

# **2016 Swiftwater In-stream Restoration Decision Document**

## **Roseburg District Aquatic Restoration Environmental Assessment (EA # OR 103-08-09)**

### **Swiftwater Field Office, Roseburg District**

#### **Decision:**

It is my decision to authorize a total of four in-stream restoration projects which are located on BLM-administered lands in the Riparian Reserve and Late-Successional Reserve land use allocations: 1) Pass Creek, 2) Big Tom Folley, 3) Upper Elk Creek, and 4) Gossett Creek. Activities would include tree felling, installing in-stream structures such as logs, trees, root wads, and boulders, replacing a culvert, planting native species, and removing noxious weeds. Project design features are located in Appendix B.

The projects' information was reviewed in a Determination of NEPA Adequacy (DNA), and the DNA concluded that the 2016 Swiftwater In-stream Restoration projects conform to the applicable land use plan effects conclusions in the Roseburg District Aquatic Restoration Environmental Assessment (OR-103-08-09) remain unchanged. The existing Roseburg District Aquatic Restoration EA fulfills BLM's compliance with the requirements of the NEPA (Appendix A).

#### **Pass Creek In-stream Restoration Project**

Pass Creek is located in the Canton Creek watershed. The Pass Creek in-stream restoration work would use a truck mounted cable yarder to place logs and pull riparian trees into 2.6 miles of Pass Creek. This equipment would stay on the existing road bed and skid logs through the riparian area to the stream using cables and blocks. Ground disturbance would be limited to furrowing on the drag paths to the stream. The BLM would utilize trees from the riparian areas and wind-fallen trees for materials to place in the stream, as well as some purchased logs that would be transported to the sites. If feasible, the riparian trees would be pulled over with root wads; otherwise the trees would be felled and skidded to the stream. Approximately 60 trees 18-24 inches D.B.H. and 52 trees 24-36 inches D.B.H. would be utilized from the riparian areas for this project. This project would also involve removing noxious weeds and planting native plants to increase riparian diversity.

#### **Big Tom Folley In-stream Restoration Project**

The Big Tom Folley In-stream Restoration project would use an excavator and a truck mounted cable yarder to place logs and small trees into 0.5 miles of Saddle Butte Creek and 2.5 miles of North Fork Big Tom Folley Creek. Saddle Butte and North Fork Big Tom Folley Creeks are located in the Elk Creek watershed. The excavator would utilize previous access points on North Fork Big Tom Folley from a 2004 restoration project. The excavator would need to construct access trails to Saddle Butte Creek through the riparian area. In areas without excavator access, a truck mounted cable yarder would be used to place logs and trees from the existing road bed. Forty-five small trees 12-24 inches D.B.H. would be removed from the road prism and added to the stream. Up to ten trees 12-24 inches D.B.H. would be removed from the riparian area and added to the stream, and 55 logs will be delivered by log truck and placed into the stream. The project will also involve moving 15 previously placed logs in the stream channel into more effective locations. This project would also involve removing noxious weeds and planting native plants to increase riparian diversity.

## **Upper Elk Creek In-stream Restoration Project**

The Upper Elk Creek In-stream Restoration project would use an excavator to place logs and riparian trees into 1.7 miles of Elk Creek. Upper Elk Creek is located in the Elk Creek watershed. The excavator would construct access trails to Elk Creek through the riparian area. Approximately 50 to 60 riparian trees 18-28 inches D.B.H. would be felled and placed in the stream, and approximately 15 logs will be transported to the restoration reach by log truck and placed into the stream. Additionally, approximately 10 pieces of downed wood will be moved from the riparian area into the stream channel. This project would also involve removing noxious weeds and planting native plants to increase riparian diversity.

## **Gossett Creek Tributary Culvert Replacement Project**

The Gossett Creek Tributary Culvert Replacement project would involve replacing a current barrier culvert with a fish passage culvert on a small tributary to Gossett Creek. Gossett Creek is located in the Calapooya Creek watershed. Work would be conducted within the current road prism and downstream of the culvert approximately 100 feet. Due to the degradation of the stream downstream of the culvert, the project would also involve placing four small boulder weirs in the stream with an excavator to control grade and allow for better fish passage. Due to the boulder weir work, the project would remove four to five small alder trees (less than 18 inches D.B.H.).

### **Rationale for the Decision:**

Projects of this nature were described under Alternative Two, the Proposed Action, in the Roseburg District Aquatic Restoration EA (p. 10). Effects would be consistent with those described in the EA (pp. 27-28). Implementation will aid in meeting the objectives of increasing stream complexity and connectivity, and restoring riparian vegetation through noxious weed treatments and native plantings (EA, p. 5). Alternative One, the “No Action” alternative, would not meet these objectives.

The proposed action complies with the 1995 ROD/RMP because it is specifically provided for in the following decision:

- “Restore stream channel complexity. In-stream structures will only be used in the short term and not as a mitigation measure.” (p. 21)
- “Provide and maintain fish passage at all road crossings of existing and potential fish bearing streams (e.g., streams which can be made available to anadromous fish by removing obstacles to passage).” (p. 25)
- “Coordinate with other agencies and groups in the management of species across the landscape. Coordination will be accomplished through conservation plans or similar agreements which identify actions to conserve single or multiple species and/or habitats.” (p. 42)

### ***Cultural Resources***

Bureau of Land Management personnel conducted cultural resource surveys on December 4 and 11, 2015 and January 5 and 9, 2016 (CRS SW1602) in accordance with Appendix A of the 2015 protocol with the State of Oregon. No new cultural resources were identified during this recent survey. All previously identified sites would be avoided during project implementation and this would result in no effect to cultural properties. The BLM has completed its Section 106 responsibilities under the 2012 National Programmatic Agreement and the 2015 OR SHPO/OR BLM Protocol.

## ***Survey and Manage***

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an Order in *Conservation Northwest, et al. v. Rey, et al.*, No. 08-1067 (W.D. Wash.) (Judge Coughenour), granting Plaintiffs' motion for partial summary judgment and finding a variety of NEPA violations in the BLM and USFS 2007 Record of Decision eliminating the Survey and Manage mitigation measure. Previously, in 2006, the District Court (Judge Pechman) had invalidated the agencies' 2004 RODs eliminating Survey and Manage due to NEPA violations. Following the District Court's 2006 ruling, parties to the litigation had entered into a stipulation exempting certain categories of activities from the Survey and Manage standard (hereinafter referred to as "Pechman Exemptions").

Judge Pechman's Order from October 11, 2006 directs: "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

- a) Thinning projects in stands younger than 80 years old (emphasis added);
- b) Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- c) Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions; and
- d) The portions of project involving hazardous fuel treatments where prescribed fire is applied. Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph (a) of this paragraph."

The Ninth Circuit Court of Appeals issued an opinion on April 25, 2013, that reversed the District Court for the Western District of Washington's approval of the 2011 Survey and Manage Settlement Agreement. The case is now remanded back to the District Court for further proceedings.

On February 18, 2014, the District Court for the Western District of Washington issued a remedy order in the case of *Conservation Northwest et al. v. Bonnie et al.*, No. 08-1067- JCC (W.D. Wash.)/No.11-35729 (9th Cir.). This was the latest step in the ongoing litigation challenging the 2007 Record of Decision (ROD) to modify the Survey and Manage (S&M) Standards and Guidelines.

The remedy order contained two components. The order:

- 1) Vacates the 2007 ROD to Remove or Modify the Survey and Manage S&M Mitigation Measure Standards and Guidelines, and
- 2) Allows for continued project planning and implementation for projects that relied on the 2011 Consent Decree and were being developed or implemented on or before April 25, 2013 (date of the Ninth Circuit Court ruling invalidating the 2011 Consent Decree).

In summary, the current status of Survey and Manage is:

- 1) Follow the 2001 S&M ROD and Standards and Guidelines (S&G);
- 2) Apply the "Pechman exemptions;" and

- 3) Implement the 2001, 2002, and 2003 ASR modifications to the S&M species list, except for the changes made for the red tree vole.

I have reviewed the 2016 Swiftwater In-stream Restoration project in consideration of both the December 17, 2009 and October 11, 2006 Orders. Because the 2016 Swiftwater In-stream Restoration project is a stream improvement project, I have made the determination that this project meets exemption “c” of the Pechman Exemptions (October 11, 2006 Order).

## ***Wildlife***

### *Northern Spotted Owl*

All proposed projects are within the distribution range of the northern spotted owl (*Strix occidentalis caurina*). The proposed projects listed above would not impact the ability for stands to continue functioning as suitable or dispersal habitat for the northern spotted owl because project design features would be implemented (Appendix A, pages A-4 and A-5; Appendix B, PDF #51 and 52). Project design features include maintaining a canopy cover at or above the 60-80 percent threshold necessary to maintain suitable habitat and multiple canopy layer, retaining snags and downed wood, and maintaining the canopy cover at or above the 40 percent threshold necessary to maintain dispersal habitat (Appendix B, PDF #51; USFWS, 2013).

Disruption concerns to nesting northern spotted owls at two known northern spotted owl sites (King Creek and Big Tom’s Saddle), within 0.25 miles of the Pass Creek and Big Tom Folley proposed project areas, would be mitigated through project design features (Table 1; Appendix A, page A-5).

Pass Creek, Big Tom Folley, and Saddle Butte Creek proposed project areas are within northern spotted owl critical habitat (WCS 6 and ORC 3, respectively). The removal and modification of primary constituent elements is not expected to change the function of the critical habitat subunits (Appendix A, page A-6). Project design features (Appendix B, #51 and #52) state that there would be no gaps greater than 0.5 acres, and no more than a group of four trees would be removed within, at least, one site potential tree height (Appendix A, page A-6).

### *Marbled Murrelet*

The Pass Creek, Upper Elk Creek, and Gosset Creek Culvert Replacement projects are outside the distribution range for the marbled murrelet, so there would be no habitat, disruption/disturbance, or critical habitat concerns for the marbled murrelet (Appendix A, page A-6).

The North Fork Big Tom Folley proposed project is within both inland management Zone 1 and Zone 2 for the marbled murrelet. Project design features (#42, Appendix B) would be implemented for tree removal within suitable habitat. The Saddle Butte Creek proposed project area is within Zone 1. There would be no trees removed or modified within this project area. Seasonal restrictions would be implemented to prevent disruption of nesting marbled murrelets during the breeding season within the unsurveyed suitable habitat (Table 1; Appendix A, page A-6). The proposed projects listed above would not affect the ability for stands to continue functioning as suitable habitat for the marbled murrelet nor disrupt nesting murrelets.

