coleman Creek is not listed in the 319 report.

Beneficial Uses
There are no known private or municipal water users in the project area. Irrigation and livestock watering occur in the Alsea Valley several miles downstream from the project area. Additional recognized beneficial uses of the stream-flow in the project area include anadromous fish, resident fish, recreation, and esthetic value.

3.6 Wildlife

Threatened and Endangered Species
There are no known sites of spotted owls and marbled murrelets within or adjacent (<0.25 mile) to the project location. The young hardwood-dominated forest stand that lies adjacent to the road location is no considered suitable habitat for owls or murrelets. The proposed action would occur within a spotted owl critical habitat unit (OMOCA-36), but adjacent riparian hardwood forest is not considered a constituent element of critical habitat.

Other Special Status Species
Due to type of project and the young age of the affected stand, it is exempt from Survey and Manage provisions described in the 2001 Survey and Manage ROD. No pre-disturbance surveys are required. There are no special status species known to occur within or adjacent to the project location.

Special Habitats and Special Habitat Components
No special habitats (caves, cliffs, meadows, wetlands) occur at the project location and no special habitat components (legacy trees, snags, down logs) would be affected by the proposed action. Riparian hardwood forests are well represented within the Upper Alsea watershed and provide important habitats that help boost the diversity of wildlife species within the watershed.

4.0 ENVIRONMENTAL EFFECTS

This section of the EA describes the environmental effects of the alternatives on those resources. The interdisciplinary team of resource specialists (IDT) 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 (BLM Handbook H-1790-1: p. 137), [40 CFR 1508.27(b)(3)], [40 CFR 1508.27(b)(8)] (EA section 3.3.10), as well as the issues raised in scoping (EA section 1.3.1).

4.1 Fisheries/Aquatic Habitat

4.1.1 Alternative 1 (No Action)

Culvert sites would be maintained. Access to approximately 3.5 miles of aquatic habitat would continue to be impaired. No soil disturbing activities would occur under the no-action; therefore, no short-term negative impacts to aquatic habitat would be expected. Expected benefits, including increased available habitat and free movement to refuge habitats, from restoring access would not be realized. Large wood routing thru project sites would continue to be impaired due to the undersized culvert. The undersized culvert would be at greater risk of future blockage from large wood capture and could result in mass wasting erosive events which would in turn impair downstream aquatic habitat.

Continued maintenance during storm events the culvert site would be required to prevent, or reduce the hazard of, potential culvert failure. These maintenance interventions impair the quality of instream large wood, as maintenance typically includes cutting large logs into shorter pieces to pass through culverts or placing debris on the adjacent bank. Small woody debris tends to have shortened retention time and has less hydrologic influence on stream channels, when compared to larger pieces.

4.1.2 Alternative 2 (Proposed Action)

Direct and indirect short term negative impacts to aquatic habitat and individual fish would occur from the proposed action.

Large Woody Debris and Stream Banks

Approximately 100 feet of stream bank on either side of the channel would be disturbed at the culvert location. In addition, a small group of alders and conifer adjacent to the treatment site would be felled associated with the approaches for the temporary bypass road. Rehabilitating disturbed stream banks by seeding native grasses and brush upon completion would accelerate recovery of riparian vegetation and protect bank stability. Banks and riparian vegetation disturbed by construction would stabilize after the first winter. Following the removal of the temporary bypass any disturbed soils would be rehabilitated/revegetated including planting of conifer.

The proposal would fall small diameter conifer and alder from the riparian area adjacent to Coleman Creek. The woody debris generated by bypass construction would be retained on site, placed below the project area in the stream channel. Therefore there would be a slightly positive improvement in stream woody debris associated with the project. However the proposed felling of riparian alder/conifer could result in a site level reduction in future wood recruitment to the stream channel. Generally the area of reduction would be approximately 30 to 50 feet of riparian area on

either side of Coleman Creek adjacent to the bridge site. Due to the small size of the project treatment area and the small diameter of trees affected the Large Woody Debris (pieces greater than 24 inches diameter and 50 feet long) condition would not be affected. Functional wood recruitment would not be effected as the small pieces that may be removed are not of sufficient size to effect pool formation at the project site of Coleman Creek. Any changes in future wood recruitment due to project actions would be imperceptible to resident fish as abundant alders and conifer are present immediately adjacent to the project site and the area affected is limited to 50 feet of stream.

Temperature

A small group of alders and conifer adjacent to the treatment site would be felled associated with the approaches for the temporary bypass road. The creation of this small opening would be unlikely to measurably degrade existing shade conditions. No more than site level changes to solar exposure of the stream bed would occur. Hydrology analysis did not anticipate any changes to water quality from the proposed action (Wegner 2011). The small openings from alder removal adjacent to the channel are unlikely to influence aquatic habitat in the short term. Over story canopy growth and growth of understory vegetation overhanging the stream banks would be expected to restore stream shade within a year following the proposed treatment.

