

**SOUTH FORK WALLA WALLA LANDOWNER ACCESS
ENVIRONMENTAL ASSESSMENT
EA # OR-035-06-03**

Table of Contents

SOUTH FORK WALLA WALLA LANDOWNER ACCESS.....	0
ENVIRONMENTAL ASSESSMENT	0
EA # OR-035-06-03.....	0
CHAPTER 1 – INTRODUCTION AND BACKGROUND	5
Proposed Action.....	6
Location	6
<i>Purpose and Need for Action</i>	7
<i>Purpose</i>	7
<i>Needs</i>	7
Environmental Analysis and Decision Process.....	7
Public and Government Input Summary and Issue Development	8
BLM has received input from the public and interested parties on this area and issue over the years.	8
List of Agencies and Persons Consulted.....	9
Management Direction and Conformance with Existing Plans	9
<i>The Baker Resource Management Plan</i>	9
<i>South Fork Walla Walla River Area Plan Amendment</i>	10
<i>PACFISH/INFISH</i>	10
<i>Biological Opinions from USFWS and NOAA-Fisheries</i>	10
<i>Magnuson-Stevens Act, as Reauthorized in 2006</i>	11
CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES	12
Design Features and Mitigations Common to all Alternatives	12
No Action Alternative.....	14
Alternative 1. Preferred Alternative: Longer Window of Property Owner Access with Full-size Vehicles.	14
Alternative 1.A Preferred Alternative: Modify the Existing Route to Avoid Chinook Redds (modify some wet crossings) and Implementation of NOAA Fisheries Conservation Recommendation #2.	15
Alternative 1.B Allow Existing Routes by Deterring Spawning on Crossings with Suitable Chinook spawning Gravels.....	18
Alternative 2. Reconstruct the Existing Trail to Accommodate Class I OHV’s (quads); Restrict Class I Use to Property Owners. Eliminate Full-size Vehicle Access by the Landowners.....	19
<i>Introduction</i>	19
Alternative 2.A Install Two Class I OHV- sized (quad) Bridges Over the River Near Existing Crossings #1 and #2.....	19
Alternative 2.B Reconstruct the Existing Trail on the North Side of the River to Accommodate Class I OHV’s- Restrict Class I Use to Property Owners. No Class I OHV Bridges Would Be Constructed.....	20
<i>Other Alternatives Considered, but Not Analyzed in Detail</i>	21
<i>Road Construction outside the Narrow River Drainage</i>	21
<i>Public Access Class I OHV Trail</i>	21
<i>No Access through the ACEC by motorized vehicles</i>	22
<i>Low Water Concrete Crossings</i>	22
CHAPTER 3 – AFFECTED ENVIRONMENT.....	22
Introduction.....	22

Project/Analysis Area	22
Vegetation	22
<i>General</i>	22
<i>Riparian/Wetlands/Unique</i>	23
<i>Special Status Species</i>	23
Hydrology/Water Quality	23
Fisheries	24
<i>Fisheries Habitat</i>	24
<i>TES Fish Species</i>	25
<i>Bull Trout</i>	26
<i>Summer Steelhead</i>	27
<i>Spring Chinook Salmon</i>	28
Wildlife	29
<i>Threatened (Bald Eagles)</i>	29
<i>BLM Sensitive (Goshawk)</i>	29
<i>Terrestrial</i>	30
<i>Aquatic</i>	30
Archaeological and Historic Resources	30
Native American Treaty Rights and Traditional Uses	31
Wild and Scenic River Potential	31
Wilderness Characteristics.....	32
Recreation Resources & Scenic Values	33
CHAPTER 4 – ENVIRONMENTAL CONSEQUENCES	35
Introduction.....	35
No Action Alternative.....	35
<i>Vegetation</i>	35
<i>Hydrology/Water Quality</i>	35
<i>Fisheries</i>	36
<i>Wildlife</i>	38
<i>Archaeological and Historic Resources</i>	39
<i>Native American Treaty Rights and Traditional Uses</i>	39
<i>Wild and Scenic River Potential</i>	39
<i>Recreation Resources and Scenic Values</i>	39
<i>Monitoring</i>	40
<i>Cumulative Effects</i>	41
Alternative 1.A Preferred Alternative: Longer Window of Property Owner Access with Full-size Vehicles; Modify the Existing Route to avoid Chinook redds (modify some wet crossings) and Implementation of NOAA Fisheries Conservation Recommendation #2	42
<i>Vegetation</i>	42
<i>Hydrology/Water Quality</i>	42
<i>Fisheries</i>	43
<i>Wildlife</i>	48
<i>Archaeological and Historic Resources</i>	49
<i>Native American Treaty Rights and Traditional Uses</i>	49
<i>Wild and Scenic River Potential</i>	50
<i>Recreation Resources and Scenic Values</i>	50

<i>Monitoring</i>	51
<i>Cumulative Effects</i>	52
Alternative 1.B Longer Window of Property Owner Access with Full-size Vehicles; Allow Existing Routes by Deterring Spawning on Crossings with Suitable Chinook Spawning Gravels	53
<i>Vegetation</i>	53
<i>Hydrology/Water Quality</i>	53
<i>Fisheries</i>	53
<i>Wildlife</i>	54
<i>Archaeological and Historic Resources</i>	54
<i>Native American Treaty Rights and Traditional Uses</i>	55
<i>Wild and Scenic River Potential</i>	55
<i>Recreation Resources & Scenic Values</i>	55
<i>Monitoring</i>	56
<i>Cumulative Impacts</i>	56
Alternative 2.A Reconstruct the existing trail to accommodate Class I OHV’s (quads); restrict Class I use to property owners - Install two Class I OHV (quad) sized bridges near existing crossings #1 and #2 -Eliminate Full-size Vehicle Access by the Property Owners.....	56
<i>Vegetation</i>	56
<i>Hydrology/Water Quality</i>	57
<i>Fisheries</i>	58
<i>Wildlife</i>	59
<i>Archaeological and Historic Resources</i>	59
<i>Native American Treaty Rights and Traditional Uses</i>	60
<i>Wild and Scenic River Potential</i>	60
<i>Recreation Resources & Scenic Values</i>	60
<i>Monitoring</i>	63
<i>Cumulative Impacts</i>	63
Alternative 2.B Reconstruct the Existing Trail on the North Side of the River to Accommodate Class I OHV’s Restrict Class I Use to Property Owners. No Class I OHV Bridges Would Be Constructed Eliminate Full-size Vehicle Access by the Property Owners.....	64
<i>Vegetation</i>	64
<i>Hydrology/Water Quality</i>	64
<i>Fisheries</i>	64
<i>Wildlife</i>	65
<i>Archaeological and Historic Resources</i>	66
<i>Native American Treaty Rights and Traditional Uses</i>	66
<i>Wild and Scenic River Potential</i>	66
<i>Recreation Resources & Scenic Values</i>	66
<i>Monitoring</i>	67
<i>Cumulative Impacts</i>	67
CHAPTER 5 – LIST OF PREPARERS	67
APPENDICES	68
Appendix 1. Spill Prevention Plan for Vehicular Access of the SFWW	68
Appendix 2. Maps.....	68

Appendix 3. Photos68
Appendix 4. Water Quality Restoration Plan for the South Fork of the Walla Walla...68
Appendix 5. Bibliography.....68
Appendix 6. List of Acronyms and Abbreviations used in the EA68
Appendix 7. Response to Comments from the Comment Letters.68

CHAPTER 1 – INTRODUCTION AND BACKGROUND

Landowners in the South Fork of the Walla Walla River (SFWW) drainage have been accessing their private land above the BLM land for decades. The land owners use an old logging road that follows the SFWW River, and in some places crosses the river. In July 1992, the BLM designated an area of the SFWW as an Area of Critical Environmental Concern (ACEC) to recognize and protect fish, wildlife, riparian and scenic values within the area and wrote a management plan. The area encompassed by the boundary includes 2065 acres administered by the BLM. As part of that plan, in 1993, BLM ended grazing within the ACEC. In addition, BLM removed three structurally failing bridges. In October 1994, as part of the ACEC plan, BLM limited motorized vehicle travel of 1,500 GVW or less to the SFWW River trail system. The Umatilla National Forest manages the Class III OHV and hiking trail on the north side of the river under a right-of-way with the BLM. The BLM also closed the remainder of the ACEC to motorized use, and to overnight camping to prevent further deterioration of the area's resource values. The landowners were authorized an exemption to the road closure until 1999. Under the exemption, landowners could access their property using full-size vehicles by following a route that crossed the river ten times. Most of the crossings are direct, but since the 1996 flood, two require almost 300 feet of driving directly in the stream.

After the listing of the bull trout in 1998 and the Mid Columbia steelhead in 1999, and after completion of a Biological Assessment (BA), the landowners were limited to crossing the river from July 1 – August 15, and were not allowed to maintain the road or use heavy machinery in the river. The U.S. Fish and Wildlife Service (USFWS) and National Oceanographic and Atmospheric Administration, National Marine Fisheries Service (NOAA-Fisheries) concurred in Biological Opinions (BO) in 1999.

In 2000, the landowners formed an association and requested year-round access by OHV- Class I (quad) vehicles. They proposed widening the trail using hand tools and that the OHV trail would only be used for quads by the landowners and not the general public. They also wanted to retain the 6-week window for crossing with full-size vehicles, from July 1 - August 15. In April of 2002, the BLM responded that this proposal was not likely to be approved for the following reasons:

- Many sections of the trail would not accommodate widening to the necessary width.
- Granting concurrent rights-of-way to the property owners on the trail overlapping the Forest Service right-of-way would be difficult to administer.
- Use of Class I OHV's (quads) by property owners only would be difficult and expensive to enforce and hard to explain to the recreational OHV rider observing such use.

In 2004, BLM was able to show through extensive monitoring and data collection that it was feasible to suggest that the landowners be granted a 6-month (July 1-January 1)

window of access to their cabins with full-size vehicles. A Biological Assessment was prepared and submitted to NOAA-Fisheries and USFWS for concurrence. On November 22, 2004, USFWS issued a BO on the bull trout and on January 27, 2005, NOAA-Fisheries issued a BO on steelhead concurring with the increased access dates with some concern expressed for minimizing impact as much as possible.

In 2004, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) informed the BLM that they had initiated a program to restock the SFWW River with spring Chinook salmon, and expressed concern that this extended time period for full-size vehicle access would be detrimental to their four-year old replanting program in the SFWW. This concern caused the BLM to prepare this Environmental Assessment (EA) to assure all impacts of the Proposed Action and alternatives are adequately assessed.

Proposed Action

The property owners have proposed that the BLM allow them six months of access to their property above the BLM administered lands in the canyon of the SFWW River via full-size vehicles.

Over time, the landowners have made a variety of proposals regarding their access needs, ranging from just Class I OHV (quad) access year around, to OHV plus the currently allowed six weeks of full-size vehicle access, to the most recent proposal of six months of access via full-size vehicles. Each was in addition to the use of the trail all year via motorcycle/horses/walking. This proposed action reflects the most current correspondence received from two of the property owners.

Location

The SFWW River watershed is located in northeast Oregon and is part of the Walla Walla Subbasin. The northern boundary is the dividing ridge to the south of the North Fork Walla Walla River and the southern reaches of the Couse Creek watershed to the confluence with the Walla Walla River, 13.64 miles below where it flows into the Columbia River, near Milton-Freewater, Oregon. The watershed traverses from southwest to southeast beginning at the dividing ridge between Blalock Mountain, which divides the South and North Forks.

The SFWW River originates at elevations of 4920 ft -5575 ft. in the Blue Mountains. Most of the upper watershed is a lightly-roaded area administered by the Forest Service with a good network of trails, including the trail leading up the river through the BLM ACEC. There is limited access to private land up the river. Below the forested area, the river flows through agricultural lands within the area surrounding the town of Milton-Freewater, Oregon. The majority of the BLM lands are within 1 mile of the river, with SFWW River crossing BLM lands for approximately 3.5 miles. The Umatilla National Forest and Forest Capital Partners (formerly owned by Boise Cascade) manage adjacent large blocks of land in the canyon.

Purpose and Need for Action

The purpose describes the objectives the BLM is striving to meet in crafting the alternatives. The needs describe the main factors driving the way the BLM accomplishes the purpose or objectives.

Purpose

- Allow reasonable access to private lands above the SFWW ACEC for approximately five separate families. The BLM Manual Section 2800 (Rights-of-Way) at .06D states that: “It is the policy of the BLM to allow owners of non-Federal lands surrounded by public land managed under FLPMA a degree of access across public land which will provide for the reasonable use and enjoyment of the non-Federal land. Such access must conform to rules and regulations governing the administration of the public land; keep in mind, however, that the access necessary for the reasonable use and enjoyment of the non-Federal land can not be denied.”
- Manage the SFWW ACEC lands under the Federal Land Policy and Management Act of 1976.
- Manage the fisheries resources within the SFWW ACEC pursuant to the Endangered Species Act.
- Comply with the requirements of the PACFISH/ INFISH policies and procedures.
- Protect natural and cultural values of the SFWW ACEC per the Resource Management Plan Amendment Decision of July 1992.
- Contribute to species protection and habitat enhancement objectives as identified in the Magnuson Stevens Act, P.L. 94-265, as amended through October 11, 1996 (which applies to all salmon and coastal fish of Oregon, Washington, and California).

Needs

- Landowners have requested improved access beyond the current July 1-August 15 timeframe for full-size vehicles to accommodate cabin maintenance and more flexible family use of the dwellings during holiday seasons.
- CTUIR out-planted Carson origin adult spring Chinook salmon in the SFWW starting in 2001 to spawn naturally, and are having some success.
- On-going compliance with the current Biological Opinions on the steelhead and bull trout requires some management actions in the SFWW.

Environmental Analysis and Decision Process

An interdisciplinary evaluation of the resources in the analysis area including; wildlife, fisheries, recreation, cultural and traditional values, and hydrology/water quality among others will be documented as part of this Environmental Analysis (EA). The analysis is accomplished by examining the different resources in the ACEC and recommending a course of action that best meets the objectives outlined in the Baker Resource Management Plan (RMP 1989), the ACEC Amendment (RMP 1992) and the other laws and guidance documents listed in the Purpose and Need.

The purpose of this EA is to assess the effects of allowing a reasonable mode of access for the landowners above the ACEC who have limited access alternatives and determine if the direct and indirect environmental effects associated with the provision of such access are significant. If the effects are not significant, a 'Finding of No Significant Impact' (FONSI) will be documented upon the completion of the analysis. In addition to providing analysis to determine whether or not an environmental impact statement is necessary, this EA will provide the public and the decision maker with information about the alternatives and the associated effects of each and assist the decision maker in selecting an alternative.

The Baker Field Manager, as the responsible official, will consider all factors and decide whether to implement the Proposed Action and determine whether the Proposed Action is consistent with the RMP as amended, as well as other pertinent laws and regulations.

The interdisciplinary team designed the EA so that the decision maker can select components from the different alternatives and select from choices in how to implement an alternative.

Public and Government Input Summary and Issue Development

BLM has received input from the public and interested parties on this area and issue over the years.

- In 2000, the property owners formed an association and requested year-round access by OHV- Class I vehicles in addition to the six weeks of access with full-size vehicles.
- From 2001-2004, BLM held multiple meetings with the multi-agency Level 1 team, the landowners, USFWS, NOAA-Fisheries and other interested persons to resolve this complex issue.
- In 2004, in response to the Biological Assessment on a possible six-month access by the property owners, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) informed the BLM that they had initiated a program to restock the SFWW River with Chinook salmon. CTUIR explained they had been working on their program for four years and that extending the crossing time period would detrimentally affect their program for replanting the SFWW River.
- The property owners agreed to the shortened full-size vehicle crossing time for 2004 and 2005 reluctantly, until the BLM could do an EA. The shorter vehicle access was and is of concern to the property owners since the rest of the year they must use the trail via permitted travel methods (horses, motorcycles, walking, mountain bikes), which can be difficult, due to weather, and the trail's location and condition (especially during the cooler, wetter months). This keeps them from accessing their property much of the year.
- In January 2005, BLM sent to a mailing list of about 183 persons and organizations, a "scoping letter" to gather possible issues for the EA.

- In 2005, the BLM met with CTUIR and the landowners in separate meetings to try and refine the alternatives and to hear other suggestions for the property owners' access.
- In the spring of 2006, the BLM met in Pendleton with the property owners to present possible alternatives for the EA.
- In July 2006, BLM met with CTUIR representatives to further identify concerns and discuss potential alternatives for consideration in the EA.
- In July 2006, BLM worked out route modifications with a representative of the property owners that could be included in one of the alternatives.
- In July 2006, BLM received several letters from individual landowners expressing their opinions about providing reasonable access to their land and their choice of alternatives.

In response to the January 2005 scoping letter, BLM received four comment letters. Issues identified were:

- Altering or removing materials from this section of the stream requires a permit from Oregon Department of State Lands.
- Minimize damage to all anadromous species at crossings by removing the spawning habitat at the crossings.
- Reduce the number of crossings and habitat damage at those crossings where it is not feasible to construct additional road.
- Reduce travel by ATV's (OHV's) whenever and wherever it is possible as those ATV users who violate the law (causing resource damage) give the rest a bad reputation.
- Consider low water bridges built of concrete as crossing method.
- Increased vehicle use will effect non-motorized recreation and degrade the trail experience for other public land users.

List of Agencies and Persons Consulted

Confederated Tribes of the Umatilla Indian Reservation
 NOAA Fisheries Office
 Oregon Department of Fish and Wildlife
 Oregon Department of Environmental Quality
 Oregon State Historic Preservation Office
 South Fork Walla Walla Landowners Association
 Umatilla County Commissioners
 Umatilla National Forest
 U.S. Fish and Wildlife Service
 U.S. Senator Gordon Smith's Office

Management Direction and Conformance with Existing Plans

The Baker Resource Management Plan

The SFWW River watershed consists of a total of 491,031 acres. Less than one percent is managed by the Baker Resource Area, Vale District, BLM, located in Baker

City, Oregon. The Baker Resource Management Plan (BLM 1989) provides for a balanced level of resource development, conservation, and protection. For details contact the BLM Baker Resource Area.

South Fork Walla Walla River Area Plan Amendment

The BLM amended the RMP with the July 1992 South Fork Walla Walla River Area Plan Amendment Decision (BLM 1992). The plan designates BLM land on the SFWW River as an ACEC, and provides special management direction to protect and enhance the important values of the riparian, fisheries, and scenic values while allowing recreational use. For more detail contact the Baker Resource Area for a copy of the ACEC Plan Amendment. The ACEC encompasses 2065 acres of land administered by BLM. The plan closed the trail to vehicle use and grazing, removed three deteriorating bridges and limited OHV travel to the trail system. BLM built a parking area with a toilet at a trailhead about 2/3 of a mile upstream from Harris Park. These changes have limited recreation impacts and there is marked restoration occurring with the riparian vegetation and wetlands; areas of bare soil and reduced vegetation are rapidly being naturally restored with native vegetation. Documentation is in the BLM Annual Monitoring Reports (1998-2006).

PACFISH/INFISH

PACFISH is the Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California established in 1995. INFISH is the BLM's Interim Bull Trout Habitat Conservation Strategy. The PACFISH/INFISH standards and guidelines and riparian reserves also provide tools for managing resources associated with the river systems. Management within riparian areas follows guidelines from PACFISH/INFISH. The overall riparian goals for high priority watersheds are to maintain, restore, or improve riparian areas to achieve a healthy and productive ecological condition.

Biological Opinions from USFWS and NOAA-Fisheries

Non-discretionary terms and conditions were developed by USFWS (2004) and NOAA-Fisheries (2005) in the Biological Opinions (BOs) which they prepared for bull trout and steelhead, respectively. These included monitoring of wet stream crossings, improving the vehicle route by protecting wet areas and springs, development of a pollution control plan, monitoring of the crossings and restoration as needed, maintenance of field notes, an annual monitoring report due each year that summarizes all activities, monitoring, spawning and fish data. Each of the biological opinions asks that the BLM continue to pursue a long-term remedy to the private land access within the SFWW River corridor.

If any alternative other than the No Action Alternative is chosen, there will be a new Biological Assessment (BA) prepared by the BLM and submitted to NOAA-Fisheries and USFWS. This is because there are existing BAs and BO's that cover both the No Action Alternative, (six-week window of access), and the six-month window of access, but without any route modifications. If the No Action Alternative is chosen, and route modifications or other changes are also chosen through the NEPA decision-

making process, then another BA would be prepared to include such changes and the USFWS and NOAA Fisheries would prepare BOs in response. This is a separate analysis under the ESA that supplements the NEPA analysis process. Any new non-discretionary terms and conditions developed by them as a result of the BA will automatically become part of the Decision Record of this EA. These agencies would then evaluate whether to write a Concurrence Letter and/or a Biological Opinion. In either event, BLM will monitor to assure that the impacts are at the level predicted and continue to be acceptable. Actions to implement the selected alternative will include such monitoring.

Re-initiation of formal consultation is required: (a) If the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that has an effect to the listed species that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action (50 C.F.R. 402.16).

Magnuson-Stevens Act, as Reauthorized in 2006.

The BLM must adhere to the Magnuson-Stevens Act, administered in Oregon by the Pacific Fisheries Management Council (PFMC). The council is one of eight regional fishery management councils established under the Magnuson-Stevens Act. PFMC develops and carries out fisheries management plans for salmon, ground fish and coastal pelagic species off the coasts of Washington, Oregon, and California.

As required by the Magnuson-Stevens Act, PFMC described and identified Essential Fish Habitat (EFH) in each of its fisheries management plans. EFH includes “those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.” All streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California are designated as EFH for affected salmon stocks with management plans.

The proposed project area occurs within the designated EFH for spring Chinook salmon, which was not warranted for listing under ESA on March 9, 1998 (63 FR 11482). There have been salmon planted in the basin and the first established returns to the South Fork were achieved in 2004 with 110 Chinook salmon returning to spawn in the river.

CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES

Design Features and Mitigations Common to all Alternatives

These actions are built into all of the alternatives, and should be included as part of each alternative. In the event of non-compliance with mitigations and protective measures, property owner access may be limited and/or terminated.

- Any access by full-size vehicle is assumed to be by 4x4 high clearance vehicles equivalent to, but no larger than, a 1 ton pickup truck. The primitive existing road is wide enough for single full-size vehicle passage. Future use of the primitive old road (2 track) would be monitored to assure that it does not widen as a consequence of casual use.
- No maintenance of the road is allowed except for the manual moving of rocks and debris. Any fallen trees that are blocking the road/trail may be bucked out (cut and moved aside) of the way but will remain on site.
- None of the alternatives allow mechanical improvements of the access crossings in the river after large weather events that either make more difficult or prevent wet crossings by full-size vehicles. If such a weather event happens, and hand work will not suffice, the full-size vehicular access crossing the rivers will no longer be allowed. BLM may evaluate the options and prepare an ESA Biological Assessment for ESA consultation for any future maintenance or action to facilitate future vehicle crossing. Any new type of maintenance or action that could potentially affect cultural resources would require further consultation under Section 106 of the National Historic Preservation Act.
- Chinook, steelhead, and bull trout redds are monitored for emergence and dispersal of fry and presence of spawning adults prior to BLM granting written authorization each year to the landowners. (Applies to all alternatives that include vehicles in the stream: No Action, Alternatives 1A and 1B.) If steelhead have not emerged and developed sufficiently to avoid vehicles by July 1, this date will be moved back to meet this criteria. If spring Chinook salmon start to spawn prior to August 15, permission for vehicle access will be terminated for the remainder of that year for the No Action Alternative or until the proper mitigations are in place for Alternative 1.A. and 1.B.
- The landowners comply with a list of actions in the Spill Prevention Plan for the South Fork Walla Walla River prepared in June 2005 by the BLM, (See Appendix 1). (Applies to all alternatives that include vehicles in the stream: No Action and Alternatives 1A and 1B.)
- Compliance monitoring with use restrictions will occur annually for the first five years and periodically thereafter or in accordance with monitoring schedules identified in Biological Assessments/Opinions.
- Native species will be used for any replanting or reseedling that occurs as part of an action.
- Since the 1992 Amendment to the Baker RMP identifies the area as potential goshawk habitat, prior to any construction activities, the surrounding area will be surveyed during the nesting period for goshawk nesting. If nests are found,

construction activities in the approximately 400 acres buffer area around the nest will not be carried out within the April 1 – June 30 time period, depending on the proximity to the nest.

- Any ground disturbing management actions will be surveyed for archaeological sites, which would be avoided, stabilized or otherwise mitigated.
- BLM will annually monitor the vehicle route and recreation trail on the SFWW BLM lands for evidence of archaeological sites. For 2007-2009, BLM will arrange annual monitoring surveys for site locations and a monitoring report will be prepared annually and submitted to CTUIR and Oregon State Historic Preservation Office (SHPO) for review and recommendations on actions needed to protect cultural resources. BLM will consult with CTUIR and SHPO on results and updates for monitoring schedule thereafter. As per Section 106 of the National Historic Preservation Act, if any resource impacts are identified, BLM will consult with SHPO and CTUIR on ways to avoid, protect, stabilize or otherwise mitigate effects.
- If monitoring shows that riparian conditions are jeopardized or deteriorating, riparian exclosure fences may be installed to deter unauthorized uses.
- In consultation with CTUIR, BLM will ensure continued access to the BLM lands for the exercise of CTUIR treaty rights.
- Trail markers will be placed and maintained showing location, and signs showing permitted use and routes along the trail.
- Measures will be implemented to ensure that trail modifications or stream crossing design and construction would not result in sedimentation above 10% cumulative increase in Nephelometric Turbidity Units (NTUs) reaching the SFWW River.
- BLM will endeavor to work with the adjacent landowner Forest Capital Partners (formerly Boise Cascade) to place signs notifying the public of the areas closed to motorized OHV use on BLM lands. The signs will be maintained at a gated logging road along Elbow Creek, which appears to be used for unauthorized Class I OHV (quad) access to public lands. Additional physical barriers (e.g., fence, boulders, rolling dip) may be placed on BLM land on Elbow Creek to deter unauthorized motor vehicle use.
- Pursue ATV grants or other funding sources to fund a seasonal river ranger to patrol and provide education and information.
- Work with Forest Service to maintain trail per stipulations of the trail right-of-way.
- Per the 1992 RMP Plan Amendment, “limit OHV traffic beyond the gate/barricade during severe winters, as determined necessary in cooperation with ODFW (between December 15 and March 15) to relieve stress on wintering elk.” This includes full-size vehicles, a Class 2 OHV as determined by the State of Oregon. (Applies to Alternatives with access past December 15, Alternative 1.A., 1.B., 2.A., and 2.B)

No Action Alternative

Continue to allow the annual written exemption to the ACEC road closure for July 1 – August 15 each year for the members of the South Fork Property Owners Association to use full-size vehicles for access to their property above the ACEC. Their access for the remainder of the year would be via the Forest Service trail using motorcycles, horses or walking as the trail is not open to Class 1 OHVs (quads) or full-size vehicles.

According to one of the owners of the private property and dwellings, they have made a combined total of approximately 30 round-trips during the six-week period each year since 1999, when it was reduced from access at any time of year to the currently permitted six weeks of access between July 1 – August 15 (John Ehart, personal comm.). The owners bring in supplies including propane tanks, refrigerators, home maintenance materials, equipment, food and other supplies for use in their dwellings in addition to visiting for enjoyment. From the BLM trailhead to the mouth of Elbow Creek, the property owner vehicles use the remnants of an old Boise Cascade logging road. Above Elbow Creek, the vehicles use an older abandoned road that had accessed the Umatilla National Forest above the public lands administered by the BLM. These old roads periodically serve as a shared use trail that is managed by the Forest Service under a right-of-way authorization from the BLM. (See Map 1, SFWW Area of Critical Environmental Concern, in Appendix 2.) The vehicles must cross the SFWW ten times in the three and one-half miles from the trailhead to the cabins on private land, which lies between BLM and USFS managed lands.

During the rest of the year, the property owners are limited to accessing their cabins via the USFS trail by motorcycles, walking, horses or bicycles.

Chinook, steelhead, and bull trout redds are monitored for emergence and dispersal prior to the BLM granting written authorization each year to the landowners. The landowners also comply with a list of actions in the Spill Prevention Plan for the SFWW River prepared in June 2005 by the BLM, (See Appendix 1).

Alternative 1. Preferred Alternative: Longer Window of Property Owner Access with Full-size Vehicles.

This alternative (1.A and 1.B) would allow the landowners to access their private land via a full-size vehicle using stream crossings for a five-month period from July 1 to August 15 and September 15 to January 1 each year. It would follow the same annual process of the BLM providing written permission after the steelhead, Chinook salmon and bull trout redds are monitored for emergence and dispersal of the fry. According to one of the landowners, use is estimated to be a combined total of approximately 90 landowner trips per year, (an average of 15 round trips a month for the six months, or of three round-trips a month per each of the five cabin families), (personal communication, John Ehart, June 28, 2006). This is an increase over the current estimate of 30 round-trips per year via full-size vehicle.

Oregon Department of Fish and Wildlife (ODFW) currently lists July 1 to August 15 annually as the in-stream work window for this portion of the SFWW. The BLM

acknowledges the basis of this limit and would apply mitigations to moderate potential impacts from a longer access window. One is that no maintenance by machine will be allowed in the water/riparian area or on the trail to repair storm damage, other than to cut and move aside fallen trees. Also, the moving of rocks by the property owners will be allowed by hand only. (See Design Features and Mitigations common to all, at beginning of this chapter.

There are two alternative methods to implement the longer access period (Alt 1.A and 1.B described below).

Alternative 1.A Preferred Alternative: Modify the Existing Route to Avoid Chinook Redds (modify some wet crossings) and Implementation of NOAA Fisheries Conservation Recommendation #2.

The full-size vehicles used by the landowners would follow slight crossing modifications to alleviate the potential of affecting the spring Chinook spawning. (See Map 2, All Existing Stream Crossings, in Appendix 2 to note the crossing numbers.) There are currently ten wet crossings. There would be no vehicle use on the crossings from approximately August 15 to September 15 each year while the Chinook were choosing their sites for spawning. After spawning occurs and the redds are located, new pathways through the water would be marked.

Based on previous monitoring (2002-2005), BLM specialists expect that most new crossing routes across the river would have the same entrances and exits as presently occur, but it might be necessary to avoid a new location of a redd by driving a short distance around the redd on the downstream side and then swing back up to the exit point. Some modifications would involve some movement of rocks/small boulders with hand equipment to provide a more ramp-like entrance/exit from the streambed, and some clearing of shrubs the width of a full-size vehicle. This would require the use of machinery. Note: Every year, evaluations would be made and modifications to the exact route could be needed, depending upon the Chinook redds of the year, but again, ingress and egress points are not expected to change after the initial route improvement described below. Every consideration to avoid stream bank and vegetation disturbance, and sedimentation to redds would be taken to minimize possible impacts. The BLM would not let the crossings locations “travel” or “drift” over time.

The following crossing modifications could be made if spawning occurs on the crossing:

1. Crossings #1-#4 are used by Chinook in some years for spawning. Each crossing would be evaluated and without changing the entrances and exits, the routes through the water for each crossing would be slightly adjusted to the down stream side from the existing crossings to avoid gravels suitable for Chinook redds. A rock apron would be added at the first crossing to protect the stream bank and the perennial tributary at the first crossing. Large cobble would be placed at the first crossing to protect the stream bank that is currently bare soil due to vehicle and motorcycle use. Rock would be added to the

entrance and across the small stream to protect the area and help prevent sediment from entering the river. These changes could be made even without the presence of Chinook redds, just to minimize impacts.

2. At crossing #5, the area allowed for vehicle crossing would be moved slightly downstream from the existing crossing, to avoid suitable gravels. Some small boulders would be moved, possibly by hand. (See Map 3, Proposed New Crossing #5, in Appendix 2). The modification would route the vehicles on the south side of the shoreline for 20 feet and then directly cross on larger cobble/boulder material below the gravels that usually support redds. The crossing would require machine movement of boulders to create the crossing on the north side and may require the removal of 2-4 common shrubs for re-entrance on to the north side. The Western paper birch would not be disturbed.
3. Modifying crossings #8 and #9 (See Map 4, Proposed New Crossing #8 and #9 in Appendix 2) would shorten the linear distance traveled longitudinally in the stream by about 135 feet as the vehicles would cross more perpendicularly to the river and then back again. This would be done even if the Chinook are not using the crossing areas, just to minimize length of vehicular travel in the river. This would require clearing some old roadbeds in the riparian area, making entrances from the river by piling some small boulders and some rocks to allow the vehicles to gain the bank from the riverbed. A modification to a gravel bar to allow this route would also be needed. The effect would be to shorten the existing crossings that cover linear distances in the riverbed.
 - a. Stream crossing #8 would move the vehicles over to the old roadbed on the north side of the river and then directly cross back over the river after being on the north side for approximately 225 feet. Some small shrubs would be removed to open the old roadbed. No trees would be removed and there would be no reduction in shade. Some fallen trees would be moved from the roadbed closer to the shoreline. All grasses and small forbs would be left in place. A rock entrance and exit would be added to the crossing to prevent bank damage upon entering and exiting the north side. This modification would reduce the driving distance in the river by approximately 95 feet.
 - b. Stream crossing #9 would cross over to the old roadbed on the north side of the river and then directly cross back over the river after being on the north side for approximately 150 feet. No vegetation would be removed. A small spring would be protected with the installation of a 14 inch culvert to prevent vehicles from driving through the spring. A rock entrance would be added to the crossing to prevent bank damage upon entrance to the north side.