**Table 1. Seasonal restrictions for the 2016 Swiftwater In-stream Restoration projects.**

Project Name	Timing & Seasonal Restrictions	
	Marbled Murrelet Restriction	Northern Spotted Owl Restriction
Pass Creek T. 21 S., R. 7 W., Sections 15 and 23	None	<i>Suitable Habitat:</i> March 1 –September 30 <sup>5</sup>  <i>Dispersal Habitat:</i> <sup>4</sup> March 1 –July 15
North Fork Big Tom Folley T. 24 S., R. 1 W., Section 23	<i>Suitable Habitat Zone 1:</i> April 1 – August 5;  <i>DORs</i> <sup>3</sup> August 6- September 15	<i>Suitable and Dispersal Habitat:</i> None <sup>1</sup>
North Fork Big Tom Folley T. 24 S., R. 1 W., Section 35	<i>Suitable Habitat Zone 1 and Zone 2:</i> April 1 – September 15	<i>Suitable Habitat:</i> March 1 –September 30  <i>Dispersal Habitat:</i> <sup>4</sup> March 1 –July 15
Saddle Butte Creek T. 24 S., R. 1 W., Section 35	<i>Suitable Habitat Zone 1:</i> April 1 – August 5  <i>DORs</i> <sup>3</sup> August 6-September 15	<i>Suitable and Dispersal Habitat:</i> None <sup>1</sup>
Upper Elk Creek T. 24 S., R. 4 W., Section 3	None	<i>Suitable Habitat:</i> None <sup>2</sup>
Gossett Creek T. 24 S., R. 4 W., Section 13	None	None

<sup>1</sup> Based on current (2016) northern spotted owl surveys within the Tyea Density Management Study Area.

<sup>2</sup> Pre-disturbance project surveys were completed in 2014-2015 and no northern spotted owl activity centers were located within one-quarter (0.25) mile of the project area (survey results are valid through 2017).

<sup>3</sup> Daily Operating Restrictions = project activities would occur 2 hours after sunrise and cease 2 hours before sunset.

<sup>4</sup> Restrictions would apply within the appropriate disruption distance (35 yards for use of heavy equipment; 65 yards for chainsaw use).

<sup>5</sup> Removing or modifying unsurveyed suitable habitat.

*Western Ridged Mussel (Godindea angulate)*

The western ridged mussel is a BLM Special Status Species that is found exclusively in perennial streams. Aquatic mussel surveys will be conducted on the Upper Elk Creek proposed project and the North Fork Big Tom Folley proposed project areas. If the western ridged mussel is located during these surveys, logs would not be placed at the identified site in order to avoid disturbance to and maintain within the drainage (Appendix A, page A-7).

*Crater Lake Tightcoil (Pristiloma articum crateris)*

The Crater Lake tightcoil is a BLM Special Status Species that is found within or 10 meters from perennial wet areas. Surveys were conducted and the species was not located; therefore, there would be no mitigation measures that need to be implemented (Appendix A, page A-7).

### *Landbirds*

The breeding season for most landbirds listed in Appendix D is falls between April 1 and July 15. Within the proposed projects of Pass Creek, Saddle Butte Creek, North Big Tom Folley and Upper Elk Creek, effects to landbirds would be mitigated through PDFs and seasonal restrictions during northern spotted owl and marbled murrelet critical breeding and nesting seasons; therefore, the proposed project implementation would have no measureable effect on these species or their habitats as listed in the Appendix.

Upper Elk Creek and Gossett Creek culvert replacement would not require disturbance restrictions for ESA listed wildlife species; therefore, the removal trees and downed wood to implement the project would cause direct disturbance to breeding migratory birds and/or destruction of nests/young within the project area, as well as cause disturbance to nesting birds in surrounding habitats. This would affect migratory birds at the local level; however, these projects would not decrease overall landscape population levels for these species and, therefore, would have negligible impacts on migratory birds. (Appendix A, page A-7).

### ***Oregon Coast Coho Salmon***

Pass, Saddle Butte, North Fork Big Tom, and Elk Creeks are all designated as critical habitat and Essential Fish Habitat for Oregon Coast coho salmon. Potential effects from placement of logs for in-stream habitat are primarily associated with sediment generated by stream bank and stream channel disturbance.

Actions of this nature were programmatically consulted with the National Marine Fisheries Service and are addressed and authorized in *Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in the States of Oregon and Washington* (ARBO II), dated April 25, 2013.

Placement of the in-stream structures in the Creeks listed above would not result in any undue environmental degradation. The project is consistent with Aquatic Conservation Strategy objectives (ROD/RMP, p. 20), in that it would help: maintain and restore in-stream flows, maintain and restore the natural sediment regime, and maintain and restore aquatic habitat. The project also implements management direction to restore stream channel complexity (1995 ROD/RMP, p. 20).

The replacement of a barrier culvert with a fish passage culvert in a tributary to Gossett Creek is also consistent with Aquatic Conservation Strategy objectives (ROD/RMP, p. 19). 20-21), in that it would help: maintain and restore spatial and temporal connectivity within and between watersheds.

### ***Botany***

Surveys for BLM Sensitive Species would be conducted prior to project related activities. Any Sensitive Species found would be protected from habitat disturbance at the site with a buffer.

### ***Noxious Weeds***

Surveys for noxious weeds would be conducted prior to project related activities. All known noxious weed sites would be treated prior to ground disturbance (in accordance with EA# OR-103-08-09 *Roseburg District Aquatic Restoration*). Sites would be monitored post-project activity for re-establishment of noxious weeds or new infestations and treated. PDFs outlined in the *Roseburg District Aquatic Restoration* EA would be followed to reduce the spread of noxious weeds.

### ***Soils***

The analysis of the potential effects to soil productivity from ground disturbing activities associated with the new proposed action has been adequately analyzed in the Roseburg District Aquatic Restoration EA. Effects to soil productivity was an issue considered but not analyzed in detail in the Roseburg District Aquatic Restoration EA because the use of PDFs (Appendix B. #5-9) would reduce the degree and area extent of soil impacts in riparian and upland areas. Experience in implementing restoration projects since signing of the Roseburg District Aquatic Restoration EA has confirmed that impacts to soil productivity are minimized with the adoption of these PDFs.

### **Public Involvement & Response to Comment:**

An interdisciplinary team began analysis for the Roseburg District Aquatic Restoration EA in the autumn of 2008. The public was notified of initiation of the environmental assessment in the Fall 2008 Roseburg District Quarterly Planning Update.

A thirty-day period for public review and comment was provided upon completion of the environmental assessment (August 4, 2009 through September 2, 2009), consistent with BLM policy/practice to provide the public a review opportunity prior to issuance of any decision(s). Notification was made to state and Federal resource management and regulatory agencies. Local tribal and county government, trade groups and other interested parties were also notified. No comments on the environmental assessment were received.

### **Monitoring:**

Monitoring will be done in accordance with the 1995 ROD/RMP, Appendix I (pp. 84, & 195-198), with emphasis on assessing the effects of the restoration activities on the following resources: Water and Soils; and Fish Habitat.

### **Administrative Remedies:**

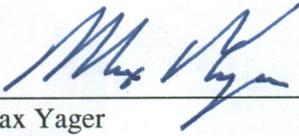
The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management Regulations at 43 CFR Subpart 5003 Administrative Remedies, protests of this decision may be filed with the authorized officer, Max Yager, within 15 days of the publication of the legal notice of availability of the decision on June 15, 2016, in *The News-Review*, Roseburg, Oregon.

43 CFR § 5003.3 subsection (b) states: "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. Only written and signed hard copies of protests that are delivered to the Roseburg District Office will be accepted. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

43 CFR § 5003.3 subsection (c) states: "Protests received more than 15 days after the publication of the notice of decision or the notice of sale are not timely filed and shall not be considered." Upon timely filing of a protest, the authorized officer shall reconsider the project decision to be implemented in light of the statement of reasons for the protest and other pertinent information available.

The authorized officer shall, at the conclusion of the review, serve the protest decision in writing to the party or parties. Upon denial of protest, the authorized officer may proceed with the implementation of the decision as permitted by regulations at 43 CFR § 5003.3 subsection (f).

If no protest is received by the close of business (4:30 P.M.; Pacific Standard Time) at the expiration of the period for protest on June 29, 2016, this decision will become final. If a timely protest is received, the project decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available, and the Swiftwater Field Office will issue a protest decision.



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Max Yager  
Field Manager  
Swiftwater Field Office

JUNE 13<sup>th</sup>, 2016  
Date

# Appendix A. Determination of NEPA Adequacy (DNA) Worksheet

**U.S. Department of the Interior  
Bureau of Land Management  
Roseburg District**

**OFFICE:** Roseburg District, Swiftwater Field Office

**CASEFILE/PROJECT NUMBER:** N/A

**PROPOSED ACTION TITLE/TYPE:** 2016 Swiftwater In-stream Restoration

**LOCATION/LLEGAL DESCRIPTION:** Pass Creek in Sections 15 and 23 of T. 24 S., R. 1 W.; Saddle Butte and North Fork Big Tom Folley Creeks Sections 23 and 35 of T. 21 S., R. 7 W.; and Upper Elk Creek and Gosset Creek in Sections 3 and 13 of T. 24 S., R. 4 W., W.M.

**DETERMINATION OF NEPA ADEQUACY (DNA):** Not all decisions require the use of a DNA. When used, a DNA confirms that an action is adequately analyzed in existing NEPA document(s) and is in conformance with the land use plan. The DNA worksheet is not itself a NEPA document. The signed conclusion in the DNA worksheet is an interim step in the BLM's internal review process and does not constitute an appealable decision. However, the decision on the action being implemented may be subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

## **A. Description of the Proposed Action**

The BLM would conduct a total of four in-stream restoration projects, which are located on BLM-administered lands in the Riparian Reserve and Late-Successional Reserve land use allocations: 1) Pass Creek, 2) Big Tom Folley, 3) Upper Elk Creek, and 4) Gossett Creek. Activities would include tree felling, installing in-stream structures such as logs, trees, root wads, and boulders, replacing a culvert, planting native species, and removing noxious weeds. Project design features are located in Appendix B.

### **Pass Creek In-stream Restoration Project**

Pass Creek is located in the Canton Creek watershed. The Pass Creek in-stream restoration work would use a truck mounted cable yarder to place logs and pull riparian trees into the stream. This equipment would stay on the existing road bed and skid logs through the riparian area to the stream using cables and blocks. Ground disturbance would be limited to furrowing on the drag paths to the stream. The BLM would utilize trees from the riparian areas and wind-fallen trees for materials to place in the stream, as well as some purchased logs that would be transported to the sites. If feasible, the riparian trees would be pulled over with root wads; otherwise the trees would be felled and skidded to the stream. Approximately 60 trees 18-24 inches diameter at breast height (D.B.H.) and 52 trees 24-36 inches D.B.H. would be utilized from the riparian areas for this project. This project would also involve removing noxious weeds and planting native plants to increase riparian diversity.

### **Big Tom Folley In-stream Restoration Project**

The Big Tom Folley In-stream Restoration project would use an excavator to place logs and small trees into Saddle Butte and North Fork Big Tom Folley Creeks. Saddle Butte and North Fork Big Tom Folley Creeks are located in the Elk Creek watershed. The excavator would utilize previous access points on North Fork Big Tom Folley from a 2004 restoration project. The excavator would need to construct access trails to Saddle Butte Creek through the riparian area. Forty-five small trees 12-24 inches D.B.H. would be removed from the road prism and added to the stream. Up to 10 trees 12-24 inches D.B.H. would be removed from the riparian area and added to the stream, 55 logs would be delivered by log truck and placed into the stream, and 15 previously placed logs in the stream channel would be moved into more effective locations. This project would also involve removing noxious weeds and planting native plants to increase riparian diversity.