Sediment/Turbidity

Bed mobility may be locally increased as a result of construction activity in the stream channel loosening stream substrates. Erosion control features, silt fences and bark bags, installed down stream of construction site in the dewatered reach below the project would minimize turbidity during construction. During project activities sediment movement would be kept to a minimum due to dewatering the project reach. Research on culvert removals suggests that sediment and turbidity would not be transported more than ½ mile downstream from treatment sites (Foltz et al 2008). Following project rewatering sediment/turbidity movement would not be expected to exceed this distance. Fish exposed to short term increases in turbidity would most likely attempt to avoid the area moving away from the turbidity plume. Fish which are unable to leave would likely find small low flow areas where turbidities are lowest. The turbidity exposure would be of short duration (minute to hours) and is not anticipated to substantially impair feeding, breeding behavior of resident trout and sculpin in the project area.

The bridge will require concrete footings and those will be poured in place and allowed to cure in a dry condition. The area where uncured concrete would be located is in the dewatered reach. Fish in the proximity would have been removed prior to the concrete pour. The stream reach would not be watered back up until the concrete has fully cured. Therefore fish would not be affected by the presence of uncured concrete in the active channel.

Upon completion of the project the reconstructed stream bed thru the culvert sites would simulate natural substrate characteristics. Placement of oversized material ($>D_{100}$) as part of stream simulation would reduce risk of increased scour thru pipe and protect upstream bed stability during the first winter freshets. Incorporation of finer sediment (D_5 thru D_{50}) into the simulated substrate would accelerate recovery of surface flow thru the culvert. Bed load transport and turbidity would be expected to recover to background levels after the first winter freshets redistribute disturbed sediments in the project area.

Impacts to Fish

For replacement of the project culvert with a bridge the stream channel would be dewatered via an upstream berm and either pumped or piped to around the project site. Dewatering the project site during construction could limit movement of native fish during project implementation. Dewatering also includes the risk of stranding fish in pools and pocket water thru the dewatered reach. Implementing instream project activities during the ODFW (2008) In-water Work Timing between July and August would minimize the number of fish impacted. Salvaging fish within the project reach would minimize direct loss to fish present in the project area during construction. Use of a gravity fed system for diverting water around the project site would provide downstream passage opportunities for resident fish. Screening intakes of mechanical pumps, and suspending the intake away from the stream edge, would prevent entrainment of small fish into the pumping system and prevent mortality.

Resident species migrate thru the project area based on several mechanisms and may move through the project area during the in-water work timing. These resident fish would be indirectly negatively impacted as a result of proposed dewatering or displacement due to machinery in the stream channel. The change to aquatic species movement would be short term, one summer, assuming that surface flows and substrate would recover to pre-project conditions after the first winter freshets. In the long term the proposed culvert treatments would restore habitat access to at least 3.5 miles of aquatic habitat, and allow recovery of the stream through the project sites to near natural function.

In the long term the proposed stream crossing treatments would reduce the risk of crossing failure and improve wood debris routing through the project area. Required site maintenance would be minimized with proposed bridge installation and the risk of failure would be reduced. Therefore the risk of sediment and wood debris impacts noted under the no-action alternative would be minimized.

4.1.3 Cumulative Effects

The proposal is not likely to result in detectable direct, indirect, or cumulative effects to channel or wetland function, peak flows, and water quality (Wegner 2011). Sediment and turbidity impacts may occur in the short-term as a result of project implementation; however, these impacts would not be detectable at the 7th Field Watershed scale. As the hydrologic elements are not anticipated to have any cumulative effects at a watershed scale, no cumulative effects to fish or aquatic habitat would be anticipated.

A cumulative increase to the availability of resident habitat would be realized with implementation of the proposed action. The proposed action in the Upper Alsea may increase access to approximately 1.7 percent of the estimated fish bearing habitat. Restoring access above Coleman Creek would provide access to important summer and winter refugial habitat, particularly for juvenile salmonids during most years. The release of fish population from habitat limiting bottlenecks, such as limited access to summer or winter rearing, could result in beneficial increases in productivity of stream reaches associated with the treatment site. However, the relatively small amount of habitat provided as a result of proposed actions is unlikely to appreciably contribute to changes in productivity of resident salmonids at the watershed scale.