If redd counts increase as they did in 2006 (see spring Chinook salmon section in Chapter 3), prior to allowing the vehicles to begin crossing after salmon spawning, the specific situation would be evaluated to determine if a feasible route was possible and still meet the design features and mitigations listed in Chapter 2. If a feasible route was not possible, the BLM would discontinue vehicle access for the remainder of the

year. No vehicles will cross over redds nor within 300 feet upstream from a redd as per NOAA's EFH Conservation Recommendation #3b (NOAA, 2005).

Implementation of NOAA Fisheries Conservation Recommendation #2

To implement NOAA Fisheries Conservation Recommendation #2, (NOAA Fisheries Biological Opinion, 2005), "Pursue methods and funding that help avoid driving through side channels and springs in the path of travel which have the potential to support Mid Columbia River Steelhead", the BLM proposes to install two small bridges over two identified pools located in the roadway.

Although full-size vehicle use on the road route is restricted for use only by the private landowners, the general public does not always make the desired distinction between the US Forest Service recreation trail which is signed and identified for their use, and the vehicle road which parallels the trail in places. Recreation users do not always stay on the designated trail, but sometimes detour onto the vehicle road. The result, with respect to this bridge project, is that the public using motorcycles (or horses) might travel through these two shallow pools when they are used by steelhead and Chinook fry. Because the road route is not only used by the private landowners but also by the general visiting public, the two bridge projects are also intended to mitigate for potential impacts by general public use.

The two identified pools are located where the vehicle road crosses what appear to be a combination of old, closed side channels and seeps and spring outflow near the main river (refer to Appendices 2 and 3 for project location maps and photographs). Water is present year round, apparently due to both high water table and a contribution from canyon wall seeps or springs. Water from a spring on the hillside at the Demaris cabin is running down the road into one of the pools (Location B). These two locations have calm water and vegetation/structure that provides escape cover and early rearing habitat for young fish, before they move through the channel outlet into the main stem of the river. Although fish have been observed to move away when people or vehicles approach, one concern is that vehicle use or disturbance at the pool crossing could result in mortality to fry and young fish that use the pools (Jackie Dougan, BLM Fish Biologist, personal communication).

BLM measured the width and length of the two pools on the vehicle road. The pool at Location A is about 9 feet 7 inches wide and 23 feet in length on the road; the pool at Location B is about 8 feet wide and 42 feet in length on the road. Both pools are shallow, probably not exceeding 1 foot in depth.

According to BLM's engineer, in order to accommodate road approach and span the pools for full-size vehicles, See Map 5, the bridge at Location A could be a maximum of 12 feet wide and 40 feet long; and the bridge at Location B could be a maximum of 12 feet wide and 60 feet long. The bridges have not been designed. They may be log and plank sections supported by concrete footings. Ground disturbance associated with bridge construction could include: 1) excavation in or adjacent to the edge of the

present road bed for placement of bridge sections and concrete footings, 2) disturbance in the road bed to create approach ramps to the bridges, and 3) disturbance associated with equipment operation and/or material staging on the road and adjacent to the road. Construction would be allowed only after fish emergence monitoring and during the ODFW in-stream work window of July 1- August 15. Access would be over the existing route, which could require cutting road-side brush for passage of equipment.

Prior to developing the proposed bridge project, BLM would arrange for subsurface investigations at the project location and, in consultation with Oregon SHPO and CTUIR, would develop measures to avoid or mitigate effects to cultural resources if found. BLM would also arrange for an assessment study of potential effects and mitigation measures for tribal traditional cultural properties on BLM lands.

Alternative 1.B Allow Existing Routes by Deterring Spawning on Crossings with Suitable Chinook spawning Gravels

Landowners would be allowed the expanded period of full-size vehicle crossing, from July 1 to August 15 and September 15 to January 1 each year. This alternative would allow the landowners to use their full-size vehicles for access, crossing the river in the same ten locations as under the No Action alternative, but the crossings would have their surface gravels covered with a webbing material. This webbing material or other material would deter the spawning activity of the spring Chinook at the crossings which currently have, or in the future will develop, suitable gravel beds and other conditions needed for spring Chinook to spawn. The material would be placed prior to August 1, and then removed by September 30, after monitoring, when the Chinook would have already spawned. This method would avoid permanent loss of or damages to habitat while deterring spawning. The current areas that would be “hardened” are crossings #4, #5, and #8. The material would be brought to the sites by pickup and rolled out slowly across the river while securing the material. The material would be secured on either side of the river with rebar and held in place by placing small boulders on top of the material. During the first year the property owners would not be allowed to drive over the deterrent material until after spawning had occurred. The sites would be monitored and verified that this application for deterring spawning was successful. If it is successful, in the second year there could be use of the vehicle crossings during the spawning period. There may be some alterations with use or limitations during the spawning period depending how successfully the material worked. It may be determined that avoidance and non-use of the crossings still may need to occur until Chinook spawning and redd locations are known. If redds occur on other areas where there is no deterrent material, then avoidance of the redds would occur as described in Alternative 1.A. If new crossings begin to be used for Chinook salmon spawning, then the redds would be avoided that year, and the following year the material would be placed on the suitable gravels at the new areas.

Alternative 2. Reconstruct the Existing Trail to Accommodate Class I OHV's (quads); Restrict Class I Use to Property Owners. Eliminate Full-size Vehicle Access by the Landowners.

Introduction

The trail would be reconstructed and/or the route modified to accommodate Class I OHV's (quads) from the trailhead to the private land for year round access. The Oregon State Department of Transportation defines Class I vehicles as any off-road vehicle weighing less than 800 pounds, less than 50 inches wide with a saddle seat, that travels on three or more low-pressure tires. These are not full-size vehicles. The existing trail right-of-way is for a 24-inch tread width which is designed to accommodate Class III vehicles (motorcycles) only. Where the trail overlaps with the road, the width varies to a much wider tread. Trail Design Guidelines recommend a tread width of 50 to 60 inches for Class I vehicles. The steepness of the side slope and the difficulty level desired establish the tread width design.

The Walla Walla Ranger District of the Umatilla National Forest currently manages the trail under a right-of-way from the BLM. The agencies and other stakeholders would work together to develop a strategy to allow the trail to be reconstructed where necessary to accommodate use by Class I OHV's (quads). Trail building techniques would be used to minimize impacts to other resources such as using end hauling rather than side casting of waste materials during trail widening activities to avoid impacts to water and other resources.

Access would continue to be open to the Class III (motorcycles), and pedestrian, horse, llama, and mountain bike use. Control of type of access would be at the BLM trailhead. The existing trailhead gate structure and bollard/other blocking structures would be redesigned and modified to allow laden packhorses and motorcycles through while blocking Class I OHV's. The landowners would have keys to the gate to allow their Class I OHV's.

This alternative (including Alt 2.A and 2.B described below) would not provide any full-size vehicle access by property owners.

The most difficult section of trail to reconstruct for Class I use is between wet crossing 1 and 2. There are two alternative variations to address this difficult section. The trail from wet crossing 2 up river to the private property will be the same for each variation and as described above in this section.

Alternative 2.A Install Two Class I OHV- sized (quad) Bridges Over the River Near Existing Crossings #1 and #2.

With the installation of two Class I OHV (Quad) sized bridges near the existing crossings #1 and #2, access by the property owners to their lands above the ACEC would be for year round access. While this is a feasible alternative and is analyzed accordingly, if chosen it would require a Plan Amendment since the 1992 Amendment

to the Baker RMP only provides for access on the north side of the river. That would include re-releasing this EA to include a 90-day public review by the Oregon State Governor's Office.

The BLM would oversee the installation of two Class I OHV (quad) bridges on the existing structurally sound bridge abutments that remain from the original Boise Cascade logging bridges. These bridges would allow a reroute of the trail to the south side of the river to bypass an existing steep segment of the trail on the north side that crosses multiple seeps on erosive soils. Installing the bridges would route the trail across the river to the south side at crossing #1 and route it back across to the north side at crossing #2. The replaced segment of the north-side trail would be obliterated and rehabilitated. The two bridges would facilitate access to the south side of the river, between crossings #1 and #2, by pedestrian, bicycles, horses, and motorcycles. The bridges would be designed so that the land owners could utilize them with their quads, but the general public on quads would be blocked by gates that would still let motorcycles and horses through. The general public would be able to use motorcycles, horses, etc. Any quad use by the public would be unauthorized. The remainder of the trail would be reconstructed/widened to accommodate Class I OHV's (quads).

The ground around the old bridge abutments was previously disturbed during their original constructions in 1979. Installation of new OHV bridges would be monitored for undetected archaeological resources. If new ground disturbance is proposed at the bridge locations, subsurface probing for undetected archaeological resources would be conducted prior to bridge design. Any Native American archaeological sites identified during monitoring or subsurface investigations would be avoided or mitigated by implementing further design measures developed in consultation with the Oregon State Historic Preservation Office (SHPO) and CTUIR.

Alternative 2.B Reconstruct the Existing Trail on the North Side of the River to Accommodate Class I OHV's- Restrict Class I Use to Property Owners. No Class I OHV Bridges Would Be Constructed.

The trail would be reconstructed but would stay on the north side of the river. Under this alternative no bridges would be built. Access by the property owners to their land above the ACEC would be by Class I OHVs (quads) for year round access.

The most difficult section of trail to reconstruct for Class I use is located in the NE1/4NW1/4 of Section 14, on the north side of the river (generally opposite the location of wet crossings 1 and 2). This section of trail is approximately 1,500 feet long. About half of it traverses a rock cliff face and the other half travels through a vegetated area which is fed by a series of seeps and springs. The portion of trail crossing the rock face (about 750 feet) would be reconstructed to accommodate Class I quads with a tread width of 72 inches.¹

¹ A 72 inch tread width is greater than the guideline (60 inches) to help provide a safer trail. The side slope in this area is 50-70%. An "easiest" classification for a Class I trail on such an extreme side slope

At the east end of this rock cliff face, an old trail farther upslope will be reconstructed (about 750 feet) to accommodate use by the Class I OHV's. The grade on the west end of this old trail reroute is 25%, which is steeper than desired, but there may be an opportunity to relocate this section to reduce the grade. Rerouting this section of trail may serve motorized users, but non-motorized users would not be inclined to take the new trail, which would have a steeper grade and pitch, longer distance, and less shade. Non-motorized users would continue to use the existing trail. Therefore the existing trail would not be obliterated and rehabilitated.

Any new trail route proposed to accommodate Class I OHV's would be surveyed for archaeological resources. If sites are found, BLM would avoid archaeological resources by route design measures developed in consultation with the Oregon SHPO and CTUIR.

Other Alternatives Considered, but Not Analyzed in Detail

Road Construction outside the Narrow River Drainage

Earlier in the project analysis, an alternative was evaluated that would have provided a road built over the uplands previously owned by Boise Cascade north of the ACEC and currently owned by the Forest Capital Partners. It would have come over the ridge and dropped down into the private land tract owned by the property owners. This alternative was dropped from further consideration because it would have been very expensive, even more expensive than the small bridges discussed in Alternative 1.A. A right-of-way would have been needed from Forest Capital Partners; funding and legal questions were numerous and complicated.

Public Access Class I OHV Trail

Considered to a much greater depth before setting it aside was the concept of upgrading the trail currently managed by the FS through the ACEC, from the existing width to Class I width and opening it for public quad use. The trail construction impacts would have been the same as Alternatives 2.A. or B. However, the authorization of public use of Class I OHV (quads) traveling up and down the trail from the trailhead to the Forest boundary would have created a management issue because the FS trails above BLM lands prohibit Class I vehicles. It is expected that the 3.2 mile trail would not be satisfying for quad use (trail is too short), and riders would likely look for ways to add interest to their experience by playing with alternative ways of traversing the terrain. The numbers of persons doing this would exceed the capability of the canyon to resist damage from off-trail travel. The private lands and FS lands above the BLM would also likely incur off-trail damage.

is not recommended, so a wider tread width is the only option. This is the most critical section of trail from a feasibility standpoint. This segment of trail is on 40-60 foot cliffs which give little room for error if a mistake is made. Blunt force trauma, the terrain (rock), and water hazards (river) create a serious safety concern.

No Access through the ACEC by motorized vehicles.

An alternative was considered that prohibited motorized access beyond the BLM trailhead to the Forest boundary, through the ACEC. Impacts to other resources would be reduced with this alternative than other alternatives considered. All wet crossings would be eliminated thus reducing impacts to water quality and fish. Elimination of motorized use on the trail would reduce impacts to soils and sediment delivery to the stream. Trail maintenance needs would be less labor intensive/reduced.

However, this alternative does not meet the objectives identified in the Purpose and Need, so it was not analyzed in further detail.

Low Water Concrete Crossings

As was suggested in a comment during the scoping period, the BLM considered constructing low water concrete bridges over all ten wet crossings. This was eliminated from further analysis since they would permanently eliminate those areas from potential spawning habitat for all fish species including the federal listed bull trout and steelhead.

CHAPTER 3 – AFFECTED ENVIRONMENT

Introduction

This chapter summarizes the physical, biological and cultural environment of the SFWW ACEC. Resource values that are either not present in the area or would not be affected by any of the alternatives will not be discussed. These values include wilderness study areas, research natural areas, paleontological or mineral resources, prime or unique farmlands, air quality, soils, hazardous wastes, socioeconomic or environmental justice considerations.

Project/Analysis Area

The project area is within the boundary of the South Fork of the Walla Walla River Area of Critical Environmental Concern (ACEC). The focus of analysis is the bottom of the canyon, the SFWW River and its riparian area, and the trail/road complex along the river. The framework for cumulative analysis is the same geographic area as the “project area” including the entire South Fork of the Walla Walla River for fisheries habitat. The past/current/future timeframe is used for cumulative impacts to be able to address other activities ongoing concurrently that might accumulate impacts with the alternatives under consideration.

Vegetation

General

This area comprises a unique assemblage rarely found in the Pacific Northwest east of the Cascades, at least on lands managed by the BLM. This area encompasses many small plant communities of both a dry and wet nature. These communities are a result of the wide variety of exposures, slopes, moisture regimes and soil conditions found in the ACEC. Their uniqueness and vulnerability are in part because they exist within a

relatively small area. Even with incomplete inventories to date, agency personnel have discovered at least 300 distinct plant species within the river corridor.

Riparian/Wetlands/Unique

The riparian habitat consists of three separate but interrelated plant communities. The sheer rock faces and outcroppings with seeps and springs create a moist micro-habitat for mosses and ferns, creating hanging gardens. The springs create bogs and marshy areas along the toe of the slopes providing habitat for sedges, rushes and grasses. Along the river's edges a highly diverse and well-developed shrub and tree community exists including ponderosa pine, Douglas fir, grand fir, white fir, alder, willow, paper birch, water birch, Pacific yew, black cottonwood, mock orange, ocean spray, ninebark, service berry, western mugwort, red-osier dogwood, elderberry and snowberry. Western paper birch, *Betula papyrifera* var. *commutata* appears to be only known in this area of Oregon, although it had been found in South East Washington. This is of regional importance due to its uniqueness. There are Western paper birch trees beside Crossings #8 and #9.

Special Status Species

There are no federally listed plant species known to exist here. However, the Western paper birch and Pacific yew communities found in the bottom of the canyon represent disjunct communities for these species. This location may be the only one for the Western paper birch in Oregon according to the National Resources Conservation Service. The mountain lady-slipper (*Cypripedium montanum*) occurs here and the clustered lady-slipper (*Cypripedium fasciculatum*) is likely to occur here. Both are species of interest and concern in Oregon to the Oregon State Natural Heritage Program and are BLM Sensitive species.

Hydrology/Water Quality

From field surveys documented in Appendix 4, SFWW Water Quality Restoration Plan, and field observations by BLM specialists, and low-level aerial photography from 2004, the BLM believes that the SFWW is a stable B3 (Rosgen, 1996) stream type with an excellent vegetation component.

In August 2005, The State of Oregon Department of Environmental Quality (DEQ), completed and submitted to the Environmental Protection Agency (EPA), the Stream Temperature Total Maximum Daily Load (TMDL) and Water Quality Management Plan (WQMP) for the Walla Walla Subbasin, August 2005. (Report is available from DEQ and for review at the Baker Resource Area office in Baker City, OR.) EPA approved it in September 2005. This TMDL and WQMP identified that for this segment of the SFWW, the temperature is too high for the most restrictive (listed bull trout) of the many beneficial activities. (See the Fisheries Habitat description, next section of this chapter, for temperatures). As required by the TMDL and WQMP, the BLM is preparing a Water Quality Restoration Plan for the SFWW (See Appendix 4). This plan identifies management strategies to assure that BLM management does not increase stream temperature. Vegetation and shade are listed as "surrogates" for water

temperature in the TMDL. As outlined in the WQRP, the BLM will manage the ACEC to protect riparian vegetation that provides shade to the SFWW.

Fisheries

Fisheries Habitat

The SFWW is a cold-water source for the Walla Walla River Subbasin and supports anadromous and native fish habitat. The SFWW River originates from Deduct Springs in the Blue Mountains and is 27.1 miles long. The BLM managed land begins at river mile (RM) 8.0 and ends at the private land boundary at RM 11.5.

Oregon Department of Fish and Wildlife (ODFW) completed a stream survey in August 1993 on the BLM and Forest Service portion of the SFWW River. Oregon State University and Oregon Department of Fish and Wildlife developed the stream survey methodology used for the stream survey. Results of that survey are summarized below.

The narrow valley floor is 23% moderate v-shape and 77% multiple terraces. The channel morphology is 23% constrained by bedrock and is 77% unconstrained within a single channel. The wetted surface width is 21.32 feet (6.5 meters) and the depth averages 1.37 feet (0.42 meters). The average gradient is 1.8%. The water temperature recorded during August ranged from 46.0-58.0 F. (8-14.5 C.). The bank stability was 97% stable with only 2.2% actively eroding. The dominate substrate was gravel (41%) and cobble (36%). Pools were 15% of the habitat units with 74% in riffle and 10.6% in rapids. There were no pools over 0.62 feet (1 meter) in depth. There was 61% canopy closure in Zone 1, which is the water influence zone (0-32.80 feet or 0-10 meters).

Stream crossings along the surveyed reach provide access to private land upstream of BLM administered. The survey results indicate the stream channel is widened at most of these crossings. However, other than in the immediate vicinity of the crossings, channel widening was not evident. Other than vegetation loss at the crossings and along the road, riparian vegetation is well established along the reach. Vegetation was verified by field observation and low-level aerial photography conducted by BLM in 2004. Field observations also indicate good channel bank stability along this reach of the SFWW. Direct impacts to the stream channel, vegetation, and streambanks from the vehicle crossings constitutes approximately one percent of the 3.5 mile long stream segment managed by the BLM.

Based on this information and further by field observations, the BLM believes the SFWW is a stable B3 stream type with an excellent vegetation component. In addition, while past management may have impacted riparian habitat, current management is contributing to improved riparian condition. The TMDL (Figure 1-11 pg 1-21, DEQ, 2005) indicates that the target potential channel width should be approximately 15 meters while the existing channel width is over 20 meters along the BLM managed portion of the SFWW.

Surveys conducted by the BLM in 2006 illustrate that bankfull channel width is between approximately 43 and 49 feet (13-15 meters). This information would indicate that the South Fork Walla Walla is at or near the potential channel width described in the TMDL. The BLM acknowledges that at most of the stream crossings the channel is wider. However field observations illustrated that the impact is specific to the stream crossings and affects only about one percent of the stream segment managed by the BLM (excerpt, Appendix 4, SFWW Water Quality Restoration Plan for temperature impaired streams Vale District, Bureau of Land Management, Baker Resource Area, BLM).

BLM specialists conducted a Proper Functioning Condition (PFC) survey on the BLM portion of the SFWW River in July 1999 and rated the river as Properly Functioning. The SFWW is in excellent condition from Harris Park upstream to the headwaters (BLM Specialists' professional opinion).

The SFWW River has a drainage area of 163 sq. km., which is 4% of the Walla Walla Subbasin (Walla Walla Subbasin Plan 2004). Flow information has been recorded since 1908 on the SFWW River. The maximum mean flow during the spring is approximately 575 cubic feet per second (cfs). The minimum flow in the fall is approximately 75 cfs.

The new stream temperature rules created by DEQ has designated the SFWW as a cold water source, which means the seven-day maximum average may not exceed 12.0 degrees C. or 53.6 degrees F. In 1999 and 2000, stream temperatures were monitored continuously in the SFWW River from June until September, near the gauging station above Harris Park. Both years, the seven-day maximum was at, or lower than, 58 degrees F. Since then the stream temperatures have been monitored periodically throughout the summer months. In 2003, it was monitored on June 30 and August 15. On June 30, the high temperature was 46.3 degrees F. and on August 15, the high temperature was 50.5 degrees F. In 2004, the river was monitored periodically from May to November. The highest temperature recorded that year was 57.4 degrees F. during July. In 2005, the river was monitored periodically from February to September. The highest temperature recorded in 2005 was 63.3 degrees F.

TES Fish Species

Federally listed fish species occurring within the SFWW Subbasin consist of Mid Columbia summer steelhead and bull trout. Mid-Columbia Spring Chinook salmon are not currently listed in this watershed as threatened or endangered.

In response to a court order, the NOAA-Fisheries published a proposal on February 15, 1998 to list the Mid-Columbia River Basin segments of summer steelhead (*Oncorhynchus mykiss*) under the Endangered Species Act of 1973 (P.L. 93-205). The Mid-Columbia River population of summer steelhead includes the SFWW River watershed.

The US Fish and Wildlife Service (USFWS) published a final rule listing the bull trout (*Salvelinus confluentus*) in the Columbia River Distinct Population Segment as a threatened species under the Endangered Species Act (Federal Register Volume 63, Page 31647). The rule became final on July 10, 1998. The USFWS has designated critical habitat for the SFWW River, but has not included the BLM administered land in that designation.

Bull Trout

Bull trout in the Walla Walla Subbasin exhibit both fluvial and resident life histories. Adult resident forms are generally less than 12 inches in length, while adult fluvial bull trout can exceed 20 inches in length. Both forms spawn in headwater tributaries from late August into November, although the actual spawning season may vary within this period depending on local conditions in each stream. After spawning, fluvial bull trout return to over-wintering areas in the main stems of both river systems until the following spring when the upstream migration begins, presumably in response to increasing water temperatures.

They spend the summer through fall in lower order tributaries or in the upper main stems of the Umatilla and Walla Walla Rivers. Ages of bull trout in this area range up to 9 years, but most spawning adults seem to be 5 years or over. Size of bull trout observed during Oregon Department of Fish and Wildlife spawning ground surveys in the SFWW River in 1995 ranged in size from approximately 8 inches to greater than 24 inches (Germond, *et al.* 1996a). Three local populations have been identified in the recovery unit: (1) Upper Walla Walla Complex, which includes the North and South Forks of the Walla Walla River; (2) Mill Creek and tributaries; and (3) the Touchet River and tributaries. (See Bull Trout Recovery Plan, Chapter 10. USDI 2004).

Bull trout spawn mainly in the SFWW River (Reach I) between Table Creek and the second major tributary above Reser Creek (River Mile 15 to 22), the lower (7 miles) of Skiphorton, and the lower (0.5 mile) of Reser Creek. The majority of spawning fish are found above Bear Creek (ODFW, *in litt.* 1999c). The largest number of bull trout captured in a trap on the SFWW River approximately 2 miles upstream of the forks between 1992-2000 was 211, in 1992 (B. Kilgore, *in litt.* 2001).

Utah State University started a study in 2001 on bull trout to look at abundance, growth and movement within the river. (See Bull Trout Population Assessment ... Utah State University 2004). They continue to monitor and tag fish and to take genetic samples of fish. CTUIR has been conducting a large radio-tracking program for the last few years to look at temporal movement patterns of bull trout.

Bull trout in the Walla Walla Subbasin are not at immediate risk of extinction (USFWS 2002). They spawn and rear in the headwaters of the Walla Walla Subbasin and most of its tributaries, but some fish migrate downstream as far as the lower main stem Walla Walla River. The extent of their downstream movements is presently unknown in the Walla Walla and Touchet basins, but it is currently under study in the Walla Walla River through use of radio telemetry. Barrier removal, reduction of in-stream sediment, and reducing or maintaining stream temperatures are some of the

primary habitat recommendations in the draft bull trout recovery plans. Only with improvement on private land can this population reach its potential. The area on the SFWW from Harris Park to the headwaters is considered in “nearly pristine condition” (Germond, et al 1996b) where the trailhead and trail are located.

In summary, the majority of bull trout spawn above Bear Creek, which is well above the ACEC and the property owners’ land, and ten years of ODFW monitoring has shown that bull trout very rarely spawn in the ACEC. There is some indication that some bull trout (resident) are migrating to the NF of Walla Walla for a portion of the winter. But other individuals remain in the ACEC. Bull trout can be considered the only resident salmonid in the ACEC, as the other species move out during part of the year.

Summer Steelhead

Historically, summer steelhead spawned and reared throughout a large area of the middle and upper reaches of the main stem Walla Walla and Touchet Rivers and their tributaries. Widespread habitat degradation resulting from irrigation, dry land farming, livestock grazing, and logging has reduced usable spawning habitat by approximately 50% (Washington Department of Game (WDG) 1985).

Steelhead enter the subbasin from December - March, with peak numbers in February - March (ODFW 1987). There are no accurate numbers of historical run sizes; annual runs are believed to have contained 4,000 to 5,000 fish (ODFW 1987). For run years 1977-78 through 1986-87 an estimated 1,090 to 1,817 native summer steelhead annually returned to the subbasin.

Numbers of fluvial steelhead spawning within the ACEC over the 14 years of 1992 through 2005 could total somewhere between 34 to 204, according to CTUIR biologists; see comment 6-4 from the CTUIR in Appendix 5.

Emergence normally occurs from May - July. Juveniles may rear in the subbasin for up to two years but substantial numbers of juveniles emigrate from late April - May from Oregon headwaters as one-year-old juveniles (ODFW 1987).

Low stream flow is the main limiting factor for summer steelhead. Extensive irrigation withdrawals severely compound naturally low stream. Irrigation in Oregon normally completely diverts the main stem Walla Walla River by the time it reaches the Oregon-Washington border (CTUIR 1990). There are three permanent irrigation diversion structures: the Burlingame Diversion (RM 36.0), the Nursery Bridge Dam (RM 45.8), and the Little Walla Walla Diversion Dam (RM 48.2), on the main stem Walla Walla River that impede the fish. All stream flow diversions in Washington are screened. In Oregon, ODFW with NMFS funding installed 23 diversion screens in 1986-88 within the Walla Walla Subbasin (CTUIR 1990). Currently work is being done on several irrigation channels/diversions and more water is being kept in the main river to promote migration of Chinook salmon.

Based on several years of monitoring data collected by ODFW, CTUIR, and BLM, steelhead do spawn in the ACEC on the crossings. Riverine conditions change yearly and the crossings are not always good spawning areas. Steelhead fry have a tendency to live in the stream for the first year but again each spring a large percentage of them migrate downstream with the adults. So steelhead numbers are constantly changing, and steelhead individuals are not considered to be year-round residents.

Spring Chinook Salmon

The proposed project area occurs within the area designated as Essential Fish Habitat (EFH) for spring Chinook salmon, which was not warranted for listing under ESA on March 9, 1998 (63 FR 11482). EFH for Chinook salmon is considered to be those habitats occupied at present and those historic habitats in the Walla Walla River Basin.

Native spring Chinook salmon have been extirpated, at least functionally, from the Walla Walla Basin since the early 1920s (Nielsen 1950, Van Cleave and Ting 1960) although some adults were recorded in steelhead creel surveys as late as 1955 (Oregon Game Commission, 1956 and 1957). Recently, a few adult spring Chinook have been observed in the Touchet River (Mendel et al. 2001, 2002) and in the main stem of the Walla Walla River (Zimmerman and Duke 2001, 2002; Bronson and Duke 2003). These fish are presumed to be strays from other basins because they were extinct and most of the returning fish are generally unmarked and are likely from reintroduction efforts in the Umatilla River or elsewhere. Coded wire tags recovered from a few adults trapped in the Touchet River had Tucannon Hatchery codes (Mendel et al. 2002).

In 2001, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) released more than 1,000 spring Chinook salmon into the Walla Walla River basin. The CTUIR have built a fish holding facility just north of Harris Park on the South Fork to facilitate their restoration efforts. The adult fish were released to spawn in the South Fork. The CTUIR out-planted Carson origin adult spring Chinook salmon into the SFWW and Mill Creeks during 2002-2003 to spawn naturally (Zimmerman and Duke 2001, 2002; Bronson and Duke 2003; Contor and Sexton 2003). It is too early to know if the recent habitat and flow improvements in the basin will provide suitable conditions for the progeny of the out-planted Chinook to return at or above replacement (2.0 returns per spawner). CTUIR documented successful spawning, juvenile rearing, and smolt migration of naturally reared progeny of out-planted Chinook salmon (Contor and Sexton 2003, Schwartz et al. 2004). CTUIR has initiated a smolt program along with the adults that are being out-planted into the SFWW River.

In 2004, the first returning Chinook salmon returned up the river to spawn; 110 fish passed through the CTUIR Nursery Bridge Dam Fish ladder. From the CTUIR Fish Facility to the South Fork Trailhead there were 41 Chinook redds and from the South Fork Trailhead to Bear Creek there were 64 Chinook redds. There were a total of 225 redds were counted in the basin. In 2005 from the CTUIR Fish Facility to the South Fork Trailhead there were 8 Chinook redds and from the South Fork Trailhead to Bear Creek, 28 Chinook redds out of a total of 78 redds were counted in the basin.

“The CTUIR master plan goals include continued ecosystem restoration and adult returns of over 8,000 adult spring Chinook salmon (CTUIR, 2004). The goals include 2,750 hatchery and 3,000 naturally-produced adults for the Oregon portion of the basin and 1,375 hatchery and 1,500 naturally-produced adults for Washington. These goals are not agreed to by all co-managers.” (BLM understands that these numbers refer to over the next ten years.) In the last four years BLM and other agencies have observed Chinook spawning on the BLM managed land with specific emphasis towards watching the use on vehicle crossings. Results from the last four years of monitoring are:

- There has always been spawning activity on the fifth vehicle crossing.
- There has been at least one redd on three other crossings (#1, #4 and #8).
- There has been spawning activity upstream or downstream of crossings #2, #3 & #9.
- There are at least three crossings that have never been used for spawning (Crossing #6, #7 & #10).
- Monitoring in August and September 2006 showed Chinook redds at five crossings, which is an increase from previous years. The crossings are numbers 4, 5, 6, 7, and 8. Crossing #6 and #7 have first time use in 2006 by Chinook for redds.

Wildlife

Threatened (Bald Eagles)

The bald eagle is (*Haliaeetus leucocephalus*) is listed as threatened under the Federal Endangered Species Act (ESA). The SFWW River falls under the guidance of the Pacific Bald Eagle Recovery Plan. This plan calls for providing a “secure habitat for bald eagles in the 7-state Pacific recovery area and increasing populations in specific geographic areas to levels where it is possible to de-list the species.” The EA is within one recovery area: the Blue Mountains. There are 14 key areas in the Blue Mountains that contain important habitat for eagles.

Occasional reports of bald eagles occur in the Walla Walla River drainage downstream toward Milton-Freewater. These reports would indicate the eagles seen are migrating through the area in their seasonal north-south movement. There is no indication that they reside in the drainage during the remainder of the year.

BLM Sensitive (Goshawk)

The northern goshawk (*Accipiter gentilis*), is a Bureau Sensitive species, and is managed in a manner that does not contribute to the need to list the species under the ESA. According to the 1992 Amendment to the Baker RMP, while not known to occur here, there is the potential for goshawks to nest within this ACEC. If one is discovered, approximately 400 acres surrounding the nest will be managed according to guidelines formulated to protect and enhance goshawk habitat in the area. The goshawk is a forest habitat generalist that uses a wide variety of forest ages, structural conditions, and successional stages for its life history.

Requisite nesting habitat characteristics for goshawks include dense overhead foliage or a high degree of tall tree canopy cover, but they have been known to use open area sites when dense overhead foliage is not abundant. Most nests are located on north facing slopes in dense, mature, or old-growth conifer stands (Reynolds et. al 1992).

Terrestrial

Due to its uniqueness, there is a large variety of wildlife species that are not threatened or sensitive that occupies the area and are considered game. This area is located within a critical winter range for about 1,100 Rocky Mountain elk. They tend to use the south-facing upland slopes uphill from the trail. The dense undergrowth in the riparian area provides habitat for white-tailed deer and ruffed grouse. Mule deer occur in the upland habitats and black bear use all habitats in the area. Because of steep rock slopes, the ODFW has identified the area as suitable Rocky Mountain bighorn sheep habitat and re-introduction site. Furthermore, the steep rim rock located in this area would provide habitat for cougar and bobcats.