### **Upper Elk Creek In-stream Restoration Project**

The Upper Elk Creek In-stream Restoration project would use an excavator to place logs and riparian trees into Elk Creek. Upper Elk Creek is located in the Elk Creek watershed. The excavator would construct access trails to Elk Creek through the riparian area. Approximately 50 to 60 riparian trees 18-28 inches D.B.H. would be felled and placed in the stream, and approximately 15 logs would be transported to the restoration reach by log truck and placed into the stream. Additionally, approximately 10 pieces of downed wood would be moved from the riparian area into the stream channel. This project would also involve removing noxious weeds and planting native plants to increase riparian diversity.

### **Gossett Creek Tributary Culvert Replacement Project**

The Gossett Creek Tributary Culvert Replacement project would involve replacing a current barrier culvert with a fish passage culvert on a small tributary to Gossett Creek. Gossett Creek is located in the Calapooya Creek watershed. Work would be conducted within the current road prism and downstream of the culvert approximately 100 feet. Due to the degradation of the stream downstream of the culvert, the project would also involve placing four small boulder weirs in the stream with an excavator to control grade and allow for better fish passage. Due to the boulder weir work, the project would remove four to five small alder trees (less than 18 inches D.B.H.).

## **B. Land Use Plan (LUP) Conformance**

Roseburg District Resource Management Plan and Record of Decision. Approved June 1995.

The proposed action complies with the 1995 ROD/RMP because it is specifically provided for in the following decision:

- “Restore stream channel complexity. In-stream structures will only be used in the short term and not as a mitigation measure.” (p. 21)
- “Provide and maintain fish passage at all road crossings of existing and potential fish bearing streams (e.g., streams which can be made available to anadromous fish by removing obstacles to passage).” (p. 25)
- “Coordinate with other agencies and groups in the management of species across the landscape. Coordination will be accomplished through conservation plans or similar agreements which identify actions to conserve single or multiple species and/or habitats.” (p. 42)

**C. Identify applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.**

Roseburg District Aquatic Restoration Environmental Assessment (OR-103-08-09), published August 4, 2009.

*Endangered Species Act – Section 7 Programmatic Consultation Biological and Conference Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Fish Habitat Restoration Activities in Oregon and Washington*, dated April 28, 2007.

*Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in the States of Oregon and Washington (ARBO II)*, dated April 25, 2013.

*Programmatic Biological Opinion for Aquatic Restoration Activities in the States of Oregon, Washington and portions of California, Idaho and Nevada (ARBO II)* (FWS reference: 01EOFW00-2013-F-0090) dated July 1, 2013

*Roseburg District Integrated Weed Control Plan and Environmental Assessment (EA #OR- OR-100-94-11; USDI BLM 1995b).*

**D. NEPA Adequacy Criteria**

**1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?**

The proposed action is a restoration action identical in nature to those described and analyzed in the Roseburg District Aquatic Restoration Environmental Assessment (OR-103-08-09). Placement of large wood and trees in reaches of Pass, Saddle Butte, North Fork Big Tom Folley, and Elk Creeks and the replacement of a fish barrier culvert with one that provides fish passage on a tributary of Gossett Creek are consistent with the stated purpose and objectives for in-stream habitat restoration described in the EA. The intent is to correct a deficiency of large woody debris that has resulted in: reduced pool complexity and volume, a lack of retention of gravel substrate, and reduced availability of spawning and rearing habitat for anadromous and resident salmonids, and to restore access to historically occupied fish habitat.

**2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?**

The range of alternatives considered and described in the Roseburg District Aquatic Restoration EA (pp. 8-19) was appropriate given the actions proposed, and the resource commitments and decisions made by the 1995 ROD/RMP. The alternatives consisted of no action and the proposed action consisting of a suite of activities designed to improve water quality and improve access to fish habitat. These categories include; acquisition of wood for in-stream placement, placement of in-stream structures, eradication of noxious weeds in riparian areas, replacement or modification of stream crossings, removal of stream crossings, and exclusion of livestock from riparian areas.

**3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?**

The analysis in the Roseburg District Aquatic Restoration EA is adequate. The analysis, completed in August of 2009, reflects the most currently available information on water quality and watershed condition. Effects of similar restoration projects on Oregon Coast coho salmon and aquatic habitat were considered and addressed in the environmental assessment.

*Cultural Resources*

Bureau of Land Management personnel conducted cultural resource surveys on December 4 and 11, 2015 and January 5 and February 9, 2016 (CRS SW1602) in accordance with Appendix A of the 2015 protocol with the State of Oregon. No new cultural resources were identified during this recent survey. All previously identified sites would be avoided during project implementation and this would result in no effect to cultural properties. The BLM has completed its Section 106 responsibilities under the 2012 National Programmatic Agreement and the 2015 OR SHPO/OR BLM Protocol.

*Wildlife*

Under a 2006 ruling that invalidated the BLM and Forest Service 2004 Record of Decision to eliminate Survey and Manage, Judge Pechman established four exemptions to requirements for pre-disturbance surveys and management of known Survey and Manage species sites.

Stream improvement projects fall under one of the Pechman Exemptions (Exemption “c”). Consequently, the Survey and Manage standards and guidelines are not applicable to the proposed In-stream Restoration projects.

The Programmatic Aquatic Restoration Biological Opinion from the U.S. Fish and Wildlife Service, dated July 1, 2013, is the most current consultation replacing the Programmatic Aquatic Restoration Biological Opinion from the U.S. Fish and Wildlife Service dated June 14, 2007. The project design features would be used from the current biological opinion.

*Northern Spotted Owl*

All proposed projects are within the distribution range of the northern spotted owl (*Strix occidentalis caurina*).

Habitat

Section 15 (T. 24 S., R. 1 W.) of the Pass Creek project area is within the home ranges of two northern spotted owl nest sites (Trail Creek, INDO 1893O and King Creek, IDNO 0352O). Section 23 (T. 24 S., R. 1 W.) of the Pass Creek project area is within the core area (0.25 mile disruption threshold) of the King Creek nest site, and within the home ranges of three northern spotted owl nest sites (Call Creek, IDNO 0353O; Ringtail Creek, IDNO 0305O and Chilcoot Creek, IDNO 0310A). Pass Creek is within dispersal and suitable habitat of the northern spotted owl. Trees would be removed from both dispersal and suitable habitat, and placed in the stream (*Section A. Description of the Proposed Action*, p. A-1). Project design features would be implemented for tree removal within suitable habitat (see Appendix B). Seasonal restrictions for the northern spotted owls’ critical breeding season would be implemented due to the removal and modification of suitable habitat (*2016 Swiftwater In-stream Restoration Decision Document*, Table 1).

Section 23 (T. 21 S., R. 7 W.) of the North Fork Big Tom Folley proposed project area is within the home ranges of three northern spotted owl nest sites (Big Tom, IDNO 2048A; North Saddle, IDNO 0240O; and Big Tom's Saddle, IDNO 0252O), and within dispersal and suitable habitat for the northern spotted owl. There would be no trees removed or modified within this segment. North Fork Big Tom Folley, Section 23, falls within the Tye Density Management Study area and has been surveyed for over 20 years. Based on the 2016 survey effort, there are no northern spotted owls within 0.25 miles of the project area, therefore, there are no seasonal restrictions (*2016 Swiftwater In-stream Restoration Decision Document*, Table 1).

Section 35 (T. 21 S. R. 07 W.) of the North Fork Big Tom Folley proposed project area is within the core area (0.25 mile disturbance threshold) of Big Tom's Saddle and within the home ranges of 2 northern spotted owl nest sites (Big Tom; and Lower Tom Folley, IDNO 0253O). The Big Tom Folley proposed action, in Section 35, is within both dispersal and suitable habitat for the northern spotted owl. Trees would be felled or push/pulled into the stream. Project design features would be implemented for tree removal within suitable habitat (see Appendix B). Seasonal restrictions for the northern spotted owls' critical nesting season would be implemented due to the removal and modification of suitable habitat (*2016 Swiftwater In-stream Restoration Decision Document*, Table 1).

The Saddle Butte Creek proposed project area is within the home ranges of two northern spotted owl nest sites (Big Tom's Saddle, and Lower Tom Folley, IDNO 0252O). Saddle Butte is within dispersal and suitable habitat for the northern spotted owl. There would be no trees removed or modified within this segment. Saddle Butte Creek falls within the Tye Density Management Study area and has been surveyed for over 20 years. Based on the 2016 survey effort, there are no northern spotted owls within 0.25 miles of the project area, therefore, there are no seasonal restrictions (*2016 Swiftwater In-stream Restoration Decision Document*, Table 1).

The Upper Elk Creek proposed project area is not within the home range of any northern spotted owl nest sites. The Upper Elk Creek proposed project area is within dispersal and suitable habitat for the northern spotted owl. Trees to be felled or pulled/pushed into the stream and downed trees to be placed in the stream would occur within northern spotted owl dispersal habitat only. There would be no trees felled within suitable habitat, however, three downed trees would be removed from suitable habitat and placed in the stream. The suitable habitat was surveyed for northern spotted owls in 2014 and 2015. There were no northern spotted owls detected, therefore, there would be no seasonal restriction during the breeding period for the removal of the three downed trees in suitable habitat (*2016 Swiftwater In-stream Restoration Decision Document*, Table 1).

The Gossett Creek Tributary Culvert Replacement project area is not within the home range of any northern spotted owl nest sites and the adjacent suitable habitat is being surveyed in 2016. The project is within dispersal habitat for the northern spotted owl. Suitable habitat for the northern spotted owl would not be removed or modified, therefore, there would be no seasonal restrictions implemented.

The proposed projects listed above would not affect the stands such that it would impact the ability of the stands to continue functioning as suitable or dispersal habitat for the northern spotted owl nor disrupt nesting northern spotted owls by implementing PDFs in Appendix B. This includes maintaining a canopy closure at or above the 60-80 percent threshold necessary to maintain suitable habitat, and maintaining the canopy closure at or above the 40 percent threshold necessary to maintain dispersal habitat (Appendix B, PDF #51).

## Disruption/Disturbance

Disruption concerns within the Pass Creek and Big Tom Folley proposed project areas to nesting northern spotted owls at two (2) known northern spotted owl sites (King Creek and Big Tom's Saddle, respectively), within 0.25 miles of the project area, would be mitigated through project design features (2016 *Swiftwater In-stream Restoration Decision Document*, Table 1).

## Critical Habitat

The Pass Creek proposed project area would occur within designated **critical habitat, Subunit WCS 6** for the northern spotted owl and would remove primary constituent elements (i.e. suitable habitat, large downed woody debris) within the road prism and along the stream channel within Sections 15 and 23 (T. 21 S. R. 4 W.) in dispersal and suitable habitat. The removal and modification of primary constituent elements is not expected to change the function of the critical habitat subunit. Project design features #51 and #52 state that there would be no gaps of greater than 0.5 acres within critical habitat and that no more than a group of four trees would be removed within, at least, one site potential tree height group (Appendix B).

The Big Tom Folley and Saddle Butte Creek proposed project areas would occur within designated **critical habitat, Subunit ORC 3** for the northern spotted owl and would remove primary constituent elements (i.e. suitable habitat) within the road prism of the 22-7-2.1 road within Section 35 in suitable habitat. There would be no trees removed within Section 23 or within the Saddle Butte Creek of Section 35. The removal of primary constituent elements is not expected to change the function of the critical habitat subunit. Project design feature #51 would prevent gaps of greater than 0.5 acres within critical habitat (Appendix B).