Reduced maintenance needs at treatment sites may have a cumulative benefit on LWD recruitment. Larger crossing width would route large wood through the project site during high flow events which would in turn protect and enhance LWD recruitment downstream of the

treatment area in the Upper Alsea River Watershed. However, the site level improvement in wood routing from the proposed treatment site is unlikely to appreciably contribute to changes in aquatic habitat and fish productivity in the affected watershed.

4.2 Botany

4.2.1 Alternative 1 (No Action)

Federal Threatened and Endangered and Bureau Special Status Botanical and Fungal Species

No effects to any Bureau special status vascular plant, lichen, bryophyte, or fungi species, since there are no known sites within the project area.

Noxious Weeds

The project area along the South Fork Back Country Byway would continue to be maintained as a right-of-way. The area would be seasonally mowed, treated for any noxious weed infestations with glyphosate and the road surface occasionally swept. Small populations of ODA listed noxious weeds would persist in low numbers within the proposed project area. Otherwise there would be no additional human caused disturbances in the proposed project area and the established noxious weed populations would remain low.

4.2.2 Alternative 2 (Proposed Action)

Federal Threatened and Endangered and Bureau Special Status Botanical and Fungal Species

This project would not directly affect any 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.

Non-native plants and noxious listed weeds

Exposed mineral soil often creates environments favorable for the establishment of non-native plant species. All exposed mineral soil areas (culvert installation sites, fill staging areas and excess fill sites) pose the greatest risk of exposing mineral soil with the implementation of this project.

All of the noxious weed species which are known to occur in the project area are classified by the Oregon Department of Agriculture (ODA) as “B” designated weeds. “B” designated weeds are weeds of economic importance which are regionally abundant, but which may have limited distribution in some counties. Where implementation of a fully integrated statewide management plan is not feasible, biological control shall be the main control approach (ODA 2008).

In addition, all of the non-native and noxious weeds species that are known to occur near the project area are regionally abundant and widespread throughout western Oregon, with the exception of false brome. False brome is regarded as abundant and widespread in Benton, Lane, and Marion Counties (ODA weedmapper and BLM weed inventories). A fully integrated statewide management plan has not been implemented for any of these species. The Marys Peak Resource Area has an integrated non-native plant management plan in place for the control of non-native plant species.

Any adverse effects from the establishment of bull and Canadian thistles, false brome, Armenian blackberry, herb Robert, Scot’s broom, St. John’s wort, and tansy ragwort within or near the project area are not anticipated and the risk rating for the long-term establishment of these species

and consequences of adverse effects on this project area is low because; 1) Mitigation measures have been incorporated into this project to keep the amount of exposed mineral soil minimized, 2) the size of the projects is very small, 3) the implementation of the Marys Peak integrated non-native plant management plan allows for early detection of non-native plant species which allows for rapid control, 4) the known noxious weeds species which occur in the project area are regionally abundant throughout the Oregon Coast Range Physiographic Province, and control measures generally consist of biological control, 5) generally these species often persist for several years after becoming established but soon decline as native vegetation increases within the project areas, and 6) there are no other Oregon listed noxious weed species that are anticipated to become established with the implementation of this project and design features. In addition, all project areas would be monitored to detect for any noxious weed infestations and targeted for removal. All non-native species would be eradicated as funding allows.

Sowing seed on exposed soil areas tends to abate the establishment of noxious weeds. If the contract is not administered correctly and the seed sown is not Oregon certified seed, or the species recommended, the sowing may increase the amount of non-native species in the project area and may lead to a greater infestation of noxious weeds than anticipated.

4.2.3 Cumulative Effects

Any adverse affects from the removal of native vegetation would be localized because of the small size of the projects. There would be no affect to federal T&E or Bureau special status species since none are known from the areas and potential habitat is not present. As mentioned above, the risk rating for any adverse affects with the implementation of this project is low.

4.3 Recreation/Visual Resource Management

4.3.1 Alternative 1 (No Action)

With the exception of unforeseeable changes (i.e. wildfire or disease), the project area would continue to provide a recreational forest setting for designated recreation use on the byway and at Alsea Falls recreation site, as well as dispersed recreational activities. No inconveniences related to the project operations would occur. No modifications to the landscape character of the project areas would be expected to occur.

4.3.2 Alternative 2 (Proposed Action)

Recreation

A recreational forest setting would remain. Vegetation disturbed by operations would re-grow within five years, concealing any evidence of the temporary bypass route and bridge installation operations. Recreational use of the project areas would be restricted and rerouted during operations and high visitor usage months. The long-term seasonal operation of facilities at Alsea Falls Recreation Area of mid-May through Labor Day would not change and year round non-motorized access would continue on trails. Other BLM lands nearby will remain available for recreational opportunities. Recreational users in the vicinity would hear the noises during operations and may experience brief traffic delays until construction of the temporary bypass route.

