

# Appendix G

## Aquatics and Fisheries Species Accounts

### Biological Assessment for Motorized Vehicle Use

**Project Name:** Motorized Vehicle Use on the Rogue River-Siskiyou National Forest (RRSNF)

**Species and Habitat of Concern:** Oregon Coast (OC) coho salmon (*Oncorhynchus kisutch*) and OC Critical Habitat (CCH); listed as Threatened under Endangered Species Act (ESA)

Southern Oregon/Northern California Coasts (SONCC) coho salmon (*O. kisutch*) and SONCC Critical Habitat (CCH); listed as Threatened under ESA

Coho and Chinook salmon Essential Fish Habitat (EFH) listed as Commercially Viable under Magnuson-Stevens Fishery Conservation and Management Act (MSA), December 1997 and February 2008 respectively

**Determination of Effects:** **ESA:** SONCC and OC coho salmon and its CCH; “Beneficial, Not Likely to Adversely Affect”

**MSA:** coho and Chinook salmon EFH: “Beneficial, Not Likely to Adversely Affect”

**Project Location:** USDA Forest Service, Rogue River-Siskiyou National Forest

**Table 1. Fifth Watersheds within the Action Area**

Fifth Field	Fifth Field
Althouse Creek	Little Applegate River
Bear Creek	Little Butte Creek
Big Butte Creek	Lobster Creek
Briggs Creek	Lower Applegate River
Chetco River	Middle Applegate River
Deer Creek	North Fork Smith River
East Fork Illinois River	Pistol River
Elk Creek	Rogue River
Elk River	Shasta Costa Ck-Rogue River
Euchre Creek-Frontal Pacific	Silver Creek
Headwaters Applegate Riv.	Sixes River
Headwaters Rogue River	South Fork Coquille River
Hellgate Canyon-Rogue River	South Fork Rogue River
Hunter Creek	Stair Creek-Rogue River
Indian Creek	Sucker Creek
Indigo Creek	Upper Applegate River
Josephine Ck-Illinois River	West Fork Cow Creek
Klondike Ck-Illinois River	West Fork Illinois River
Lawson Ck-Illinois River	Winchuck River

**Watershed Analyses (WA):**

**Table 2. Watershed Analysis Completed within the Action Area**

<b>Watershed, Year Completed</b>	<b>Watershed, Year Completed</b>
Bear Creek, 1995	Lower Illinois, 2000
Beaver-Palmer, 1994	Lower Rogue, 1995
Bradford Creek, 1996	Middle Applegate, 1998
Briggs Creek, 1994	Middle Illinois, 1999
Cheney/Slate, 1996	North Fork Smith River, 1995
Chetco River, 1996	Pistol River, 2003
Collier Creek, 1997	Quosatana Creek, 1996
Deer Creek, 1997	Rogue River above Galice, 1995
East Fork Illinois River, 2000	Rogue River below Agness, 2000
Elk Creek, 1996	Rogue River Marial/Agness, 1999
Elk River, 1998	SF Coquille River, 1995
Grayback/Sucker 1998	Shasta Costa Creek, 1996
Horse Sign Creek, 1998	Silver Creek, 1995
Hunter Creek, 1998	Sixes River, 1997
Indigo Creek, 1998	Squaw/Elliott/Lake, 1995
Kalmiopsis Wilderness, 1995	Upper Bear Creek, 2003
Lawson Creek, 1997	Upper Big Butte Creek, 1995
Little Applegate River, 1995	Upper Rogue River, 1995
Little Butte Creek, 1997	West Fork Illinois, 1997
Lobster Creek, 1999	Winchuck River, 1999

**Land Allocation of Project Area:** Administrative Study Area (MA-15)  
 Backcountry Recreation (MA-6)  
 Botanical (MA-4)  
 Late Successional Reserve (MA-8)  
 Matrix (MA-14)  
 Riparian Reserve (MA-11)  
 Special Wildlife Site (MA-9)