Upper Elk Creek and the Gossett Creek Tributary Culvert Replacement proposed project areas are not within designated critical habitat for the northern spotted owl. There are no concerns to critical habitat for the northern spotted owl within these proposed project areas.

## Marbled Murrelet

### Habitat

The Pass Creek, Upper Elk Creek, and Gosset Creek Culvert Replacement projects are outside the distribution range for the marbled murrelet, so there would be no habitat, disruption/disturbance, or critical habitat concerns for the marbled murrelet.

The North Fork Big Tom Folley proposed project within Section 23 is within Zone 1 (0-35 miles from the coast). The North Fork Big Tom Folley proposed action in Section 23 is within recruitment and unsurveyed suitable habitat for the marbled murrelet. There would be no trees removed or modified within this project area. Seasonal restrictions would be implemented to prevent disruption of nesting marbled murrelets during the critical nesting season within the unsurveyed suitable habitat.

The North Fork Big Tom Folley proposed action in Section 35 is within both recruitment and suitable habitat for the marbled murrelet and the northern part (121 yards) and southern part (154 yards) of the project area in Section 35 is within Zone 1. The rest of North Fork Big Tom Folley, Section 35 is within Zone 2 (35-50 miles from the coast). Trees would be felled or push/pulled into the stream. Project design features would be implemented for tree removal within suitable habitat (see Appendix B). Seasonal restrictions for the marbled murrelet critical nesting season would be implemented due to removal and modification of unsurveyed suitable habitat.

The Saddle Butte Creek proposed project area in Section 35 is within both recruitment and suitable habitat for the marbled murrelet and is within Zone 1. There would be no trees removed or modified within this project area. A seasonal restriction would be implemented to prevent disruption of nesting marbled murrelets during the critical nesting season within the unsurveyed suitable habitat.

The proposed projects listed above would not affect the ability of the stands to continue functioning as suitable habitat for the marbled murrelet nor disrupt nesting murrelets by implementing project design features listed in Table 1 (*2016 Swiftwater In-stream Restoration Decision Document*) and the following PDF #42 (No trees more than 36 inches D.B.H., not removing trees that are adjacent to platform trees).

### Critical Habitat

The Big Tom Folley proposed project area in Section 23 does not occur within designated critical habitat for the marbled murrelet; therefore, there are no concerns to critical habitat for the marbled murrelet within this proposed project area.

The Big Tom Folley proposed project area in Section 35 and Saddle Butte Creek proposed project area would occur within designated **critical habitat, Subunit OR-04-g** for the marbled murrelet and would remove primary constituent elements (i.e. suitable habitat) from the road prism and along the stream channel. The removal and modification of primary constituent elements is not expected to change the function of the critical habitat subunit. Project design features #51 and #52 state that there would be no gaps of greater than 0.5 acres within critical habitat and that no more than a group of four trees would be removed within, at least, one site potential tree height group (Appendix B).

### Western Ridged Mussel (*Gonidea angulate*)

The western ridged mussel is a BLM Special Status Species that is found exclusively in perennial streams. Particular consideration was given to the western ridged mussel because a specimen was located in 2007 within the Elk Creek drainage, therefore, aquatic mussel surveys will be conducted on the Upper Elk Creek proposed project and the North Fork Big Tom Folley proposed project areas. If the western ridged mussel is located during these surveys, logs would not be placed at the identified site in order to keep the population within the drainage.

### Crater Lake Tightcoil (*Pristiloma articum crateris*)

The Crater Lake tightcoil is a BLM Special Status Species that is found within or 10 meters from perennial wet areas, such as, wetlands, springs, seeps and riparian areas. Particular consideration was given to the Crater Lake tightcoil because the Pass Creek project area is above 2,000 feet in elevation and east of Interstate 5. Although any impacts from project activities would be minimal, the species is rare and should be protected. Surveys were conducted and the species was not located, therefore, there would be no mitigation measures that need to be implemented.

### Landbirds

The breeding season for most landbirds listed in Appendix D is from April 1 through July 15. Within the proposed projects of Pass Creek, Saddle Butte Creek, North Big Tom Folley and Upper Elk Creek, effects to landbirds listed in Appendix D would be mitigated through PDFs and seasonal restrictions during northern spotted owl and marbled murrelet critical breeding and nesting seasons; therefore, the proposed project implementation would have no measureable effect on these species or their habitats as listed in the Appendix. Gossett Creek culvert replacement would not require disturbance restrictions for wildlife species; therefore, the removal of small alders to implement the project would cause direct disturbance to breeding migratory birds and/or destruction of nests/young within the project area, as well as cause

disturbance to nesting birds in surrounding habitats. This would affect migratory birds at the local level; however, these projects would not decrease overall landscape population levels for these species and would have negligible impacts on migratory birds.

### *Oregon Coast Coho Salmon*

Pass, Saddle Butte, North Fork Big Tom, and Elk Creeks are all designated as critical habitat and Essential Fish Habitat for Oregon Coast coho salmon. Potential effects from placement of logs for in-stream habitat are primarily associated with sediment generated by stream bank and stream channel disturbance.

Actions of this nature were programmatically consulted with the National Marine Fisheries Service and are addressed and authorized in *Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in the States of Oregon and Washington* (ARBO II), dated April 25, 2013.

Placement of the in-stream structures in the Creeks listed above would not result in any undue environmental degradation. The project is consistent with Aquatic Conservation Strategy objectives (ROD/RMP, p. 20), in that it would help: maintain and restore in-stream flows, maintain and restore the natural sediment regime, and maintain and restore aquatic habitat. The project also implements management direction to restore stream channel complexity (1995 ROD/RMP, p. 20).

The replacement of a barrier culvert with a fish passage culvert in a tributary to Gossett Creek is also consistent with Aquatic Conservation Strategy objectives (ROD/RMP, p. 19). 20-21), in that it would help: maintain and restore spatial and temporal connectivity within and between watersheds.

### *Botany*

Under a 2006 ruling that invalidated the BLM and Forest Service 2004 Record of Decision to eliminate Survey and Manage, Judge Pechman established four exemptions to requirements for pre-disturbance surveys and management of known Survey and Manage species sites.

Stream improvement projects fall under one of the Pechman Exemptions (Exemption "C"). Consequently, the Survey and Manage standards and guidelines are not applicable to the proposed In-stream Restoration projects.

Surveys for BLM Sensitive Species would be conducted prior to project related activities. Any Sensitive Species found would be protected from habitat disturbance at the site with a buffer.

### *Noxious Weeds*

Surveys for noxious weeds would be conducted prior to project related activities. All known noxious weed sites would be treated prior to ground disturbance (in accordance with EA# OR-103-08-09 *Roseburg District Aquatic Restoration*). Sites would be monitored post-project activity for re-establishment of noxious weeds or new infestations and treated. PDFs outlined in the *Roseburg District Aquatic Restoration EA* would be followed to reduce the spread of noxious weeds.

## Soils

The analysis of the potential effects to soil productivity from ground disturbing activities associated with the new proposed action has been adequately analyzed in the Roseburg District Aquatic Restoration EA. Effects to soil productivity was an issue considered but not analyzed in detail in the Roseburg District Aquatic Restoration EA because the use of PDFs (Appendix B. #5-9) would reduce the degree and area extent of soil impacts in riparian and upland areas. Experience in implementing restoration projects since signing of the Roseburg District Aquatic Restoration EA has confirmed that impacts to soil productivity are minimized with the adoption of these PDFs.

### **4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?**

Direct and indirect effects to water quality, aquatic habitat, fish and Essential Fish Habitat would be identical to those identified and discussed in the Roseburg District Aquatic Restoration EA (pp. 27-29 and 31-34), and expected effects addressed in the *Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in the States of Oregon and Washington* (ARBO II), dated April 25, 2013.

Potential effects to other resources that include BLM Special Status wildlife and botanical species, terrestrial and botanical species listed under the Endangered Species Act, and cultural resources were addressed by project design features intended to eliminate potential impacts to these resources (Appendix B; District Aquatic Restoration EA, pp. 16-19).

### **5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?**

An interdisciplinary team began analysis for the Roseburg District Aquatic Restoration EA in the autumn of 2008. The public was notified of initiation of the environmental assessment in the Fall 2008 Roseburg District Quarterly Planning Update.

A thirty-day period for public review and comment was provided upon completion of the environmental assessment (August 4, 2009 through September 2, 2009), consistent with BLM policy/practice to provide the public a review opportunity prior to issuance of any decision(s). Notification was made to state and Federal resource management and regulatory agencies. Local tribal and county government, trade groups and other interested parties were also notified. No comments on the environmental assessment were received.

Projects of this nature have been previously reviewed by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service through the process of conferencing and consultation on individual projects and those of a programmatic nature. There are no aspects of this project that are beyond the scope of those previously reviewed by these two agencies.

**E. Persons/Agencies /BLM Staff Consulted**

Agencies

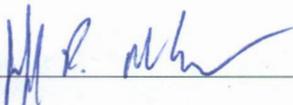
U.S. Fish and Wildlife Service  
National Marine Fisheries Service

BLM Staff

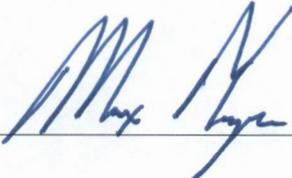
Name	Title	Resource	Initials	Date
Johanna Blanchard	Botanist	Special Status Botanical Species	JB	5/31/16
Carley Smith	Archaeologist	Cultural/Historical	CS	6/2/16
Dan Dammann	Hydrologist	Water Quality	DD	5/31/16
Angie Worthing	Wildlife Biologist	Special Status Wildlife	AW	6/6/16
Jeff McEnroe	Fishery Biologist	Special Status Fish	JM	5/31/16
Joe Blanchard	Soil Scientist	Soils	JB	5/31/16
Krisann Kosel	Fire Ecologist	Fire/Fuels	KK	5/31/16
Craig Kintop	Silviculturist	Silviculture	CK	6/2/16

**Conclusion**

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and BLM compliance with the requirements of the NEPA.

Project Lead  
Jeff McEnroe  Date 5/31/16

NEPA Coordinator  
Erin Banwell  Date 5/31/16

Field Manager  
Max Yager  Date JUNE 7<sup>th</sup>, 2016

## **Appendix B. Project Design Features**

*Modified from the District Aquatic Restoration EA, pp. 16-19.*

The PDFs listed come from several sources. Some were developed by BLM resource specialists and are based on their professional expertise and experience. Others come from two Aquatic Restoration Biological Opinions (ARBO) provided to us by the National Marine Fisheries Service (NMFS) (2013 and the U.S. Fish and Wildlife Service (USFWS) (2013) or the ROD/RMP. This list does not include every PDF from these two biological opinions. The use of ARBO PDFs would allow use of existing consultation when implementing projects.

### **To prevent the introduction or spread of noxious weeds:**

1. Before ground-disturbing activities begin, inventory weed infestations. If weeds are present, focus treatments along access routes.
2. Locate and use weed-free project staging areas.
3. Clean all equipment before entering public lands
4. Use native seed that is free of noxious and invasive weeds, as determined and documented by a seed inspection test by a certified seed laboratory.