During project operations, the Byway has the potential to have high volume of truck traffic and recreational travelers with varying sizes and shapes of vehicles especially during summer months. Building a temporary bypass route would significantly alter and may obliterate a dispersed

campsite along the byway. The site is located where the river meets the byway in the northwest of the project area. Leveling the campsite and removing gravel after the bypass is no longer needed would help restore the dispersed camping opportunity.

After bridge installation and removal of the temporary bypass route, recreation users would continue to use Alsea Falls recreation site and South Fork Alsea River National Back Country Byway as in the past. This project may impact some visitors or users of the project area. Future recreation opportunities would remain the same unless the dispersed campsite is not restored.

Visual Resource Management

The proposed action of bridge installation to replace a failing culvert is allowable in VRM 2 areas, but activities should not attract attention to the casual observer. Changes to the landscape character would be seen while adjacent to the project area and driving the byway. Visual disturbance of the project area would be associated with modifications to vegetation and other ground disturbing activities from temporary bypass route and bridge installation activities. There would be a three to five year decline in visual quality as a result of crushed undergrowth vegetation dying turning brown to red and ground disturbance. The area is expected to return to a more natural appearance within five years as disturbed vegetation rebound, grow, and continue to green up or is planted.

Project design features mitigate the majority of visual impacts and help reduce the focus of management actions in order to comply with VRM objectives. Visitors would notice activities, disturbance to vegetation, and experience temporary travel rerouting during project implementation. The paved byway would be repaired after completion of project with a smooth transition on the travel way.

4.3.3 Cumulative Effects

The project visually would alter the landscape. This project may impact visitors, but having sound travel routes to facilitate recreation would improve overall visitor satisfaction and safety at Alsea Falls. The removal of some trees to place footings would contribute to the amount of vegetative disturbance in the watershed, but the amount is minimal compared to timber harvest practices. As with any management activities or modifications to the environment, disturbed vegetation will take time to sprout and grow, concealing the management activity. There are private clearcuts along the byway. Management of this landscape will continue through the BLM’s strategic plan and private companies.

There have been four timber sales on BLM managed lands along the byway in the past 10 years. All had some minimal visual impact to users of the byway and Alsea Falls recreation site such as noise from logging equipment and increased byway traffic.

4.4 Soils

4.4.1 Alternative 1 (No Action)

The failing culvert would not be replaced. The existing culvert could fail which could result in an increase in erosion and sedimentation.

4.4.2 Alternative 2 (Proposed Action)

The proposed action is located mostly within the existing road prism and would not change the existing level of soil disturbance in the project watershed.

Direct effects would include the digging up of the existing culvert and the removal of soil layers when the bridge is installed. Indirect effects would be the continuation of lower soil productivity due to the mixing of the soil layers at the waste site and the continued loss of soil productivity in the existing road prism.

4.4.3 Cumulative Effects

Because the effects of the proposed action on soils are expected to be short-term and localized, cumulative effects are not anticipated. The combined effect of the proposed action is not expected to exceed those described above for each individual action.

4.5 Water

4.5.1 Alternative 1 (No Action)

The existing water quality conditions, stream flows, and channel conditions at the project site would continue their current trends.

4.5.2 Alternative 2 (Proposed Action)

The proposed action would mostly be confined to the existing paved road prism, and the associated by-pass road on the downstream side of the bridge installation. The existing 9- foot diameter culvert would be replaced by a bridge with a 60 foot span. Based on observation of prior culvert and stream crossing work, effects from the replacement of the culvert would be limited to the site of disturbance and unlikely to result in any alterations to channels or floodplains downstream or elsewhere in the watershed due to the much improved flow passage capabilities of the new structure. It would benefit the channels by providing for improved stream flow and passage of sediment, organic materials and aquatic organisms and would eliminate any chronic erosion and turbidity at the site.

Work items include the construction of approximately 300 feet of bypass road which would include approximately 50 feet of fill through the channel downstream of the bridge site. This fill should only need to be approximately two feet deep to allow vehicle passage. This area would be de-watered during the replacement activities. The dewatering activities would require the trenching of a water bypass approximately 250 feet long to facilitate the removal of water from the work area. The bridge would require concrete footings and those would be poured in place and allowed to cure in a dry condition. Turbidity barriers would be in place above and below the project area to ensure that project generated sediments are not input into Coleman Creek. There would be some removal of vegetation required to allow the bypass road (alder trees). These trees would be placed in the channel below the new bridge to help facilitate channel stability.