**Administrative Unit:** Rogue River-Siskiyou National Forest (RRSNF): Gold Beach, High Cascades, Powers, Siskiyou Mountains, and Wild Rivers Ranger Districts

**Prepared By:** Steve Brazier, Fisheries Biologist, RRSNF

**Reviewed By:** Maureen Joplin, Hydrologist, RRSNF  
 Susan Maiyo, Forest Fisheries Biologist, RRSNF

**Document Date:** July 19, 2011

This consultation is undertaken pursuant with Section 7(a)(2) of the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act, and is implementing Federal regulations 50 CFR Part 600.

## I. EXECUTIVE SUMMARY

The following Biological Assessment analyzes the effects of the Motorized Vehicle Use Project (MVU) on the Rogue River-Siskiyou National Forest (RRSNF). The Action Area includes Oregon Coast (OC) and Southern Oregon/California Coast (SONCC) coho salmon, listed as a “threatened” species under the Endangered Species Act (ESA). The analysis contained herein has resulted in a determination of “*Beneficial, May Affect, Not Likely To Adversely Affect*” to OC and SONCC coho salmon and OC and SONCC coho critical habitat (CCH). Effects of the action were determined to be a “*Beneficial, Would Not Adversely Affect*” coho and Chinook salmon (*O. tshawytscha*) Essential Fish Habitat (EFH). There is no anticipated incidental take associated with the proposed project actions. Any questions and/or comments regarding this assessment or the proposed project should be addressed to Steve Brazier, Fisheries Biologist, RRSNF at (541) 471-6766 or Susan Maiyo, Forest Fisheries Biologist, RSNF at (541) 618-2052.

## II. INTRODUCTION

The following assessment was prepared to initiate consultation pursuant to the Endangered Species Act of 1973, as amended (ESA), to evaluate and describe the potential effects of proposed actions on Oregon Coast and Southern Oregon/California Coast Evolutionarily Significant Units (ESU) of coho salmon.

The overall Planning Area is located on National Forest System Lands within 5<sup>th</sup> Field watersheds listed in Table 1, for which Watershed Analyses have been completed. The Planning Area for the MVU is located on lands within the RRSNF boundaries in Oregon and California.

## III. DESCRIPTION OF THE PROPOSED ACTIONS AND ACTION AREA

**Note:** This Biological Assessment (BA) was being prepared as the Environmental Impact Statement (EIS) was being prepared. Some road miles may not exactly correspond with the final EIS numbers; however, any discrepancies are small and have been factored into this analysis. The overall scope of the project has been adequately analyzed and disclosed in this BA. Consultation would be reinitiated if the scope of the EIS expands to include effects greater than those consulted on under this BA.

### A. Proposed Action (s)

#### Summary

The project would provide for a designated and managed travel system, enact changes to reduce existing resource damage from motorized use, and reduce social impacts such as user conflicts and safety concerns. The project actions are located on suitable forest land designated as Matrix, Riparian Reserve, Late Successional Reserve, Administrative Study Area, Backcountry Recreation, Botanical, and Special Wildlife Site land allocations under the Siskiyou National Forest Land and Rogue River National Forest Resource Management Plans as amended by the Northwest Forest Plan. See attached Map 1 Vicinity for project location.

**The actions of the project can be divided into three Project Elements and are described below:**

- 1) *Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*
- 2) *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail*
- 3) *Close Areas to Cross-Country Motorized Travel*

- 1) *Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*

## **FOREST-WIDE PROJECT OVERVIEW**

- Enact Forest-wide Plan Amendments to make the plans consistent with the Travel Management Rule. Two separate Forest Plans guide the Rogue River-Siskiyou National Forest.
- Enact project-level Forest Plan Amendments to make the plans consistent with current and historical motorized use.