### **To minimize impacts to soils:**

5. Limit the season of operation for ground disturbing activities by heavy equipment to the dry season to reduce the degree and area extent of soil impacts in riparian and upland areas. The dry season is normally May 15<sup>th</sup> to October 15<sup>th</sup>, or until the onset of regular autumn rains.
6. Designate equipment access routes and yarding corridors prior to implementation in order to minimize soil displacement and compaction and to minimize weed germination and establishment. Minimize equipment entry points between staging area and stream. Utilize existing entry points where possible. Identify sensitive areas (such as unstable slopes) to be avoided whenever possible.
7. Minimize use of heavy equipment on slopes exceeding 35%.
8. Scarify (loosen) the top 10-12 inches of compacted soil in the access routes to help ameliorate soil compaction from equipment treads.
9. Where soil is disturbed or compacted, take appropriate measures to revegetate the area, control erosion and improve bank stability. This may include topsoil replacement, planting or seeding with native species, fertilization, and weed-free mulching, as necessary.

### **To reduce impacts to aquatic resources:**

10. Limit the number and length of equipment access points through riparian areas.
11. Design access routes for individual work sites to reduce exposure of bare soil and extensive streambank shaping.
12. Use waterbars, barricades, seeding, and mulching to stabilize bare soil areas along project access routes prior to the wet season.
13. In well armored channels that are resistant to damage (e.g. bedrock, small boulder, or cobble dominated), consider conducting the majority of the heavy equipment work from within the channel, during low streamflow, to minimize damage to sensitive riparian areas.
14. Rehabilitate and stabilize disturbed areas where soil will support seed growth by seeding and planting with native seeds mixes or plants, or using erosion control matting.
15. When using heavy equipment in or adjacent to stream channels during restoration activities, develop and implement an approved spill containment plan that includes having a spill containment kit on-site and at previously identified containment locations.
16. Inspect all mechanized equipment daily for leaks and clean as necessary to help ensure toxic materials, such as fuel and hydraulic fluid, do not enter the stream.

17. Refuel equipment, including chainsaws and other hand power tools, at least 100 feet from water bodies to prevent direct delivery of contaminants into a water body.
18. Do not store equipment in stream channels when not in use.
19. When replacing stream crossings, install grade control structures (e.g. boulder vortex weirs or boulder step weirs) where excessive scour would occur.
20. Adhere to the in-water work window as defined by the Oregon Department of Fish and Wildlife (ODFW) (July 1-September 15). Projects outside of this work window would require waivers from ODFW and National Marine Fisheries Service (NMFS).
21. Prior to stream crossing replacements or installations, remove fish from the vicinity of project area and dewater construction area.
22. Place sediment control devices such as hay bales and other silt trapping devices in areas determined to have high potential for sediment input into the stream.
23. Minimize damage of hardwoods within 50 feet of stream bank.
24. Minimize pulling or felling of trees from within 60ft of streams.
25. Where appropriate, pull or fell trees from the north or east side of a stream rather than the south or west side to minimize the reduction in shade.

**To minimize the risk of placed logs and boulders moving downstream during flood events:**

26. At each restoration site, use one or more key logs that are 1.5 times the active channel width and at least 24" in diameter.
27. Key logs would be wedged between trees on banks to prevent movement in high flow events.
28. Key boulders would be at least one cubic yard in size.

**To protect objects of cultural value:**

29. If any objects of cultural value (e.g. historic or prehistoric ruins, graves, fossils, or artifacts) are found during the implementation of the proposed action, operations would be suspended until the site has been evaluated to determine the appropriate mitigation action. Mitigation might include avoidance or systematic excavation of a portion of the site.

**To reduce impacts to BLM Special Status Species & other species of concern:**

30. Evaluate for potential habitat for BLM Special Status Species. If present, protect key habitat components where feasible. See Appendix A for details on wildlife Special Status Species. Generally, do not commence vegetation removal activities between May 15<sup>th</sup> and July 15<sup>th</sup>, to provide for critical nesting periods of migratory birds.
31. Protect raptor nest sites.
32. If raptors (golden eagles, red-tailed hawk, goshawk, etc.) are found nesting in the project area, generally activities within ¼ mile of nest sites will not occur during the critical nesting period (generally March 1-July 15<sup>th</sup> or March 1 to August 30<sup>th</sup> for the osprey, golden eagle and northern goshawk).
33. Avoid disturbance to active bald eagle nest sites their critical nesting period, as described in Table 5.
34. Do not remove the largest trees from stands in bald eagle management areas, known territories, or within 1 mile from large streams or water bodies.
35. Minimize tree felling in suitable nesting habitat for the bald eagle during their critical nesting period or winter roosting period, as described in Table 5.
36. Avoid removing snags and trees with cavities.

**To reduce impacts to federally listed species:**

37. Determine if federally listed species or their suitable habitat is present within the project area.

***Wildlife (Northern Spotted Owl & Marbled Murrelet)***

38. When selecting trees, avoid removing the only large conifers present in the stand.
39. When selecting trees, try to remove trees along the periphery of existing openings, such as roads or harvest units.
40. When selecting trees, try to remove trees with the least complex (dense canopy, epicormic branches) canopy.
41. Design projects to avoid spotted owl and/or marbled murrelet nest trees such that it would not be necessary to remove a nest tree that posed an overhead hazard.
42. Trees up to 36" DBH may be felled in any stand with agreement from a wildlife biologist that the trees are not providing marbled murrelet nesting structures or providing cover for nest sites. Potential northern spotted owl nest trees may only be removed in limited instances when it is confirmed with the wildlife biologist that nest trees will not be limited in the stand post removal.
43. The unit wildlife biologist will determine whether an active nest (or unsurveyed, suitable spotted owl or murrelet habitat) is within the species-specific disturbance/disruption distance of the project as described in Table 5. If within threshold distances, minimize noise related impacts as described in Table 5.
44. Projects that remove or degrade suitable murrelet habitat that have been surveyed but fall within 0.25 miles of an occupied site or unsurveyed suitable habitat will be seasonally restricted from April 1 to September 15.
45. When marbled murrelet DORs are in place, projects would not begin until two hours after sunrise and would end two hours before sunset.
46. Removal of individual trees that qualify as habitat for the spotted owl will not occur within 0.25 miles of any unsurveyed suitable habitat, known nest sites, or estimated sites from March 1- September 30. This seasonal restriction may be waived until March 1 of the following year if current calendar year surveys indicate: 1) spotted owls not detected, 2) spotted owls present, but not attempting to nest, or 3) spotted owls present, but nesting attempt has failed.
47. Should surveys indicate that murrelet habitat is occupied, all contiguous suitable habitat and recruitment habitat (i.e., stands capable of becoming marbled murrelet habitat within 25 years) within a 0.5-mile radius will be protected.
48. Projects will not occur within the appropriate disruption threshold distance of:
  - a. any *known* occupied murrelet sites or unsurveyed suitable habitat in *Zone 1* during the critical nesting period (April 1 - August 5), and/or
  - b. within the 1.3 mile seasonal restriction corridors in *Zone 2* during the critical nesting period (April 1 - August 5).In these areas, Daily Operating Restrictions (DORs) would be applied between August 6 and September 15.
49. For unsurveyed murrelet suitable habitat outside of the 1.3 mile seasonal restriction corridors in *Zone 2*, apply DORs within the appropriate disruption threshold distance or less from April 1 until August 5.
50. Projects would not remove suitable habitat trees from within designated occupied marbled murrelet sites.
51. The BLM will not affect a stand such that it would impact the ability of that stand to continue functioning as suitable or dispersal habitat for the spotted owl. This includes maintaining a canopy closure at or above the 60-80% threshold necessary to maintain suitable habitat, and maintaining the canopy closure at or above the 40% necessary to maintain dispersal habitat. And within northern spotted owl critical habitat, stands greater than 80 years old or within stands providing foraging habitat to spotted owl home ranges, gaps will be restricted to 0.5 acre openings or less. As well as gaps (no greater than 0.25 acres) would be created within 0.5 miles of marbled murrelet occupied habitat or when within murrelet critical habitat.

52. Individual trees or small group of trees should come from the periphery of permanent openings (roads, etc.) or from the periphery of non-permanent openings (e.g. plantations, along recent clear-cuts, etc.). Groups of trees greater than 4 trees shall 1). Not be within marbled murrelet suitable stands or stands buffering (300ft) marbled murrelet suitable stands, 2). Not be buffering (300ft) individual trees with marbled murrelet nesting structure. A minimum distance of one potential tree height should be maintained between individual or group removals.
53. Interdisciplinary team will evaluate project locations when an occupied spotted owl site is within 300 meters of a project. Evaluation would determine if the proposed action may negatively affect the function of dispersal or suitable habitat within the 300 meters distance. If the function of suitable or dispersal habitat, or the use of the area by the spotted owl is compromised then the project may be reduced in scope or not done.

***Kincaid's Lupine***

54. If Kincaid's lupine is present, the project will be modified as necessary to avoid effects to the plants and their habitat.

**To prevent or minimize the spread of Port-Orford-cedar root disease:**

55. Utilize the Port-Orford-cedar risk key to identify the need for additional management considerations.
56. Clean all equipment before entering public lands.
57. Restrict restoration activities to the dry season (May 15th to October 15th)
58. Designate equipment access routes and yarding corridors in order to minimize exposure to *Phytophthora lateralis*. Minimize equipment entry points between staging area and stream. Identify areas to be avoided whenever possible.
59. Schedule operations in uninfested areas prior to work in infested areas
60. When planting seedlings in riparian areas, plant resistant Port-Orford-cedar in low-risk areas.

## Appendix C. Bureau Sensitive & Bureau Strategic Wildlife Species

**SSSP List Date:** July 29, 2015 (IM-OR-2015-028)

The following table includes those species which are documented or suspected to occur within the Roseburg District BLM. Those *Bureau Sensitive* or *Bureau Strategic terrestrial wildlife species* which are suspected or documented to occur within the project area are detailed below.

### **Bureau Sensitive Species**

BLM districts are responsible to assess and review the effects of a proposed action on *Bureau Sensitive* species. To comply with Bureau policy, Districts may use one or more of the following techniques:

- a. Evaluation of species-habitat associations and presence of potential habitat.
- b. Application of conservation strategies, plans, and other formalized conservation mechanisms.
- c. Review of existing survey records, inventories, and spatial data.
- d. Utilization of professional research and literature and other technology transfer methods.
- e. Use of expertise, both internal and external, that is based on documented, substantiated professional rationale.
- f. Complete pre-project survey, monitoring, and inventory for species that are based on technically sound and logistically feasible methods while considering staffing and funding constraints.

When Districts determine that additional conservation measures are necessary, options for conservation include, but are not limited to: modifying a project (e.g. timing, placement, and intensity), using buffers to protect sites, or implementing habitat restoration activities (IM-OR-2003-054).

### **Bureau Strategic Species**

If sites are located, collect occurrence data and record in corporate database.