The area also supports a rich variety of non-game wildlife, located in diverse, well-developed riparian habitat and on adjacent uplands. The canyon is also a major wintering area for ladybug beetles. The beetles congregate on riparian foliage, particularly on the trunks of Douglas fir trees beginning in late October. They reside there until late April or early May (BLM, 1992, USDI Forest Service, July 1997).

Aquatic

Various salamanders, newts, and Pacific tree frogs, occupy small moist areas on the steep cliffs of the hillsides, the more moist vegetated areas of the bottomlands, the small pools associated with spring outflow and small tributary streams in the early life-stages. Many recent studies have found that amphibians are particularly vulnerable to unknown environmental conditions, and are succumbing to lethal skin fungus and other health problems. Their thin porous skins do not protect them from changes in their environment

Archaeological and Historic Resources

Archaeological inventories on the SFWW River have identified two archaeological sites (35 UM 168, 35 UM 387) and two EuroAmerican historic building sites. The building sites consist of a free-standing stone chimney (which is all that remains of a log cabin probably constructed in the 1930s-1940s), and the Demaris cabin site including a collapsed frame building, privy and spring box. Both historic building sites lack integrity. During inventories conducted to date, no archaeological sites have been identified within the single-track vehicle road or stream crossings. It is possible that undiscovered archaeological resources are present within the ACEC but have not been detected, partly because surface visibility is diminished due to vegetative cover or such resources may be sub-surface.

Native American Treaty Rights and Traditional Uses

The project falls within the homelands of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), and is located on lands ceded by the Treaty of 1855. Under the terms of the 1855 Treaty, the Tribes retain a number of rights including their rights to fish at usual and accustomed places and to hunt, gather and pasture animals on unclaimed lands. Protection, restoration and enhancement of water, anadromous and resident fish, other aquatic species, terrestrial game animals and traditional plants are culturally and economically important to the CTUIR. These resources and the right to harvest them are protected in the Treaty of 1855 (CTUIR Department of Natural Resources, September 6, 2006) .

CTUIR tribes have occupied and used lands in the middle Columbia and lower Snake River basins, including the Walla Walla watershed, for thousands of years. Ethnological reports indicate the Walla Walla inhabited permanent villages on the Columbia, lower Snake and near the mouth of the Walla Walla River. Among other locations, Cayuse bands had winter settlements near Milton-Freewater, Oregon and Walla Walla, Washington (Stern 1998). Seasonally available fish, game and plant resources were procured in the Walla Walla drainage and adjacent mountains and drainages. The main stem and both forks of the Walla Walla River are the location of usual and accustomed fishing and hunting grounds for the Confederated Tribes of the Umatilla Indian Reservation (Suphan 1974). A study to identify traditional cultural properties and assess potential effects will be completed as a condition for implementation of any action except the No Action. CTUIR has indicated that there is a potential for effects to traditional values, but they concur that ongoing access use (No Action Alternative) would not increase impacts at this time.

Historically, the SFWW River provided habitat for trout, steelhead, Chinook salmon, lamprey and other species as part of the traditional fishery. In the early 20th century, development of diversion structures and appropriation of water led to the elimination of salmon runs from the South Fork. As part of a basin-wide effort, the CTUIR have out-planted to establish spring Chinook in the South Fork river reach, and constructed a fish holding facility downstream from Harris Park. CTUIR proposes to expand the facility to a full hatchery for spring Chinook.

Botanical inventories along the river trail have identified species of plants known to have been traditionally important as food, medicine and material to the Tribes. Examples of some plants of potential cultural interest that are known to be present in the riparian zone or adjacent rocky hillsides include western serviceberry, hawthorn, yew, native rose, cow parsnip, bittercherry, Cous' Biscuit-root, fernleaf desert parsley, other lomatium species, sweet-cicely, glacier lily, *Triteleias sp.*, raspberry, native blackberry, wild onion, balsamroot, and yarrow.

Wild and Scenic River Potential

In 2005, the BLM initiated a Wild and Scenic Rivers Eligibility Inventory for the Baker Resource Management Plan Planning Area and compiled a list of waterways

that potentially possessed outstandingly remarkable values. The BLM ID Team and Baker staff identified eight waterways totaling approximately 43.7 miles that have potential to possess Outstandingly Remarkable Values (ORV's) and thus required further review. The SFWW River is one of these segments.

The Baker Resource Area, BLM received a draft report from a contractor for the potential eligibility of the SFWW River. The contractor has determined that the segment of the SFWW River through public lands were found to meet the WSR "Eligibility" criteria and should be given further consideration for inclusion into the National Wild and Scenic River System.

The contractor also determined that the management of the public lands along the SFWW River is currently covered under the Baker Resource Management Plan (BLM 1989) and the SFWW River Area Plan Amendment (BLM 1992), which are consistent with the protection of ORV's identified along the river.

These results are based on a preliminary draft report. Further evaluation is necessary and on-going. The BLM Baker Resource Area has reviewed this draft report and provided comments for inclusion. These comments will need to be addressed by the contractor, along with any additional data provided by the staff, prior to the BLM's acceptance of the results. The final results are scheduled for delivery later in the spring/summer of 2007.

The Wild and Scenic Eligibility review area includes all of the lands within ¼ mile each side of the SFWW River from the existing trailhead to the USFS boundary. The analysis area includes only those BLM managed public lands within the identified study zone, and does not consider any private or other agency lands that occur within that same zone.

All of the lands assessed do fall within the SFWW ACEC.

Wilderness Characteristics

This environmental assessment also assesses whether the decision being made affects wilderness characteristics within the planning area. Section 2(c) of the Wilderness Act contains the definition of wilderness:

"A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation, (3) has at least five thousand acres of land or is of sufficient size as to make

practicable its preservation and use in an unimpaired condition; and (4) scientific, educational, scenic, or historical value.”

A review of the SFWW planning area was conducted to assess whether the area contained wilderness characteristics. An evaluation of the existing setting found no lands or areas that would meet the Wilderness Act requirement of 5,000 acres and/or be of sufficient size to warrant further evaluation. Chapter 4 will not include further discussion of wilderness characteristics or potential impacts.

Recreation Resources & Scenic Values

The SFWW River is a popular recreation area. The area is a day use destination for residents of northeast Oregon and southeast Washington. It is easily accessible via paved Umatilla County Road 600 and is only 10 to 20 miles from the population centers of Milton-Freewater and Walla Walla, serving a population of approximately 150,000 people. Recreational facilities include a developed trailhead with vault toilets, loading ramp, and picnic area. Weekly garbage service is provided.

Visitor uses include: Class III off-highway vehicle use, hiking, horseback riding, fishing, hunting, and sight-seeing. No reliable recreation use data has been compiled in recent years. A study done in 1981 revealed weekend visitor use to be approximately 7,000 visitors per year, with the average being 135 visits per weekend. Current use is reported as being 3,000 visitors per year. This is based on anecdotal evidence and professional judgment. Use has been estimated as being lower in recent years due to many management changes since 1981. Primarily, public vehicle access has been eliminated beyond the trailhead.

The trailhead provides access to Trail #3225 which is located on BLM land before entering the Umatilla National Forest and an extensive trail system. The existing 3.2-mile trail (Trail #3225) is under management of the Forest Service via a right-of-way granted in 1998. Although the trail system extends well into the drainage, up to 90 percent of the use occurs within the first mile of the trail below Elbow Creek. Many, if not most of the users, consider the trail to be an extension of Harris County Park. The FS has performed maintenance regularly throughout the life of the trail. Due to weathering and use levels, some non-recurring maintenance items (drainage structures, geo-textile, rolling dips, turnpike, etc.) currently need attention.

The trail is located along the north shore of SFWW. The trail has been developed for shared use; Class III OHV (motorcycle) motorized use and all non-motorized uses. Portions of the trail follow an old abandoned road bed, so the trail width varies widely from the trailhead to the Forest boundary. Beyond the Forest boundary, the trail system is managed for Class III width only. Portions of the trail are also used for landowner access to private properties which lie between the BLM parcel and the Forest boundary. During permitted periods, the landowners utilize full-size vehicles (4x4 pickups and jeeps) on portions of the official trail and on portions of the old abandoned road that are not part of the trail. This shared use and inconsistency causes some confusion for the public.

The existing vehicle closure for BLM lands confines motorized use to the designated trail system. Except for the allowed use by private landowners, motorized use off the existing trail is prohibited. However, unauthorized public motorized use does occur. To discourage off trail use, BLM has implemented a signing plan to identify the trail and restrictions.

Some minor resource damage is occurring due to human use, such as sediment entering the river from de-vegetated dispersed sites adjacent to the river, vehicles driving into the river, and motorcycles/vehicles driving through wet, muddy areas. User-defined trails and previously abandoned trails exist within the riparian zone. Some of the user defined trails are steep, but do not show evidence of gully erosion. Some visitors to the area do not use “no trace” ethics resulting in informal rock fire rings, litter, and vegetation destruction. Enforcement of the terms of the ACEC Plan and Federal Register Notice has resulted in greatly reduced overnight camping, but not total elimination. The effects of human use are evident along the river but since the implementation of the road closure, the negative impacts have been reduced significantly (see attached photos, Appendix 3).

The improvements to the riparian vegetation, increased shade, and increased stream bank stability occurred since the establishment of the ACEC in 1992 and the subsequent closure of the area to indiscriminate vehicle and camping use. The landowners have had an annual exemption to that closure (as described in the No Action alternative). They passed through the ACEC enroute to their property regularly throughout the year while weather allowed. In 1998, the steelhead and bull trout were listed and the landowner’s access was truncated to the existing six weeks between July 1 and August 15. Mitigations identified during the BLM’s preparation of the Biological Assessment and the ESA consultation process with USFWS and NOAA Fisheries were applied to this access privilege. The vegetation and other values in the ACEC made this marked improvement during this use by the property owners for passage to their lands.

Much of the area’s recreation use occurs in the riparian zone along the narrow corridor adjacent to the SFWW. Even though attempts have been made to encourage trail use further up the hillside, away from the riparian zone, success has been limited. Visitors, whether motorized or non-motorized, are almost always seeking a recreation experience which is augmented by views of the river and abundant shade. Non-motorized visitors also seek to take the most level path available, avoiding steep pitches in grade.

The SFWW ACEC is within a VRM Class II area. The management objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The SFWW canyon contains exceptional scenery in a variety of landforms, vegetation, water and color with few cultural modifications to the landscape. The outstanding characteristics include: high vertical relief as expressed in prominent cliffs, a variety of vegetative types expressed in interesting form, textures and patterns, rich color combinations and clear, clean cascading water.

Removal of the bridges reduced the cultural modifications over the river. However, the large stringers left alongside the trail are out of character and detract from the pristine experience available along the trail.

CHAPTER 4 – ENVIRONMENTAL CONSEQUENCES

Introduction

The framework for cumulative analysis is the same geographic area as the “project area” plus the whole South Fork of the Walla Walla for fisheries habitat. The past/current/future timeframe is used for cumulative impacts to be able to address other activities ongoing concurrently that might accumulate impacts with the alternatives under consideration.

No Action Alternative

Vegetation

The on-going use of the primitive road and the ten wet crossing locations of the river in full-size vehicles by the property owners is not affecting the upland vegetation, but is causing some minor damage to riparian vegetation along the stream edges at the crossings. The vehicles are staying on the track and the current estimated total 30 round trips by the property owners is not widening the single vehicle width, two-track aspect.

Hydrology/Water Quality

While past management practices may have impacted riparian habitat, current management, notwithstanding permitting the use by the property owners of full-size vehicles to cross the stream, is contributing to improved riparian vegetation and habitat. The TMDL (DEQ, 2005) uses surrogates of shade, riparian vegetation, and stream width to measure compliance with the stream temperature criteria. Field observations by BLM resource specialists and low-level aerial photography show that riparian vegetation has shown marked improvement since the designation of the ACEC in 1992. The TMDL (Figure 1-11 pg 1-21, DEQ, 2005) indicates that the target potential channel width should be approximately 15 meters while the existing channel width is over 20 meters along the BLM managed portion of the SFWW. Surveys conducted by the BLM in 2006 (SFWW WQRP, Appendix 4) show, however, that the current bankfull channel width is between approximately 43 and 49 feet (13-15 meters). This information would indicate that the SFWW is at or near the potential channel width described in the TMDL. The BLM acknowledges that at most of the stream crossings used by vehicles the channel is wider than the potential

described in the TMDL, however field observations have shown that this impact is very localized to the stream crossings and affects only about one percent of the channel length.

Several springs are intercepted by the present trail and create water flow over the trail and into the river. Only one of the springs is intercepted by a small pipe and it is presently undermining the trail. This area appears to be moving due to instability caused by the springs and perhaps by the trail placement itself. An eventually slope failure could occur in this area.

Decreases in bank stability and vegetation loss at the crossings lessen the shoreline riparian vegetation and shading capability at the point of the crossings. However, the bank stability and loss of vegetation at the vehicle crossings has not changed or increased over the years of use. The current on-going impact to the 7 miles of shoreline for the 3.5 miles of stream on BLM administered land is less than 1% (0.8%) (approximately 300 feet of shoreline) of the existing shoreline vegetation within the ACEC..

Fisheries

Fish Habitat

The BLM anticipates no additional impacts from the administration of the property owner activity than what is presently occurring. The property owners are presently allowed to cross the river to access their private land during a 6-week window that takes place from July 1- August 15. This time period protects steelhead redds and their emergence and any bull trout redds that may occur in the area and their emergence. At present, there is verification of steelhead spawning each year on several of the crossings (BLM Monitoring Reports 2003-2006). However, bull trout spawning surveys have shown that 99% of the bull trout spawning occurs upstream of Bear Creek (CTUIR 2005), which is upstream of the private land and the BLM managed land.

The habitat value right at the crossings is low, as they are void of any hiding cover or protection from predation. The roadways are not good feeding areas because the areas are void of structure and invertebrates are limited by the use of the crossings. Neither effect occurs/continues outside of the crossings. The crossings consists of less than 1% of the area on BLM lands and approximately 0.1% of the total area of the SFWW river, therefore; the impacts to feeding and sheltering habitat from vehicles crossing repeatedly at these are considered minimal by the BLM fish biologist.

Implementation of the No Action Alternative would continue to produce a low level of sediment when vehicles cross, and would continue the physical impacts from vehicles to side channels and springs. Bank stability will continue to be slightly reduced and vegetation will continue to be broken and damaged only at the crossing points. Sediment sampling occurred at the crossings in 2003 and 2005. In 2003, the BLM sampled the turbidity the first time the vehicles crossed the river and the last time the

vehicles crossed the river on August 15. In 2005, the BLM monitored turbidity at the crossings on the first crossing date only.

In early July 2003, at the first crossing time, turbidity averaged 4.65 NTUs (Nephelometric Turbidity Unit) above the base turbidity (0.50-1.16). The highest reading for turbidity was at the crossing #4; a reading of 9.68 NTU's which was 9.18 above the base of 0.50 NTU's. In August 2003, the reading for turbidity averaged 1.5 NTU's with the highest reading of 1.43 at crossing #2. In early July 2005, at the time of the first crossing, turbidity averaged 2.25 NTU's above the base turbidity (0.91-1.39). These amounts were for a very short period of time and do not exceed the short-term NTU increases addressed in the ODEQ NTU turbidity limits (See the BLM Section 7 Monitoring Reports 2003 and 2005 for further detail). They also do not exceed the longer term cumulative increase amounts prescribed by the ODEQ limits. (No more than a ten percent cumulative increase in natural stream turbidities may be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity.)

It appears that the first crossing of the year has the most potential to release sediment deposited from that year; more sediment is in place from winter high flows. As use occurs throughout the six week driving window, the gravels contain progressively less sediment, which in turn release less sediment with each crossing. The relatively clean gravels, the suitably sized streambed substrate and the flow patterns are likely why Chinook salmon choose several of the crossings for spawning.

The BLM administers the land surrounding 3.5 miles of SFWW River, which is approximately 13% of the 27.1 miles of the river. Proportional to the area of the entire South Fork the impacts appear to be minimal to existing fish habitat. The BLM anticipates no additional impacts to the overall habitat above those presently occurring.

Fish Species

Bull Trout

The use of vehicle crossings from July 1 to August 15 should not affect bull trout rearing or spawning. Most of (99%) the bull trout spawn from above the Bear Creek tributary up to the headwaters, which is well above the ACEC and the property owners' land. Ten years of ODFW monitoring has shown that bull trout very rarely spawn in the ACEC. CTUIR monitoring has proven that bull trout adults and young migrate downstream in the SFWW River during the latter part of the year and may even migrate to NFWW River for a portion of the winter months. But other individuals remain in the ACEC.

It is now thought that bull trout smolt and fry will stay near their redds for several months and possibly years (CTUIR, personal communication, 2005). This will reduce the risk that fry or smolts maybe crushed while hiding elsewhere in the substrate while vehicles pass on the crossings several miles downstream from Bear Creek. There could be displacement of young and adults as vehicles cross the river if they are near

the crossings at the time. Use of the crossings from July 1-August 15 creates minimal risk that there would be direct contact with fish.

Summer Steelhead

Steelhead migrate upstream during the last part of winter with the beginning of the high flows. They normally spawn in the South Fork from February–April each year. Steelhead use several of the crossings for spawning. This has been validated over the years; although the exact placement of redds each year is hard to verify due to high flows and the reduction of visibility. They often choose the same areas for spawning as Chinook do because they have the same substrate and flow habitat requirements. Steelhead emerge usually in May and spend a little time close to the redd, but seek out slow water and edge habitat, soon after. For the last several years, the BLM has calculated the emergence of steelhead fry and has validated the emergence prior to permitting the property owners to travel across the river on July 1. At any one time, there could be steelhead young or 1+ (age of over one year) in the river on or near the crossings. Most of the crossing area is not preferred habitat for steelhead in their first year because most of the flow velocities at the crossings are too high. . The edge of the river and pools behind boulders or wood are more preferred habitat. BLM specialists expect steelhead, like most fish species, will move when vehicles approach the crossings. Therefore, it is expected the risk is low that young fry could hide in the gravels and be crushed by vehicles. However, the BLM specialists have never seen loss of fish during the use period of July 1- August 15.

Spring Chinook Salmon

In 2001, CTUIR transplanted adult Chinook salmon into the Walla Walla Subbasin including the SFWW River. In 2004, the first returning adults came upstream into the SFWW River to spawn. The Chinook have chosen to spawn on or immediately adjacent to several of the crossings (observation by BLM fish biologist). These crossings have the right size of substrate material and flow patterns necessary for overwintering the eggs. Usually Chinook will spawn with the first freshet of early fall in late August or early September. The potential redds at crossings used by the Chinook are protected under the No Action Alternative because crossing by the property owners ends each year (August 15) before the Chinook spawn. Any direct impacts from property owner vehicles during the July 1 –August 15 period are minimal, as the fry emerge usually in May and spend a little time close to the redd, but seek out slow water and edge habitat. The fry start to migrate downstream and by mid-summer most have moved out of the area. While some young fry still in the area on July 1 could possibly hide in the gravels and be crushed by vehicles, these fry are quite agile and the vehicles pass through the water slowly. The BLM has not observed loss of any fish during the use period of July 1- August 15. Based on the monitoring conducted in previous years, and the mitigation designed into the ongoing current use, the property owner activity is not adversely affecting the salmon-restocking program.

Wildlife

The property owners continuing to drive up the river valley on the trail/road segments and through the wet river crossings during the six-week window during July 1 - August 15 would not affect bald eagle.

According to the 1992 Amendment to the Baker RMP, while not known to occur here, there is the potential for goshawks to nest within this ACEC. If one is discovered, approximately 400 acres surrounding the nest will be managed according to guidelines formulated to protect and enhance goshawk habitat in the area. Goshawks are extremely sensitive to disturbance during the bonding and nesting season of April 1 - August 30 and if one chose to nest near the trails or crossings, they could be driven off the nest by both the full-size vehicles, and the motorcycles and other recreational users/uses.

The continuation of the driving by the property owners during the existing six-week window of July 1 - August 15 would not affect the songbirds, various other raptors, or game and non-game species in the ACEC. The salamanders, newts, Pacific tree frogs and other amphibians that occupy moist terrestrial areas and small pools associated with spring outflow and small tributary streams would not be significantly affected.

Archaeological and Historic Resources

The alternative would not affect presently identified archaeological resources. The landowners currently use sections of previously existing roads and trails to access their property. No cultural resources have been identified on the vehicle route.

Native American Treaty Rights and Traditional Uses

The health of the fish populations and other resources are important to the exercise of CTUIR treaty rights and traditional uses. Seasonal vehicle use limitations and associated mitigating measures would continue to provide protection for fish spawning and would have minimal impact to the health or size of the fish populations, as described in the fisheries analysis. Although ongoing landowner use of the existing single-track road has maintained openings for passage through the vegetation on the river benches and crossings, the adjacent riparian plant community has become well-established and vigorous ground cover characterizes most of the flats and banks along the river.

Wild and Scenic River Potential

Under the No Action Alternative the current situation within the SFWW would be maintained and no impacts would occur to the identified ORV's or to the potential eligibility as a Wild and Scenic River.

Recreation Resources and Scenic Values

In the short term, recreational opportunities and landowner access would change little under the No Action Alternative. In the long term, sustainability of the trail/road may be questionable due to future flood events and trail failure. Public OHV use may increase as populations increase and popularity of the sport increases. Single-track Class III OHV (motorcycle) trails are in great demand. The SFWW and the rest of the trail system on the Umatilla Forest, provides a quality motorized as well as non-motorized recreation experience. Recreation uses such as hunting, fishing, hiking,

horseback and mountain bike riding are currently popular activities but are not expected to change substantially.

Based on past experience and observations, there will be increased pressure for quad access into the drainage and trail system, and unauthorized use may increase. Nationally, 2200 quads are sold per day, so there is a huge demand for quad riding opportunities that is not being met.

As the trail is brought back to right-of-way standards, landowner access would be improved slightly, visitor experiences will be improved, and degradation of other resources will be reduced. The trail would be well identified and users of all types would be directed away from the wet areas and side tributaries that provide fry habitat. The trail would remain a “more difficult” trail creating challenges for landowner access.

Visual resources would change little under the No Action Alternative. Disturbance from construction and maintenance activities on the trail have softened over time. The trail is of minimum width creating little contrast in line or color. Vegetation is encroaching into the old road bed making it narrower every year and softening its edges.

Long-term impacts include:

- attainment of Class II visual management objectives
- “more difficult” single track trail experience would continue
- continued unauthorized use
- continued FS maintenance of trail right-of-way

Monitoring

Monitoring is an essential part of determining if the protection management objectives are being met. The BLM proposal for monitoring the No Action Alternative is as follows:

- The BLM will use steelhead, Chinook salmon, and bull trout spawning survey data from the previous year for bull trout and current year for steelhead to determine whether active spawning redds are known or suspected to be present at road crossings or within 300 feet downstream. Trend data may be used to help establish spawning periods and emergence. This will occur in the spring prior to the July 1st crossing opening date.
- Survey the redd sites in the project area several times in the spring to verify emergence of fry. Edge habitat and side channels will be monitored to verify emergence of fry. Also calculate the temperature regime to validate the number of days needed for emergence to occur. If active redds are known or suspected to be present, the BLM will delay opening the road until July 15, or as long as necessary for fry to emerge from the affected redds. “Active redds” means redds that still contain pre-emergence fry, and not redds that fry have

vacated. With this clarification it is not expected that active redds will be present during the in-water work period on a regular basis. Most years are expected to have fry emergence prior to the in-water work window, and therefore not require a delayed road opening. If emergence of fry has not occurred by the end of June, we will notify the landowners of the situation and tell them there is a change in the crossing time period.

- The driving route will be walked and observed for any possible problems prior to July 1st.
- The landowners will make sure their vehicles are clean of oil and grease as much as possible, especially with regards to areas that may be in the water. (See the Spill Plan, Appendix 1)
- There will be no maintenance of the road by mechanized equipment, which includes the roadway across the river.
- Streambanks and crossings will be monitored, and adjustments made to the allowed use to minimize impacts.
- Monthly visits to the crossings will occur to document use and impacts.
- BLM will prepare monitoring reports for USFWS and NOAA-Fisheries on a yearly basis with all data summarized.

Cumulative Effects

Within the Walla Walla Subbasin and the 27 plus miles of the South Fork of the Walla Walla, historical and current land use activities have affected anadromous and resident fish populations, reducing habitat and numbers markedly. Historical land uses affecting habitat in the Walla Walla Basin include forest management, livestock grazing, irrigated agriculture, urbanization, and flood control management. Liberal harvest regulations and fish stocking programs have also been implicated in the decline of TES fish species. Historical heavy recreation accessing the SFWW riparian area via vehicles prior to ACEC designation had greatly impacted the undercover (below the tree level) vegetation over most of the riparian area along the river.

Since the ACEC management actions were implemented the vegetation and stream banks in the ACEC portion of the SFWW River corridor has been restored to almost pristine condition. The continued use of the crossings may affect that small portion of habitat by keeping the understory from recovering over the width of the old road and at the crossings edges of the stream. Compared to former impacts across the accessible part of the river corridor, conditions are much improved and accumulation of impacts from previous years is not increasing.

No other resource disturbing activities within the watershed of the SFWW at present or in the foreseeable future are known to be planned by the BLM, the Forest Service or Forest Capital Partners, the other major landholder in the SFWW watershed. Impacts on stream bank vegetation and sediment are minimal to the watershed as a whole and the local segment of the river that flows through BLM managed land. There should be no cumulative impacts to the subbasin from the administration of the ongoing property owner activity. The BLM manages less than 1% of the entire Walla Walla subbasin watershed and the current area of impact from the existing crossings is less than 1% of

the 3.5 miles of stream in the ACEC. This small area is most likely insignificant, not affecting feeding, cover availability, or stream structure beyond the immediate areas of the crossings, or overall availability of suitable spawning habitat.

No cumulative impacts are known for other resources from the No Action Alternative, within the context of the ACEC or the SFWW watershed.

Alternative 1.A Preferred Alternative: Longer Window of Property Owner Access with Full-size Vehicles; Modify the Existing Route to avoid Chinook redds (modify some wet crossings) and Implementation of NOAA Fisheries Conservation Recommendation #2.

Vegetation

The longer window of use by the full-size vehicles would mean about 90 total round-trips by the property owners. This would likely make the two-track appearance of the primitive road more prominent, but would not likely widen it such that the longer period of use would damage the surrounding vegetation. This is because the primitive road accommodates full-size vehicles. However, the modification of the river ingress and egress points at crossings #5, #8 and #9 would result in removal of small numbers of relatively young riparian shrubs/trees of common species and grass/forb vegetation. This would amount to 0 to several shrubs at each crossing, and several within an abandoned roadway between crossings #8 and #9 on the north side of the river. In particular, the sensitive individuals of Western paper birch located at crossings #8 and #9, a species known in Oregon only in this canyon, would be at risk of damage though specifically avoided.

Construction of the low bridges across the two pools where the roadway/trail crosses them would disturb vegetation at the pool edges for the short-term, and would result in removal of several shrubs beside the trail at each pool area where they intersect the roadway/trail.

Hydrology/Water Quality

Currently, the stream crossings are well established with riparian vegetation immediately up and down stream of most of the crossings. These crossings have been used for many years and an increased time of use would not be expected to impact riparian vegetation beyond what is already occurring at the crossings. While there is an impact to the stream width already at the crossings, most of the crossings are well rocked and are stable according to past monitoring, and increase in use should not result in more widening. Therefore, the increase in time from six weeks to six months of allowing the property owners to cross the river should not affect the stream width, presence of vegetation and subsequent shade, or the stream temperature. Less than 1% of the total of 7 miles of streambank along the 3.5 mile section of stream would be affected by proposed slight changes to the ingress/egress points, which then would become somewhat stabilized over time. This would not be significant and would not have secondary impacts to bank stability as it would be very localized, within the

vehicular two-track path, and would not accumulate to more than the current lack of vegetation at the existing crossings, as the present crossing ingress/egress points would recover and gradually narrow over time as weather events reshape the river.

Nor is an increase in sedimentation from the initial modification of ingress and egress points of some of the crossings, or the passage of the vehicles across the river seen as a problem as all would be very short-term and localized (See Fish Habitat section below).

Flows from several springs are intercepted by the present trail and create minor water flow over the trail and into the river. A small pipe intercepts only one of the springs and it's outflow is presently undermining the trail. This area appears to be moving due to instability possibly caused by the moisture from the springs and perhaps by the trail placement itself. It is possible that there could eventually be some slope failure in this area, which could create more water quality impacts.

Construction of two short low bridges across the pools/seeps that flow to the river would also have short-term localized sedimentation impacts. These pools are away from the river's edge but in the path of the trail. The work would be done during the July 1-August 15 window of work recommended by the ODFW to minimize impacts. Measures would be taken to minimize sedimentation getting into either the seep flows or the river flow. There would be no long-term negative impacts once the sediment from the soil around the pool edges washed through and the forbs re-established in the area of disturbance. Long term impacts would be elimination of vehicles, motorcycles, mountain bicycles and horses crossing the pools in the trail, thus creating less sedimentation than currently is occurring.

Fisheries

Fish Habitat

This alternative extends the crossing time from six weeks to six months (July 1 – January 1) each year which would increase the number of times the property owners cross the river; an estimated 90 total crossings by all property owners. The effects to fish habitat and changes to sediment production, bank stability and vegetation may not be fully realized until this occurs, but are not expected to be significant.

During the six month period of use there would be some additional sediment produced at the crossings which would not be moved (crossing #1-4, #6, #7 and #10). Previous monitoring has shown (See No Action Alternative, above), that there is less release of sediment from the rocks under the tires with each successive crossing. With storm events and fall rains there will be periodic normal increases of sediment in the river. When this occurs there will be another deposit of sediment on the gravels in the crossing. With vehicular travel on the crossings after the fall rain events, there will be additional releases of sediment, preventing a potential winter-long accumulation of sediment as currently happens. This sediment build-up could then be less than often occurs by the spring/summer of years where there are not weather related blow-outs of sediment from storms.

Monitoring of on-going use of the wet crossings by the vehicles since before the inception of the ACEC shows no damage to the stream habitat, temperature or width from the vehicles other than right in the crossings where the habitat is poor and the width of the stream is slightly wider. Neither effect occurs/continues outside of the crossings. The habitat value immediately in the crossings is currently low because they are void of any hiding cover or protection from predation. The roadways are not good feeding areas because the areas are void of structure and invertebrates are limited by the use at the crossings. Consequently, the impacts from vehicles crossing repeatedly at these locations to feeding and sheltering are considered low by the BLM fish biologists.

Very localized bank stability may decrease with the increased use in the wetter fall, early winter months. Over the last few years of monitoring there does not appear to be any additional loss or change in the bank. The bank edge at most the crossings are well-rocked and there is no divergence of the pathway that occurs year after year. The crossings that do not have adequate rock protection do appear to continue to have sediment and very small gravel that stays year to year. Areas that are not well-rocked may start widening at the entrance back into the pathway entrance to the crossing. This may be more apparent at high flows and may allow more river flow to move into the pathway. As the water recedes this may produce more sediment to the river.

Use of the trail/roadway in the floodplain in the fall/winter might also create ruts and soil disturbance, particularly before the ground freezes. As winter use has not been allowed / monitored since 1998, impacts are not absolutely known, but a worst case scenario would be in warm wet falls, when the use would rut the roads, and rain would be heavy and some sedimentation from the trail would move from the trail to the river in certain areas where the slopes are conducive to water movement along the trail. This type of slope/potential for water movement is not the case in much of the trail in the floodplain, where existing heavy vegetation along the trails/roadway would catch most of produced sediment.

There should be no additional loss of vegetation at the riverbank at the crossings that would not be moved with this alternative (crossings #1- 4, #6, #7 and #10). The property owners use the crossings the same way at each crossing. Each use is on the same pathway. Their pathways leading to each crossing in many places is just the width of the vehicle and directly guides them to the exact crossing location. In the last three years of monitoring the crossings. BLM specialists have seen no additional loss of vegetation. The bank stability and loss of vegetation at the vehicle crossings has not changed or increased over the years of use. The impact to the shoreline of 3.5 miles of BLM administered land is less than .008% (approximately 300 feet of shoreline) of the existing shoreline vegetation.

Water from a combination of old, closed side channels and seeps and spring outflow near the main river (refer to Appendices 2 and 3 for project location maps and photographs), that form pools across the vehicle route will need to be protected from impacts. As part of the existing BO from NOAA Fisheries the BLM has agreed to fix

these spring/side channel crossings to protect the habitat presently used by fry and young fish. Low full-size vehicle bridges would be placed over the pools as protection. Impacts from construction would be local disturbance of the soil on either side of the water crossing the trail/road areas. Construction, taking a couple of weeks, would be done during the July 1 – August 15 window of construction recommended by ODFW. Measures would be taken to minimize sedimentation getting into either the seep flows or the river flow. Long term impacts would be elimination of vehicles, motorcycles, mountain bicycles and horses crossing the pools in the trail where the young fish congregate, thus less sedimentation and elimination of potential for direct contact with young fish.