## **DISTRICT LEVEL SPECIFIC ACTIVITIES**

### Gold Beach Ranger District

- Amend the Siskiyou LRMP to make current motorized use of the Game Lake Trail (#1169), Lawson Creek Trail (#1173), Illinois River Trail (#1161), Silver Peak Hobson Horn Trail (#1166), and two unnamed connector trails consistent with the Standards and Guidelines for the Allocations through which they pass (Backcountry Recreation).

### Wild Rivers Ranger District

- Route-specific Forest Plan Amendments: An amendment to the Siskiyou Land and Resource Management Plan is proposed to make motorized use of the Boundary Trail (#1207) consistent with Standards and Guidelines for the allocations through which it passes (Research Natural Area).

### Siskiyou Mountains Ranger District

- An amendment to the Rogue River Land and Resource Management Plan to make motorized use of the Boundary Trail (#1207) and some connecting trails (#900 and #903) consistent with Standards and Guidelines for the allocations through which it passes.

- 2) *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit motorized Public Use, and Construct Motorized Trail*

## **FOREST-WIDE PROJECT OVERVIEW**

- Convert approximately 10 miles of NFS roads to motorized trails.
- Designate one area where off-road motorized use would be allowed. This would include continued use of the Woodruff area near Prospect, Oregon, located on the High Cascades Ranger District, above Lost Creek Lake.
- Construct one motorized trail to provide loop route opportunities (approximately 1.5 miles) above Applegate Lake Reservoir.
- Prohibit public motorized use on approximately 7 miles of road and 37 miles of trail currently open in order to minimize or reduce resource damage.
- Formally designate approximately 4,505 miles of road open to public motorized use, including 2,999 miles of road where mixed use would be allowed. Mixed use is defined as designation of a National Forest System (NFS) road for use by both highway-legal and non-highway-legal motor vehicles.

## DISTRICT LEVEL SPECIFIC ACTIVITIES

### Powers Ranger District

- Prohibit motorized use on the one-mile Big Tree Trail (#1150).

### Gold Beach Ranger District

- Convert approximately 9.3 miles of roads currently designated as Maintenance Level 1 to motorized trails (portions of Roads 3313103, 3680190, 3680195, 3680220, 3680351, 3680353, and 3313117). These roads are located in the following areas south of the Rogue River: Upper Lawson Creek, Signal Butte, and Kimball Butte.
- Designate approximately 500 feet of paved road for motorized mixed use on a portion of Road 2308 (Burnt Ridge Road).
- Prohibit motorized mixed use on approximately 12.5 miles of road where it is currently authorized on portions of Roads 1376010, 1376012, 1376013, 13760150, 1376019, 1376902, 1376903, and 1376908.
- Prohibit motorized use on approximately 14.2 miles of trail that include 6.9 miles on the Game Lake Trail (# 1169), 4.1 miles on the Lawson Creek Trail (#1173), and 3.2 miles on a portion of the Illinois River Trail (#1161).
- Prohibit motorized use on approximately 0.8 miles of trail (#1164) in the Woodruff Meadow area.

### Wild Rivers Ranger District

- Convert approximately 0.3 miles of Road 2509640, currently designated as a Maintenance Level 1 road, to a motorized trail.
- Prohibit motorized mixed use on approximately 10.2 miles of road where it is currently authorized on portions of Roads 4400445, 4400459, 4400460, 4400461, and 4400480.
- Prohibit motorized mixed use on approximately 11.9 miles of road where it is currently authorized on portions of Roads 4201029, 4201881, 4300011, 4300910 and 4300920.
- Prohibit public motorized use on approximately 6.4 miles of road including portions of Roads 4300011, 4300910, 4300920, 4300925, 4201016, and 4103011. These roads would still be open for permitted or limited administrative use.
- Prohibit motorized use on approximately 0.6 miles of Road 2600050.
- Prohibit motorized use on approximately 11.1 miles of trail that currently allows motorized use on portions (or entirely) of the following trails: Taylor Creek (#1142), Big Pine Spur (1142A), Onion Way (#1181), Secret Way (#1182), Secret Way Spur (1182A), and Swede Creek (#1135).
- Prohibit motorized use on approximately 1.9 miles of trail that currently allows motorized use on the Silver Lake Trail (#1184).
- Prohibit motorized use on approximately 4.1 miles of trail that currently allows motorized use on portions (or entirely) of the following trails: Mt. Elijah(#1206), Bigelow Lake (#1214), Bolan Lake (#1245), and Kings Saddle (#1245A).