**Table C-1. Effects of the *In-stream Restoration Projects* on Bureau Sensitive Wildlife Species.**

SPECIES	GENERAL HABITAT REQUIREMENTS	PRESENT IN PROJECT AREA?	IMPACTS TO SPECIES	
			NO ACTION	PROPOSED ACTION ALTERNATIVES
<b>BUREAU SENSITIVE</b>				
American Peregrine Falcon <i>Falco peregrines anatum</i>	Cliffs, rock outcrops; open habitats for hunting birds. Closest known site is in T23S-R07W-Section 4 at 6.5 miles to the Southwest of the North Fork Big Tom Folley proposed project area. All known sites are more than one (1.0) miles from any of the five project areas, therefore, no seasonal restrictions would be required. Peregrine falcons likely forage within the proposed project areas.	No Habitat	No Effect	No effects to nesting habitat. Removal of habitat would reduce the amount of foraging habitat within the project areas. Not analyzed in detail.
Bald Eagle <i>Haleaetus leucocephalus</i>	Late-successional forests with multi-canopies, generally within two miles of a major water source. Closest known site in T23S-R07W-Section 4, approximately 7.0 miles southwest of the North Fork Big Tom Folley Restoration project, North Fork Big Tom Folley, Saddle Butte and Pass Creek In-stream Restoration project areas do have suitable nesting habitat for the bald eagle.	Suspected	No Effect	No disturbance effects to known nest sites and no removal/modification of nesting habitat. Not analyzed in detail.
Columbian White Tailed Deer <i>Odocoileus virginianus leucurus</i>	Bottomlands, oak/hardwood forests; cover for fawning.	Out of Range	No Effect. Not analyzed in detail.	

SPECIES	GENERAL HABITAT REQUIREMENTS	PRESENT IN PROJECT AREA?	IMPACTS TO SPECIES	
			NO ACTION	PROPOSED ACTION ALTERNATIVES
Crater Lake Tightcoil <i>Pristiloma arcticum crateris</i>	Generally found in perennially wet situations in mature conifer forests among rushes, mosses and other surface vegetation or under rocks and woody debris within 10 meters of open water (i.e. wetlands, springs, seeps and riparian areas (Duncan, 2003). Surveys are required above 2000 feet in elevation within the Roseburg District east of I-5. Upper Elk Creek, Gossett Creek Culvert Replacement and Pass Creek proposed project areas are east of I-5 however, Upper Elk Creek is 980 feet elevation, Gossett Creek Culvert Replacement is 780 feet elevation and Pass Creek is 2260-2360 feet in elevation.	Suspected	No effect	Upper Elk Creek and Gossett Creek Culvert Replacement proposed projects are below the 2000 foot elevation requirement therefore surveys are not required. Pass Creek proposed project area is all above the 2000 foot requirement and surveys are required. If Crater Lake Tightcoils are found after surveys, a one tree height buffer would be implemented so as not to negatively impact the population.
Fisher <i>Pekania pennanti</i>	Natal and foraging habitat consists of structurally complex forests; mature open forests with large live trees, snags, and down wood. North Fork Big Tom Folley, Saddle Butte Creek, Upper Elk Creek and Pass Creek proposed project areas have both natal and foraging habitat components. Gossett Creek Culvert Replacement has foraging habitat components.	Suspected	No Effect	There would be no snags removed from any of the proposed projects. The removal of large live trees and downed wood from these stands would be minimal therefore, there would not be a significant impact on the species or its habitat. Not analyzed in detail.
Foothill Yellow-legged Frog <i>Rana boylei</i>	Low gradient streams/ponds; gravel/cobble, bedrock pools. All proposed projects have habitat components within the project areas.	Suspected	No Effect	The projects overall impact to the species would be minimal and would be a short-term impact, however, would be beneficial to the species as it creates the pools necessary for the species in the long-term. Not analyzed in detail.
Franklin's Bumblebee <i>Bombus franklini</i>	Known only from southern Oregon and northern California between the Coast and Sierra-Cascade Ranges. Requires habitat in proximity to water with a sufficient supply of floral resources to provide continuous blooming throughout the colony season. Additionally, probably requires abandoned rodent borrows or clumps of grass for nesting, population sites may be limited by the abundance of rodents and the presence of undisturbed grassland. Closest known documentation of species is in Roseburg and just west of Sutherlin at Ford's Pond. ( <i>Xerces Society</i> )	No Habitat	No Effect. Not analyzed in detail.	
Fringed Myotis <i>Myotis thysanodes</i>	Late-successional forest features (e.g. snags or trees with deeply furrowed bark, loose bark, cavities), caves, mines, bridges, rock crevices. Expected to forage in or above unit.	Suspected	No Effect	No Measurable Effect. Not analyzed in detail.
Green Sideband <i>Monadenia fidelis beryllica</i>	Coast Range, riparian forests at low elevations; deciduous trees & shrubs in wet, undisturbed forest. North Fork Big Tom Folley and Saddle Butte Creek proposed project areas fall within the coast range province. Upper Elk Creek, Gossett Creek Culvert Replacement and Pass Creek proposed projects are outside the range of the species.	Suspected and Out of Range	North Fork Big Tom Folley and Saddle Butte Creek project areas would not affect more than 5% of the habitat components and therefore, surveys are not required. However, if the green sideband is found during the course of the project a one tree height buffer would be implemented to protect the species and its habitat.	

SPECIES	GENERAL HABITAT REQUIREMENTS	PRESENT IN PROJECT AREA?	IMPACTS TO SPECIES	
			NO ACTION	PROPOSED ACTION ALTERNATIVES
Harlequin Duck <i>Histrionicus histrionicus</i>	Mountain Streams in forested areas on west slope of the Cascade Mountains in swift, rocky, large streams or rivers. Nest under rock overhangs, vegetation or streamside debris. Late spring migrant or summer visitor. The North Umpqua River contains suitable nesting and brooding habitat. Adults with broods have been documented on the North Umpqua River. The streams of the North Fork Big Tom Folley, Saddle Creek, Upper Elk Creek, Gossett Creek and Pass Creek are small streams.	No Habitat	No Effect. Not analyzed in detail.	
Johnson's Hairstreak <i>Callophrys johnsoni</i>	Known to occur within coniferous forests which contain dwarf mistletoe ( <i>Arceuthobium spp.</i> ). Associated with old-growth or late successional second growth forests but can be present in younger forests if dwarf mistletoe is present (Andrews, et.al. 2010). The proposed project areas have no dwarf mistletoe present.	No Habitat	No Effect. Not analyzed in detail.	
Lewis' Woodpecker <i>Melanerpes lewis</i>	Open woodland habitat near water; open woodland canopy and large diameter dead/dying trees, snag cavities.	No Habitat	No Effect. Not analyzed in detail.	
Oregon Giant Earthworm <i>Driloleirus macelfreshi</i>	Deep, moist, undisturbed soils of riparian forests.	Out of Range	No Effect. Not analyzed in detail.	
Oregon Shoulderband <i>Helminthoglypta hertleini</i>	Rocky areas, including talus deposits and outcrops. Within rocky habitats, the species is associated with herbaceous vegetation and deciduous leaf litter, generally within 30 meters of stable talus deposits or other rocky areas. Pass Creek proposed project area has rocky habitat present. All the other project areas have no rock present.	Suspected	Pass Creek proposed project would not affect more than 5% of the habitat components and therefore, surveys are not required. However, if the Oregon shoulderband is found during the course of the project a one tree height buffer would be implemented to protect the species and it's habitat. Not analyzed in detail.	
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Forests where trees have large diameter branches, mistletoe brooms or other nesting platforms within 50 miles of the Oregon Coast (Hamer and Nelson 1995, McShane <i>et al.</i> 2004). Upper Elk Creek, Gossett Creek Culvert Replacement and Pass Creek proposed projects are outside the range of the marbled murrelet, however, North Fork Big Tom Folley and Saddle Butte Creek are within the range of the marbled murrelet.	Suspected and Out of Range	No Effect	Proposed actions would modify or remove suitable habitat within the North Fork Big Tom Folley project area. (Details provided in the Wildlife Resources section)
Northern Spotted Owl <i>Strix occidentalis caurina</i>	Forests older than 80 years with habitat for nesting, roosting and foraging, and dispersal. Suitable habitat typically has multi-layered, multi-species canopy dominated by large overstory trees > 20 inches DBH. Canopy cover is typically 60-80 percent, with open spaces in and below the overstory canopy. Trees with large cavities and other deformities, large snags, and large down wood are typically abundant (Thomas et al. 1990; Forsman et al. 1984; Hershey et al. 1998). Analysis area is within three historical territories.	Documented	No Effect	Proposed action would modify or remove dispersal habitat and suitable habitat. (Details provided in the Wildlife Resources section.)
Oregon Vesper Sparrow <i>Pooecetes gramineus affinis</i>	Open habitats such as grasslands, meadows, farmlands.	No Habitat	No Effect. Not analyzed in detail.	
Western Pond Turtle <i>Actinemys marmorata</i>	Ponds, low gradient rivers; upland over-wintering habitat, CWD. All in-stream project areas are within smaller streams.	No Habitat	No Effect. Not analyzed in detail.	

SPECIES	GENERAL HABITAT REQUIREMENTS	PRESENT IN PROJECT AREA?	IMPACTS TO SPECIES	
			NO ACTION	PROPOSED ACTION ALTERNATIVES
Pacific marten <i>Martes caurina</i>	Martens generally prefer mature and old forests over young forests but habitat use varies across its range and is closely associated with the abundance of prey species and the vegetative complexity near the ground in different forest types. (USFWS, 2015). The North Fork Big Tom Folley and Saddle Butte Creek project areas contains areas of ground complexity	Suspected	No Effect	No measureable effect to the species. Not analyzed in detail.
Pallid Bat <i>Antrozous pallidus</i>	Usually rocky outcroppings near dry open areas; occasionally near evergreen forests; potential use of the forested habitat within all project areas as roosting and foraging areas	Suspected	Potential habitat does not occur within the project areas and therefore, no measureable effect on roosting or foraging. Not analyzed in detail.	
Purple Martin <i>Progne subis</i>	Snag cavities in open habitats (e.g. grasslands, brushlands, open woodlands); foraging habitat in project areas.	Suspected	No Effect	No measurable effect to foraging habitat. Not analyzed in detail.
Rotund Lanx <i>Lanx subrotundata</i>	Major rivers and large tributaries at low to moderate elevations with cold, well-aerated water and rocky substrate. (Blevins, et.al., 2015) ( <i>Xerces Society</i> ).	No Habitat	No Effect	No measurable effect to the species. Not analyzed in detail.
Siskiyou Hesperian <i>Vespericola sierranus</i>	Primarily a riparian associate, moist habitat, including springs, seeps and deep leaf litter along stream banks and under debris and rocks. Preferably, moist valleys, ravines, gorges or talus sites near the lower portion of slopes (Hatfield and Jordan, 2015) ( <i>Xerces Society</i> ). All proposed projects have habitat components within the areas.	Suspected	No Effect	All proposed projects would not affect less than 5% of the habitat components and therefore, surveys are not required. However, if the Siskiyou Hesperian is found during the course of the project a one tree height buffer would be implemented to protect the species and it's habitat. Not analyzed in detail.
Travelling Sideband <i>Monadenia fidelis celeuthia</i>	This subspecies is known to be at lower elevations in unaltered, somewhat dry and open forested terrain. It can be found in basal talus and rock outcrops with oak and maple overstory and along creeks with a variety of hardwoods and conifers. (Fallon, 2015) ( <i>Xerces Society</i> ). Although the Pass Creek project area has rock outcrops there is very little in the amount of hardwoods present. However, the species range does not extend into any of the proposed project areas.	Out of Range	No Effect. Not analyzed in detail.	
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	Late-successional forest features (e.g. snags or trees with deeply furrowed bark, loose bark, cavities), caves, mines, buildings, bridges, tunnels. Expected to forage in or above project areas.	Suspected	No Effect	Habitat is present however; there would be no measureable effects to roosting or foraging habitat. Not analyzed in detail.
Western Bumblebee <i>Bombus occidentalis</i>	Sufficient supply of floral resources to provide continuous blooming throughout the colony season.	Unknown	No Effect	The tree removal from the proposed project areas would be minimal and therefore, not develop into a sufficient supply of floral resources within any of the proposed project areas, however, the noxious weed removal may be a beneficial effect for the species by opening those areas for floral resources to persist. Not analyzed in detail.