At crossings that would be modified (crossings #5, #8, and #9), changing the routes to avoid Chinook redds should have minimal adverse impact on fish habitat. Modification of the existing route would be altered downstream to eliminate damage to Chinook redds. This alternative proposes to change routes for crossing once the Chinook redds have been verified each year. The new designated crossings would release additional sediment, as occurs in the first crossing each year and there would be some displacement of small boulders and cobble in the new crossings. High flow events each year would be expected to continue to rearrange cobble and boulders at those crossings, as it does each year. There may be some loss of habitat with compaction of the streambed. The reductions proposed for crossings #8 and #9 would create fewer impacts to habitat supporting all fish species. The crossings affect approximately 11,240 sq. feet, which is less than 1% of the total streambed in the 3.5 miles that the SFWW River flows through BLM managed land.

Fish Species

Bull Trout

This alternative will extend the vehicle crossing time period from July 1 - January 1. The extended period of use should not affect bull trout spawning, because 99% occurs above Bear Creek towards the headwaters. It is now thought that bull trout smolt and fry will stay near the redd for several months and possible years (CTUIR personal conversation 2005), reducing the risk of effects since these redds are above the ACEC. Also, CTUIR monitoring has proven that bull trout young and adults migrate downstream in the SFWW River during the latter part of the year (after August 15), and may even migrate to NFWW River for a portion of the winter months. Therefore, these young and adults could be temporarily displaced as vehicles cross the river after August 15 if they are near the crossings at the time.

Modification of the routes (crossings #5, #8, and #9), to avoid Chinook redds should have minimal impact on bull trout. There would be no impact on spawning. There would be the same type of displacement and risk of young and adults at the modified alternate crossing as occurs at the regular vehicle crossings. An additional sediment release from alternate routes may cause displacement of bull trout for an additional time period until turbidity returns to base levels. The reductions in the length of vehicle crossings proposed for crossings #8 and #9 would create fewer impacts to bull trout habitat.

The construction of the two bridges will have no effect to bull trout since this species is not known to utilize these pools. Most likely there is not enough hiding cover or depth to be preferred habitat for bull trout fry or smolts.

The Biological Assessment/Biological Opinion process includes the potential accidental “take” in the event of accidental loss of individual fish. The existing BO from the USFWS is accompanied by an incidental take statement. The USFWS 2004 BO states “The likelihood of take of bull trout (any life stage) during the stream crossing time frame is probable; however, the crossings are of limited duration and scale. The Service determined that the level of take is not likely to result in jeopardy to the species.” A new BA will be prepared after a decision is made if the decision includes anything different from ongoing activities, and may include similar provisions.

Summer Steelhead

The extended time period should not affect spawning of steelhead which occurs each year from February–April in the SFWW River. Although redds do occur on the crossings, emergence has occurred each year before July 1 (See Monitoring Reports 2001-2005). Steelhead can rear in the SFWW River for up to two years prior to migration downstream. Vehicles crossing the river could displace fish for a period but likely they would move upstream or downstream with movement in the river. There is a risk that young fry could hide in the gravels and be crushed by vehicles, but usually young steelhead tend to flee disturbance. Fry and possible smolts could be affected by the extended crossing time but BLM specialists expect this to be minimal.

Modification of the routes to avoid Chinook redds should have minimal impact on steelhead. There would be no impact on spawning because spawning and emergence occurs prior to July 1 each year. There would be the same type of displacement of young and adults at the modified alternate crossing as occurs at the regular vehicle crossings. An additional sediment release from alternate routes may cause displacement of steelhead for an additional time period until turbidity returns to base levels. The reductions in the length of vehicle crossings proposed for crossings #8 and #9 would create fewer impacts to steelhead and possible avoidance to fish rearing in those areas.

The construction of the two bridges will have a very temporary negative impact during construction—driving the fish away from the pools, both up and down stream, but then, after the equipment and people leave, the existence of the two bridges will have a positive effect on steelhead since these pools are used by juvenile steelhead. The bridges will eliminate the potential of harming these juveniles when vehicles cross these pools.

The Biological Assessment/Biological Opinion process includes the potential incidental “take” in the event of accidental loss of individual fish. The existing BO from the NOAA Fisheries is accompanied by an incidental take statement. The NOAA Fisheries BO states: “NOAA Fisheries expects incidental take to occur as a

result of the proposed action that will harm, injure or kill MCR steelhead.” NOAA actually tried to quantify the number of individuals that may be killed by crushing and they came up with no more than 20 steelhead would be killed in a year (NOAA BO, pg. 18). A new BA will be prepared after a decision is made if the decision includes anything different from on-going activities, and may include similar provisions.

Spring Chinook Salmon

This alternative extends the vehicle crossing time period from July 1 to January 1, affecting the Chinook salmon spawning and incubation of eggs. In 2001 CTUIR transplanted adult Chinook salmon into the SFWW River, which has started a run with returnees coming back to the SFWW River. Chinook spawn in late August or early September. Since the run has been established several of the vehicle crossings have been chosen as spawning areas by the Chinook.

In the last four years (2002-2006) BLM and other agencies have observed Chinook spawning on the BLM managed land with specific emphasis towards watching the use on vehicle crossings. Results from the last three years of monitoring are:

- There has always been spawning activity on crossing #5.
- There has been at least one redd on three other crossings (#1, #4 and #8).
- There has been spawning activity upstream or downstream of crossings #2, #3 & #9.
- There are at least three crossings that have never been used for spawning (Crossing #6, #7 and #10).
- Monitoring in August and September 2006 showed Chinook redds at five crossings, which is an increase from previous years. The crossings are #4, #5, #6, #7, and #8. Crossing #6 and #7 have first time use in 2006 by Chinook for redds.

Vehicles using the crossings over the extended time period could destroy all or part of any Chinook redd that is created on a vehicle crossing location. There may be enough compaction from the vehicle to crush the eggs, destroy necessary flow or reduce available oxygen. This would reduce or eliminate survivability of the Chinook salmon redds created on the vehicle crossings.

If there were no crossing modifications planned as part of this alternative, there would be a possibility of destroying up to 10 redds each year. This is with the present spawning that is occurring. This may increase over time, if Chinook spawning increases in the next few years with more returnees.

The planned crossing modifications were designed prior to the monitoring results of 2006 which showed an increase in redds from previous years. If future years are similar to 2002-2005 redd counts the crossing modifications should protect Chinook salmon redds created on the vehicle crossings. No vehicle use would be allowed on the crossings from approximately August 15 to September 15 each year while the Chinook were choosing their site for spawning. After spawning occurs and redds are located, new pathways through the water would be marked. Based on previous

monitoring, BLM specialists expect that the new crossings would have the same entrances and exits as presently occur, but it might be necessary to avoid a new location of a redd by driving a short distance downstream around the redd and then swing back up to the exit point. This will prevent a sediment release over the redd. Moving the crossing route downstream of the redds would most likely occur if there was spawning on crossings #1-4. The modification on crossing #5 would be moved downstream but would also be considered a permanent change due to the yearly spawning that occurs on that site. Crossings #8 and #9 would be shortened which would eliminate crossing of most of the potential spawning areas. There has never been any spawning observed on crossing #10. This modification should protect Chinook spawning and survival of the eggs while in incubation. With this alternative there should be no travel on any known redd.

If future years are similar to 2006 redd counts, it is probable that spawning would occur in the crossing or within 300 feet downstream of the crossing point where it would be very difficult to cross the stream below the redd(s). Under this scenario, prior to allowing the vehicles to begin crossing again, the specific situation would be evaluated to determine if a feasible route was possible and still meet the design features and mitigations listed in Chapter 2. If a feasible route was not possible the BLM would discontinue vehicle access for the remainder of the year. No vehicles will cross over redds nor within 300 feet upstream from a redd as per NOAA's EFH Conservation Recommendation #3b (NOAA, 2005).

The bridges proposed for construction over the side channels will have a minimal affect to Chinook fry. Chinook fry have only rarely been seen in these particular pools and mostly before use occurs (July 1) by the landowners. Most of the Chinook fry have moved out of the area or are moving downstream by the time use will occur.

Wildlife

Impacts to bald eagle from the property owners driving up the river valley in full-size vehicles on the trail/road segments during the six-month window between July 1 - January 1 would be minimal as this area is normally used only for seasonal movement.

According to the 1992 Amendment to the Baker RMP, while not known to occur here, there is the potential for goshawks to nest within this ACEC. If one is discovered, approximately 400 acres surrounding the nest will be managed according to guidelines formulated to protect and enhance goshawk habitat in the area. Goshawks are extremely sensitive to disturbance during the bonding and nesting season of April 1 - August 30 and if one chose to nest near the trails or crossings, they could be driven off the nest by both the full-size vehicles, and the motorcycles and other recreational users/uses.

The extended window for driving would not affect the songbirds, various raptors, or most of the non-game species in the ACEC. Salamanders, newts, Pacific tree frogs, and other amphibians which occupy moist terrestrial areas, small pools associated with spring outflow, and small tributary streams (side channels), would not be significantly

affected by the ongoing vehicular traffic. This is partly because the two larger muddy crossings will be modified by building small bridges over them.

Extending the window of full-size vehicular access by the landowners (on top of ongoing recreational and hunting use) into the winter may disturb the wintering Rocky Mountain elk and white-tail/mule deer population. These species use primarily the south facing upper slopes, but also come down to water in the canyon; which is a natural corridor. Winter from about December 1 is a critical time for the elk and deer because they have limited energy reserves throughout the fall/winter period to spend on stressful situations such as noise disturbance. Prolonged stress events during severe winters can trigger early death of game animals; especially of the old, young, or weak. However, the 1992 Amendment to the Baker Resource Management Plan for the SFWW ACEC states that the BLM will "Limit OHV traffic beyond the gate/barricade during severe winters, as determined necessary in cooperation with ODFW (between December 15 and March 15) to relieve stress on wintering elk." This means that if such a determination is made the ACEC would be closed to all vehicles of any class, including those used by the landowners.

Archaeological and Historic Resources

No archaeological or historic sites have been identified on the vehicle route and crossings and so no direct effects are anticipated to currently identified sites. Prior to developing the proposed bridge project, BLM would arrange for subsurface investigations at the project location and in consultation with Oregon SHPO and CTUIR, would develop measures to avoid or mitigate effects to cultural resources if found.

Native American Treaty Rights and Traditional Uses

The health of the fish populations and other resources are important to the exercise of CTUIR treaty rights and traditional uses. CTUIR believes (CTUIR letter of Sept. 6, 2006) the six month vehicle access extension and associated crossing modifications could impact the health of the fish populations or other resources and affect the exercise of tribal treaty rights and traditional uses. The BLM believes with project design features and mitigation measures that there will be minimal impact to bull trout and steelhead from the vehicle access extension and associated crossing modifications. The BLM recognizes a higher potential for negative effects to spring Chinook salmon but again mitigation measures are in place to minimize these impacts. For example, it is possible that spawning could occur right in the crossing or within 300 feet downstream of the crossing point where it would be very difficult to cross the stream below the redd(s). If this were to happen (as it did in 2006), prior to allowing the vehicles to begin crossing again, the specific situation would be evaluated to determine if a feasible route was possible and still meet the design features and mitigations listed in Chapter 2. If a feasible route was not possible, the BLM would discontinue vehicle access for the remainder of the year. No vehicles will cross over redds nor within 300 feet upstream from a redd as per NOAA's EFH Conservation Recommendation #3b. (See fish species analysis section.) Therefore, the BLM feels the fish populations will remain healthy allowing CTUIR to exercise their treaty rights and traditional uses as it relates to fisheries.

Prior to developing the pool bridge project, BLM would arrange for an identification and assessment of tribal traditional cultural properties on BLM lands, and would address potential effects by mitigation measures developed through consultation under Section 106 of the National Historic Preservation Act.

Vehicle crossing modifications or opening old roadbeds could result in the removal of some individual riparian plants. The amount of vegetation removed would be limited to small areas at three crossings, and to the removal of plants that have become established upon the old road bed to be re-opened near crossings #5 and #8. This is an impact to about 0.05 acres of riparian cultural plant habitat in the river corridor. The alternative should have no effects on cultural plant populations that may be located on rocky hillsides outside the river riparian zone.

Wild and Scenic River Potential

Under both Alternatives 1.A and 1.B., the increased use of full-size vehicles for a greater period of time (six months instead of six weeks) and at greater frequencies (about 90 trips per year instead of about 30) would adversely impact the “Recreational” ORV identified in the Draft Eligibility Report. Increased user conflicts due to increased traffic have the potential to degrade the recreational experience and therefore degrade/threaten the Recreation ORV of the SFWW. Trail users are unaccustomed to random encounters with full-size vehicles during the peak use season, as well as not expecting full-size vehicles on recreation trails as a whole. The construction of the two low bridges over the pools near the stream would be noticeable, but would not damage the wild or scenic river potential.

Recreation Resources and Scenic Values

Under both Alternative 1.A. and 1.B., the trail and old road would continue to be a shared use trail/road in certain locations. Fall rains, snow, and freeze/thaw characteristics of the fall and winter months generally cause soils to become saturated and more susceptible to rutting and erosion. The landowner access route would use the old road bed which is co-located with the trail in some segments. Where the road is located on the river bottom gravels, it is very stable and would not be susceptible to late season rutting. Upstream from Elbow Creek there are segments where full-size vehicle travel could create soft spots, rutting, and erosion during wet periods. The segment of road/trail from crossing #10 to the cabins may be the most susceptible to this impact, especially after Thanksgiving. Late season use by full-size vehicles on the trail may increase mud and slippery conditions. Where these conditions occur, there would be an impact to the trail surface, increasing maintenance costs and reducing the recreation experience for non-motorized users.

During the fall hunting season, horseback use of the trail system increases significantly. Big game hunting is continuous from mid-August into early December and upland game bird hunting continues into the spring. Pack strings are a popular mode of transportation for hunters. Where the trail is shared, a conflict may occur between horse use and full-size vehicles. However, given the number of trips anticipated by the landowners this impact is anticipated to be slight.

The safety factors of the No Action Alternative and Alternatives 1.A and 1.B are similar because the trail would not be reconstructed. It would remain in its current location and be maintained at its current design standard. Maintenance actions would take place that would improve trail safety minimally due to improved surface. The section of trail which is on the north side of the river, opposite crossings #1 and #2, poses the highest safety risk due to tread width and side slope. This section would not change under these alternatives.

This alternative would slightly affect visual resources. In the short term, changes in the landowner route would require minor vegetation removal and clearing. Machinery would be required. There would be a negative impact to the visual resource. The disturbance would draw the attention of the casual observer. Re-growth and healing of disturbed areas are expected to eliminate this impact within one growing season. In the longer term, late season access may create some contrast in form and line due to wheel tracks going through vegetation and possibly an increase in muddy areas. This impact is expected to be minimal. The construction of the two low bridges over the pools near the stream would be noticeable, but would not damage the scenic values of the area.

Long-term impacts would be as stated in the No Action Alternative.

Monitoring

Monitoring is an essential part of the determining if the protection management objectives are being met. The BLM proposal for monitoring this alternative includes all monitoring proposed under the No Action Alternative. In addition, the BLM proposes to accomplish additional monitoring for Alternative 1.A They are:

- Include Chinook spawning survey data from the previous year for determining whether active spawning redds are present at road crossings. Trend data may be used to help establish spawning periods and emergence. This will occur in the spring prior to the July 1 crossing opening date.
- Survey the Chinook redds in the project area several times in the spring to verify emergence of fry.
- Monitor Chinook spawning to determine placement of redds. Each redd will be flagged and a new crossing pathway will be determined after spawning has occurred. The crossing will be re-flagged for avoidance of the redd.
- Monitor crossings frequently July 1- January 1 for redds, any damage to crossings or any habitat effected.
- Monitor stream banks and existing riparian vegetation.
- Maintain all field notes and summarize at the end of the year. Include in the data collected: flow, fish or redds observed, date, time, and observer.
- Prohibit all in stream work except vehicle crossings.
- Maintain stream and road crossings. It may be necessary to stabilize stream banks used at the crossings by adding river rock on occasion to prevent erosion.

- Any sick, dead or injured fish must be reported, preserved and sent into USFWS or NMFS.
- Establish permanent cross-sections at some of the crossings to ensure changes in the stream width are not occurring.
- Establish photo-points at some of the crossings to monitor riparian vegetation.
- Permanent cross-sections would be installed at 3 of the crossings to monitor any change in width and depth of the crossings. Cross-sections would be surveyed annually to monitor any change in geomorphology of the crossings.
- Permanent stations would be installed at 3 crossings to measure shade. Shade measurements would be taken annually to monitor any change in shade.
- Permanent photo-points would be installed at 3 crossing to document trend in vegetation changes. Photo-points would be taken annually.
- Turbidity would be monitored at least twice annually at 5 crossings when the landowners are actively using the stream crossings. This will entail a sample just prior to driving through the crossing and one sample while driving through the crossing.

The data obtained from monitoring will be analyzed annually to check BLMs assumptions of no increase in streambank erosion, no decrease in riparian vegetation and/or no decrease in stream shade at the vehicle crossings. Should monitoring data reflect that riparian habitat or water quality is being degraded; additional management strategies will be implemented to ensure that the goals and objectives of this WQRP are being met or progress is being made to meet the goals. Additional management strategies would be incorporated into a revised WQRP for the SFWW area.

Cumulative Effects

Within the Walla Walla Subbasin and the 27 plus miles of the South Fork of the Walla Walla, historical and current land use activities have affected anadromous and resident fish populations, reducing habitat, habitat quality, and numbers markedly. Historical land uses affecting habitat in the Walla Walla Basin include forest management, livestock grazing, irrigated agriculture, urbanization, and flood control management. Liberal harvest regulations and fish stocking programs have also been implicated in the decline of TES fish species.

Since the ACEC management actions were implemented, the vegetation and stream bank integrity in the ACEC portion of the SFWW River corridor has been restored to almost pristine condition except in the area of the crossings. The continued use of the crossings may affect that small portion of habitat by keeping the understory from recovering over the width of the old road and at the crossings edges of the stream. Compared to former impacts across the accessible part of the river corridor conditions are much improved and accumulation of impacts from previous years is not increasing.

No other resource disturbing activities within the watershed of the SFWW at present or in the foreseeable future are known to be planned by the BLM, the FS or Forest

Capital Partners, the other major landholder in the SFWW watershed. Impacts on stream bank vegetation and sediment are minimal to the watershed as a whole and the local segment of the river that flows through BLM managed land. There should be no cumulative impacts to the subbasin from the extension from six weeks to six months of the ongoing property owner activity. The BLM manages less than 1% of the entire Walla Walla subbasin watershed and the current area of impact from the existing crossings is less than 1% of the 3.5 miles of stream in the ACEC.

No cumulative impacts are known for other resources from the Alternative 1.A within the context of the ACEC or the SFWW watershed.

Alternative 1.B Longer Window of Property Owner Access with Full-size Vehicles; Allow Existing Routes by Detering Spawning on Crossings with Suitable Chinook Spawning Gravels

Vegetation

The placement of geo-textile deterrent materials in the streambed at crossings #4, #5 and/or #8 to deter fish spawning in the crossings would not affect vegetation.

Hydrology/Water Quality

Impacts would be the same as from Alternative 1.A

Fisheries

This modification would have almost no impact to present fish habitat. Before spawning occurs each year in August, material (webbed type of various fabrics) would be laid down across the vehicle crossings that have proven to be used for spawning by Chinook salmon; crossings #4, #5 and #8. This would not alter the streambed but would only deter Chinook from use. The material would be removed at the end of the spawning period in mid-September, and the streambed gravels would be subject to normal flows. There would be no blockages created in the river while the material is in place. The deterrent material placed at the three crossings would occupy approximately 4100 sq. feet of the streambed. This is less than .005% of the total streambed in the 3.5 miles that the SFWW River flows through BLM managed land.

Fish Species

Bull Trout

This alternative will extend the vehicle crossing time period from July 1 - January 1. The extended period of use should not affect bull trout spawning, because 99% occurs above Bear Creek towards the headwaters. It is now thought that bull trout smolt and fry will stay near the redd for several months and possible years (CTUIR personal conversation 2005), reducing the risk of effects since these redds are above the ACEC. Also, CTUIR monitoring has proven that bull trout young and adults migrate downstream in the SFWW River during the latter part of the year (after August 15),

and may even migrate to NFWW River for a portion of the winter months. Therefore, these young and adults could be temporarily displaced as vehicles cross the river after the removal of the deterring material, if they are near the crossings at the time.

During installation and removal each year there may be a short time period when fish are displaced. There should be no overall effect to bull trout because they have never used the crossings designated for modification for spawning.

Summer Steelhead

This modification would minimally affect summer steelhead spawning, rearing or migration. This alternative would not prevent any upstream or downstream movement. During installation and removal each year there may be a short time period when fish are displaced for a short time period. Steelhead young and adults could be temporarily displaced as vehicles cross the river after the removal of the deterring material, if they are near the crossings at that time.

Spring Chinook Salmon

This modification would not affect Chinook salmon spawning, rearing or migration, except by temporary annual removal of less than .005% of the total streambed in the 3.5 miles that the SFWW River flows through BLM managed land. This alternative would deter Chinook spawning on the three crossings but would not prevent any upstream or downstream movement. During installation and removal each year there may be a short time period when fish are displaced.

If future years are similar to 2006 redd counts, it is probable that spawning would occur within 300 feet downstream of the crossing point where it would be very difficult to cross the stream below the redd(s). Under this scenario, prior to allowing the vehicles to begin crossing again, the specific situation would be evaluated to determine if a feasible route was possible and still meet the design features and mitigations listed in Chapter 2. If a feasible route was not possible the BLM would discontinue vehicle access for the remainder of the year. No vehicles will cross over redds nor within 300 feet upstream from a redd as per NOAA's EFH Conservation Recommendation #3b (NOAA, 2005).

Wildlife

The impacts to wildlife would be the same as Alternative 1.A, plus potential disturbance from human activity associated with laying or taking up the spawning deterrent materials from the river bed. BLM placement of spawning deterrent materials in the streambed at crossings #4, #5 and #8 would not affect bald eagle, and would not affect potentially nesting goshawks due to different timing. It also would not affect terrestrial birds, mammals, amphibians or other species.

Archaeological and Historic Resources

No archaeological or historic sites have been found on or adjacent to the vehicle route and crossings and so no direct effects are anticipated to currently identified sites.

Native American Treaty Rights and Traditional Uses

The health of the fish populations and other resources are important to the exercise of CTUIR treaty rights and traditional uses. CTUIR believes (CTUIR letter of Sept. 6, 2006) the six month vehicle access extension and associated crossing modifications could impact the health of the fish populations or other resources and affect the exercise of tribal treaty rights and traditional uses. The BLM believes with project design features and mitigation measures that there will be minimal impact to bull trout and steelhead from the vehicle access extension and associated crossing modifications. The BLM recognizes a higher potential for negative effects to spring Chinook salmon but again mitigation measures are in place to reduce these impacts. For example, it is possible that spawning could occur right in the crossing or within 300 feet downstream of the crossing point where it would be very difficult to cross the stream below the redd(s). If this were to happen (as it did in 2006), prior to allowing the vehicles to begin crossing again, the specific situation would be evaluated to determine if a feasible route was possible and still meet the design features and mitigations listed in Chapter 2. If a feasible route was not possible the BLM would discontinue vehicle access for the remainder of the year. No vehicles will cross over redds nor within 300 feet upstream from a redd as per NOAA's EFH Conservation Recommendation #3b. (See fish species analysis section.) Therefore, the BLM feels the fish populations will remain healthy in order for CTUIR to exercise their treaty rights and traditional uses as it relates to fisheries.

Wild and Scenic River Potential

This alternative would have the same impacts as Alternative 1.A except the bridges over the pools would not be constructed therefore there would be no impacts from this action.

Recreation Resources & Scenic Values

As described above in Alternative 1.A, the trail and other recreation activities would remain unchanged and the encounters between the trail users and the full-size vehicles would be the same in this alternative as in Alternative 1.A. The impacts regarding access via full-size vehicles during the wetter months of fall and winter remain the same.

The primary impact to recreation resources would be from placement of the crossing materials in the river. Physical impacts would be slight, as it is assumed that the materials and equipment would be transported by pickup as far as crossing #8. Potential impacts include slightly increased motorized traffic.

All crossing materials would have an affect on the visual resource. Currently, the visual integrity of the river is nearly pristine. A man-made structure of any type would reduce the visual experience. Until the exact material is identified, the level of impact is difficult to determine. However, no matter what material is used, there will be a change in texture, form, and possibly color. Unless designed very carefully, the

structure would draw the attention of a casual observer, thus violate the management objectives of the Class II allocation.

The bridges over the pools would not be constructed, therefore there would be no impacts from this action.

Long-term impacts would be as stated in the No Action Alternative.

Monitoring

In addition to the monitoring proposed for the No Action Alternative and Alternative 1.A, the BLM proposes to accomplish additional monitoring for Alternative 1.B This will include:

- Monitoring would occur during installation and removal of the deterrent material to make sure there was no entrapment of or harm to fish.
- The areas where the deterrent material is applied will be monitored weekly. Readjustments will be made to any material that appears to be loosening, blocking or interfering with normal use of the stream.
- Additional deterrent material may be added to other crossings in future years if spawning occurs on a different crossing site due to changes in streambed material or preference.

Cumulative Impacts

The cumulative impacts are the same for this alternative as for Alternative 1. A, and no other cumulative impacts have been determined for other resources.

Alternative 2.A Reconstruct the existing trail to accommodate Class I OHV's (quads); restrict Class I use to property owners - Install two Class I OHV (quad) sized bridges near existing crossings #1 and #2 - Eliminate Full-size Vehicle Access by the Property Owners.

Vegetation

The reconstruction of the trail would widen it from a tread path of 24 inches wide, to 60 to 72 inches wide. Under this alternative, this would disturb the vegetation on the slope just above and below the trail. Where the trail is close to the river, widening activities would be done upslope of the trail rather than on the side nearest the river. Upgrading the trail and allowing use of the trail by the property owners on Class I OHV's (quads) would eliminate the use of the wet stream crossings by full-size vehicles and the small amount of riparian vegetation currently missing at the crossings would grow back relatively quickly because of the moisture.

Installation of two new OHV-sized bridges at the existing abutments near crossings #1 and #2 would create some local loss of vegetation immediately around the abutments, especially on the south side of the river, which has not been disturbed by on-going recreation since the ACEC was closed to vehicular traffic. A diverse population of

mostly common species of shrubs and small trees has grown over the old roadbed on the south side. Care would be taken to avoid unique paper birch, if any are found. This vegetation would be removed, which could create localized loss of shade in those areas. On the north side of the river there has been little growth of shrubs or trees immediately on or around the abutments, which attract human use. Ground vegetation such as grasses and perennial plants would not be removed. This would help hold soil in place along the route.

Over 2-7 years, the slopes adjacent to the trail would re-vegetate with lichens, mosses, forbs and small shrubs, and with forbs, shrubs and small trees around the bridge abutments and leading from the existing trail to the abutments.

The long-term impact of the installation of the two bridges would be an increase in amounts of all modes of motorized and non-motorized travel and other recreational activities on the south side of the river. Currently, the south side is used lightly by all. Over time, the vegetation in this more level accessible area along the trail system could be damaged. The extent of the damage would depend on the presence of the BLM or FS during the high use months. Individuals of BLM and FS-designated sensitive species, if located closely along the trail could be physically damaged or lost. Some additional impacts to other wet areas and riparian vegetation could occur from off-roadvehicle use.

For the first few years after construction, there may be an additional loss of vegetation as the trail stabilizes. Until some of the areas are completely stabilized there may be an additional loss of shrubs, brush or trees created by the disturbance during construction, but because of the amount of moisture that is located in the canyon everything should re-vegetate rather quickly. Regular maintenance of the trail would include removing fallen trees and other vegetation that has fallen onto the trail. Material taken off the trail would be carefully disposed of in openings and would not be side-cast into the river or along the stream bank where high flows could move it into the river.

Hydrology/Water Quality

The modification to add bridges at the first two crossings would eliminate the steep cliff section of the trail, which is currently producing some sediment into the river. The installation of two bridges at the first and second crossing areas would eliminate that portion of the trail that is steep and dissects several springs. During construction there may be additional springs that are exposed. This may create additional wet areas along the trail. Some of these areas may need rocking or possible culvert placement.

Other than the site specific and short term impacts, the alternative would not affect the hydrology of the stream, including shape, form or temperature.

Beneficial impacts which would be expected to occur with this alternative include reduced sedimentation, and a negligible increase in riparian vegetation and streambank stability due to the elimination of full-size vehicles crossing the river.

Fisheries

Fish Habitat

In this alternative there would be no use of the present ten stream crossings with full-size vehicles by the property owners. The elimination of the crossings would end the on-going impacts to the stream habitat, including any compaction to the streambed, release of sediment or changes to the streambed configuration, and lack of shade-producing vegetation at the crossing sites.

The overall affect to fish habitat in the 3.5 mile river corridor would be from re-construction of parts of the trail. Portions of the trail are very close to the river and presently contribute sediment to it. The entire trail is located within the Riparian Habitat Conservation Area (RHCA) and in some places the trail/road and river share the same stream bank. Impacts from areas that will not need construction should not change. There may be additional sediment from soil displacement from OHV travel by the landowners or unauthorized quad riders.

The construction phase of the trail could create the greatest change to riparian vegetation, the stream bank and soil, and to edge habitat that supports fish. With the loss of some riparian vegetation and displacement of rocks/boulders presently protecting the stream bank, a slight risk is created; possible reduction in stream bank stability where the trail is very close to the river. No material would be taken from the stream bank for building the trail. Widening the trail in the riparian areas or floodplains would expose bare soil. This could create additional sediment in the river during very high flow events or rain storms.

Installation of the bridges on the old abutments would create some localized loss of vegetation and shade on the river, especially the south side.

The first portion of the trail would be eliminated with this modification. The trail across the bridges would be opened up for all users to eliminate the steep section of the trail. This would bring all the users to the south side of the river which would create additional impacts to the riparian vegetation. When all users of the trail are transferred to the south side of the river we would expect some additional impacts. There could be some additional impacts to other wet areas and riparian vegetation from unauthorized off-road vehicle use.

Fish Species

The only affect to any fish species with Alternative 2.A would be to habitat (See above under Fish Habitat). The biggest potential to affect any fish species will be from sedimentation created during construction and constant use. It is not predicted to exceed the turbidity standards.

There is minimal risk that the effects from this alternative would impact spawning, rearing, life stages, or migration for bull trout, summer steelhead, or Chinook salmon because all stream crossings would be eliminated.

Wildlife

The construction activities to build the two OHV (Quad) bridges at the existing bridge abutments near crossings #1 and #2 and to upgrade the trail on the north side of the river, would not affect bald eagles. While goshawk nests are unknown to occur here, surveys would be done prior to construction and if there were goshawk nests in the ACEC, construction activities occurring during the April 1 through August 30 will be mitigated according to the Goshawk Management Plan (Reynolds et al. 1992). In addition, construction would be allowed only during the July 1 – August 15 window of construction recommended by ODFW, and would not be allowed near nests. See standard mitigation in Chapter 2, Design Features and Mitigations Common to all Alternatives.

The increase in amount and timing of use on the trail by property owners on quads or unauthorized quad OHV's (the recreating individuals who do not abide by the trail designation) would create a level of noise and disturbance that is less conducive to goshawk specifications of nesting and rearing of young. If installed, the bridges may allow more recreational use of all categories on the south side of the river. Currently, some unauthorized Class I OHV's (quads) cross the river at low flow and recreate on the south side. Any additional amounts of unauthorized Class I OHV use would likely be most noticeable on the south side, where relatively little use occurs except around Elbow Creek, but may not be of numbers that could disturb potential goshawk nest sites.

Construction activities would cause short-term physical impacts to amphibians and existing habitat along the trail such as songbirds and large and small animals. These activities would occur during the mid to late summer, not extending to the timing of critical winter range.

Archaeological and Historic Resources

No archaeological or historic sites have been found on or adjacent to the vehicle route and crossings and so no direct effects are anticipated to currently identified sites. An examination of the existing vehicle track did not locate any archaeological resources at or between crossings #1 and #2. As bridges would be placed at the location of previously disturbed areas, direct impacts to archaeological resources from construction are not expected. Vehicle use, to the extent that it is limited to the existing roadbed between crossings #1 and #2, would have minor impacts to the riparian vegetation, mostly by maintaining the present opening through the adjacent dense undergrowth, and no direct impacts to undetected archaeological resources are anticipated.