The risk of short-term (during the action and the first winter following) increases in stream turbidity as a result of the project may contribute to increased turbidity levels directly below the project area. The BLM is required by state law to maintain turbidity below the limits set by the Oregon State Department of Environmental Quality. This is accomplished by visual inspection of water clarity above and below the project. If turbidity increases beyond legal limits, the project would be suspended and additional erosion control design features such as placement of silt fencing would be implemented until sediment sources are controlled. Foltz et al. (2007) have found cumulatively, the limited magnitude (not visible more than 800 meters downstream of the crossings) and duration (primarily in the first winter following culvert replacements) of this effect

would be non-detectable on the scale of the 7th field watershed and would be unlikely to have any effect on any designated beneficial uses.

Stream channels
There would be limited direct alteration of the physical features of Coleman Creek under this proposal. Depending on the exact conditions found while work is ongoing, some amount of channel stabilization may be needed to maintain the stability of the stream and the new structure. Any needed gradient control structure work would follow published design and installation guidelines (Rosgen, 1996). The proposed action would not affect stream flow in a measurable manner and therefore any indirect effects to the stream channel as a result of increases in peak flows is unlikely. Thus, the proposed action would be unlikely to result in any measurable effects, such as increases in bank erosion, channel incision, loss of floodplain connectivity or alteration of local wetland hydrology. The stability of the channel below the project site will be improved with a wider allowable span for water passage this will allow the channel to transport bedload and woody debris resulting in a more natural condition.

Watershed Hydrology

Mean Annual Water Yield
This proposal does not include any merchantable timber removal and would not result in detectable changes in peak flows in the Coleman Creek watersheds.

Peak Flow effects from Roads
This proposal would not alter existing roads in a way that would likely reduce or increase effects to peak flows attributable to the current road network and thus it would maintain the current condition and trends relative to hydrology and stream flow.

Water quality
The water quality parameters such as stream temperature, dissolved oxygen (DO) concentrations (both inter-gravel and in water), hydrogen ion concentration (pH), and turbidity are not expected to be impacted by this proposal. For that reason there are no expected direct, indirect or cumulative effects to water quality from the completion of this proposal.

4.5.3 Cumulative Effects

Since the proposal is not likely to result in measurable direct or indirect effects to channel or wetland function, and all effects are within the range of those disclosed in the RMP, the proposal would be unlikely to contribute to any potential cumulative effects in these watersheds. The current condition of the watersheds in the project areas indicate low risk for an existing augmentation of peak flows from forest management. Since the proposal is not likely to result in a detectable direct or indirect effect to peak flow the proposal would not contribute cumulatively to any existing augmentation of peak flow in the Coleman Creek watershed.

4.6 Wildlife

4.6.1 Alternative 1 (No Action)

No Threatened or Endangered species or other special status wildlife species would be affected by this alternative. This alternative would have no effect on the condition and trend of wildlife habitats or habitat components within the watershed.

4.6.2 Alternative 2 (Proposed Action)

T&E Species

The proposed action would not affect any known sites or suitable habitat so there would be no effect to spotted owls and marbled murrelets. The bypass road would temporarily alter a small patch of the young hardwood-dominated forest adjacent to the roadway (<1 acre). However, the type of forest is not considered a constituent element of critical habitat for spotted owls, so there would be no affect to the critical habitat unit OMOCA-36.

Other Special Status Species

There would be no affect to any other special status wildlife species.

Special Habitats and Special Habitat Components

No special habitats or special habitat components would be affected by the proposed action. The bypass road would temporarily disturb less than an acre of riparian hardwood forest. But this disturbance would have a negligible effect on the condition and trend of hardwood forests within this watershed.

4.6.3 Review of Elements of the Environment Based On Authorities and Management Direction

Table 1: Elements of the Environment Review based on Authorities and Management Direction

Element of the Environment /Authority	Remarks/Effects
Aquatic Conservation Strategy	In compliance with PCFFA IV (Civ. No. 04-1299RSM), this project complies with the Aquatic Conservation Strategy described in the Northwest Forest Plan and RMP. This project also complies with the PCFFA II (265 F.3d 1028 (9th Cir. 2001)) by analyzing the site scale effects on the Aquatic Conservation Strategy. EA section 4.5.4 show how the project meets the Aquatic Conservation Strategy in the context of the PCFFA cases.
Air Quality (Clean Air Act as amended (42 USC 7401 et seq.)	This project is in compliance with this direction because no burning would occur.
Cultural Resources (National Historic Preservation Act, as amended (16 USC 470) [40 CFR 1508.27(b)(3)], [40 CFR 1508.27(b)(8)]	This project is in compliance with this direction and the project would have no effect on this element because there are no known cultural resources in the vicinity. In the event cultural resources are discovered during project activities all operations will cease until the archaeologist can assess the significance of the find.
Ecologically critical areas [40 CFR 1508.27(b)(3)]	This project would have no effect on this element because there are no ecologically critical areas present within the project area.
Energy Policy (Executive Order 13212)	There are no known energy resources located in the project areas. The proposed action would have no effect on energy development, production, supply and/or distribution.
Environmental Justice (E.O. 12898, "Environmental Justice" February 11, 1994)	This project is in compliance with this direction because project would have no effect on low income populations.
Fish Habitat, Essential (Magnuson-Stevens Act Provision: Essential Fish Habitat (EFH): Final Rule (50 CFR Part 600; 67 FR 2376, January 17, 2002)	This project is in compliance with this direction as addressed in EA Section 6.1 and Coleman Creek Fisheries Report pp. 1-8.
Farm Lands, Prime [40 CFR 1508.27(b)(3)]	The project would have no effect on this element because no prime farm lands are present on BLM land within the Marys Peak RA.