SPECIES	GENERAL HABITAT REQUIREMENTS	PRESENT IN PROJECT AREA?	IMPACTS TO SPECIES	
			NO ACTION	PROPOSED ACTION ALTERNATIVES
Western Ridged Mussel <i>Gonidea angulata</i>	Streams of all sizes in low to mid-elevation watersheds inhabiting mud, sand, gravel, and cobble substrates (Duncan, N. 2008); Umpqua R., major tributaries, and possibly smaller creeks. Given the species was located in 2007 within Elk Creek. The Upper Elk Creek, Saddle Butte Creek and North Fork Big Tom Folley proposed project areas will be surveyed for the species. Pass Creek project is within a high elevation watershed and therefore would not be surveyed.	Suspected	No Effect	Pass Creek project is within a high elevation watershed and therefore would not be surveyed. Gossett Creek Culvert Replacement project is a small project and would not negatively affect the species. For Upper Elk Creek, Saddle Butte Creek and North Fork Big Tom Folley; if the species is found during surveys, mitigation measures to protect the species would be implemented by moving the placement of logs and/or boulders in a different site as not to negatively impact the species during project implementation.
White-Tailed Kite <i>Elanus leucurus</i>	Open grasslands, meadows, emergent wetlands, farmlands, lightly wooded areas; wooded riparian habitats close to open hunting; tall trees and shrubs.	No Habitat	No Effect. Not analyzed in detail.	

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## Appendix D. Landbirds

**Table C-1. Summary of Effects of the 2016 In-stream Restoration Projects on Landbirds.**

SPECIES	GENERAL HABITAT REQUIREMENTS	IMPACTS TO SPECIES	
		NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE
<p><b>Bold = species typically associated in stands &lt; 80 years stands that would potentially have direct impacts due to habitat loss or modification.</b>                      Nonbold = species typically associated with late-successional (mature/old growth) that would potentially have indirect impacts or a species that would have no effect.</p>			
<b>RMP PROTECTED LANDBIRD</b>			
Northern Goshawk <i>Accipiter gentilis gentilis</i>	Mature and older mixed conifer forests with high canopies for nesting (Squires and Reynolds 1997). Goshawks have been documented nesting in mid seral habitat at two sites in the Swiftwater Resource Area on the Roseburg District. The closest known goshawk nest site is located 5.4 miles South (Scaredman) of the Pass Creek proposed project area. The North Fork Big Tom Folley and Saddle Butte proposed projects have a known goshawk nest site at 3.4 miles Northeast (South Fork Smith River). Upper Elk Creek proposed project area is approximately 12 miles Southeast (Snail Canyon) from a known nest site. Gosset Creek culvert replacement is approximately 15 miles (Snail Canyon) from a known nest site.	Suitable nesting habitat would remain available to goshawks within the Pass Creek, North Fork Big Tom Folley, Saddle Butte Creek, Upper Elk Creek and Gosset Creek culvert replacement proposed project areas.	Although there would be trees removed within suitable nesting habitat for the goshawk for all the proposed projects, there would be no nest trees removed and following PDF's for the Northern Spotted Owl and Marbled Murrelet, goshawks would be protected through seasonal restrictions. Not analyzed in detail.
<b>EAGLE PROTECTION ACT</b>			
Bald Eagle <i>Haliaeetus leucocephalus</i>	Also a <i>Bureau Sensitive Species</i> ; refer to Table A-1 in Appendix A for habitat requirements and impacts.		
Golden Eagle <i>Aquila chrysaetos</i>	Usually associated with open grassland, pasture, and shrub land conditions. In southwestern Oregon, golden eagles nest in a variety of trees including ponderosa pine, Douglas-fir, oak species, and madrone (Csuti <i>et al.</i> 1997; Kochert <i>et al.</i> 2002). Nest on cliffs, in the upper one-third of deciduous and coniferous trees, or on artificial structures (e.g. artificial nesting platforms, electricity transmission towers, windmills). On the Roseburg District, primarily documented to nest in large conifer trees within late-seral forests near open habitats (e.g. meadows, valleys, and clearcuts). The closest known site is approximately 21 miles Southwest from the	All proposed project areas have suitable habitat available for nesting golden eagles, except for Gossett Creek Culvert Replacement project and would remain available for nesting golden eagles. Within the parts of all proposed projects and Gossett Creek Culvert Replacement project, high density of trees would limit the stand's ability to create diverse, multi-storied stands. Large trees or snags containing large limbs or structural characteristics to support a nest would develop in 20 years.	The removal of the trees from Pass Creek, North Fork Big Tom Folley (Section 35) and Upper Elk Creek, would not be removing trees with the characteristics to support nesting nor would the projects create open foraging areas. Therefore, there would be no effect to the golden eagle or its prey. Not analyzed in detail.

SPECIES	GENERAL HABITAT REQUIREMENTS	IMPACTS TO SPECIES	
		NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE
	Pass Creek proposed project. Approximately 10.2 miles Southwest from the North Fork Big Tom Folley and Saddle Butte Creek proposed projects. Approximately 9.2 miles Southwest and Northwest from the Upper Elk Creek proposed project and approximately 10.8 miles Southwest from the Gossett Creek culvert replacement proposed project.		
<b>BIRDS OF CONSERVATION CONCERN</b>			
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Also a <i>Bureau Sensitive Species</i> ; refer to Table A-1 in Appendix A for habitat requirements and impacts.		
Olive-sided Flycatcher <i>Contopus cooperi</i>	Forages in early-seral areas associated with natural or man-made openings with tall trees or snags available for perching and singing (Altman 1999). In the Oregon Coast Range, it is closely associated with edges of older stands with tall trees and snags greater than 21 inches diameter breast height and broken canopy (Carey, et.al., 1991). Habitat is generally absent within the proposed project.	Suitable habitat condition would continue to be absent until suppression mortality created gaps and edge habitat adjacent to older stands.	The removal of individual trees from forested stand within the proposed projects would not create enough of an opening, therefore, there would be no potential for perching or nesting. Foraging opportunities would be limited. Therefore, there would be no effect on the species. Not analyzed in detail.
Oregon Vesper Sparrow <i>Poocetes gramineus affinis</i>	Also a <i>Bureau Sensitive Species</i> ; refer to Table A-1 in Appendix A for habitat requirements and impacts.		
Peregrine Falcon <i>Falco peregrinus anatum</i>	Also a <i>Bureau Sensitive Species</i> ; refer to Table A-1 in Appendix A for habitat requirements and impacts.		
Purple Finch <i>Carpodacus purpureus</i>	Primarily nest in Douglas-fir, pine or spruce but may use oak, maple, and fruit trees. Prefer open areas or edges of low to mid-elevation mixed coniferous-deciduous forests, frequently breeding in mixed conifer-deciduous forest, on edges of bogs, in riparian corridors, deciduous forests, orchards, and other areas with scattered conifers and shrubs (Csuti <i>et al.</i> 1997). There is suitable nesting and foraging habitat within all proposed project areas.	Suitable nesting and foraging opportunities would remain within all proposed projects.	The removal of individual trees within the forested stand of all proposed projects would not preclude nesting or foraging opportunities. Therefore, there is no measureable effect on the species. Not analyzed in detail.
Rufous Hummingbird <i>Selasphorus rufus</i>	Also listed as a <i>Focal Avian Species</i> . Primarily associated with forest edges and openings with a diversity of flowering plants for feeding and open space. Frequently occurs in open habitats that are shrub-dominated, and late-successional forest with a highly developed and diverse understory of herbaceous plants and shrubs, particularly within large	Suitable habitat conditions would continue to be present. No Effect.	The removal individual trees within forested stands of all proposed projects would create additional foraging habitat as flowering plants important for foraging would develop but would be limited. However, shrubs would still be present within the proposed projects, so nesting habitat would still remain. Therefore, there would be no measureable effect to this species. Not

SPECIES	GENERAL HABITAT REQUIREMENTS	IMPACTS TO SPECIES	
		NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE
	openings. Need flowering plants and shrubs.		analyzed in detail.
Willow Flycatcher <i>Empidonax traillii</i>	This flycatcher is found in willows at the edges of streams flowing through meadows and marshes, but also breeds in thickets along the edges of forest clearings and, generally, in tall, brushy vegetation in the vicinity of water (Csuti <i>et al.</i> 1997). Upper Elk Creek proposed project area has suitable habitat for this species. All other projects do not have suitable habitat.	A continuous overstory and lack of open meadows or marshes would preclude the species from using the habitat within the Pass Creek, North Fork Big Tom Folley, Saddle Butte Creek or Gossett Creek Culvert Replacement proposed projects. However, the Upper Elk Creek proposed project area has suitable nesting (beaver dam) and foraging habitat and this would remain until encroached by conifer trees from the adjacent stand.	The proposed projects, except Upper Elk Creek, would still have continuous overstory and the lack of open meadows or marshes that would preclude the species from using the habitat, therefore, there is no effect. There would be no removal of trees or disturbance within the open meadow area within Upper Elk Creek. By leaving the beaver dam and creating more log jams, the open meadow will remain longer, thus maintaining nesting and foraging habitat for this species. Therefore, there is a beneficial effect to this species from the Upper Elk Creek proposed project.
<b>FOCAL AVIAN SPECIES</b>			
Band-tailed Pigeon <i>Columba fasciata</i>	Conifer forest with high canopy cover and hardwood stands (Bottorff 2007). In Oregon, nest primarily in closed Douglas-fir stands with canopy cover above 70 percent (Leonard 1998). Presence is linked to mineral springs (Altman 1999, Sanders and Jarvis 2000). Used mineral sites appear to be scarce in western Oregon, and are seemingly essential resources for this species (Sanders and Jarvis 2000). Sanders and Jarvis (2003) indicate availability of food sources (seeds and/or berries) may be directly related to the declining band-tailed pigeon population in Oregon. There are no mineral springs associated with any of the proposed projects, however, the stands offer nesting and foraging opportunities within all project areas.	Within all project areas, foraging opportunities would still exist for the species. And high canopy cover would provide nesting habitat.	The proposed project will remove canopy overstory but because of the size of the projects, would not typically provide a shrub understory to develop post-harvest. Even with the removal of individual trees from the forested stands nesting habitat would still remain. Therefore, there is no measureable effect to this species. Not analyzed in detail.
Brown Creeper <i>Certhia americana</i>	Optimal habitat appears to be mature and old-growth unmanaged forests where large trees and snags for foraging and nesting are relatively abundant due to natural processes (Altman 1999). All proposed projects have suitable habitat for this species.	With the No Action Alternative, the mature and old-growth forests would remain suitable habitat for this species. Whereas, the younger managed stands within all proposed projects, would develop	The removal of individual trees from the forested stand within all proposed project would remove suitable habitat post-treatment. However, the limited number of trees that would be removed from the project areas would have no measureable effect on the species. Not analyzed in detail.
Black-throated Gray Warbler	Uses a wide range of forests, woodlands, and brushy areas at forest edges, including the brushy	Expected to continue use of the dense forested stands for nesting and foraging within all proposed projects.	By removing individual trees, the stand overstory would remain thus, foraging and nesting opportunities