OHV-sized bridges could facilitate access by all users to the south side of the river. Any unauthorized motorized off-road vehicle use of the flat by the general public between crossings #1 and #2 could result in damage and removal of vegetation within the riparian area over the long term. Removal of vegetation outside the roadway perimeter between crossings #1 and #2 could expose previously undetected archaeological resources, for which additional monitoring and enforcement measures would be needed to prevent damage by erosion, casual recreation use or unauthorized

actions. If riparian conditions begin to deteriorate under this alternative, periodic monitoring would be implemented to check for undiscovered resources outside the impact area of Class I OHV bridge construction. At present, due to dense shrub ground cover it would be difficult to investigate the flat by traditional subsurface probing. If monitoring shows deterioration of riparian vegetation, exclosure fences may be installed. Exclosure fences would lessen the potential for unauthorized use and the exposure of previously undetected archaeological sites.

Native American Treaty Rights and Traditional Uses

The health of the fish populations and other resources are important to the exercise of CTUIR treaty rights and traditional uses. Removing in-stream vehicle crossings would reduce the negative impacts to fish populations from minimal to none. The flat between crossings #1 and #2, (which is a small portion of the riparian area along the SFWW on BLM lands) could be affected by unauthorized use over the long term, reducing a small area of potential habitat for cultural plants. The potential effect to the riparian cultural plant habitat could be mitigated by installing riparian exclosures. The alternative should have little to no effect on cultural plant populations that may be located on rocky hillsides beyond the river riparian zone, since there are no easily accessible upland areas between crossings #1 and #2.

Wild and Scenic River Potential

If Alternative 2.A. were implemented the increase in traffic from private landowner Class I (quads) use would have a slight impact to the “Recreational” Outstandingly Remarkable Value identified in the Draft Eligibility Report. The impact would occur from the introduction of vehicles not commonly associated with the SFWW trail. However, there is an established acceptance of motorized vehicles by other trail users (i.e. horses, motorcycles, mountain bikes, hikers), and therefore the impacts would be minimal. Although there would still be an impact, it would not be expected to significantly reduce the overall “Recreational” ORV determination for the SFWW.

Recreation Resources & Scenic Values

Under this alternative the trail would be re-designed to accommodate Class I (quad) motorized use for landowners only. Public use of Class I vehicles will continue to be prohibited. Given the wider and more easily negotiated trail, all wet crossings would be eliminated. There are many environmental consequences to recreation and visual resources that are common to both Alternatives 2.A. or 2.B.

One objective of Alternative 2.A. is to design a trail that would meet the “easiest” classification for Class I vehicles allowing improved landowner access. The existing SFWW trail varies in width depending on terrain and sections that are shared as a road. Much of the trail already meets the 50-60” width recommended for a Class I easiest classification. In many cases, by simply cleaning out the slough on the inside of the cut bank a width could be obtained that would be acceptable. However, other segments of the trail would remain more difficult.

The following table is a simplification of trail design guidelines illustrating the changes expected from the existing Class III (motorcycle) to Class I (quad) trail associated with each difficulty level. Construction of a trail following these guidelines has varying degrees of affect on many resources.

Element	Easiest		More Difficult		Most Difficult	
	Class I	Class III	Class I	Class III	Class I	Class III
Max. Pitch	10-15%	15-10%	15-30%	20-30%	> 30%	>30%
Sustained Grade	<10%	<20%	10-25%	<25%	>25%	>25%
Clearing Width	84"	48"	50-72"	36-48"	60" max.	48"max.
Tread Width						
Side slope <10%	50"	18"	50"	18"	50"	12"
Side slope 10-50%	60"	24"	60"	18"	50"	12"
Side slope 50-70%	NR*	NR*	60"	24"	50"	18"
Side slope >70%	NR*	NR*	60"	NR*	50"	24"

* NR = Not Recommended

Only the landowners would have authorized quad access on the trail. Currently the trail width and topography at the steep section of trail (north side between crossings #1 and #2) creates a natural "pinch point" that precludes unauthorized quad use originating at the trailhead. Installation of bridges or widening of the trail and elimination of this pinch point would exacerbate the problem of unauthorized quad use.

Widening the trail will affect Class III and other users. Currently the trail offers excellent single track trail characteristics which are in short supply. Recreationists who appreciate single track trails will be negatively affected by widening the trail. There is a high probability that widening the trail would entice many Class III enthusiasts to travel at much greater rates of speed.

Visual resources would be affected in the short term during trail construction activities. Increased equipment, disturbed soils and vegetation, and noise would all be present during construction creating contrasts in form, texture, and color. The wider trail width would affect the visual resource in the long term, even though the impacts would soften over time. Generally, a wider trail width requires more exposure of soils and rock formations when cuts are necessary. Side casting would not be permitted when visible from the river or other known observation points. Trail modifications would draw the attention of a casual observer thus violating the management

objectives of the Class II visual allocation. Careful layout and design can mitigate some of the visual impacts.

Environmental consequences unique to Alternative 2.A follow:

Safety is improved greatly by building bridges across the SFWW near crossings #1 and #2 thereby eliminating a narrow section of trail with a side slope of approximately 50%-70%. The trail would be rerouted to the south side of the river and follow the old road grade which is on a flat bench. A second bridge would bring the trail back to the north side of the river and again follow the old road grade. Alternative 2.A greatly reduces the safety risk by installing two bridges which cross the SFWW and by avoiding a “most difficult” section of existing trail. The new section of trail accessed by the bridges would then meet “easiest” standards. The section of trail between crossings #1 and #2 would be abandoned and rehabilitated to its original condition as much as possible. Alternative 2.A would be the safest route for landowners and the recreating public, whether motorized or non-motorized. The tread width and side slope would be enough to meet or exceed standards for an “easiest” Class I or Class III trail.

The bridges would be located within the first mile of the trail past the trailhead. This first mile receives up to 90 percent of the use that occurs. Public use of these bridges would reduce the risk of someone trying to ford the river on foot. It is anticipated that the bridges would be very popular for their aesthetic values. Visitors truly enjoy being able to experience the values of a river from the vantage point of a bridge.

Installation of these bridges would introduce a human use impact to the south side of the river which does not currently exist. Prior to the bridge removal in 1996, the flat bench between the bridges was a popular destination site. It offers great settings for picnicking and fishing. It is likely that increases in such use will have an affect on riparian values. Currently, this bench has recovered well from previous human use impacts. Re-installation of the bridges will probably cause that trend to reverse.

The trail segment between crossings #1 and #2 would be eliminated with the installation of bridges. Therefore, the segment of trail that would require the most significant cut slope and be the most visually intrusive would be avoided. Installation of bridges introduces a cultural modification that would detract from the nearly pristine condition of the river. The bridges themselves would draw the attention of a casual observer thus violating the management objectives of the Class II allocation. However, by utilizing design techniques the contrasts in form, line and color can be reduced and softened.

Long-term impacts include:

- increase in unauthorized use
- visual resource impacts
- change in trail experience
- human use impacts on south side bench
- improved safety

No cumulative effects are known.

Monitoring

The main objective and goal for this alternative would be to monitor the trail use and condition on a regular basis. It would be imperative to have a monitoring program to know the extent and impacts of unauthorized use.

Monitoring for this alternative should include:

- Monitoring all users on a continual basis, especially weekends and during heavy use periods
- Monitoring the condition of the trails for maintenance and use
- Monitoring all vegetation in the riparian area to make sure there are no additional impacts.
- Monitoring all signing and informational boards to make sure it is appropriate. Replace all signing as necessary.

Cumulative Impacts

Within the Walla Walla Subbasin and the 27 plus miles of the South Fork of the Walla Walla, historical and current land use activities have affected anadromous and resident fish populations, reducing habitat and numbers markedly. Historical land uses affecting habitat in the Walla Walla Basin include forest management, livestock grazing, irrigated agriculture, urbanization, and flood control management. Liberal harvest regulations and fish stocking programs have also been implicated in the decline of TES fish species.

Since the ACEC management actions were implemented the vegetation and stream banks in the ACEC portion of the SFWW River corridor has been restored to almost pristine condition.

No other resource disturbing activities within the watershed of the SFWW at present or in the foreseeable future are known to be planned by the BLM, the FS or Forest Capital Partners, the other major landholder in the SFWW watershed. Impacts on stream bank vegetation and sediment are minimal to the watershed as a whole and the local segment of the river that flows through BLM managed land. There should be no cumulative impacts to the subbasin from the construction of the OHV Class 1 (quad) sized bridges for use by the landowners. The BLM manages less than 1% of the entire Walla Walla subbasin watershed and the possible area of impact from the construction of the two OHV bridges is specific to two spots along the river. The upgrading of the trail to allow quad use also would be virtually the only construction occurring in the same timeframe, and there would not be long-term impacts to accumulate with any other known or unknown future activities in the SFWW River watershed.

There should be fewer impacts to fish habitat, fish species and riparian vegetation due to the elimination of vehicles crossing the river and the road/trail outside of the

designated trail being re-vegetated. However, these benefits may be offset by the expected increase in visitor use on the south side of the river.

Alternative 2.B Reconstruct the Existing Trail on the North Side of the River to Accommodate Class I OHV's Restrict Class I Use to Property Owners. No Class I OHV Bridges Would Be Constructed Eliminate Full-size Vehicle Access by the Property Owners..

Vegetation

The reconstruction of the trail and location of a new trail section above the current steep section near the trailhead would have short-term impacts to the vegetation along the trail; see Vegetation section for Alternative 2.B specific to the trail upgrade. The long-term impact of the widening upgrade to the trail is that there would be an increase in all modes of recreational travel because the trail is better and safer, both authorized and unauthorized forms (Class I OHV use by the public). Impacts would be similar to those from Alternative 2.A, except that the south side of the river would not receive the increased use/impacts.

Hydrology/Water Quality

The upgrade of the trail to Class I OHV (quads) would involve short-term construction impacts, which would be mitigated by careful construction practices. Other than the short-term and specific impacts discussed in other sections, the alternative would not affect the hydrology of the stream, including shape, form or temperature. Increases in unauthorized OHV quad use could create bare soil and erosion that would increase sedimentation into the stream.

Beneficial impacts which would be expected to occur with this alternative include reduced sedimentation, and a negligible increase in riparian vegetation and stream bank stability due to the elimination of full-size vehicles crossing the river.

Fisheries

Fish Habitat

The modification to eliminate the installation of the OHV-size bridges at the first two crossings will keep the existing steep section of the trail that is currently producing sediment to the river, and thus potentially impacting fish gravels. The entire existing trail would be reconstructed to meet OHV width standards with only one exception. A portion of the steep section between the first and second stream crossings would be reconstructed well uphill above the existing trail to meet OHV standards. This would be re-constructed along the path of an old temporary trail used after the 1996 flood before the FS built the current trail section. There are several springs that would be dissected with the new trail creating further instability of the entire slope. No major vegetation would need to be removed because most of the trees and shrubs were removed with the initial construction. There will be clearing of trees that have fallen over the trail. The trail will move the OHV riders further away from the river and with proper construction could create fewer impacts than widening the trail at its

present location. However, there will continue to be impacts from creating trails across an area that is steep and has so many wet areas from springs. Proper drainage features including culverts, absorbent materials or other drainage features may be necessary to protect the springs, water quality and stability of the area.

The existing trail on the steep section will continue to stay open for all other users. The impacts created on the present trail will continue to exist. Presently there is water flowing from springs over the trail and into the river. This portion of the trail will continue to contribute sediment to the river.

Alternative 2.B. will not create any further loss of vegetation than was already explained in Alternative 2 for the widening of the entire trail to OHV standards. There will be no loss of vegetation on the south side of the river because no bridges will be installed. There may be some shrub removal on the new trail but there will be no vegetation removed that is producing shade to the river.

Fish Species

The only affect to any fish species with Alternative 2.B. would be to habitat (See above under Fish Habitat). The biggest potential to affect any fish species will be to the fish spawning gravels from sedimentation created during trail construction and continued use. It is not predicted to exceed the turbidity standards.

There is minimal risk that the effects from this alternative would impact spawning, rearing, life stages, or migration for bull trout, summer steelhead or Chinook salmon because all stream crossings would be eliminated.

Wildlife

The construction activities to upgrade the trail on the north side of the river would not affect bald eagles or goshawks. While goshawks are not known to nest here, if there were goshawk nests in the ACEC, any construction activities would not occur during the most critical time of disturbance for goshawks, March 1 – June 15. Construction would be allowed during the July 1 – August 15 window of construction recommended by ODFW, and would not be allowed near nests. See standard mitigation in Chapter 2, Design Features and Mitigations Common to all Alternatives.

The increase in use on the trail by authorized OHV's (property owners) or unauthorized OHV's (the recreating public who do not abide by the trail designation) would also create a level of noise and disturbance less conducive to goshawk nesting and rearing of young.

Construction activities would cause short-term physical impacts to amphibians and existing habitat along the trail, and would disturb songbirds and large and small animals. These activities would occur during the mid to late summer, so would not extend to the critical wintering area.

Archaeological and Historic Resources

There should be no effect to previous identified archaeological or historic resources from widening the USFS trail at its present location and confining Class I (quad) OHV use by property owners to the existing trail route.

Native American Treaty Rights and Traditional Uses

The health of the fish populations and other resources are important to the exercise of CTUIR treaty rights and traditional uses. Removing in-stream vehicle crossings would reduce the negative impacts to fish populations from minimal to none but there could be an impact to fish habitat from trail construction. The alternative would not limit tribal access to the area to exercise traditional fishing or resource gathering. As described in the Fishery analysis, the alternative would have minimal affect on fish habitat or fish populations, and is unlikely to limit future traditional fishing opportunities. There could be a local reduction of riparian plants at spots where the existing OHV trail approaches the SFWW river bank; however, widening the existing trail would not reduce overall habitat for riparian cultural plants. The alternative should have only minor effects on cultural plants that may be located on rocky hillsides, since widening the trail and establishing a new Class I OHV route on the north slope of the river would affect only about 1/5 acre of upland habitat, which is otherwise abundant on the steep slopes in the ACEC.

Wild and Scenic River Potential

Impacts from Alternative 2.B would be the same as from Alternative 2.A

Recreation Resources & Scenic Values

Alternative 2.B would allow the trail to be reconstructed to Class I standards and remain fully on the north side of the SFWW. As in Alternative 2.A, only the landowners would be authorized to use Class I vehicles. The general public would be limited to non-motorized access or using Class III vehicles only. Landowner access via full-size vehicles would be eliminated. Under this alternative no bridges would be built to avoid the most difficult section of trail.

Implementation of Alternative 2.B would reduce safety of trail users when compared to Alternative 2.A. The most difficult section of trail and/or the reroute would be more hazardous than a trail that utilizes bridges and stays on a flat bench. The section of trail crossing the steep slope and area of seeps would require more maintenance.

Impacts from widening the trail across the steep side slope section (north side between crossings 1 and 2) would have an impact on visual resources. The cut-bank into the rock face would draw the attention of the casual observer. Side casting of waste materials would be prevented but the change in line and texture would be an impact.

Other impacts to recreation resources would be the same as described under Alternative 2.A

Long-term impacts to recreation and visual resources remain the same as Alternative 2.A No cumulative effects are known.

Monitoring

Monitoring for Alternative 2.B is the same as for Alternative 2.A. as determined to be appropriate. Replace all signing as necessary.

Cumulative Impacts

Within the Walla Walla Subbasin and the 27 plus miles of the South Fork of the Walla Walla, historical and current land use activities have affected anadromous and resident fish populations, reducing habitat and numbers markedly. Historical land uses affecting habitat in the Walla Walla Basin include forest management, livestock grazing, irrigated agriculture, urbanization, and flood control management. Liberal harvest regulations and fish stocking programs have also been implicated in the decline of TES fish species.

Since the ACEC management actions were implemented the vegetation and stream banks in the ACEC portion of the SFWW River corridor has been restored to almost pristine condition.

No other resource disturbing activities within the watershed of the SFWW at present or in the foreseeable future are known to be planned by the BLM, the FS or Forest Capital Partners, the other major landholder in the SFWW watershed. Impacts on stream bank vegetation and sediment are minimal to the watershed as a whole and the local segment of the river that flows through BLM managed land. The BLM manages less than 1% of the entire Walla Walla subbasin, and the upgrading of the trail to allow quad use also would be virtually the only construction occurring in the same timeframe, and there would not be long-term impacts to accumulate with any other known or unknown future activities in the SFWW River watershed.

There should be fewer impacts than in other alternatives to fish habitat, fish species and riparian vegetation due to the elimination of vehicles crossing the river and the road/trail outside of the designated trail being re-vegetated. However, these benefits may be slightly offset by the opening of an extra quad trail and the potential for added sedimentation.

CHAPTER 5 – LIST OF PREPARERS

Ted Davis	Assistant Area Manager
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Melissa Yzquierdo	Wildlife Biologist/Botanist

APPENDICES

Appendix 1. Spill Prevention Plan for Vehicular Access of the SFWW

Appendix 2. Maps

Appendix 3. Photos

Appendix 4. Water Quality Restoration Plan for the South Fork of the Walla Walla.

Appendix 5. Bibliography

Appendix 6. List of Acronyms and Abbreviations used in the EA

Appendix 7. Response to Comments from the Comment Letters.

Appendix 1. SPILL PREVENTION PLAN FOR THE SOUTH FORK WALLA RIVER

SPILL PLAN FOR ALL VEHICLES THAT WILL CROSS THE SOUTH FORK WALLA WALLA RIVER

This is a proposed spill prevention plan for the landowner's approval. This is being sent to the landowners in June 2005 for their approval and discussion.

All landowners before they drive across the river must:

1. Completely check the vehicle for oil, grease, mud, dirt and fluid leaks. These materials must be cleaned from the vehicle prior to crossing the river.
2. Be sure all maintenance that is needed to prevent any leaks or breakage has been attended to before crossing the river.
3. Make sure each vehicle has absorbent materials to contain the chemical or fluid leak before it comes in contact with the water, if possible. If the vehicle should breakdown while in the water it is important to get the vehicle out of the water ASAP. At that time the vehicle must not be moved until all repairs have been completed. Move the vehicle out of the immediate floodplain so there no risk that the vehicle can leak into the river.
4. The vehicle driver is responsible for any leaks or repairs that occur on the journey to the private land.
5. Any specific chemical or oil leaks that occur will need to be contained to the smallest area possible. This will need to be cleaned up so there is no residue left in the soil, vegetation or water.
6. If it is not possible for every vehicle to carry absorbent materials for spills then it will need to be located in various places along the driving route, in secure locations for everyone's use.
7. All chemically or oil absorbed material, used for cleanup will have to be properly disposed of as a hazardous waste.
8. The landowners will need to find a Hazardous Waste facility which is usually through the Sanitation Department or DEQ. There will be specific instructions for taking care of contaminated materials.

9.) The landowners are responsible for informing the BLM of any accident, or leak that occurs on the BLM managed land. This information and the process for clean-up and deposit needs to be documented.

10.) At the end of each year the documentation that occurred for any vehicle needs to be delivered to the BLM by January 1st.

South Fork Walla Walla River



Bare ground at Chimney flat
1990



Vegetative recovery at Chimney flat
June 30, 2005



South Fork Walla Walla River

1990: Bike trail impacts
at flat near Elbow Creek



June 2005: Recovery of vegetation at same location



South Fork Walla Walla River



1990: Riparian condition and lack of vegetation on flat near Elbow Creek.

June 2005: Riparian condition and vegetative recovery on flat near Elbow Creek.



Appendix 4, South Fork Walla Walla Landowner Access
Environmental Assessment

SFWW Water Quality Restoration Plan
for temperature impaired streams
Vale District
Bureau of Land Management
Baker Resource Area

Revised
January 26, 2007

Introduction

This water quality restoration plan (WQRP) has been prepared in partial fulfillment of the Bureau of Land Management's (BLM) commitment to work with the Oregon Department of Environmental Quality (ODEQ) to meet requirements of Section 303(d) of the 1972 Federal Clean Water Act (CWA), as amended. The BLM protocol for addressing 303(d) listed waters provides a framework for this WQRP (USFS/BLM, 1999).

This WQRP addresses lands administered by the BLM in the Walla Walla Subbasin and specifically references land along the South Fork Walla Walla River. In Oregon, the U. S. Environmental Protection Agency (EPA) has delegated authority for implementing the Clean Water Act to the ODEQ. ODEQ develops water quality standards to protect beneficial uses established for a particular waterbody. Waters that do not attain State standards are considered "water quality limited" and are included on Oregon's 303(d) List of Water Quality Limited Waterbodies (e.g., 303(d) list). The most current 303(d) list for Oregon was approved by EPA in 2002. The South Fork Walla Walla River is included on the 2002 list for temperature impairment.

The DEQ is responsible for developing Total Maximum Daily Loads (TMDLs) and Water Quality Management Plans (WQMP) for water quality impaired waters. ODEQ developed and EPA approved a temperature TMDL for the Oregon portion of the Walla Walla Subbasin in September 2005. The TMDL and WQMP recognize BLM as a designated management agency (DMA) for BLM administered lands upstream of Harris County Park adjacent to the South Fork Walla Walla River. ODEQ anticipates that the BLM will develop and implement a WQRP to ensure that this portion of the river does not exceed natural thermal potential (DEQ, 2005). The South Fork Walla Walla River WQRP will be provided to ODEQ as an amendment the Walla Walla Subbasin WQMP and TMDL.

Condition Assessment and Problem Description

A majority of BLM administered lands along the South Fork Walla Walla River (SFWW) is designated as an Area of Critical Environmental Concern (ACEC). The area was designated in 1992 to provide management direction to protect and enhance riparian ecosystem, fisheries habitat, and scenic values while providing some recreational use (BLM, 1992).

As mentioned in the South Fork Walla Walla Landowner Access Environmental Assessment (EA), since the SFWW was designated as an ACEC and bridges were removed along the main channel, there has been improvement to riparian vegetation and reduced impact on the riparian area from recreational use.

The TMDL indicates excess heating (implying thermal loading) where the SFWW flows through BLM administered lands (DEQ, 2005). The TMDL also mentions that "the assessment of channel width and vegetative structure is of relatively low resolution", and that "it is not clear whether heating is attributable to legacy forest practices, recreational usage or natural causes" (DEQ, 2005).

The Water Quality Standards: Beneficial Uses, Criteria, and Policies for Oregon (OAR, Chapter 340, Division 041) states that water quality in the Walla Walla Basin must be managed to protect the designated beneficial uses (Table 330A), including designated fish use (Figures 310A and 310B).

Table 330A illustrates the beneficial uses for the Walla Walla Basin and Figures 330A and 330B illustrates the designated fish uses, which in the SFWW are related to bull trout spawning and juvenile rearing. The maximum seven day average temperature to sustain these uses is 12⁰C, or 53.6⁰F. Table 330A and Figures 310A and 310B (OAR 340-041-0330) were reproduced from the ODEQ website for inclusion in this WQRP.

Table 330A (from DEQ website)

Designated Beneficial Uses Walla Walla Basin (340-41-0330)

Beneficial Uses	Walla Walla River Main Stem from Confluence of North & South Forks to State Line	All Other Basin Streams
Public Domestic Water Supply ¹	X	X
Private Domestic Water Supply ¹	X	X
Industrial Water Supply	X	
Irrigation	X	X
Livestock Watering	X	X
Fish & Aquatic Life ²	X	X
Wildlife & Hunting	X	X
Fishing	X	X
Boating	X	X
Water Contact Recreation	X	X
Aesthetic Quality	X	X
Hydro Power		X
Commercial Navigation & Transportation		
¹ With adequate pretreatment (filtration & disinfection) and natural quality to meet drinking water standards.		
² See also Figures 310A and 310B for fish use designations for this basin.		

Table produced November, 20003

Figure 310A: Fish Use Designations*
Umatilla Basin, Oregon

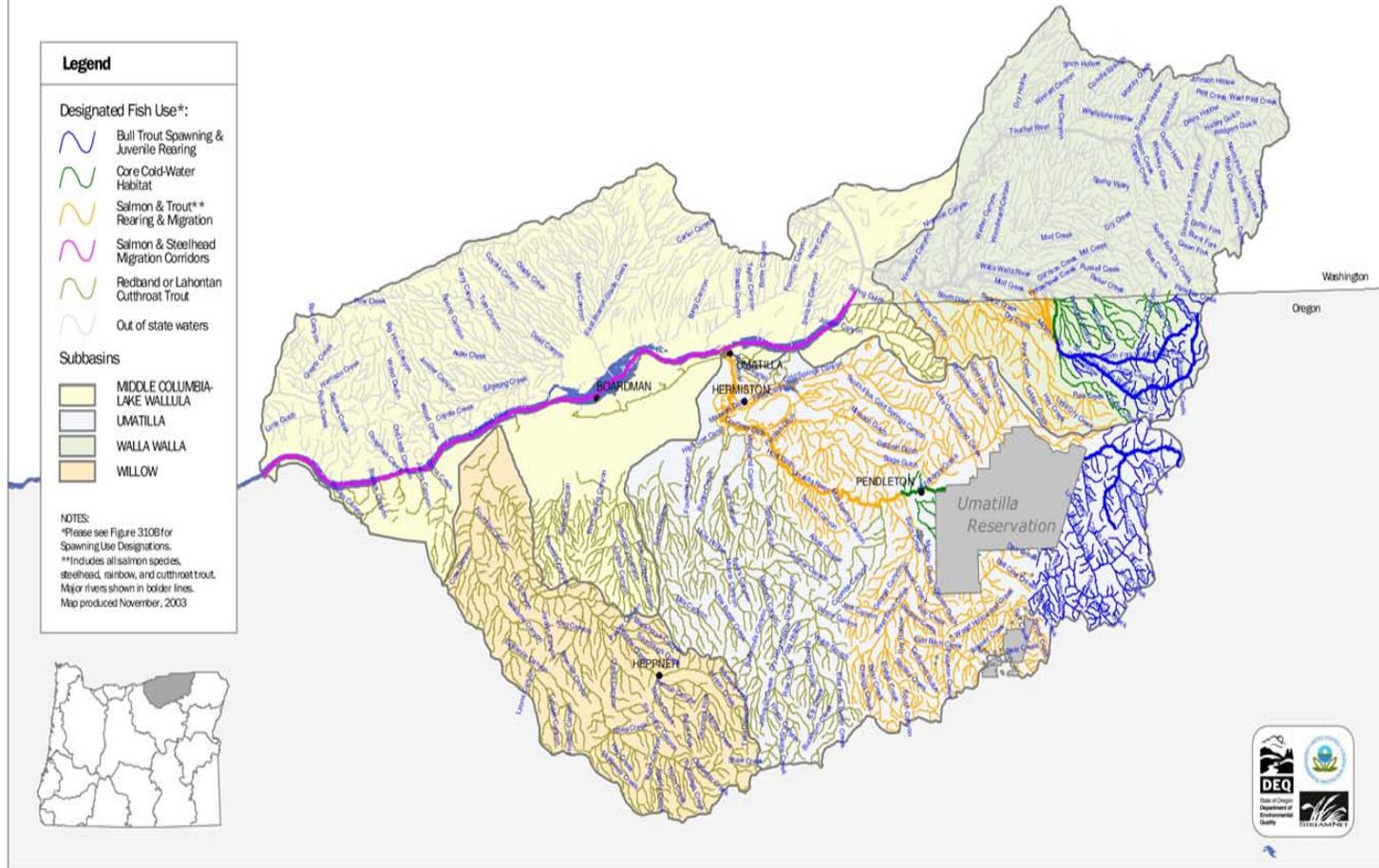
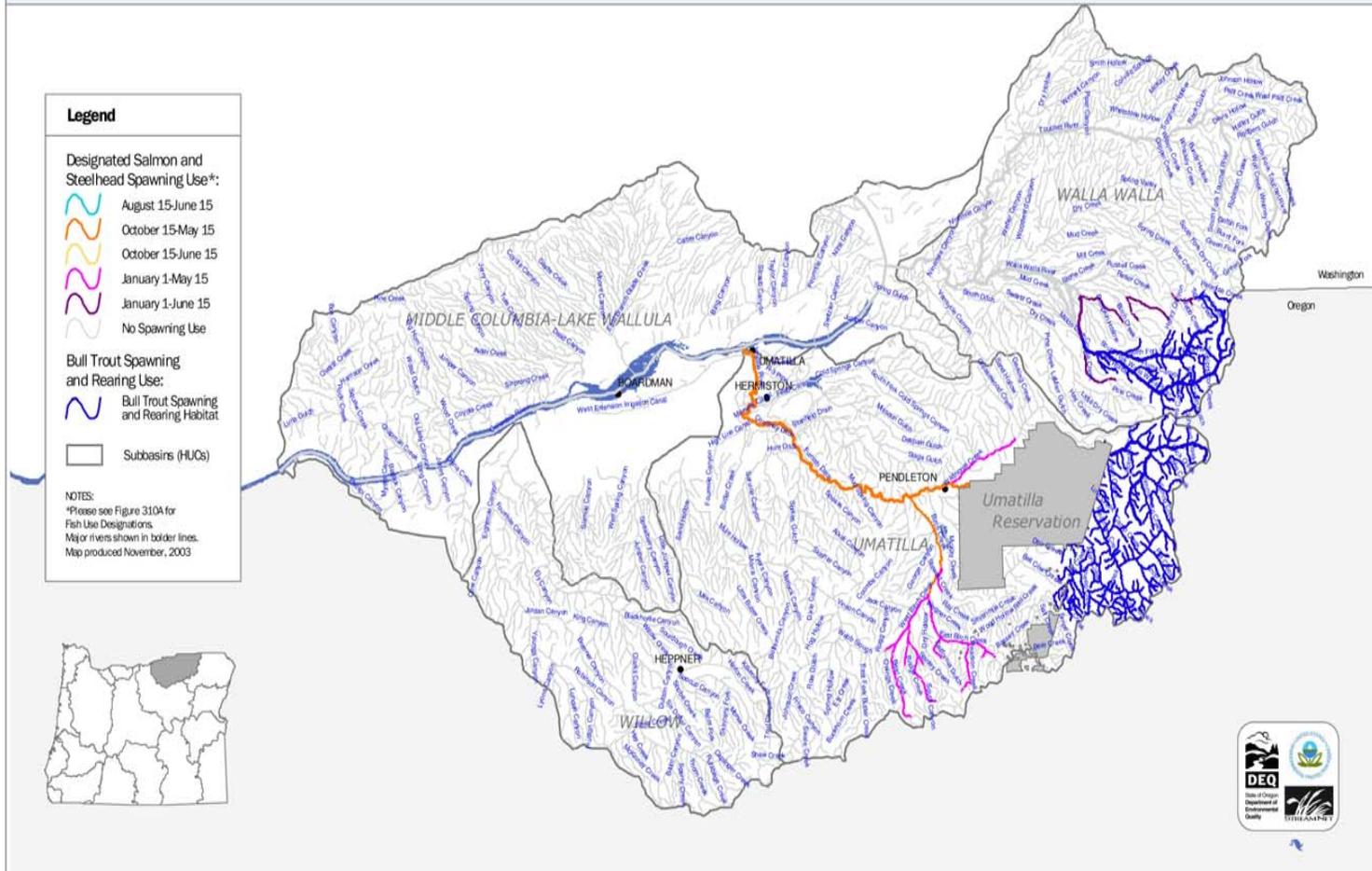


Figure 310A reproduced from DEQ website

Figure 310B reproduced from DEQ website

Figure 310B: Salmon and Steelhead Spawning Use Designations*
Umatilla Basin, Oregon



This WQRP focuses on improvements to BLM administered lands to benefit stream temperature.

Exceedance of daily maximums within the SFWW is consequent of non-point source pollution. Stream temperature is influenced by many variables including riparian vegetation, channel geometry, and/or flow. Thermal loading from solar and longwave radiation, evaporative and convective heat transfer, conduction, and advection also influence stream temperature. Of these, solar radiation has the greatest influence on daily stream temperature (Brown 1983). In fact, for a stream of given surface area and stream flow, an increase in the amount of heat entering the stream from solar radiation will produce a proportional increase in temperature. For purposes of this WQRP, riparian vegetation and channel morphology are considered the primary factors for influencing non-point source pollution.

In addition to the physical effect that removing riparian vegetation has on stream bank stability and channel integrity, removal of riparian vegetation can also lead to increased stream temperatures (Beschta, 1997; Brown, 1983; Gregory, et al, 1991; Howell, 2001). Loss of vegetation increases solar insolation, elevating water temperatures in summer or reducing the tempering affect of vegetation on water temperature during the winter. Loss or removal of riparian vegetation also can lead to increased width/depth ratios and elevated stream temperatures that rise as a function of channel widening.

Riparian vegetation contributes to stream bank stability, aids in infiltration of flood flows and groundwater recharge, and reduces direct solar input to streams, all which reduce thermal loading of streams. Channel bank stability reduces erosion and sedimentation resulting from overland flow/runoff.

Legacy issues including historic livestock grazing, timber harvest, road building, and recreation use coupled with drought, floods, wildland fire, and vegetative succession have and will continue to affect water quality in the SFWW.

The South Fork Walla Walla Landowner Access EA provides an overview of current management that could impact the SFWW. Since the ACEC was designated, vehicle access has been limited and riparian conditions have improved.