### Siskiyou Mountains Ranger District

- Construct and relocate approximately 1.2 miles of the Penn Sled Trail (#957) east of Applegate Lake that would allow motorized use for Class III vehicles.
- Prohibit motorized use on approximately 3.8 miles of the Horse Camp Trail (#958) that currently allows motorized use.

## High Cascades Ranger District

- There would be no changes on the High Cascades Ranger District.

### 3) *Close Areas to Cross-Country Motorized Travel*

## **FOREST-WIDE PROJECT OVERVIEW**

The project would close approximately 275,000 acres of the RRSNF to cross-country motorized travel. This action would occur on all five Ranger Districts (i.e. Powers, Gold Beach, Wild Rivers, Siskiyou Mountains, and High Cascades). This element is an administrative change in the type of use that certain areas of the Forest would receive. There is no on-the-ground construction, restoration or rehabilitation action included in this action. Any ground disturbing activity that may occur in the upcoming years, i.e., culvert replacement, would be covered under a different effects analysis and consultation process.

### **B. Action Area**

The Action Area for this project is all land within the boundaries of the Rogue River-Siskiyou National Forest. This area encompasses nearly 2 million acres, most of which is administered by the RRSNF.

### **C. Consistency with Watershed Analysis**

Information in the Watershed Analyses of the affected watersheds was used to develop the proposed activities. None of the proposed activities are inconsistent with the findings and recommendations of the Watershed Analyses. The Watershed Analyses pertinent to this project are listed in Table 2.

## **IV. DESCRIPTION OF AFFECTED SPECIES AND CRITICAL HABITAT**

### **Oregon Coast Coho Salmon and Critical Habitat**

Oregon Coast (OC) coho ESU was listed as threatened on August 10, 1998 (63 FR 42587). This listing was reevaluated and NMFS determined listing OC coho was not warranted on January 17, 2006. The listing was once again reevaluated and NMFS determined a listing of threatened was warranted on February 4, 2008 (73 FR 7816). OC coho salmon critical habitat was designated as threatened also on February 11, 2008 (73 FR 7816). Final protective regulations for OC coho salmon were issued on February 11, 2008 (73 FR 7816). On April 28, 2009 NMFS announced that it was initiating a status review of OC coho. On May 26, 2010, NMFS affirmed the listing of the OC coho salmon as Threatened (75 FR 29489).

Critical habitat is defined in Section 3(5)(A) of the ESA as “the specific areas within the geographical area occupied by the species Oregon Coast Coho on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” Section 7 of the ESA prohibits the destruction or adverse modification of designated critical habitat (CH). Table 3 lists streams with OC coho presence and/or CCH within the Action Area. The lateral extent of OC CCH is limited to the ordinary high water mark (i.e. bankfull elevation).

On the RRSNF, the South Fork Coquille River, though occupied by OC coho, is exempt from critical habitat designation due to economic benefits of exclusion outweighing the benefits of designation. Further, marine habitats are not included as critical habitat due to the difficulty in identifying specific areas critical to the species.

The habitat indicators addressed in this BA that are pertinent to aquatic habitat health, also represents the primary constituent elements of proposed CH for OC coho salmon. Therefore, this analysis is sufficient for consultation of proposed CH as well.