SPECIES	GENERAL HABITAT REQUIREMENTS	IMPACTS TO SPECIES	
		NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE
<i>Setophaga nigrescens</i>	regeneration in recent clearcuts. Can be found in deciduous and mixed deciduous – coniferous forests. Dense moist coniferous forests are avoided (Csuti <i>et al.</i> 1997). In low to moderate elevation (1,070-4,192 feet) is strongly associated within unmanaged forest through the Oregon Cascades, most abundant in young (40-80 years) stands with broadleaf trees (Altman 1999).		would remain and because of the project specifics a typical shrub layer would remain, therefore, there is no measureable effect to this species. Not analyzed in detail.
Hammond's Flycatcher <i>Empidonax hammondi</i>	An aerial insectivore that uses open space beneath the overstory canopy and between trees. Strongly associated with late-successional stands in low to moderate elevation (1,050-3,182 feet) managed forest through the Central Oregon Cascades (Altman 1999). It occupies all forest types on the west slope of the Cascade Mountains (Csuti <i>et al.</i> 1997)	Within the project areas of Pass Creek, North Fork Big Tom Folley, Saddle Butte Creek, and Upper Elk Creek, suitable habitat would remain. Also, within these proposed project areas and Gossett Creek Culvert Replacement project, stands would remain unsuitable until stand differentiation and late-successional characteristics developed in 20 years.	The removal of individual trees of the forested stand within Pass Creek, North Fork Big Tom Folley, Saddle Butte Creek and Upper Elk Creek would not preclude nesting or foraging. The stand canopy would not be affected, therefore, there is no measureable effects to the species. Not analyzed in detail.
Hermit Warbler <i>Dendroica occidentalis</i>	Conifer forests with a high level of canopy cover. It is not associated with a particular forest age class, and is common in stands greater than 30 years of age and dominated by Douglas-fir where dense canopy provides foraging and nesting habitat (Altman 1999).	Expected to continue use of the dense forested stands for nesting and foraging within all proposed projects.	The proposed projects would remove individual trees and would not affect stand over-story, therefore, foraging and nesting opportunities would still remain and there would no measureable effect on this species. Not analyzed in detail.
Hutton's Vireo <i>Vireo huttoni</i>	Strongly associated (i.e., preferentially selected) with pole forest conditions among younger and older forested stands in all elevations of managed forests of the central Oregon Coast Range. North Fork Big Tom Folley and Saddle Butte Creek would be the only projects within the range of the species.	Where present, would continue to persist in the stand where a deciduous component is present in all proposed projects.	The proposed projects would remove individual trees from the canopy overstory; however, this would not preclude nesting or foraging opportunities. Therefore, there is no measureable effect to the species. Not analyzed in detail.
Olive-sided Flycatcher <i>Contopus cooperi</i>	<i>Also listed as a BIRD OF CONSERVATION CONCERN; refer to relevant section in this table.</i>		
Orange-crowned Warbler <i>Oreothlypis celata</i>	A foliage-gleaning insectivore associated with dense deciduous shrubs. Reaches peak abundance in early-seral forests once a shrub layer has developed (5-10 years) and before overstory canopy closure sets in (15-20 years). Also occurs in older multi-layered forest conditions where canopy openings have allowed development of a deciduous shrub understory (Altman 1999).	Where present, would continue to persist in the stand where a deciduous shrub component is present in all proposed projects.	The removal of individual trees from the forested stand within all proposed projects would not preclude understory to develop, thus, nesting or foraging habitat would continue to develop for the species. Not analyzed in detail.
Pacific-sloped Flycatcher <i>Empidonax difficilis</i>	Optimal habitat appears to be low elevation (<3,000 feet) riparian forest in late-successional coniferous forest with a deciduous component and/or wet site coniferous trees such as western hemlock and western red cedar. Also can be found throughout coniferous	Where present, would continue to persist within all proposed projects where open space with a deciduous component is available.	The removal of individual trees from the forested stands within all proposed projects would not preclude nesting or foraging, therefore, there is no measureable effect to the species. Not analyzed in detail.

SPECIES	GENERAL HABITAT REQUIREMENTS	IMPACTS TO SPECIES	
		NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE
	forests with some open space beneath or in the canopy.		
<b>Pacific Wren</b> <i>Troglodytes troglodytes</i>	Name changed from “Winter Wren” and is most commonly found in older and more in structurally complex areas in the forest. Requires forest floor complexity -shrubs, rootwads, down logs, ferns, and herbaceous vegetation. May persist within the proposed project with newly recruited or remnant down woody material and shrub habitat.	Where present in the all proposed projects, would continue to persist in portions of stands where newly recruited or remnant down woody material and shrub habitat is present.	Within all proposed project areas, the amount of existing complexity that would be removed would not preclude recruitment of woody material for nesting and foraging. The activity of removing the downed wood or individual trees would be outside breeding season, and would not preclude new recruitment or maintain remnant down woody material for nesting and foraging. Not analyzed in detail.
Pileated Woodpecker <i>Dryocopus pileatus</i>	Strongly associated with mature and old-growth stands (stands $\geq 80$ years) with a multi-layered canopy. Nests in large snags and decadent live trees in mature and old-growth forests. Younger forests can be used for foraging if snags and/or down logs are present. Dependent on snags and down wood.	All proposed projects would continue to persist with a multi-layered canopy and with large snags for nesting and younger forests for foraging.	Within Pass Creek and North Fork Big Tom Folley proposed project areas, the individual trees removed would not remove the multi-layering of the canopy, nor is the removal of individual downed woody material within the younger stands, therefore, there is no measureable effect to the species. Not analyzed in detail.
Red Crossbill <i>Loxia curvirostra</i>	Optimal habitat is late-successional forest with high productivity of conifer cone-producing trees.	Within all proposed project areas, late-successional forests would continue to produce conifer cone-producing trees for foraging and nesting.	The individual tree removal of the forested stand within all proposed projects would remain suitable habitat post-treatment, including nesting or foraging. Therefore, there would be no measureable effect to the species. Not analyzed in detail.
Rufous Hummingbird <i>Selasphorus rufus</i>	<i>Also listed as a BIRD OF CONSERVATION CONCERN; refer to relevant section in this table.</i>		
Varied Thrush <i>Ixoreus naevius</i>	Mature forests with high canopy closure, high-stem density, multiple tree layers, a deciduous tree component, and a relatively open low understory and forest floor with much debris in patches. Fruit bearing shrub and tree species, and wet sites with deciduous vegetation.	For all proposed projects would remain suitable, except for the Gossett Creek Culvert Replacement and parts of all the projects, which would not develop multiple tree layers and deciduous tree components for approximately 20 years.	The removal of individual trees of the forested stand within Pass Creek, North Fork Big Tom Folley, Upper Elk Creek and Saddle Butte Creek proposed projects would not preclude nesting or foraging due to the limited number of trees being removed, therefore, there is no measureable effects to the species. Not analyzed in detail.
Vaux’s Swift <i>Chaetura vauxi</i>	Associated with late-successional forests and large, hollow snags used as nest and roost trees. Availability of suitable large hollow snags and trees is a major limiting factor.	Gossett Creek culvert replacement, Parts of Upper Elk Creek, Parts of North Fork Big Tom Folley and a small part of Pass Creek proposed projects would remain unsuitable until late successional characteristics develop, including open, multi-layered canopy and the presence of large, hollow snags in 20 years. However, parts of Pass Creek, Saddle Butte Creek, parts of North Fork Big Tom Folley and Upper Elk Creek would remain suitable habitat.	The individual tree removal of the suitable habitat within the proposed projects would not preclude nesting or foraging. Large snags would are not being removed. Therefore, there is no effect to the species. Not analyzed in detail.

SPECIES	GENERAL HABITAT REQUIREMENTS	IMPACTS TO SPECIES	
		NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE
Western Bluebird <i>Sialia mexicana</i>	Strongly associated and dependent on snags for nesting (Altman 1999). In western Oregon, the western bluebird breeds in forest clear-cuts with standing snags, around farms in agricultural lands, in riparian woodlands, and in open oak-ponderosa pine woodlands (Csuti <i>et al.</i> 1997). Bluebirds may be present in adjacent clearcuts where snags with cavities are currently present.	Within and around all proposed project areas suitable habitat would persist on the landscape as snags are created for nesting.	The individual tree removal of the forested stand within all proposed project areas would not remove nesting or foraging opportunities; therefore, there is no effect on the species. Not analyzed in detail.
Wilson's Warbler <i>Wilsonia pusilla</i>	Nest in low deciduous vegetation in mature conifer forests, and forages in stands with a diverse deciduous shrub and/or mid-canopy layer.	Within all project areas, suitable habitat would continue to persist for nesting and foraging.	Nesting opportunities would still remain post-treatment, i.e. individual tree removal. Deciduous shrub layer and/or mid-canopy layers would still remain after post-treatment within all proposed projects. Therefore, there is no measureable effect to the species.. Not analyzed in detail.
<b>GAME BIRDS</b>			
Band-tailed Pigeon <i>Columba fasciata</i>	<i>Also listed as a Partner's In Flight FOCAL SPECIES; refer to relevant section in this table.</i>		
Mourning Dove <i>Zenaidura macroura</i>	Forests, woodland edges, savannas, grasslands, deserts, suburban and urban areas, and agricultural lands. Frequently seen on the Roseburg District along roadsides and forest openings. Nesting may occur on the ground, on ledges, in bushes and in trees (Otis <i>et al.</i> 2008), in edge-habitats between woodlands/shrubs and open areas (Csuti <i>et al.</i> 1997). Generally avoid extensive forests and wetlands.	Continuous canopy would preclude nesting except along habitat edges (e.g. roads).	The individual tree removal of the forested stand within all of the proposed projects would preclude nesting, however, would still provide foraging opportunities. Therefore, there is no measureable effect to the species. Not analyzed in detail.
Wood Duck <i>Aix sponsa</i>	Nest in tree cavities in the vicinity of wooded swamps, flooded forest, marsh, or ponds (Ehrlich <i>et al.</i> 1988). At least 10 acres of wetland or other aquatic habitat in a contiguous unit or in isolated parcels separated by no more than 100 feet of upland is needed and in close proximity to nesting habitat is needed. Open water makes up 25 percent of brood-rearing area with the remainder a mixture of shrubs and herbaceous emergent plants and trees (Hepp and Bellrose 2013). Suitable habitat is not present in all of the proposed project areas.	All proposed project areas would remain unsuitable habitat for nesting.	The individual tree removal of the forested stands within all of the proposed project areas would still preclude nesting. Therefore, there is no effect for this species. Not analyzed in detail.

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