Lands upstream of the BLM administered portion of the SFWW are in private ownership or are administered by the U. S. Forest Service (USFS). The WQMP (DEQ, 2005) indicated that although the SFWW exceeds the stream temperature criteria, the river is considered to be at potential in terms of vegetation and channel condition on the USFS administered land.

The TMDL and WQMP (DEQ, 2005) questioned whether the stream channel was wider than “potential” in the BLM administered portion that excess thermal loading as a function of channel width could be occurring. The BLM believes that the lands managed by the Baker Resource Area in the SFWW area are at or near potential. Results of stream surveys (2006) including assessment of Proper Functioning Condition (PFC) (1999) are

presented below as a basis for evaluating ODEQs assumption and further developing restorative actions for the BLM administered portion of the SFWW.

The concept of PFC (1998) refers to a minimum threshold for managing water quality, fish and wildlife habitat, aesthetics and livestock forage. PFC is a qualitative assessment that considers hydrology, vegetation, and soil/landform attributes and rates riparian function as:

- **Proper Functioning Condition:** *Riparian-wetland areas are properly functioning when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality, filter sediment, capture bedload, and aid in floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity.*
- **Functional - At Risk:** *Riparian-wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.* Stream reaches determined to be Functional At Risk are further assessed for Trend – upward, downward, or not apparent.
- **Non-Functioning:** *Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows, and thus are not reducing erosion, improving water quality, etc.*

PFC does not necessarily equate to potential natural community, advanced ecological status or desired future condition. Rather, PFC demonstrates the level of resilience required for a system to function and allow for maintenance and recovery of desired values such as water quality and fish habitat. In some areas, streams which have a rating of PFC may be identified for restoration activities because of the relative low cost associated with a high probability of successfully achieving a potential natural community.

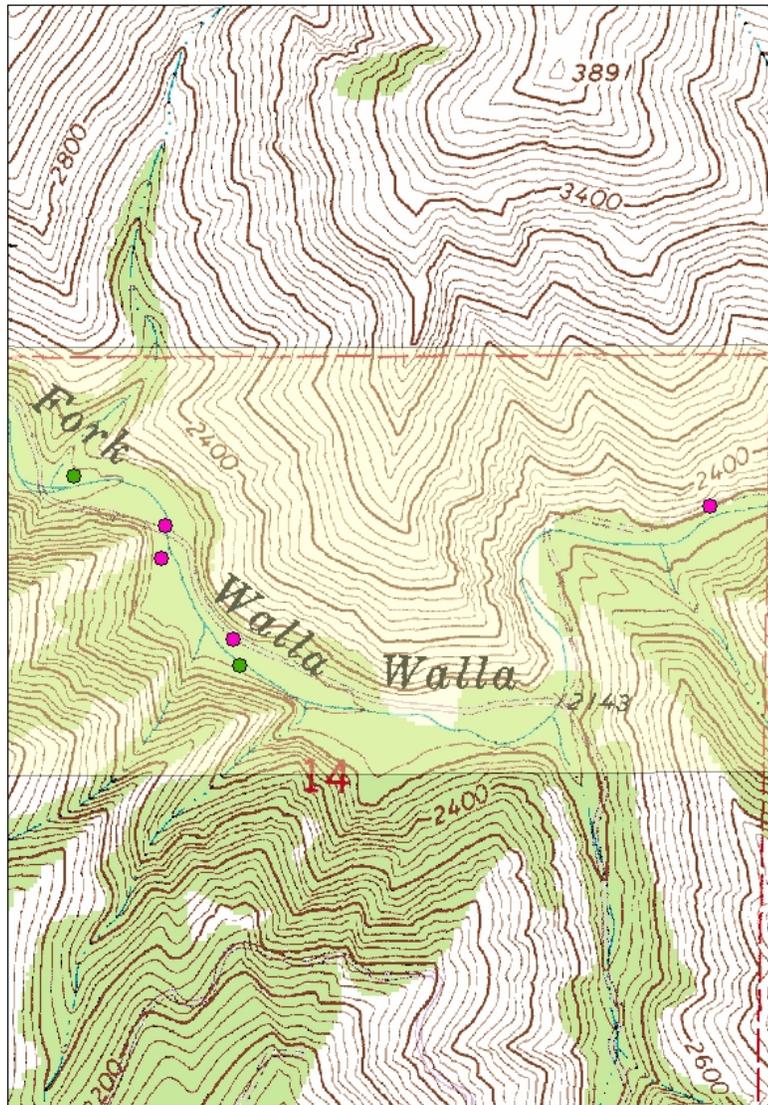
The BLM conducted PFC surveys in 1999 along the SFWW. The entire reach that flows through BLM administered lands was rated at PFC. The survey indicated good tree and shrub components which provide shade to the stream. Some sedimentation and channel widening where the road crossings intercepted the stream was also noted during the survey.

In 2006, the BLM conducted stream surveys to collect data on channel morphology. The location of the longitudinal survey and channel cross-sections and the data recorded during the stream survey is presented below. The longitudinal profile was developed based on measurements starting at the first stream crossing and extending upstream for over 1800 feet. Three cross-sections were surveyed within the area of the longitudinal profile and one additional cross-section was surveyed upstream of Elbow Creek.

Based on the longitudinal profile the stream gradient was approximately 2.6% and sinuosity was 1.2. Based on these measurements the stream was typed as a “B3” according to the Rosgen stream classification (Rosgen, 1996).

Figure 1. Location of 2006 BLM Longitudinal profile and Cross-section surveys.

South Fork Walla Walla survey locations

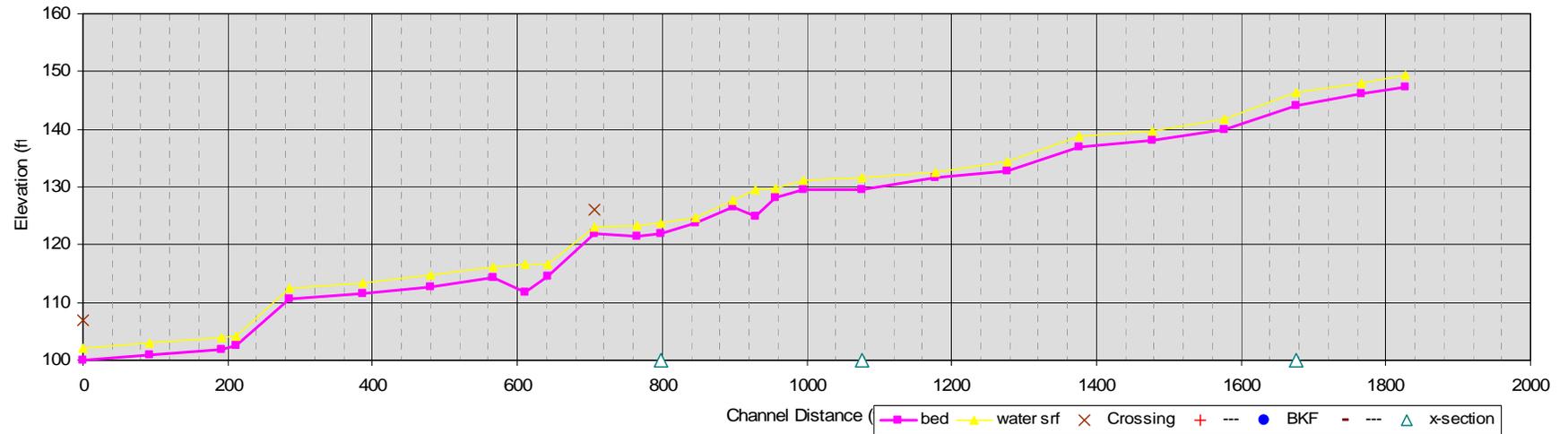


Legend

- Longitudinal profile
- Cross-sections

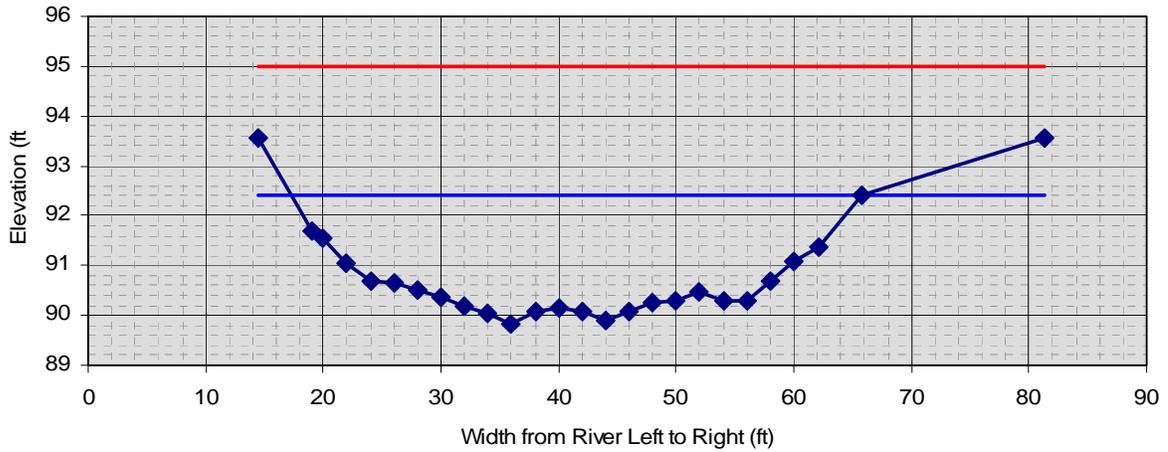
The shaded area in Figure 1 above indicates some of the BLM managed land along the SFWW.

Figure 2. Longitudinal profile of SFWW. Upper line is water surface, lower line is bed surface. The two “X” above the water surface indicate where the first two stream crossings used by vehicles are located and the “^” at the bottom of the graph mark the locations where cross-section measurements were taken.

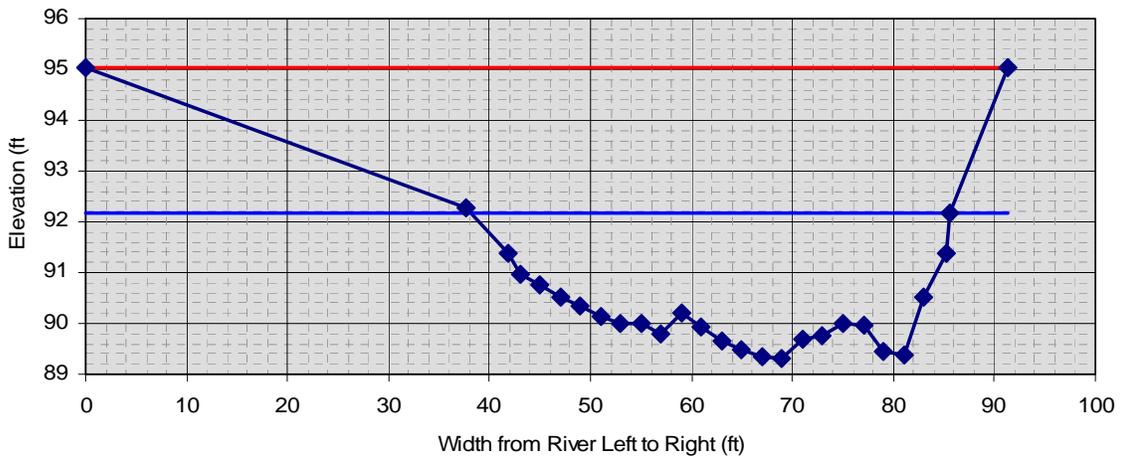


In the graphs of the four cross-sections below, the upper line represents the flood-prone area and the lower line represents the bankfull stage as determined during field measurements.

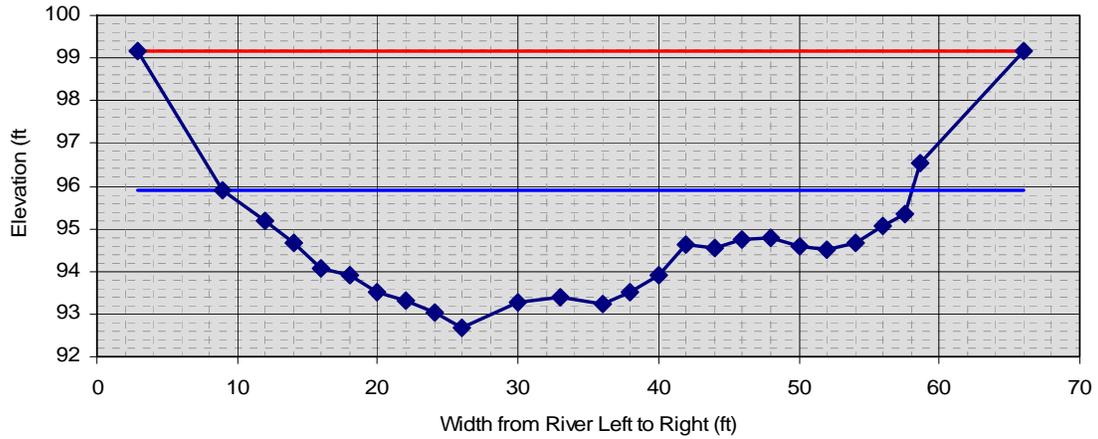
Cross-section #1 Riffle South Fork Walla Walla



Cross-section #2 Riffle South Fork Walla Walla



Cross-section #3 Riffle South Fork Walla Walla



Cross-section #4 Riffle South Fork Walla Walla

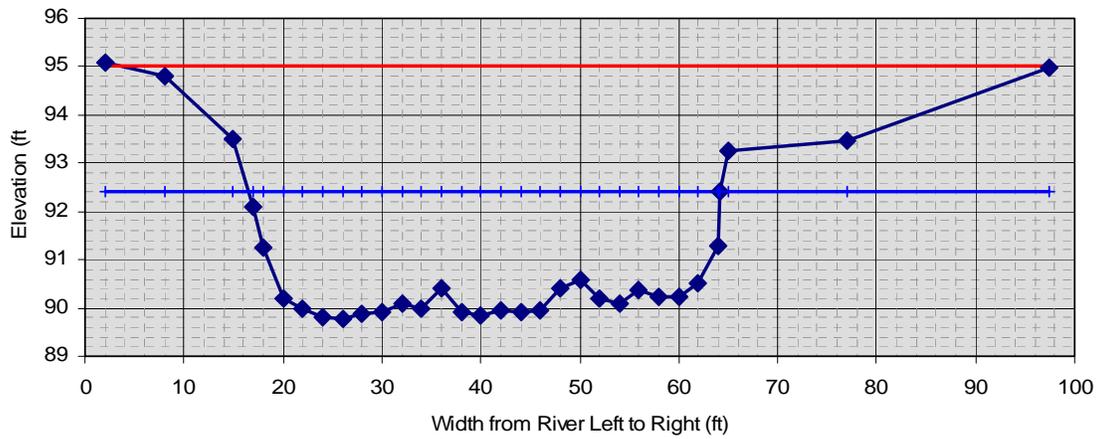
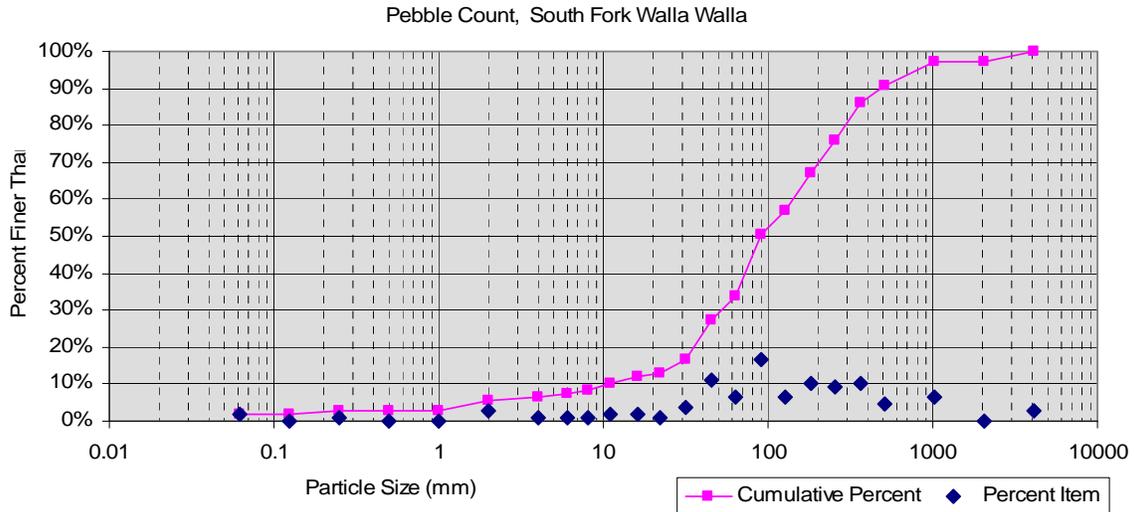


Table 1. South Fork Walla Walla stream morphology

Cross-section	Bankfull width (feet)	Mean bankfull depth (feet)	Max. bankfull depth (feet)	Bankfull w/d ratio	Flood-prone width (feet)	Entrenchment ratio	Cross-sectional area (feet ²)
1	42.7	1.9	2.6	21.9	95.0	2.2	83.2
2	47.5	2.0	2.9	23.5	91.3	1.9	96.0
3	49.0	1.8	3.2	26.7	63.0	1.3	90.0
4	47.6	2.2	2.6	21.8	95.5	2.0	104.1

A pebble count was taken in the area of the longitudinal profile and the results are presented on the graph and table below.



Size percent less than (mm)					Percent by substrate type					
D16	D35	D50	D84	D95	silt/clay	sand	gravel	cobble	boulder	bedrock
30.365	65.41	89.2	335	803	2%	4%	28%	41%	23%	3%

As mentioned above, the results of the stream survey show that the reach surveyed is a B3 stream type (Rosgen, 1996) with a bankfull width less than 50 feet. B type streams are moderately entrenched with moderate gradient and are riffle dominated with infrequent pools (Rosgen, 1996). Rosgen (1996) also describes B type streams as having a very stable plan and profile with stable banks. Specifically, B3 stream types have channel materials consisting primarily of cobble with some boulders and lesser amounts of gravel and sand (Rosgen, 1996). The bed and bank materials of B3 stream types are stable and contribute only small quantities of sediment during runoff events (Rosgen, 1996).

Stream crossings along the surveyed reach provide access to private land upstream of BLM administered. As the survey results indicate the stream channel widened at most of these crossings. However, other than in the immediate vicinity of the crossings, channel widening was not evident. Other than vegetation loss at the crossings and along the road, riparian vegetation is well established along the reach. Vegetation was verified by field observation and low level aerial photography conducted by BLM in 2004. Field observations also indicate good channel bank stability along this reach of the SFWW. Direct impacts to the stream channel, vegetation, and streambanks from the vehicle crossings constitutes approximately one percent of the stream segment managed by the BLM.

Based on this information and further by field observations, the BLM believes the SFWW is a stable B3 stream type with an excellent vegetation component. In addition,

while past management may have impacted riparian habitat, current management is contributing to improved riparian condition. The TMDL (Figure 1-11 pg 1-21, DEQ, 2005) indicates that the target potential channel width should be approximately 15 meters while the existing channel width is over 20 meters along the BLM managed portion of the SFWW. Surveys conducted by the BLM in 2006 illustrate that bankfull channel width is between approximately 43 and 49 feet (13-15 meters). This information would indicate that the South Fork Walla Walla is at or near the potential channel width described in the TMDL. The BLM acknowledges that at most of the stream crossings the channel is wider. However field observations illustrated that the impact is specific to the stream crossings and affects only about one percent of the stream segment managed by the BLM.

Vegetation along the South Fork Walla Walla is also well established along the stream segment administered by the BLM. Historic photographs are the basis for concluding that riparian conditions have improved since the designation of the ACEC. Field observation and aerial photographs also indicate the presence of substantial riparian vegetation along the SFWW. As with channel widening, the stream crossings are devoid of riparian vegetation although the acreage or proportion is negligible compared to the entire reach administered by the BLM. The BLM expects improved conditions since much of the vegetation (e.g., alder, cottonwood, and willow) was established in the last 15 years. Currently there is a wide range of conifer age classes along the river. The vegetation is dominated by young to mature hardwoods with few older hardwoods. Passive restoration (e.g., succession) will contribute to development of a diversity of age classes better able to adapt to disturbance, more mature vegetation which will provide more stream shade, an increased source of large woody debris, and increased root strength providing better streambank stability.

From the data presented above and the professional opinions of BLM specialists, the BLM believes that the lands managed by the Baker Resource Area and the SFWW are at or near potential. If ODEQ has additional criteria with which to evaluate this assumption, the BLM would entertain supplementary monitoring in cooperation with ODEQ.

Goals and Objectives

The goal of this WQRP is restore or maintain conditions necessary for the attainment of State water quality standards for temperature that are necessary to support the designated beneficial uses for the SFWW (Table 330A). Oregon Administrative Rule (OAR) 340-041-0028(12)(g) states that the BLM must meet the requirements of this rule and that water quality standards are expected to be met through the development and implementation of water quality restoration plans, best management practices (BMPs) and aquatic conservation strategies. As a Designated Management Agency the BLM is deemed compliant with this rule through the implementation of these plans, practices and strategies.

Elimination or reduction of non-point source pollution on public lands is accomplished through development and implementation of BMPs, including active and passive

management, to maintain and/or restore the attributes and processes of a healthy riparian system. These goals and objectives are supported through existing BLM policy and regulation which are identified below.

Baker Resource Management Plan (BLM, 1989). The Baker RMP lists broad objectives and management actions for various resources within the Blue Mountain Geographic Unit. Some of these objectives and management actions related to riparian areas are:

1. Improve riparian habitat on poor to fair condition stream that support anadromous fish.
2. Exclude livestock grazing along selected stream segments, bogs and stream overflows where grazing is not compatible with other resource objectives.
3. Continue riparian inventory and monitor riparian habitat condition, emphasizing anadromous fishery streams.
4. Maintain or improve habitat for fisheries.

The management plan for the SFWW ACEC (South Fork of the Walla Walla River Area Plan Amendment, BLM, 1992) lists more specific objectives, for scenic, fisheries, and riparian values; and protection of these and other important values. Among the protections provided by the ACEC are restricted vehicular access, no overnight camping, no livestock grazing, and reduction of the available timber harvest by 99% (BLM, 1992).

The TMDL and WQMP (DEQ, 2005) indicate that although the SFWW exceeds stream temperature criteria where it flows through lands administered by the Forest Service just upstream of the BLM managed land, the river is considered to be at potential in terms of vegetation and channel conditions. Therefore, it is infeasible to expect that temperature criteria will be met where the segment flows through BLM administered lands. Thus, the WQRP is focused on meeting the effective shade surrogate identified in the TMDL (pg. 1-19, DEQ, 2005) along the BLM administered portion of the SFWW. The WQRP includes provisions to maintain and enhance existing riparian vegetation which provides shade to the stream and to maintain channel integrity so that recreation use and vehicular access do not continue to impact stream quality.

Proposed Management Actions

Proposed management intends to provide access to private lands upstream of BLM administered lands and to continue to provide recreational use of the area.

Currently, riparian vegetation is well established along the stream segment administered by the BLM. Other than at a limited number of sites, the stream channel is stable with little bank erosion. Management should not increase bank erosion or decrease riparian vegetation or stream shade. The ACEC was designated, in part, for riparian habitat values which provide habitat as well as contribute shade to the SFWW. Management of the ACEC will continue to protect this and other values and continue to provide for recreation use and private access. Continued use of the stream crossings by vehicles will be monitored to ensure no increased disturbance to stream channel morphology or

riparian vegetation. Protection of existing vegetation will facilitate improved or increased stream shade over time. Disturbance from vehicle access occurs on approximately one percent of the stream channel administered by the BLM. Any actions to improve access are not likely to increase disturbance. Relocation, realignment, or improved stream crossings would be evaluated to determine the benefits that would result from such an action. If stream crossings are moved or otherwise improved, disturbed areas would be blocked to restrict vehicular access and exposed soils re-vegetated. Other alternatives to improve water quality would consider trail improvement or realignment on the north side of the SFWW to reduce sedimentation and minimize damage to springs that are intercepted by the footprint of the existing trail.

Detailed descriptions of the proposed management alternatives are included in the EA in Chapter 2. No matter which alternative is chosen, management will be consistent with the South Fork Walla Walla River Area Plan Amendment which includes strategies for protecting riparian and fisheries habitat. As mentioned previously, this plan has increased protection of the ACEC area and implemented restoration strategies. These restoration strategies have already resulted in improved riparian habitat, increased shade, and reduced soil erosion while still providing for recreational access. As mentioned in the monitoring section below, should monitoring data show that the goals and objectives of this WQRP are not being met, or there is no progress towards meeting them, then additional management actions would be implemented.

By limiting disturbance to the current area of impact, stream channel integrity should be maintained and bank erosion and sedimentation should be minimized. Stream width should remain at or near potential and vegetation should continue to develop which should allow the SFWW to reach its potential in relation to stream channel morphology and riparian vegetation and habitat which the BLM anticipates will result in attainment of the effective shade surrogate of the TMDL.

Reasonable Assurance of Implementation

The Federal Land Policy and Management Act of 1976 states that the public lands will be managed to protect a variety of resources including water resource values. The Baker BLM is also guided by an RMP (BLM, 1989) which among other things states that riparian and fisheries habitat will be maintained or improved.

In addition, there has been marked improvement in riparian vegetation and habitat since the creation of the ACEC in 1992. This designation will continue to stay in place and should continue to provide for maintenance and improvement of riparian habitat and vegetation.

The completion of this WQRP is a commitment by the BLM to implement the Clean Water Act and to protect and restore the water quality of public waters under BLM's jurisdiction (USFS/BLM, 2003). A Memorandum of Agreement (MOA) between the BLM and ODEQ defines the process by which the agencies will cooperate to meet State and Federal water quality rules and regulations. The MOA defines BLM responsibilities

to include “*management of BLM lands to protect, restore, and maintain water quality so that Federal and State water quality laws and regulations are met or exceeded to support beneficial uses and BLM will manage water quality limited water bodies within its jurisdiction to protect and restore water quality conditions*”.

Implementation of some aspects of this WQRP have already been occurring. The ACEC plan has been in place since 1992 and monitoring since that time has already shown a marked increase in riparian vegetation. The timeline for implementation of additional management strategies and monitoring is dependant upon which alternative is selected in the EA. Monitoring outlined in the No Action alternative has already been occurring and would continue to occur until when or if another alternative is chosen and funding for that alternative is available. In addition, the BLM has current obligations under existing biological opinions and assessments which include monitoring and assessment of conditions within the SFWW area which would also continue.

Responsible Parties

Participants in this WQRP for Federally-administered lands include the BLM and ODEQ. This WQRP will be appended to the WQMP developed for the Walla Walla Subbasin Stream Temperature TMDL. ODEQ prepared the Walla Walla Subbasin Stream Temperature TMDL with contributions from the Walla Walla Basin Watershed Council, Washington Department of Ecology, Washington Department of Fish and Wildlife, Umatilla National Forest, Confederated Tribes of the Umatilla Indian Reservation, Oregon Department of Fish and Wildlife, Oregon Water Resources Department, U. S. Army Corps of Engineers, and the USDA Natural Resource Conservation Service. The BLM was a party to and participated in that process. The BLM will implement this WQRP and conduct monitoring described below to ensure compliance with the WQRP and TMDL.

Monitoring and Evaluation

The South Fork Walla Walla Landowner Access EA includes provisions for implementation monitoring to determine whether BMPs and mitigations are in place and effective. Effectiveness monitoring to address the question whether management objectives are being met is also included as a provision of the EA. (see EA Monitoring sections pages 12-13, 40-41, 51-52, 56, 63, 67).

Photo-points would be established at modified stream crossings to document trend of riparian vegetation.

In addition, monitoring for biological assessments (BAs) and/or biological opinions (BOs) will continue (see No Action Alternative Monitoring Section EA pages 40-41).

If Alternative 1 A or B is selected, the following additional monitoring would be conducted:

Permanent cross-sections would be installed at 3 of the crossings to monitor any change in width and depth of the crossings. Cross-sections would be surveyed annually to monitor any change in geomorphology of the crossings.

Permanent stations would be installed at 3 crossings to measure shade. Shade measurements would be taken annually to monitor any change in shade.

Permanent photo-points would be installed at 3 crossing to document trend in vegetation changes. Photo-points would be taken annually.

Turbidity would be monitored at least twice annually at 5 crossings when the landowners are actively using the stream crossings. This will entail a sample just prior to driving through the crossing and one sample while driving through the crossing.

The data obtained from monitoring will be analyzed annually to check BLMs assumptions of no increase in streambank erosion, no decrease in riparian vegetation and/or no decrease in stream shade at the vehicle crossings. Should monitoring data reflect that riparian habitat or water quality is being degraded; additional management strategies will be implemented to ensure that the goals and objectives of this WQRP are being met or progress is being made to meet the goals. Additional management strategies would be incorporated into a revised WQRP for the SFWW area.

This WQRP addresses temperature impaired streams. The proposed monitoring is more comprehensive than what would be necessary to evaluate effectiveness of restoration actions for improving stream temperature. However, other resource values are of concern and the data and information generated will be used to assess the health of the entire drainage including water quality, riparian and upland vegetation, aquatic and wildlife habitat, forest and rangeland health, and stream channel stability.

This WQRP is an adaptive management tool which will utilize the monitoring and evaluation to evaluate progress toward meeting the water quality standards. Alternative management strategies, other restoration opportunities, or management changes in response to changing water quality standards may necessitate revision of the WQRP.

The BLM has prepared an annual monitoring report since 1998 as a consultation requirement for threatened and endangered species. This report has and will continue to include the SFWW area because of the presence of listed fish species. Documentation of monitoring for this WQRP will be included in this annual report and will be available to the public.

Performance monitoring for the implementation of management strategies will also be included in the annual monitoring report. This monitoring will include whether management strategies currently taking place, such as the ACEC plan and current biological opinions and/or assessments, as well as additional management strategies which may be implemented depending on which alternative is picked in the EA, are meeting the goals and objectives of this WQRP. Should performance monitoring indicate

that management strategies are not meeting the goals and objectives of this WQRP, this information will be included in the annual monitoring report and a revised WQRP will be prepared, as needed.

Public Involvement

This WQRP was submitted to ODEQ for review and approval as an attachment to the WQMP section of the Walla Walla Subbasin Stream Temperature TMDL on August 4, 2006. The ODEQ responded with comments to the WQRP and EA, which the BLM received on September 27, 2006. The BLM has considered and incorporated these comments into the WQRP. The ODEQ provided opportunity for public review of the TMDL before it was submitted to the EPA. The public was also provided the opportunity of review of the WQRP and EA during the EA comment period.

Maintenance of Effort Over Time

Implementation of the WQRP will continue until the effective shade surrogate outlined in the TMDL is met for the SFWW. Establishment of the ACEC and the improvement of riparian habitat since the ACEC designation have already shown a commitment by the BLM to protect the natural resources of the SFWW area. In addition to the ACEC plan, the monitoring described above will be utilized to measure the progress of achieving the water quality standards. The MOA between BLM and ODEQ to meet the water quality rules and regulations also establishes a commitment to meet annually to discuss project and program-level activities and progress towards meeting water quality objectives. In addition, the BLM protocol for addressing 303(d) listed streams (USFS/BLM, 1999) also identifies the WQRP process as a priority for the agency.

Discussion of Costs and Funding

Appropriations and priorities for the BLM are subject to annual Congressional action, and as such the guarantee of funding is not possible. The BLM will make every effort to secure funding for implementation of WQRPs and the associated projects and monitoring. These BLM receives funding for monitoring and restoration activities under different BLM programs such as Clean Water Watershed Restoration funding, Challenge Cost Share funding, and Science Initiative funding. In addition, where feasible and there are willing partners, the BLM will attempt to enter into agreements to cost-share and/or matching funds obligations.

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Appendix 5

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Appendix 6

Acronyms and Terms used in the EA

ATV—All terrain vehicles; older term for motorized vehicles taken off road

BO—biological opinion; a scientific evaluation of potential impacts to listed fish. See Fisheries section for more information.

OHV—Off highway vehicles; more modern term for motorized vehicles taken off road

RMP – Resource Management Plan. BLM’s planning system is based on land use plans for specific portions of a BLM administrative unit. They are usually prepared by resource area.

EHU Effective habitat unit. From the Magn...Stevens Act.

NTU—Nephelometric Turbidity Unit. A unit of measure for water turbidity associated with sedimentation. Oregon Department of Environmental Quality criteria for Turbidity is:

No more than a ten percent cumulative increase in natural stream turbidities may be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity. However, limited duration activities necessary to address an emergency or to accommodate essential dredging, construction or other legitimate activities and which cause the standard to be exceeded may be authorized provided all practicable turbidity control techniques have been applied and one of the following has been granted:

(a) Emergency activities: Approval coordinated by the Department with the Oregon Department of Fish and Wildlife under conditions they may prescribe to accommodate response to emergencies or to protect public health and welfare;

(b) Dredging, Construction or other Legitimate Activities: Permit or certification authorized under terms of section 401 or 404 (Permits and Licenses, Federal Water Pollution Control Act) or OAR 141-085-0100 et seq. (Removal and Fill Permits, Division of State Lands), with limitations and conditions governing the activity set forth in the permit or certificate.