Element of the Environment /Authority	Remarks/Effects
Floodplains (E.O. 11988, as amended, Floodplain Management, 5/24/77)	This project is in compliance with this direction because the proposed project would not change or affect floodplain functions.
Hazardous or Solid Wastes (Resource Conservation and Recovery Act of 1976 (43 USC 6901 et seq.) Comprehensive Environmental Repose Compensation, and Liability Act of 1980, as amended (43 USC 9615)	This project would have no effect on this element because no Hazardous or Solid Waste would be stored or disposed of on BLM lands as a result of this project.
Healthy Forests Restoration Act (Healthy Forests Restoration Act of 2003 (P.L. 108-148)	This project is in compliance with this direction because implementation of project design features would minimize any adverse effects. In addition, the project design features allow for revegetation at the completion of the project.
Migratory Birds (Migratory Bird Act of 1918, as amended (16 USC 703 et seq)	This project is in compliance with this direction because no habitat for migratory birds will be affected.
Native American Religious Concerns (American Indian Religious Freedom Act of 1978 (42 USC 1996)	This project is in compliance with this direction because no Native American religious concerns were identified during the scoping period (EA section 1.3.1).
Noxious weed or non-Invasive, Species (Federal Noxious Weed Control Act and Executive Order 13112)	This project is in compliance with this direction because measures to prevent noxious weed infestations have been incorporated into the project design. In addition, this area would be monitored during and after the project is completed and if and any "new invader" noxious weed species are located within or adjecent the project area they would be treated for eradication.
Park lands [40 CFR 1508.27(b)(3)]	The project would have no effect on this element because there are no parks within or adjacent to the project area.
Public Health and Safety [40 CFR 1508.27(b)(2)]	The project would have no adverse effect on this element because the proposed project would improve long-term stability of a heavily traveled backcountry byway.
Threatened or Endangered Species (Endangered Species Act of 1983, as amended (16 USC 1531)	This project is in compliance with this direction because there would be no adverse effects on Threatened or Endangered Species as addressed in EA section 4.5
Water Quality –Drinking, Ground (Safe Drinking Water Act, as amended (43 USC 300f et seq.) Clean Water Act of 1977 (33 USC 1251 et seq.)	This project is in compliance with this direction because Oregon State water quality standards would be adhered to and the area hydrology would not be changed.
Wetlands (E.O. 11990 Protection of Wetlands 5/24/77) [40 CFR 1508.27(b)(3)]	This project complies with this direction because no wetlands are within the project area and buffers would protect adjacent wetlands.
Wild and Scenic Rivers (Wild and Scenic Rivers Act, as amended (16 USC 1271) [40 CFR 1508.27(b)(3)]	This project complies with this direction because there are no Wild and Scenic Rivers within or adjacent to the project area.
Wilderness (Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.); Wilderness Act of 1964 (16 USC 1131 et seq.)	This project complies with this direction because there are no Wilderness Areas or areas being considered for Wilderness Area status in or adjacent to the project area.

4.6.4 Compliance with the Aquatic Conservation Strategy

Based on the environmental analysis described in the previous sections of the EA, Marys Peak Resource Area Staff have determined that the project complies with the ACS on the project (site) scale. The project complies with the four components of the Aquatic Conservation Strategy, as follows:

- **ACS Component 1 - Riparian Reserves:** Maintaining canopy cover along all streams and the wetlands would protect stream bank stability and water temperature. Riparian Reserve boundaries would be established consistent with direction from the *Salem District Resource Management Plan.*
- **ACS Component 2 - Key Watershed:** The Coleman Creek Bridge Installation is not within a Key watershed (RMP p. 7).
- **ACS Component 3 - Watershed Analysis:** A watershed based analysis was completed for this project.
- **ACS Component 4 - Watershed Restoration:** The removal of the culvert currently blocking fish passage with a bridge that would allow fish passage to approximately seven miles of streams would be expected to result in long-term restoration.