**Table 3. Oregon Coast Coho Salmon ESU Critical Habitat within Action Area**

5 <sup>th</sup> Field Watershed	5 <sup>th</sup> Field Watershed (acres)	Miles of Occupied Coho Habitat (miles)	CCH and EFH (miles)
Sixes River	85,832	7.66	8.66
South Fork Coquille River	108,300	15.41	20.79
West Fork Cow Creek	55,892	0	5.0

NMFS developed a list of Primary Constituent Elements (PCEs) that are essential for the conservation of OC coho, and which are based on the life history of the coho salmon. These PCEs are: freshwater spawning sites, freshwater rearing sites, freshwater migration corridors, estuarine areas, nearshore marine areas, and offshore marine areas. These PCEs in concert with OC coho distribution data, were used to delineate the spatial extent of the critical habitat. The lateral extent of this designation is limited to the ordinary high water mark (i.e. bankfull elevation). For the purposes of this BA, the PCEs are cross referenced with the respective Habitat Indicators in Table 4 below.

**Table 4. OC Coho Critical Habitat Essential Habitat Features and Respective Habitat Indicators**

PCEs of OC coho Critical Habitat	Habitat Indicator
Freshwater Spawning Sites	Change in Peak/Base Flows, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Substrate
Freshwater Rearing Sites	Change in Peak/Base Flows, Floodplain Connectivity, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Water Quality Indicators, Riparian Reserves, Substrate, Large Woody Debris, Pool Frequency, Pool Quality, Width/depth Ratio, Off-channel Habitat, Streambank Condition
Freshwater Migration Corridors	Physical Barriers, Change in Peak/Base Flows, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Riparian Reserves, Substrate, Large Woody Debris, Pool Frequency, Pool Quality, Width/depth Ratio, Floodplain Connectivity, Off-channel Habitat, Streambank Condition
Estuarine Areas	Physical Barriers, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Change in Peak/Base Flows, Water Quality Indicators, Riparian Reserves, Substrate, Large Woody Debris, Pool Frequency, Pool Quality, Width/depth Ratio, Floodplain Connectivity, Off-channel Habitat, Streambank Condition
Nearshore Marine Areas	N/A to RRSNF Actions
Offshore Marine Areas	N/A to RRSNF Actions

### SONCC Coho Salmon and Critical Habitat

CCH for SONCC coho salmon was designated by NMFS on May 5, 1999 (64 FR 24049). CCH is defined in Section 3(5)(A) of the ESA as “the specific areas within the geographical area occupied by the species ... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” Critical habitat was designated (64 FR 24049, May 5, 1999) to include all river reaches accessible to listed coho salmon between Cape Blanco, Oregon, and Punta Gorda, California.

Critical habitat consists of the water, substrate, and adjacent riparian zones of estuarine and riverine reaches (including off-channel habitats). Accessible reaches are those within the historical range of the ESU that can still be occupied by any life stage of coho salmon. Inaccessible reaches are those above specific dams or above long-standing, naturally impassable barriers (i.e., natural waterfalls in existence for at least several hundred years). Table 5 lists streams with OC coho presence and/or CCH within the Action Area.