PACFISH Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California. The decision record and Finding of No Significant Impact (FONSI) for the EA were signed in February, 1995. The purpose of the interim direction is to take prudent measures to arrest the degradation and begin the restoration of riparian and aquatic ecosystems in watersheds where anadromous fish habitat is present or easily could be reestablished"

INFISH: INFISH is a Forest Service program. BLM created a similar Interim Bull Trout Habitat Conservation Strategy via SD policy that directs BLM to halt any degradation and begin restoration of bull trout habitat on BLM lands by applying the strategy to all new projects and activities within watersheds that contain current bull trout habitat." The strategy has as its foundation the PACFISH strategy for conserving anadromous fish species.

Fluvial fish –fish which move to different parts of a river system in their life cycle

RHCA - Riparian Habitat Conservation Areas associated with assuring healthy habitats along fish bearing streams

RM- River Mile

Redd-- A mass of eggs laid by fish in a river.

Level 1 Team. A Level 1 team is an interagency group, consisting of biologists or botanists, with the responsibility for reviewing documents prepared by Federal action agencies and regulatory agencies implementing the Endangered Species Act (ESA). The action agency biological assessment is reviewed to determine if the analysis within it is adequate to support an ESA determination of effect to the species or its designated critical habitat. The biological assessment forms the framework for the regulatory agencies to respond with a concurrence letter or biological opinion, dependent upon the level of effects.

Proper Functioning Condition (PFC)

Confederated Tribes of the Umatilla Indian Reservation (CTUIR)

South Fork Walla Walla River (SFWW)

Department of the Interior, Fish and Wildlife Service (FWS)

Appendix 7

Responses to Comments on EA

1	September 1, 2006	Umatilla County, Board of County Commissioners. (1p).	1 comment
2	September 1, 2006	State of Oregon, Department of Fish and Wildlife, John Day Watershed District Office. (3 pp).	6 comments
3	September 5, 2006	The Center for Environmental Law and Policy. (6 pp).	5 comments
4	September 6, 2006	Northwest Environmental Defense Center. (3 pp).	6 comments
5	September 6, 2006	WaterWatch. (2 pp).	2 comments
6	September 6, 2006	Confederated Tribes of the Umatilla Indian Reservation, Department of Natural Resources Administration. (13 pp).	37 comments
7	September 26, 2006	State of Oregon, Department of Environmental Quality (5 pp).	14 comments

Comment Number	Category of Comment	Comment Summary	Response from BLM
2-1	Impacts to fish habitat	EA contains no discussion that Alt. 1.A. would increase the size of the current disturbance at crossings by implementing annual modifications to the crossings based on redd locations; EA does not describe this impact, and returning Chinook could greatly increase in the future	The EA has been clarified in the Alternative 1. A description and in Chapter 3, Fisheries, Spring Chinook Salmon discussion to address this concern. Based on the crossings of the past years, BLM does not anticipate many significant changes in the routes due to channel forming events in the future. It is likely that eventually a large flow event will make making crossings impossible or in need of modification. There are many unknowns created by the current and future planting of Chinook by CTIUR, and the unknowns of what sort of survival/return rates there may be for the Chinook. There has not been enough years of planting to establish a pattern. BLM will attempt to obtain the CTIUR planning information to which you have referred.
2-2	Maintenance of	The river channel could change significantly in future,	It is true that prior to the listing of

Comment Number	Category of Comment	Comment Summary	Response from BLM
	crossings over time	in the past landowners have done extensive in-water work to maintain the crossings, more maintenance activity will likely be required to provide crossings over the broader range of flows extending to the end of December than the current July 1-August 15 window.	the fish and the BA and BOs being prepared in 1998, the landowners had carried out periodic work in the stream to maintain/improve access. This has not been allowed since the fish listing. It is not planned that in-stream work be allowed in the event of large hydrologic events interfering with access during the fall/early winter. The EA has been clarified to address this.
2-3	Impacts to fish habitat	Alt 1.B removal of spawning habitat from use by spring Chinook would mean removal of Category 2 Habitat, which is high value habitat for the Chinook. ODFW's policy is to seek "no net loss" of either habitat units or habitat value. This could be achieved either through avoidance of the impact or in-kind and onsite mitigation. No such mitigation is included in the EA.	There would be no net loss of habitat. If this alternative is selected, the driveways would be covered only during the spawning period and then the material would be removed and stored until the following year. The coverings over the driveways are meant as a diversion. This would occur for approximately 4-6 weeks per year and only on the crossings where Chinook have historically used. If new crossings begin being used, then the redds would be avoided, and the

Comment Number	Category of Comment	Comment Summary	Response from BLM
			following year, the material would be placed on the suitable gravels at the new areas.
2-4	Impacts over time, need to address	Alternatives 1. A. and 1.B. are experimental and will require long-term commitment to implement. Need to discuss what will occur if the preferred alternative fails to meet conservation needs or BLM were not able to implement.	The EA now addresses these contingencies in Chapter 2, Description of Alternatives
2-5	Impacts over time of maintenance	The EA does not adequately address level of acceptable disturbance associated with long-term maintenance of the current access route used by full-sized vehicles, point at which other alternative solutions must be sought, and sidebars for what is allowed maintenance	<p>Please see the description of the Alternative 1. and the Design Features and Mitigations common to all alternatives, in Chapter 2 for added description of sideboards/limits.</p> <p>The only type of maintenance that is permitted is – if a tree falls across the driveways, they are allowed to cut out the tree, but it may not be removed. This occurs on land only. There are no machines allowed in the river and there is no maintenance allowed in the river. If there was a flood with a lot of new debris in the river we would need to consult on any new type of maintenance or action.</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
2-6	Permits	The ODFW identifies the July 1-August 15 work window in the Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources. BLM states that it would need to obtain an exception to the work window. ODFW does not have regulatory authority over such activities, so a request for an exception would not be appropriate. BLM has chosen to utilize ODFW's guidance on its own.	Thank you for the clarification. BLM has chosen to abide by the work window in the guidelines, and will not request an exception.
3-1	NEPA Compliance; EIS needed	As explained below, the BLM has failed to provide a "convincing statement of reasons" as to why an EIS is not necessary and there are substantial questions as to whether the project may have a significant impact on the environment. Therefore, an EA is not sufficient for the proposed action and an EIS must be conducted.	The EA has been clarified to address impacts, unknowns, areas of confusion, inadequate analysis or other problems identified in comments later in your letter; see responses to comments subsequent to this one, and accompanying changes in the NEPA documentation.
3-2	Sediment production	The EA concludes that sediment released from truck crossings will continue to decline at each successive crossing; this is incomplete analysis since the weather changes dramatically after August 15 th and the change in weather could affect the release of sediment during a crossing of the river. The EA dismisses any increased sediment as "being less than occurs in the spring" and therefore not significant. Pg 35	Wet crossings have not previously been allowed through the fall and into early winter so no monitoring of sediment production has been possible. In the summer, the later crossings have been shown to produce little sediment, and less than that produced earlier by the first crossing of the season. Sediment production in the fall/early winter may be totally

Comment Number	Category of Comment	Comment Summary	Response from BLM
			dependent on the weather/storm events. Professional opinion is that sediment built up from one to several storms and then released by a crossing is likely to be less than that resulting from an all winter build up, and the first crossings in the summer.
3-3	NEPA Compliance; EIS needed	The analysis fails to comply with NEPA in two ways; 1. It states that impacts to fish habitat may not be fully realized until after the trucks have negatively impacted the environment. The purpose of NEPA is to identify and avoid environmental harm <i>prior</i> to agency action. The degree of uncertainty of the proposed action creates a “substantial question” of whether the project will have a significant impact and therefore requires the drafting of an EIS. 2. The unique characteristics of the SFWW River means that even relatively small changes could have significant impacts. It is well documented that this section of the river is prime bull trout habitat, which is increasingly rare. Therefore any negative impact to the habitat of bull trout must be analyzed with more rigor than was conducted by the BLM.	Per the law and regulations, the EA discloses potential impacts with all available information and adds a long list of mitigations to all analyzed alternatives to help assure that the activities covered by the EA are as low impact as reasonably feasible. Agreed that this section of river is clear and cold, and bull trout use it, as they do the sections upstream above the landowners where they spawn and rear. While this section of the stream is good habitat, stream sections where fish not only live but also spawn and rear are considered prime habitat.
3-4 (page 4, last para)	ESA violation	Even if the risk of crushing bull trout and summer steelhead were reduced, there is still a possibility of violating the ESA by causing to be committed the	The Biological Assessment/Biological Opinion process includes the potential

Comment Number	Category of Comment	Comment Summary	Response from BLM
		killing of a bull trout. There is no indication in the EA that the BLM has considered what will occur if the preferred alternative results in the killing of a listed species.	accidental “take” in the event of such a happening. The existing BOs from the NOAA Fisheries and USFWS include a “takings” provision. A new BA and BOs will be prepared after a decision is made, and may include similar provisions. The EA will be clarified in the impacts analysis in Chapter 4, Alternative 1. A. to inform the reader of this process.
3-5	EIS needed/ ESA violation	The EA does not discuss impacts to feeding or sheltering of bull trout or steelhead, but does state that during every one of the approximately 90 river crossings the steelhead will “flee” from the “disturbance”. The BLM further fails to provide a convincing statement of its reasons for not preparing an EIS, and the proposed action threatens violation of Section 9 of the ESA.	No one really knows the potential impacts to feeding and shelter for either fish. However, the existing driveways do not provide shelter. These crossing points are void of any hiding cover or protection from predation. They are also not good feeding areas because the areas are void of structure and invertebrates are limited by the use of the crossings. USFWS and NOAA Fisheries both concluded that the activity “may affect, but not likely to adversely affect MCR steelhead and bull trout.” in their BOs for the six month window prior to the preparation of

Comment Number	Category of Comment	Comment Summary	Response from BLM
			the EA. This is not a violation of the ESA.
4-1	RMP compliance	The preferred alternative would create damage to the riparian vegetation and other values by allowing vehicles to drive through the river. This would perpetuate a cycle of first allowing vehicles and then not allowing vehicles driving through the river resulting in fluctuations in stream health that are inconsistent with the amended RMP.	The improvements to the riparian vegetation, increased shade, and increased stream bank stability occurred since the establishment of the ACEC in 1992 and the subsequent closure of the area to indiscriminate vehicle use. The landowners have had an annual exemption to that closure (as described in the No Action alternative), which they used fully while weather allowed. In 1998 the steelhead and bull trout were listed and the landowner's access was truncated to the existing six weeks with mitigations identified during the BLM's preparation of the Biological Assessment and the ESA consultation process with USFWS and NOAA Fisheries. During use of the river valley within the ACEC by the land owners for passage to their lands, the vegetation and other values in the ACEC made a marked improvement. Based on

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>monitoring, BLM expects that carefully controlled vehicular crossings of the river for six months would not create fluctuations in stream health or further destruction of riparian or other vegetation. Please see modifications to the EA on this in Chapter 4, section on Hydrology and Water Quality for Alternatives 1.A and 2.A.</p>
4-2	Sedimentation	<p>The EA fails to adequately address that bank stability and loss of vegetation at the vehicle crossings could contribute to slope failure and further sedimentation of the river.</p>	<p>BLM inventory and analysis provides information that shows that loss of bank stability or slope failure should not occur, and small losses of vegetation at the crossings would occur only where BLM would move the crossing ingress/egress points at three crossings to mitigate potential conflicts with Chinook redds. Less than 1% of the total of 7 miles of streambank along the 3.5 mile section of stream would be affected by changes to the ingress/egress points, which then would become somewhat stabilized over time. This would</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
			not be significant and would not have secondary impacts to bank stability as it would be very localized, within the vehicular two-track path, and would not accumulate to more than the current lack of vegetation at the existing crossings.
4-3	RMP compliance/ 303(d) stream impacts	The BLM has failed to demonstrate how allowing vehicular travel through the river adheres to Oregon Administrative Rules for 303(d) streams, or the management plan for the SFWW ACEC.	Please see response to your comment 4-1. In addition, BLM monitoring over the years shows that the stream temperatures were within the maximum allowable temperatures in 1999, 2000, and 2004. This is partially because the State of Oregon had not yet changed the stream temperature limit to a lower temperature. Analysis of stream cross-sections, longitudinal profiles in this section of the river and total disturbance from the crossings indicates that the vehicle crossings are not contributing to an elevated temperature in the SFWW River, a decrease in shade, or an overall lower condition.
4-4	Impacts to fish	Under the preferred alternative, there is an increased	There is a risk that rearing non-

Comment Number	Category of Comment	Comment Summary	Response from BLM
		<p>chance that traveling bull trout will not survive at vehicle crossings and suffer from the adverse effects of increased sedimentation. There is a similar risk that reintroduced spring Chinook salmon will be decimated at vehicle crossings throughout their spawning time. This has potential to result in “take” of these listed species.</p>	<p>listed fish (Chinook) could be affected by the vehicle crossings of the six months of crossings in the Preferred Alternative but the exact effects are not known. BLM would require that designated crossings be downstream of Chinook redds; redds would not be crossed . Wet crossings have not previously been allowed through the fall and into early winter so no monitoring of sediment production has been possible. In the summer, the later crossings have been shown to produce little sediment. Sediment production in the fall/early winter may be very dependent on the weather/storm events. The bull trout are believed by fish biologists to be agile enough to be well out of vehicle crossings when the vehicles move into the water. The vehicles do not move rapidly across the stream. The Biological Assessment and the Biological Opinion prepared in response take into consideration potential for</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
			“take”. We have attempted to clarify these points in the EA.
4-5	Cumulative impacts	The EA does not do an adequate job of analyzing cumulative impacts.	The EA has been modified to provide additional analysis and clarification of possible cumulative impacts.
4-6	NEPA compliance	The EA states that if any action besides the “No Action” alternative is chosen, another BO will be conducted resulting in an additional NEPA document and this suggests that the present EA is insufficient to adequately analyze potential impacts of the preferred alternative.	The section of the EA referred to explains the ESA regulatory process which is separate and can supplement the NEPA process or can be carried out independently where it is needed but NEPA is not needed. The EA has been clarified in . The process under the Endangered Species Act is that the BLM prepares a Biological Assessment on a specific planned/proposed action or set of actions, and sends that to the appropriate regulatory agency. For actions in the SFWW River where there are two listed species, the bull trout and the steelhead, both the USFWS and the NOAA Fisheries would be sent the BA. The No Action alternative has a BA and two BOs, but covers no maintenance or route changes.

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>The Preferred Alternative has a BA and two BOs, but based on the extension to six months without modifying ingress/egress points at three crossings. A new BA would be prepared to include the activities associated with the modified crossings or maintenance other than hand tools.</p>
5-1	Impacts to fish	<p>The SFWW provides spawning and juvenile rearing habitat for Bull Trout which are listed as Threatened under the ESA. Bull trout have more specific habitat requirements than most other salmonids. BLM's proposal to allow landowners to drive through the river six months of the year falls within the Bull Trout spawning season and overlaps with rearing. Driving will increase sediment, compact gravels, compromise the cover provided in the riparian area, add pollutants to the stream, and literally run over incubating/juvenile fish.</p>	<p>Thank you for your comment. The EA will be clarified in Chapter 3, Fisheries, Bull Trout, to help readers understand that ten years of monitoring by Oregon Department of Fish and Wildlife has shown that the bull trout do not spawn in the area of the wet crossings, but rather well upstream of the land owner's private land. They have proven that 99% of all bull trout spawning is above the BLM and private land. Professional opinion is that by the time the bull trout move downstream to the area of the crossings, they are large and agile enough to be well out of</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>vehicle crossings when the vehicles move into the water. Their behavior patterns at that age allow them to escape potential disturbing agents rather than hide from them in the gravels. This occurs especially when they emerge out of the gravels as fry. The vehicles do not move rapidly across the stream. Regarding sediment; wet crossings have not previously been allowed through the fall and into early winter so no monitoring of sediment production has been possible. In the summer, the later crossings have been shown to produce little sediment. That pattern may or may not hold later in the fall. It may be totally dependent on the weather/storm events. Monitoring of fall crossings would help to quantify and manage impacts.</p>
5-2	RMP compliance	The preferred alternative appears to be contrary to the purposes of the SFWW ACEC. Allowing vehicles to drive in the river is contrary to the management goals that the ACEC was designated to protect.	This may be true although the Plan Amendment for the ACEC allows flexibility in how the agency implements the goals. The fact that the great improvements

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>to the natural resources in the ACEC have occurred while the landowners have annually crossed the river to reach their private property during the six-week window make it seem reasonable that the improvements would continue to occur in the event of extending the use to six months while requiring more stipulations and care be taken. It is a matter of finding a balance between the natural resources in the ACEC and the “reasonable access” that the BLM needs to allow the landowners.</p>
6-1	RMP compliance	<p>The preferred alternative 1.A. allowing vehicles to drive through Chinook, bull trout and steelhead habitat would be contrary to the ACEC. Driving through chinook redds does not protect and enhance fisheries habitat.</p>	<p>The Alternative 1.A. would not let landowners drive through Chinook or other species redds, nor would any other alternatives.</p> <p>While the alternative may appear to be in conflict with the intent of the ACEC, given the brief wording in the 1992 ACEC Plan Amendment, monitoring of on-going use of the wet crossings by the vehicles since before the</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>inception of the ACEC shows no damage to the stream habitat, temperature or width from the vehicles other than right in the crossings where the habitat is poor and the width of the stream is very slightly wider than the rest of the stream. Neither effect occurs/continues outside of the crossings, so is not in conflict with the ACEC. Prior to the 1998 listing of the bull trout and steelhead, these crossings were made throughout the year when the water was not too high. The preparation of the BA by the BLM, after the fish were listed, and the BOs by NOAA Fisheries and USFWS limited the length of the crossing time.</p>
6-2	Sedimentation	If crossings are used more often for longer periods of the year, there will be greater impacts, particularly to water quality from sedimentation from use of the trail/road.	The EA has been modified to add more detail on possible impacts from soils impacts/sedimentation from landowners using the road
6-3	Information on fish and fish habitat	Between 2000- and 2005, CTUIR Biologists have recorded 1,008 chinook redds in the Walla Walla River Drainage, 62% of which were observed within the ACEC. The crossings have gravels suitable also for	The EA has been modified to add detail on chinook redds. Studies and BLM monitoring have shown that fluvial bull trout spawn above

Comment Number	Category of Comment	Comment Summary	Response from BLM
		steelhead and bull trout.	the landowners' property and not in the ACEC, and that the steelhead have left the vicinity of the redds by July 1 each year since 1999. Bull trout do not use the crossings for spawning but steelhead usually spawn on the crossings. Riverine conditions change yearly and the crossings are not always good spawning areas.
6-4	Information on fish and fish habitat	Between 1992 and 2005, CTUIR biologists have recorded 208 steelhead redds in the South Fork Walla Walla River. Moreover, results from CTUIR's recent radio-tracking studies suggest that at least 17% of all MCR steelhead that pass Nursery Bridge Dam in Milton-Freewater, Oregon, spawn within the ACEC. During this same period, conservative fish counts at the Nursery Bridge Dam fish ladder have ranged from roughly 200 to 1,200 steelhead.	Thank you, the EA will be modified to add the detail you have provided on steelhead numbers.
6-5	Information on fish and fish habitat	The fish populations surveys by agencies and CTUIR have recorded all age groups of the three fish species within the ACEC stream during July-September. The spawning distribution of resident bull trout in the SFWW River is not certain.	Thank you for the information. CTUIR and Utah State have proven use by the three species in the ACEC during summer. Evaluation of all available literature and studies show that the information beyond summer is very limited. There is no real

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>information beyond presence. There is no information on the habitat they prefer or where their use areas are. There is no solid data on numbers or % of population using the lower river. There is some indication that some bull trout (resident) are migrating to the NF of Walla Walla for a portion of the winter. All Chinook fry are migrating downstream to the main Walla Walla River and then into the Columbia. Chinook fry are there for only a small portion of time. Steelhead fry would have a tendency to live in the stream for the first year but again each spring a large percentage of them would migrate downstream with the adults; so steelhead numbers are constantly changing. Bull trout is the only year-round resident salmonid.</p>
6-6	Impacts to elk	The EA acknowledges that extending the use period for full-sized vehicles conflicts with Rocky Mountain elk at a critical time in their annual cycle where disturbance is potentially fatal. EA, page 38. The EA does not	The EA has been clarified to better portray potential impacts to wintering elk on the upper south slopes of the canyon. Impacts are

Comment Number	Category of Comment	Comment Summary	Response from BLM
		<p>mention nor specifically provide for mitigation for this impact to elk, a resource specifically required to be protected by the ACEC and of significant importance to the CTUIR and tribal members. The only limitation in the EA to protect elk is an OHV ban during harsh winters. Presumably this would not include the landowners under the preferred alternative, because they access their lands in full-sized vehicles rather than OHVs. All vehicles should be prohibited in critical elk wintering habitat within the ACEC.</p>	<p>unlikely due to distance between the trail and the upper south facing slopes. However, the 1992 Amendment to the Resource Management Plan for the SFWW ACEC states that the BLM will "Limit OHV traffic beyond the gate/barricade during severe winters, as determined necessary in cooperation with ODFW (between December 15 and march 15) to relieve stress on wintering elk." This means that when such a determination was made and published, the ACEC would be closed to all vehicles of any class, including those used by the landowners. Any vehicle traveling off of roads is an "OHV". Full sized vehicles when off road are classified by the State of Oregon as Class 2 OHVs.</p>
6-7	Impacts to cultural resources	<p>All alternatives will impact cultural resources. Pg 10 of the EA states that ground disturbing management actions will be surveyed for archaeological sites which would be avoided. Subsurface testing may be necessary, especially for the proposed bridges. Stabilization should also be considered for impacted</p>	<p>BLM agrees, the vegetation cover in the area is dense and ground surface visibility is poor, particularly in the riparian areas adjacent to the vehicle route and recreation trail. It is possible that</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
		sites.	undiscovered cultural material may be present below the surface, adjacent to the route, but cannot be identified by surface examination. As part of the measures common to all alternatives, the EA on page12-13 states that “Any ground disturbing management actions will be surveyed for archaeological sites, which would be avoided, stabilized or otherwise mitigated.” Survey would include subsurface testing at potential locations, including the small bridge project at two pool (“spring”) crossings on the vehicle route.
6-8	Information sharing	Please provide CTUIR copies of any cultural surveys/data for this project.	The information was provided to the CTIUR Cultural Resources Protection Program.
6-9	Traditional values/Information sharing	CTIUR DNR does not feel that the BLM has made a adequate effort to work with CTUIR staff to identify traditional plant gathering locations or other resources within the Area of Potential Effect. Please provide DNR with a detailed list of efforts to identify which plants and areas are utilized by CTUIR tribal members.	BLM does not have information on specific areas or plants that might be used by tribal members. BLM compared a species list from botanical inventories on the SFWW to a list of plants known to have been used regionally. Based on the inventories, a list of

Comment Number	Category of Comment	Comment Summary	Response from BLM
			example plants was included in the EA. The EA considered the effects of the proposed alternatives on upland or riparian potential cultural plant habitat. The level of potential disturbance to plant habitat as a whole is low.
6-10	Impacts to vegetation/ unique vegetation	The Proposed Alternative 1.A would have a significant detrimental effect on a unique characteristic of the area, but the FONSI says that it will not.	While the ACEC vegetative community is relatively unique in the local geographic area, it would not be impacted by the alternative. The amount of vegetation clearing that would occur as part of that alternative would be insignificant; from 0 to several commonly seen shrubs growing in gravel/soil at the ingress/egress points of the crossings that would be changed, and the changes caused by moving crossings 8 and 9, would result in a few more common riparian shrubs being removed or damaged. There would not be widening of the two-track road or trail with machinery or hand equipment.
6-11	Impacts to public health/ safety	The FONSI indicates that the PA would have no effect on public health or safety. The preferred alternative,	The section of the EA the commenter quotes (pg 15-16)

Comment Number	Category of Comment	Comment Summary	Response from BLM
		1.A, calls for keeping in place a segment of trail which the EA describes as “on 40-60 foot cliffs which give little room for error if a mistake is made, etc.	regarding the dangers is referring to travel by the landowners with Class I OHVs (quads). This set of dangers could exist on the trail for landowner quad users, due in part to the way the steering mechanisms of quads work (differently than motorcycles). This was considered by the EA writers to be a reason to consider building the bridges to avoid that trail section. The current permitted use is by foot, motorcycle, horse, llama and bicycle only. Use of this section of the trail as currently built is not a public safety issue for permitted uses, but would be relatively less safe if it were to be upgraded, and so the EA states that an extra-wide width would be needed to assure that quads would be safe.
6-12	Impacts to habitat	The FONSI notes that the proposed action would not have any highly controversial effects. The proposed action is considered by the CTUIR to have highly controversial effects because of the destruction of “nearly pristine condition” habitat.	The FONSI language is modified to correct this statement. The amount of river edge disturbance is less than 1% (.008) of the habitat available along the 3.5 mile stretch of the river within the

Comment Number	Category of Comment	Comment Summary	Response from BLM
			ACEC. BLM staff specialists do not predict that the river gravels would be damaged over the long-term by the crossings. The existing crossings, currently used regularly for two and one half months of each year seem to hold ideal sizes and configurations of gravels for spawning, but not for hiding or foraging. These impacts, measured against the significance criteria clarified in the EA are not considered to be significant.
6-13	Controversy	The EA mentions that there will be increased pressure and confusion regarding full-sized vehicle use because only a few individuals with special rights can use full-sized vehicles on the trail. This inherent inequity will lead to controversy.	The current use of the road/trail by landowners only has not caused controversy. Lengthening the time would increase the window for landowner/others interactions, but while worthy of inclusion in the EA, this is not considered to be significant.
6-14	Long term effects uncertainty	The FONSI states that there will be no uncertain effects; this is incorrect as the redds will change every year.	The FONSI has been clarified.
6-15	NEPA compliance/ Uncertainty on goshawk impacts	There is no study about the distribution of goshawks in the ACEC, so there is uncertainty associated with that issue.	The ACEC is potential habitat for goshawk, although none have been observed. Mitigation would

Comment Number	Category of Comment	Comment Summary	Response from BLM
			be applied, to do a pre-disturbance nesting survey before any changes to river ingress/egress, or other construction. If the survey were to locate nests, mitigation to avoid impacts would be implemented; “Design Features and Mitigations Common to all Alternatives”, pg 9-10.
6-16	Impacts to fish habitat	The FONSI states that the PA is a routine and common project. BLM does not routinely allow river fording for access to private lands, particularly for stretches of river which contain habitat for two federally-listed endangered species.	BLM is required to allow access to private in-holdings. The agency tries to balance the level of the access to be commensurate with the numbers of persons needing access, others using the area, the surrounding environs, and the type of an area being crossed and balanced with other values.
6-17	Identification of traditional cultural values	BLM has not made a reasonable and good faith effort to identify traditional cultural properties (TCPs) within the Area of Potential Effect.	BLM acknowledges that the SFWW has traditional values for CTUIR, and will arrange for an assessment of traditional cultural properties and further consult with CTUIR and Oregon State Historic Preservation Office.
6-18	ESA consultation	The alternatives and mitigation measures have not been subject to consultation with NOAA Fisheries or the	Yes, this is true; if there is a decision to modify the crossing

Comment Number	Category of Comment	Comment Summary	Response from BLM
		U.S. Fish and Wildlife Service pursuant to the Endangered Species Act.	points/routes, a BA would need to be prepared. The 2004 and 2005 Biological Opinions from the USFWS and NOAA Fisheries, respectively did already cover the six months crossings, however.
6-19	Cumulative impacts	The impacts from activities in the SFWW portion of the watershed need to be treated as cumulative to the whole watershed.	The cumulative impacts have been clarified in the EA to help the reader better understand the area of analysis, parameters of accumulation, and the actual accumulation of impacts
6-20	Impacts of crossings	The alternative does not mention to the ongoing effects of the river crossings widening the river as is noted in Appendix 4, Water Quality Restoration Plan, pages 7, 12, 13.	The EA has been clarified to put more of the verbiage/conclusions from the WQRP, (see below), into it at Chapter 3, Existing Environment, Fisheries Habitat section. “Stream crossings along the surveyed reach provide access to private land upstream of BLM administered. As the survey results indicate the stream channel widened at most of these crossings. However, other than in the immediate vicinity of the crossings, channel widening was not evident. Other than vegetation

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>loss at the crossings and along the road, riparian vegetation is well established along the reach. Vegetation was verified by field observation and low-level aerial photography conducted by BLM in 2004. Field observations also indicate good channel bank stability along this reach of the SFWW. Direct impacts to the stream channel, vegetation, and streambanks from the vehicle crossings constitutes approximately one percent of the stream segment managed by the BLM.</p> <p>Based on this information and further by field observations, the BLM believes the SFWW is a stable B3 stream type with an excellent vegetation component. In addition, while past management may have impacted riparian habitat, current management is contributing to improved riparian condition. The TMDL (Figure 1-11 pg 1-21,</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>DEQ, 2005) indicates that the target potential channel width should be approximately 15 meters while the existing channel width is over 20 meters along the BLM managed portion of the SFWW. Surveys conducted by the BLM in 2006 illustrate that bankfull channel width is between approximately 43 and 49 feet (13-15 meters). This information would indicate that the South Fork Walla Walla is at or near the potential channel width described in the TMDL. The BLM acknowledges that at most of the stream crossings the channel is wider. However field observations illustrated that the impact is specific to the stream crossings and affects only about one percent of the stream segment managed by the BLM.”</p>
6-21	Impacts to redds	The alternative does not address what will happen if a redd is directly in the path of the entrance or exit of a crossing, eliminating the option of driving around without removing additional streambank.	The EA will be clarified; as a condition of the authorization, the vehicles would have to go around, on the downstream side, without

Comment Number	Category of Comment	Comment Summary	Response from BLM
			making new ingress/egress points; no redds would be allowed to be destroyed.
6-22	Sedimentation	Pg 40, the EA states that the long-term impacts of allowing six-month full-sized vehicle access would be the same as the existing six-week access. This is false. Sedimentation is a significant impact, short and long term.	The cited statement cannot be found in the EA, except in the section Recreation Resources and Scenic Values. The EA does compare Hydrology and Water Quality impacts from Alternative 1.A, and 1.B as being the same.
6-23	ESA compliance/impacts to fish habitat	Alternative 1.B. would be a taking if material is placed over gravels to deter spawning on the crossings and would require consultation.	Agree; per the normal process between the agencies, Alternative 1.A. and 1.B. would require consultation, as the current BOs do not include the modification of ingress and egress locations to shorten the amount of vehicular travel within the river.
6-24	Impacts to fish	Alternative 2.A. is considered to be the least destructive alternative for a number of reasons including increasing numbers of reintroduced Chinook and hoped for issue from the planted salmon returning as wild stock, visual effects, safety concerns, the refugia nature of the SFWW ACEC, impacts to Chinook if vehicles accidentally ran over redds, etc.	Thank you ,this information has been provided to the decision makers. The suggestion of the gate installation on a quad OHV bridge has been included in the EA to replace the words that only implied blockage of the publics' use of quads.
6-25	EA organization	There are six sentences on page 44, para 4 regarding problems created by using the steep segment of the	Thank you, the EA has been clarified to remove the readers'

Comment Number	Category of Comment	Comment Summary	Response from BLM
		trail. This section of trail would be not used in the Alternative 2.A. so this discussion should be moved to Alternative 1.A. and 1.B.	confusion.
6-26	Impacts to riparian vegetation	Because Alternative 2.A. would remove need for all wet crossings, the restoration of the riparian vegetation on the 10 stream crossings is not negligible, but rather significant.	Totally agree that the impacts of Alternative 2. A. from removal of wet crossings from use are positive; but the resulting restoration would be to less than 1% of the 7 miles of stream bank along the 3.5 miles of stream within the ACEC, and the on-going disturbance at these locations is not currently significant.
6-27	Impacts to fish habitat	The impacts on page 45 understates that the alternative would prevent destruction of redds, harassment of juveniles, impediments to migration, removal of riparian shade, etc.	Thank you for the information.
6-28	Impacts to goshawks.	Pg 46, the EA identifies potential impacts to goshawks from property owners or unauthorized OHVs due to noise and disturbance, and should be moved to the analysis of Alternative 1.A. not this section of Alternative 2.A which involves no full-sized vehicle access.	The EA will be clarified, as this is the proper place for the analysis, which was discussing property owners' use of Class 1 quads (OHVs)
6-29	Add monitoring to all alternatives	The monitoring on pg 50 specific to Alternative 2.A. should be added to all alternatives.	The monitoring is in the measures common to all alternatives with somewhat different wording. The Forest Service manages the trail

Comment Number	Category of Comment	Comment Summary	Response from BLM
			currently under a right-of-way and these things occur. If this alternative were selected by the decision maker, that right-of-way would be reviewed by the Forest Service and BLM for any needed changes, and these in particular would be addressed more clearly in the right-of-way grant.
6-30	Impacts to goshawks	The EA devotes minimal attention to goshawks, despite their sensitivity. Clearly increased use by full sized vehicles will impact goshawks.	The EA will be modified to address concerns about how the EA addresses the information about goshawks and impacts to them. As it is unknown whether goshawks use the area, particular for nesting, the total extent of impact is unknown. The most sensitive timeframe for disturbance is March 1-about June 15. This is not within the window of increased use by the landowners in full-sized vehicles, which would be July 1-January 1. Use for nesting through Aug 30 is within the window of possible construction, particularly for Alternatives 2.A., and to a lesser extent, 2.B., since they would

Comment Number	Category of Comment	Comment Summary	Response from BLM
			require the greatest amount of construction. Since the area is potential habitat, any construction disturbance would be preceded by a nesting survey and mitigation would occur as indicated in the EA.
6-31	NEPA compliance/ ESA compliance	The EA must designate a point when the actions addressed in the EA will be reconsidered for their environmental impact or when additional biological reviews will occur. The NOAA Fisheries BO indicates that the BO and incidental take statement cover the described actions through the calendar year 2008.	Yes, thank you. BLM is responsive to limitations in BOs listed under the reinitiation of consultation section.
6-32	Impacts of river crossings	The 2004 BA and USFWS BiOp state that extending the crossing period will create the least impacts to listed fish species and their habitat, but this is not true if one substitutes access by quad OHVs for full sized vehicles and building bridges, then clearly ten crossings by full-sized vehicles is not the least-impact option.	Thank you for your opinion; your input has been provided to the decision maker.
6-33	Access issues	For the record “reasonable access” does not mandate that BLM provide full-sized vehicle access, only access which is reasonable under the circumstances.	Thank you for your opinion; your input has been provided to the decision maker.
6-34	Impacts to Wild and Scenic River values	The EA recognizes that the presence of “full-sized vehicles for a greater period of time (6 months) and at greater frequencies (90 trips per year) would adversely impact the ‘Recreational’ ORV identified in the Draft Eligibility Report.” EA, page 39. Furthermore, the EA recognizes that alternative 2A would have a “‘slight’	This has been clarified in the EA; it was a typo, and the word “less” has been removed. Sentence now reads, “However, there is an established acceptance of motorized vehicles by other trail

Comment Number	Category of Comment	Comment Summary	Response from BLM
		impact to the ‘Recreational’ Outstandingly Remarkable Value identified in the Draft Eligibility Report” prepared by the BLM IDT. EA, page 47. The EA determined the impact to the Outstandingly Remarkable Value to be “less minimal.” Id. (What is meant by the last sentence?)	users (i.e. horses, motorcycles, mountain bikes, hikers), and therefore the impacts would be minimal.”
6-35	Permits	The BLM will need to get various permits prior to allowing actions	Thank you for the information.
6-36	Monitoring needed	The USFWS BiOp requires frequent monitoring of crossings, BLM states that they would occur monthly. DNR believes that monitoring should occur before and after each crossing event, particularly in the first year of implementation due to critical unknowns such as number of crossings actually would occur.	Thank you for the information.
6-37	Consider acquiring the private lands	The EA should consider the alternative of reacquiring the lands and associated rights of way by purchase or eminent domain, especially if maintenance of the trail for access for landowners is more costly than purchase or eminent domain.	Thank you for the suggestion. The suggested alternative does not meet the intent of the purpose and need in the EA.
6-38	EIS needed	In the event that the BLM intends to go forward with the preferred alternative 1.A., the CTUIR DNR requests that an EIS be prepared to address all of their concerns	Thank you; this information will be provided to the decision maker.
7-1	Water Quality Management Plan needed changes	DEQ would like to see more detail on the management strategies described on Pages 14 and 15 of the WQRP. This can be addressed through your response to our comments, which are attached.	Please see the revised WQRP.