Marys Peak Resource Area Staff have reviewed this project against the ACS objectives at the project or site scale with the following results. The No Action alternative does not retard or prevent the attainment of any of the nine ACS objectives because this alternative would maintain current conditions. The proposed action does not retard or prevent the attainment of any of the nine ACS objectives for the following reasons.

1. **ACSO 1: Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.**

   No Action Alternative: The No Action alternative would maintain the development of the existing vegetation and associated stand structure at its present rate. The current distribution, diversity and complexity of watershed and landscape-scale features would be maintained.

   Proposed Action: Replacing the failing culvert with a structure designed for the 100 year flood event and fish passage would maintain watershed and landscape features to ensure protection of aquatic systems. The proposed action when combined with other proposed actions in the Upper and Lower Alsea River Watersheds are unlikely to have detrimental cumulative effects on the hydrologic regime.

2. **ACSO 2: Maintain and restore spatial and temporal connectivity within and between watersheds.**

   No Action Alternative: The No Action alternative would have little effect on connectivity except in the long term within the affected watersheds.

   Proposed Action: Aquatic connectivity would be enhanced by the replacement of the failing culvert with a structure designed to allow woody debris, bedload and increase fish passage in the Coleman Creek watershed.

3. **ACSO 3: Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations**.

   No Action Alternative: The current condition of physical integrity would be maintained.

   Proposed Action: Culvert replacement necessitates operating machinery in the stream channel, which can compact stream bed substrates, alter bed form and increase sedimentation in the

stream system. However, any disturbance is likely to be short-term and design features would be implemented to minimize potential impacts to the hydrologic system. In the long-term, the new bridge is expected to perform better than the existing culvert and improve hydrologic function. Because the new structure would be sized at greater than full bank flow width, it is expected to greatly enhance channel function.

4. **ACSO 4: Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.**

   No Action Alternative: The current condition of the water quality would be maintained.

   Proposed Action: Although some short-term effects to water quality may occur (primarily increased fine sediment loads during culvert replacement), the proposed project would help restore water quality over the long-term by restoring more natural channel conditions.

5. **ACSO 5: Maintain and restore the sediment regime under which aquatic ecosystems evolved**.

   No Action Alternative: It is assumed that the current levels of sediment into streams would be maintained.

   Proposed Action: Culvert replacement would help restore the historical sediment regime (bedload and debris passage) of the Coleman Creek aquatic ecosystem.

   ACSO 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.

   No Action Alternative: No change in in-streams flows would be anticipated.

   Proposed Action: Culvert replacement would not affect the volume of stream flow. However, it would help to restore the routing of all levels of instream flows.

6. **ACSO 7: Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.**

   No Action Alternative: The current condition of flood plains and their ability to sustain inundation and the water table elevations in meadows and wetlands is expected to be maintained.

   Proposed Action: Culvert replacement would help restore floodplain function by increasing the stream's ability to access its floodplain. The project would be unlikely to affect water table elevations. Project design features, coupled with the small percent of vegetation proposed to be removed, would maintain groundwater levels and floodplain inundation rates. Recommendations to restore water flow are consistent with this objective and would not prevent attainment of any ACS objective.

7. **ACSO 8: Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter**

thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.

No Action Alternative: The current species composition and structural diversity of plant communities would continue along the current trajectory. Diversification would occur over a longer period of time.

Proposed Action: Within the culvert replacement project area, current species composition and diversity of plant communities would be maintained.

8. **ACSO 9: Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.**

   No Action Alternative: Habitats would be maintained over the short-term and continue to develop over the long-term with no known impacts on species currently present.

   Proposed Action: Culvert replacement would increase habitat connectivity for riparian-dependent species, in-channel habitat diversity, and riparian functions (floodplain inundation, CWD, increasing nutrients for primary producers, etc.).

5.0 LIST OF PREPARERS

Table 3: List of Preparers

Resource	Name	Initial
Botany/Non-Native Invasive Species	Ron Exeter	
Fisheries/Aquatic Habitat	Scott Snedaker	
Hydrology/Water Quality/Soils	Steve Wegner	
NEPA Compliance	Stefanie Larew	
Recreation, Visual Resource Management, and Rural Interface	Traci Meredith	
Wildlife	Scott Hopkins	

6.0 CONTACTS AND CONSULTATION

6.1 Consultation

6.1.1 US Fish and Wildlife Service

The proposed crossing replacement occur approximately 1 mile upstream of listed fish and critical habitat. A determination has been made that this proposed project would be a ‘May Affect’ on OC Coho Salmon. The "May Affect" determination is based on the proximity of listed fish and designated critical habitat to each treatment site. Due to the “May Affect” determination, this project would need to have consultation completed with the NMFS prior to implementation. Compliance of the proposed projects with guidance described in *Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Fish Habitat Restoration Activities in Oregon and Washington, CH 2007- CY 2012* (NMFS 2008) would provide consultation coverage for the “May Affect” actions of the Colman Creek Replacement project.