Comment Number	Category of Comment	Comment Summary	Response from BLM
7-2	Monitoring in Water Quality Management Plan	If monitoring over time indicates there is an increase in bank erosion and a loss of riparian vegetation then BLM will need to go back and re-evaluate their proposed management measures and modify the Plan as necessary.	BLM agrees and has modified the WQRP accordingly.
7-3	Monitoring in Water Quality Management Plan per BOs	The Biological Opinions prepared by USFWS (2004) and NOAA-Fisheries (2005) developed non-discretionary terms which required monitoring of wet stream crossings, improving the vehicles route by protecting wet areas and springs, development of a pollution control plan, monitoring of the crossings and restoration as needed. (Page 9 of the EA) DEQ strongly concurs with the requirements. Each of the biological opinions asks that BLM continue to pursue a long-term remedy to the private land access problem. DEQ also strongly agrees with this request	Thank you for the information.
7-4	Opinion on Preferred Alternative	DEQ disagrees with the extended access window. Vehicles should only be allowed in the stream channel during the instream work window identified by the Oregon Department of Fish and Wildlife. If greater access is allowed BLM should identify mitigation to be carried out to offset the damage done by increased stream disturbance. We have expectations that every effort will be made to educate landowners to the potential damage done to the stream through the increased number of round-trips and the landowners will make every effort to limit their travel by full-size vehicles.	Thank you for the information. BLM has identified some mitigation, some of which was identified in the existing Biological Opinions. The property owners have been and will continue to be made aware of the impacts and issues, and do their best now to limit the trips.

Comment Number	Category of Comment	Comment Summary	Response from BLM
7-5	Mitigation	<p>The Preferred Alternative 1.A. (page 12 of the EA) presents three crossing modifications that can be made if spawning is impacted. Even if spawning is NOT affected these modifications should be implemented as mitigation for the expanded access window. Modification 3 would greatly moderate the impact of the increased round-trips by full-sized vehicles. Currently at Crossings 8 & 9, vehicles travel longitudinally through the stream for some distance, resulting in disturbance to instream structures and biota. As implemented, suggested Modification 3 would shorten the linear distance traveled by about 135 feet, as the vehicles are routed more perpendicularly across the stream. Armored rock entrances would be added to prevent bank damage</p>	BLM agrees.
7-6	Monitoring needed	<p>On page 34 of the EA, the effect on the Hydrology/Water Quality is discussed if Alternative 1.A. is implemented. The EA states that the “the increase in time from six weeks to six months of allowing the property owners to cross the river should not affect the stream width, presence of vegetation and subsequent shade, or the stream temperature. Nor is an increase in sedimentation seen as a problem.” DEQ disagrees with this statement. If Alternative 1 is implemented, DEQ stresses that monitoring should be performed to determine whether there is any decrease in shade, or increase in temperature or sedimentation</p>	Thank you, the EA has been clarified to add a number of monitoring measures for Alternative 1.A. and 1. B.
7-7		Page 35 of the EA, in the second paragraph, the bank	Thank you for the clarification,

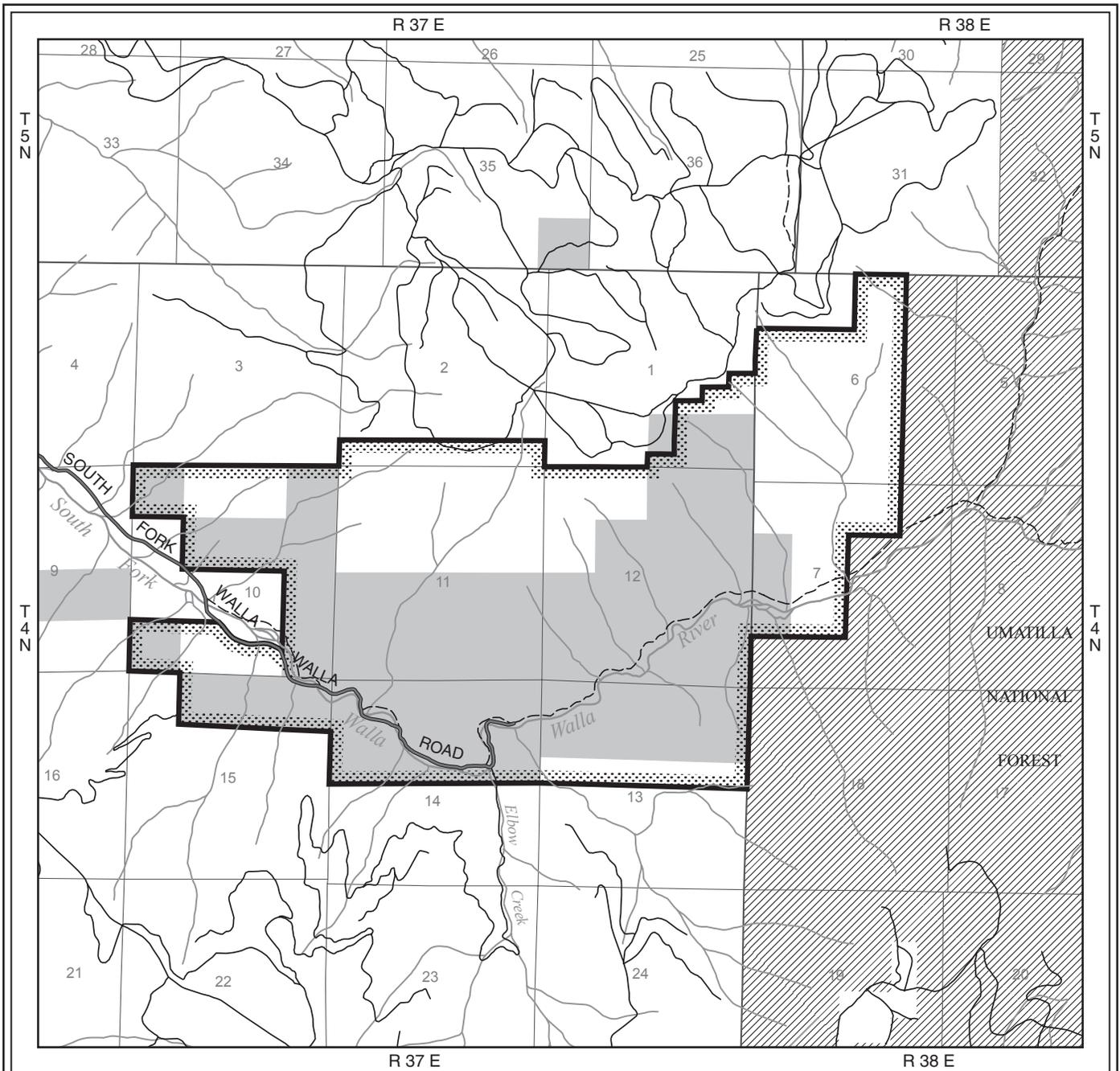
Comment Number	Category of Comment	Comment Summary	Response from BLM
		<p>stability is discussed. The last sentence states that in the case that decreased bank stability results in more sediment to the river, “A crossing permit may be required by DEQ to allow the turbidity.” DEQ does not issue stream crossing permits. Some form of licensing or identification would be a very good idea to identify who has a legitimate need to use the stream crossings and to ensure that those individuals are educated on how to use them responsibly. If such a system is put in place then BLM, as the responsible Designated Management Agency, should be responsible for issuing and enforcing</p>	<p>the EA has been corrected. The on-going access to their property is allowed by the BLM via an annual letter of authorization which the BLM does provide after monitoring the fish spawning and other conditions and does monitor and enforce.</p>
7-8	Recreation and Scenic Values	<p>On page 39 of the EA, under Recreation Resources and Scenic Values, there is concern expressed about increased usage of the trail and old road by full-sized vehicles in the late season. “Fall rains, snow, and freeze/thaw characteristics of the fall and winter months generally cause soils to become saturated and more susceptible to rutting and erosion.” DEQ agrees with this statement and is concerned about the potential increase in erosion, resulting in loss of vegetation and increased sedimentation</p>	<p>Thank you for the information</p>
7-9	Monitoring needed	<p>DEQ would like to see stream temperature and turbidity added to the list of proposed monitoring.</p>	<p>Currently, the USFWS monitors temperature on the SFWW year round at the gage near Harris Park bridge and this data is available on the internet. As long as the USFWS is monitoring</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
			<p>temperature at this site, the BLM does not see the value in monitoring stream temperature also. Should the USFWS discontinue temperature monitoring; the BLM will re-visit the need to monitor stream temperature if Alt. 1 A is chosen. Turbidity monitoring was added in the WQRP and Alternatives 1.A. and 1.B. The monitoring will be implemented if Alternative 1 A or B are chosen as the Decision.</p>
7-10	Monitoring needed	<p>The WQRP justifies that comment by referring to stream surveys which rated the BLM area of the SFWW as meeting the criteria for “Proper Functioning Condition”. While DEQ recognizes PFC as a tool for evaluating the physical condition of a stream and prioritizing restoration activities, it is a qualitative measure. PFC is not “Desired Condition” (page 105, 1998 USDI Bureau of Land Management. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas, TR 1737-15). System Potential is the design condition use for TMDL analysis. It is an estimate of the condition where anthropogenic activities that cause stream warming are minimized. DEQ recommends monitoring to</p>	<p>Please see the revised WQRP and the EA, Alternatives 1.A, and 1. B. for requested monitoring.</p>

Comment Number	Category of Comment	Comment Summary	Response from BLM
		document whether or not the extended access window will result in additional degradation or deviation from system potential.	
7-11	Management Strategy and Monitoring needed	OAR 340-042-0080(3)(a)(A) requires the DMA to identify management strategies they will use to achieve load allocations and reduce pollutant loading. On Pages 14 and 15 of the WQRP, BLM briefly describes some activities to protect vegetation and streambank while asserting that increased access will not cause a loss of vegetation and streambank stability. In the Memorandum of Agreement (MOA) between DEQ and BLM (2003), Item No. 3 under BLM Responsibilities states that “BLM will manage water quality limited bodies within its jurisdiction to protect and <i>restore</i> water quality conditions. Management will involve, among other actions, development and implementation of strategies to protect and restore water quality conditions when BLM actions affect or have the potential to affect 303(d) listed waters.” DEQ believes the increased access window has potential to affect the SFWW and will expect to see more detail on management strategies as well as monitoring to quantitatively evaluate the long term effects of the increased access window	Thank you for the information; changes have been made to the SFWW WQRP.
7-12	Timeline for management strategy	OAR 340-042-0080(3)(a)(B) requires the DMA to provide a timeline for implementing management strategies. This was not addressed	Thank you for the information, changes have been made to the SFWW WQRP, pg 16.
7-13	Performance	OAR 340-042-0080(3)(a)(C) requires the DMA to	Thank you for the information,

Comment Number	Category of Comment	Comment Summary	Response from BLM
	monitoring needed	provide for performance monitoring with a plan for periodic review and revision of the implementation plan. Performance monitoring is defined as monitoring implementation of management strategies. This was not addressed.	requested monitoring has been added to the plan and the EA.
7-14	Monitoring and Management to alleviate impacts	On Page 16 of the WQRP under Monitoring and Evaluation , the last paragraph states the “WQRP is an adaptive management tool which will utilize the monitoring and evaluation to evaluate progress toward meeting the water quality standards.” In the MOA between DEQ and BLM (2003), Item No. 1 under BLM Responsibilities states that “BLM will manage BLM lands to protect, restore, and maintain water quality so that Federal and State water quality standards are met or exceeded to support beneficial uses in accordance with applicable laws and regulations.” The WQMP should provide assurance that if monitoring and evaluations show that water quality standards are not being met, additional management strategies will be implemented, as necessary.	Thank you, the changes have been made in the WQRP.

Map 1: South Fork Walla Walla Area of Critical Environmental Concern



28

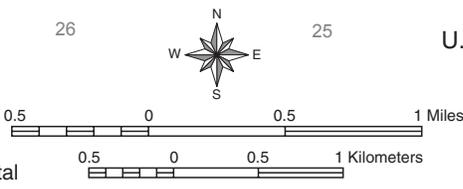
27

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28



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LEGEND

-  Area of Critical Environmental Concern
-  Main Road
-  Road
-  Trail
- Administered Land**
-  Bureau of Land Management
-  U.S. Forest Service
-  Private or Other

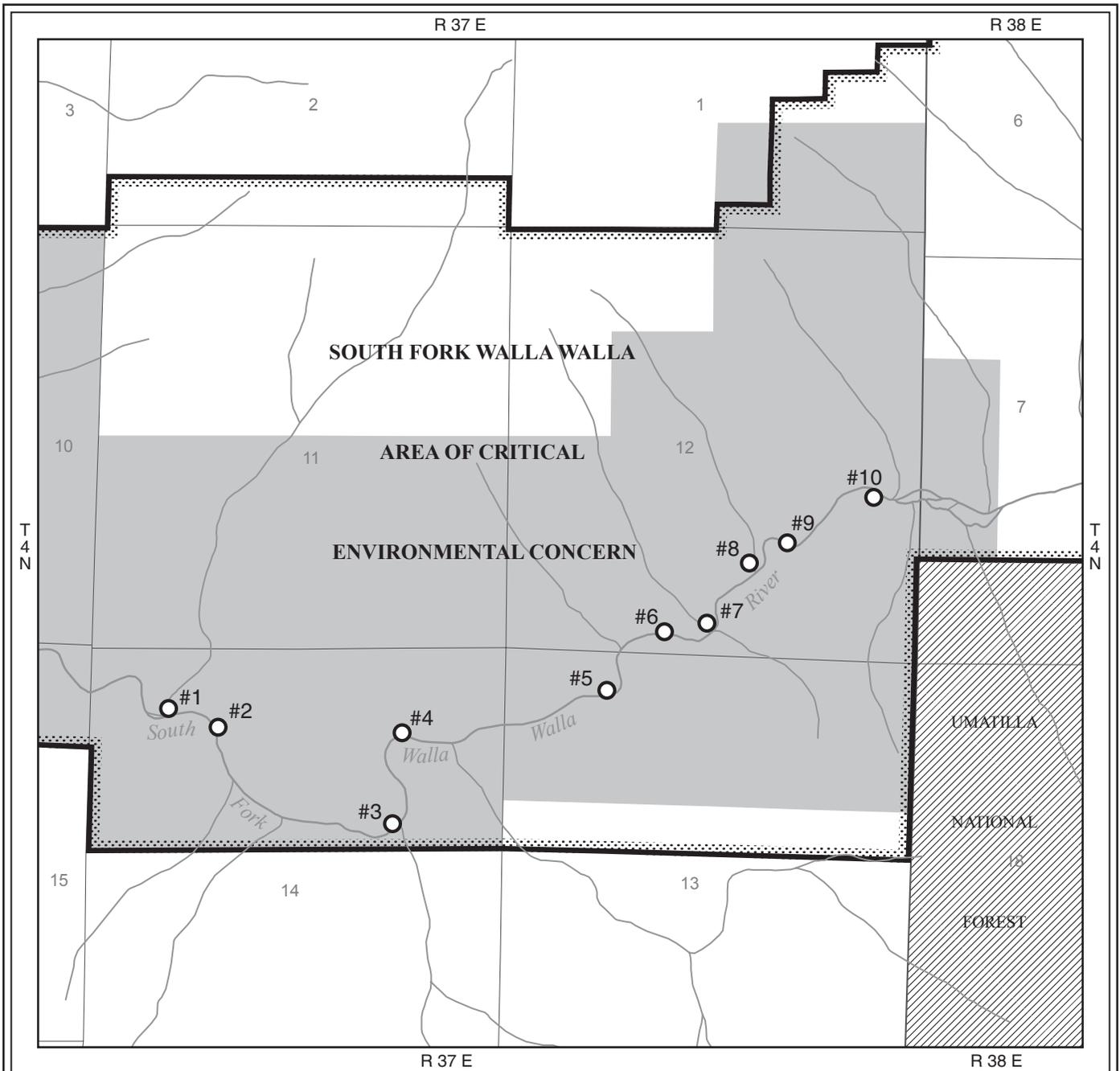


M06-07-03

VALE DISTRICT
South Fork Walla Walla
Land Owner Access
Environmental Assessment
2006

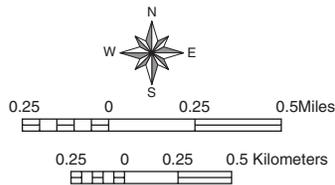
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Map 2: All Existing Stream Crossings



LEGEND

-  Stream Crossing
-  Area of Critical Environmental Concern
- Administered Land**
 -  Bureau of Land Management
 -  U.S. Forest Service
 -  Private or Other



M06-07-03

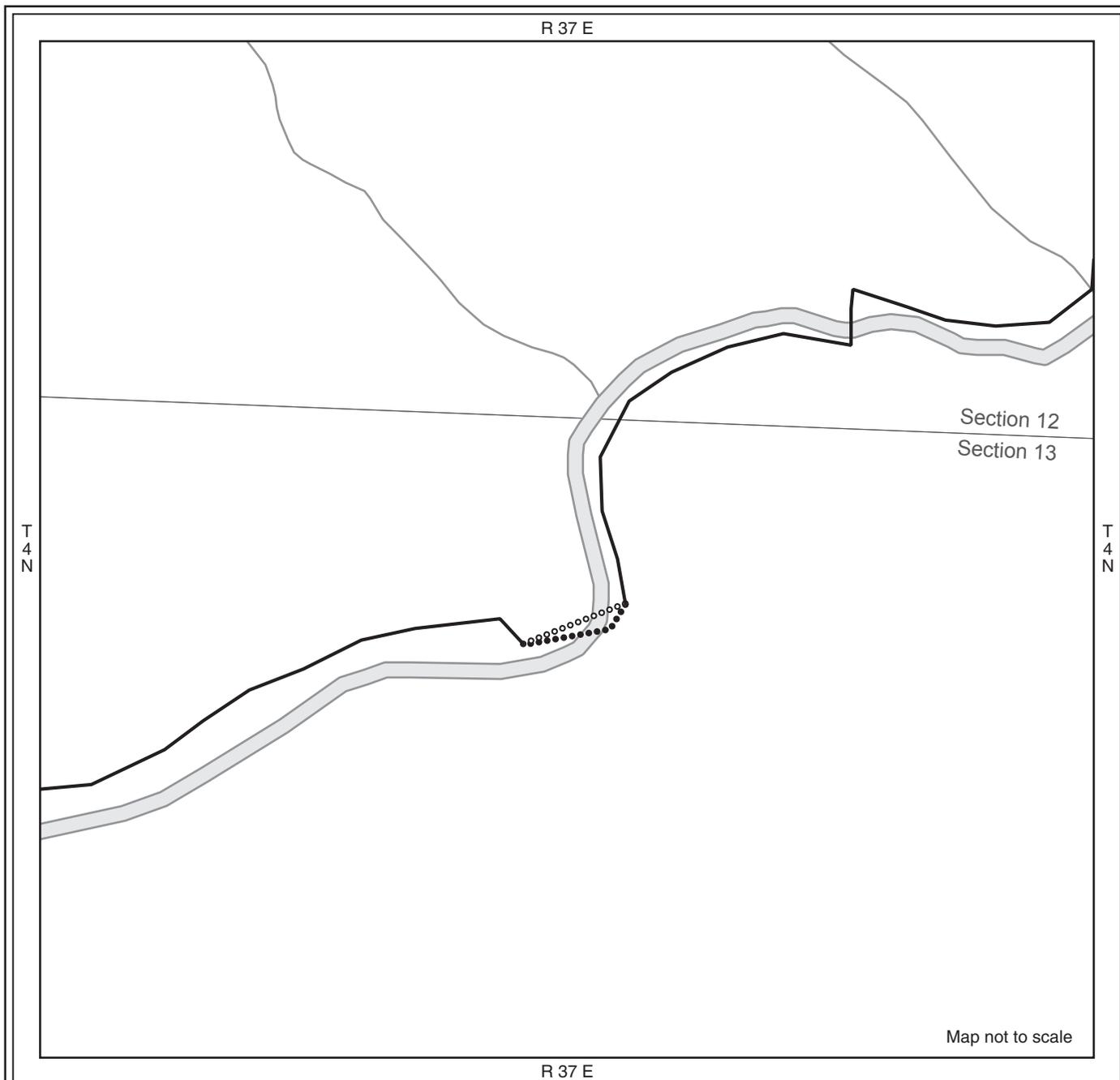
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Map 3: Proposed New Crossing #5



LEGEND

Wet Stream Crossings on BLM Administered Land

-  Travel
-  Discontinue Route
-  Proposed New Route



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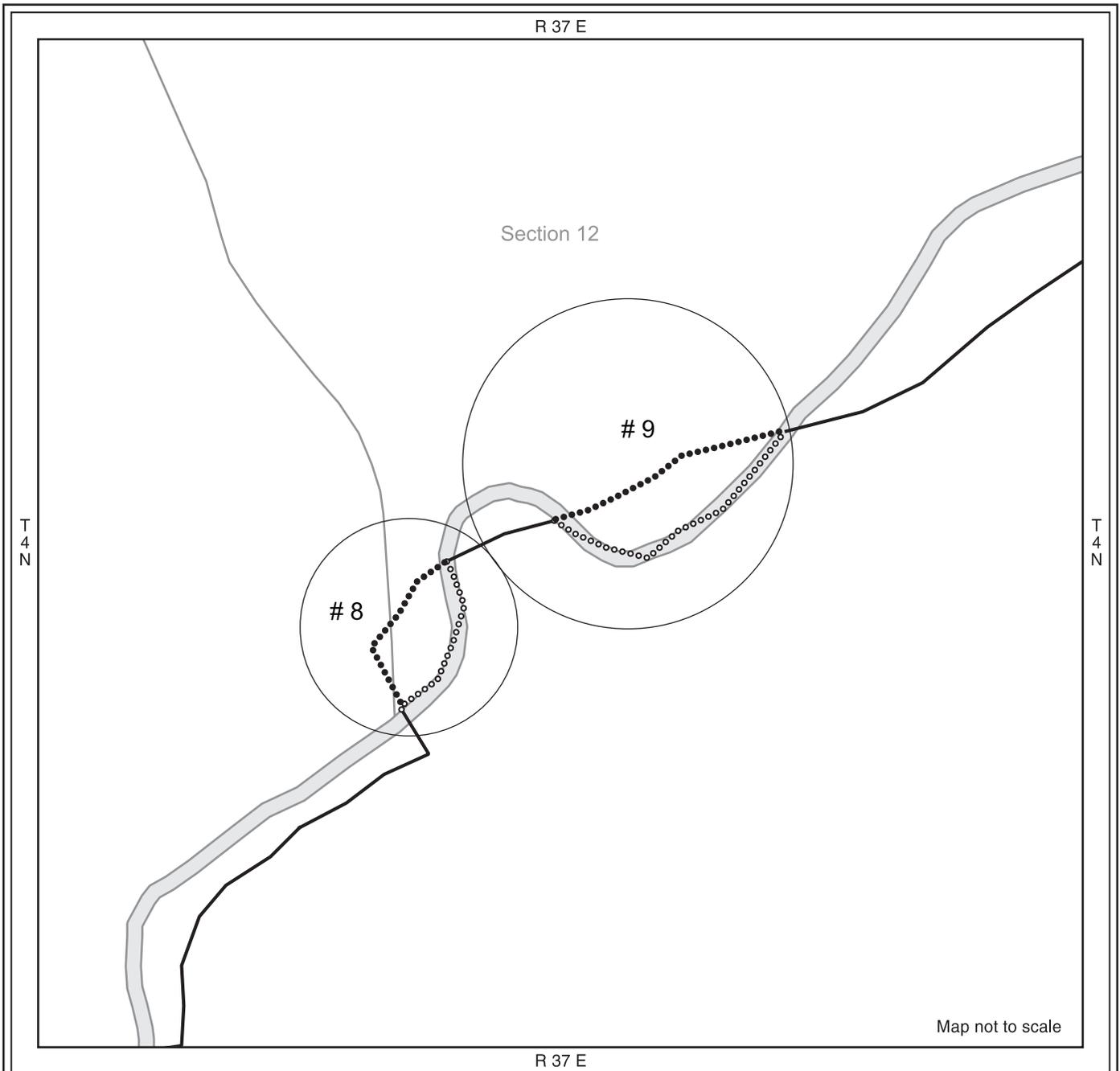
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Map 4: Proposed New Crossing #8 and Proposed New Crossing #9



Map not to scale

LEGEND

Wet Stream Crossings on BLM Administered Land

-  Travel
-  Discontinue Route
-  Proposed New Route



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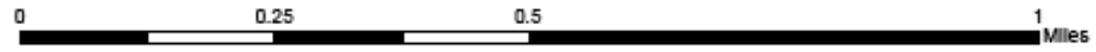
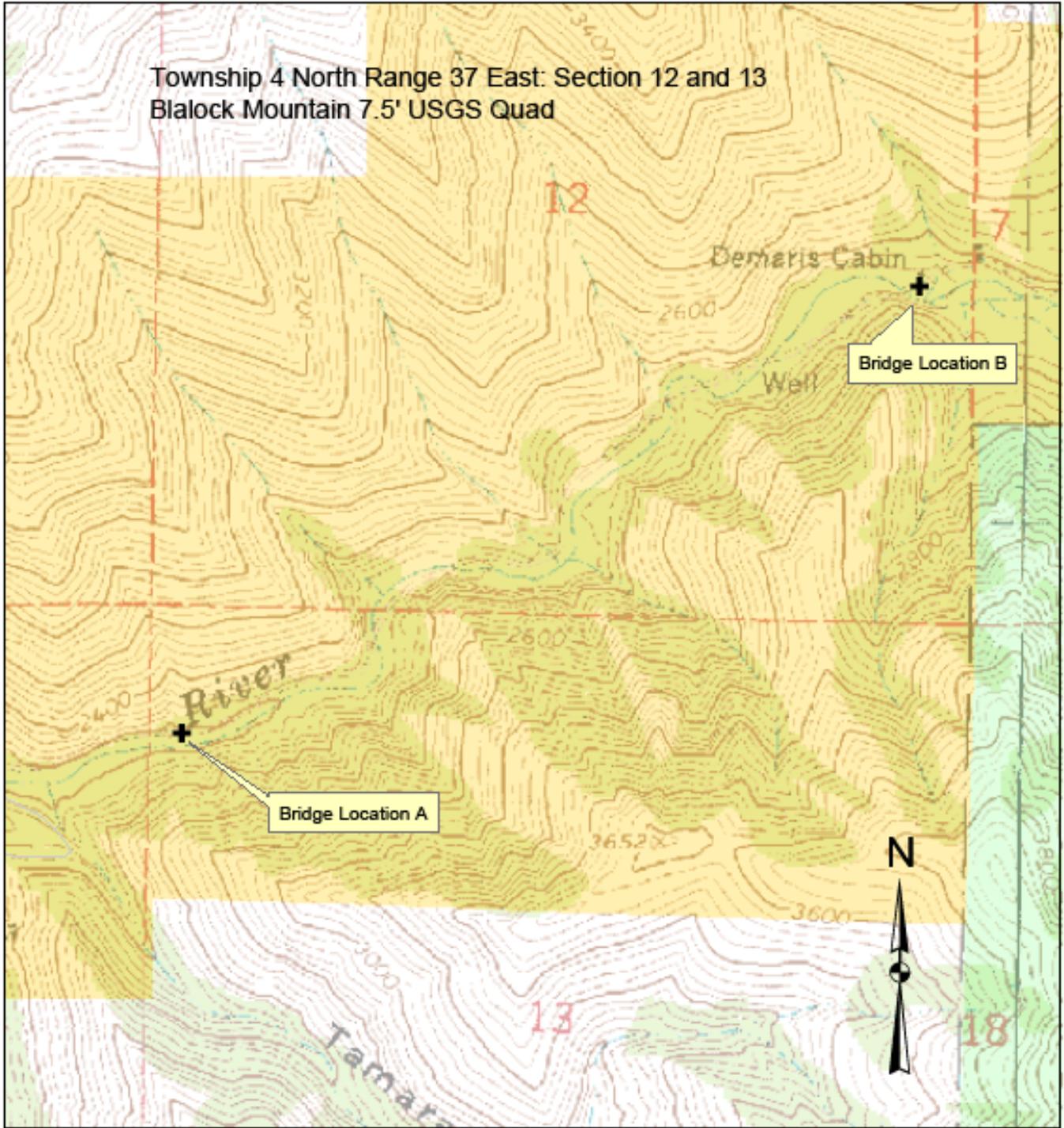
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Location of Proposed Bridges over Pools in Existing Road
 South Fork Walla Walla River
 Map 5



Contour Interval = 40 Ft.



- +** Proposed Bridge Locations
- BLM Land

PROPOSED BRIDGE LOCATIONS

Project Location – Proposed Bridge Location A: T4N R37E Section 13: SE1/4 NW1/4 NW1/4
11/08/06



Location of proposed Bridge A over pool in the road. Existing road on the north side of the SFWW (view east).



Location of proposed Bridge A. Existing road on north side of the SFWW, view west.

Project Location – Proposed Bridge Location B: T4N R37E Section 12 NE ¼ NE1/4 SW 1/4
11/08/06



Location of proposed Bridge B; pool at road crossing, north of the SFWW River.



View of pool on channel, crossed by road at Location B.



View generally southwest of road and pool at Location B. SFWW is located in background.