6.1.2 National Marine Fisheries Service

Protection of EFH as described by the Magnuson/Stevens Fisheries Conservation and Management Act and consultation with NOAA NMFS is required for all projects which may adversely affect EFH of Chinook and coho salmon. The proposed project areas in Coleman Creek are approximately one mile from habitat utilized by Chinook and coho salmon (StreamNet GIS Data 2009). Due to distance the proposed project is not expected to adversely affect EFH. Therefore consultation with NOAA NMFS on EFH for restoration is not required.

6.2 Cultural Resources: Section 106 Consultation with State Historical Preservation Office

The Coleman Creek Bridge Installation occurs in the Oregon Coast Range physiographic province where the terms of Appendix D of the *Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon* are in effect. Salem District Cultural Resource maps and survey reports were consulted; there are no previously recorded sites within the project vicinity. Survey techniques according the protocol follow standards based on slope as defined in the Protocol appendix. These standards only mandate post-disturbance survey on slopes of 10% or less, or if professional judgment prompts such efforts due to topographic features or existence of nearby cultural resources. Ground disturbing work must be suspended if cultural material is discovered during project work until an archaeologist can assess the significance of the discovery.

6.3 EA Public Comment Period

The EA and FONSI will be made available for public review from June 1, 2011 to June 16, 2011 and posted at the Salem District website at http://www.blm.gov/or/districts/salem/plans/index.php. Written comments should be addressed to Patricia Wilson, Field Manager, Marys Peak Resource Area, 1717 Fabry Road SE., Salem, Oregon 97306. Emailed comments may be sent to Patricia_Wilson@blm.gov.

7.0 MAJOR SOURCES

7.1 Interdisciplinary Team Reports

Exeter, R. 2011. Botanical Report. Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, OR.

Hopkins, S. 2011. Wildlife Report. Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, OR.

Meredith, T. 2011. Recreation/Rural Interface/Visual Resources Report. Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, OR.

Snedaker, S. 2011. Fisheries Report. Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, OR.

Wegner, S. 2011. Coleman Creek Water and Soil Assessment Report. Marys Peak Resource Area, Salem District, Bureau of Land Management. Salem, OR.

7.2 Additional References

Foster, S.C., C.H. Stein, and K.K. Jones. 2001. A Guide to Interpreting Stream Survey Reports. Edited by P.A. Bowers. Information Reports 2001-06. Oregon Department of Fish and Wildlife, Portland.

Foltz, R.B. and K.A. Yanosek. 2005. Effects of Road Obliteration on Stream Water Quality. from Managing Watersheds for Human and Natural Impacts Engineering, Ecological, and Economic Challenges Watershed 2005 Glenn E. Moglen - Editor, July 19–22, 2005, Williamsburg, Virginia.

Foltz, R.B., K.A. Yanosek, T.M. Brown. 2008. Sediment Concentration and Turbidity Changes During Culvert Removals. Journal of Environmental Management. Vol. 87. p. 329–340.

Montgomery, David R. and John M. Buffington. 1997. Channel-reach morphology in mountain drainage basins. Geologic Society of America Bulletin, May 1997. Pps. 596-611.

Oregon Department of Fish and Wildlife. 2010. Aquatic Habitat Inventory – Coleman Creek. Oregon Department of Fish and Wildlife Research, Corvallis, Oregon.

Oregon Department of Fish and Wildlife. 2008. Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources. Oregon Department of Fish and Wildlife State Office, Salem, Oregon. 13pp.

Rosgen, David, L. 1996. Applied River Morphology. Wildland Hydrology, Pagosa Springs, Colorado.

StreamNet GIS Data. 2009. Metadata for Pacific Northwest Coho Salmon and Pacific Northwest Fall Chinook Salmon fish distribution spatial data sets. Portland, OR. URL: http://www.streamnet.org/online-data/GISData.html.

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS). 2008. Re-initiation of the Endangered Species Act Section 7 Formal Programmatic Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Fish Habitat Restoration Activities in Oregon and Washington, CH 2007- CY 2012. Northwest Region, Seattle, Washington. 146pp.

U.S. Department of Interior, Bureau of Land Management (BLM). 2008. Metadata for 10 Meter Digital Elevation Model GIS Data. Salem District. Salem, OR.