**Table 5. SONCC Coho Critical Habitat within Action Area**

<b>5<sup>th</sup> Field Watershed</b>	<b>5<sup>th</sup> Field Watershed (acres)</b>	<b>Miles of Occupied Coho Habitat (miles)</b>	<b>CCH and EFH (miles)</b>
Althouse Creek	30,243	0.59	3.71
Bear Creek	231,244	0	4.09
Big Butte Creek	158,256	0	0
Briggs Creek	43,758	0	0
Chetco River	225,228	35.55	91.86
Deer Creek	72,605	1.94	2.64
East Fork Illinois River	57,779	7.71	12.72
Elk Creek	85,476	4.90	12.86
Elk River	58,398	21.55	25.91
Euchre Creek-Frontal Pacific	56,329	0	0
Headwaters Applegate River	142,276	0	0
Headwaters Rogue River	248,577	0	0
Hellgate Canyon-Rogue River	93,369	10.31	14.95
Hunter Creek	28,458	0	0
Indian Creek	82,267	No data	No data
Indigo Creek	48,984	0	0
Josephine Ck-Illinois River	81,746	18.51	35.41
Klondike Ck-Illinois River	67,123	30.87	52.57
Lawson Ck-Illinois River	41,179	13.60	28.31
Little Applegate River	72,295	0	15.20
Little Butte Creek	238,882	7.12	18.80
Lobster Creek	44,316	9.47	14.79
Lower Applegate River	90,604	3.69	10.13
Middle Applegate River	82,603	0	0.57
North Fork Smith River	101,182	20.38	28.78
Pistol River	67,285	0	21.71
Rogue River	82,717	16.70	23.05
Shasta Costa Ck-Rogue River	45,026	9.35	16.39
Silver Creek	51,620	0	0
South Fork Rogue River	160,773	0	0
Stair Creek-Rogue River	36,544	13.41	13.41
Sucker Creek	61,515	11.75	12.83
Upper Applegate River	52,296	10.85	22.30
West Fork Illinois River	76,996	5.98	29.78
Winchuck River	45,634	22.85	38.8

The list of Primary Constituent Elements (PCEs) essential for the conservation of the SONCC coho ESU include, but are not limited to, spawning sites, food resources, water quality and quantity, and riparian vegetation (64 FR 24050, May 5, 1999). Specifically, the adjacent riparian area is defined as the area adjacent to a stream that provides the following functions: shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter.

NOAA Fisheries defines 10 essential habitat features to include substrates, water quality, water quantity, water temperature, water velocity, cover/shelter, food, riparian vegetation, space, and safe passage conditions (64 FR 24059, May 5, 1999). For the purposes of this BA, the 10 essential habitat features are cross referenced with the respective Habitat Indicators in Table 6 below.

**Table 6. Essential Habitat Features and Respective Habitat Indicators of SONCC CCH**

<b>Essential Feature of CCH</b>	<b>Habitat Indicator</b>
Substrate	Sediment, Pool Quality, Landslide Rates, Large Woody Debris
Water Quality	Temperature, Sediment, Road Density & Location
Water Quantity	Peak/base flows, Drainage Network Increase, Road Density and Location
Water Temperature	Temperature, Riparian Reserves, Refugia, Width/Depth Ratio, Streambank Condition, Peak/base flows, and Floodplain Connectivity.
Water Velocity	Peak/base flows, Drainage Network Increase, Floodplain Connectivity, Off-channel Habitat, Width/Depth Ratio, Road Density and Location, Streambank Condition, Large Woody Debris
Cover/shelter	Sediment, Pool Quality, Streambank Condition, Riparian Reserves, Refugia, Large Woody Debris, Off-channel Habitat, Width/Depth Ratio, Floodplain Connectivity
Food	Sediment, Riparian Reserves, Floodplain Connectivity, Large Woody Debris, Temperature
Riparian Vegetation	Riparian Reserves, Large Woody Debris, Disturbance History, Floodplain Connectivity
Space	Pool Quality, Off-channel Habitat, Floodplain Connectivity
Safe Passage Conditions	Refugia, Physical Barriers, Change in Peak/Base Flows

### **Essential Fish Habitat**

Interim final rules for Essential Fish Habitat (EFH) under the Magnuson-Stevens Act (16 U.S.C. 1855(b)) were published in the Federal Register/ Vol. 62, No. 244, December 19, 1997 and final rules published in the Federal Register/ Vol. 67, No. 12, January 17, 2002. These rules are pertinent to Chinook salmon and coho salmon habitat within the Southern Oregon Coastal Basin. Essential Fish Habitat (EFH) has been defined by NMFS as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” This definition includes all waters historically used by anadromous salmonids of commercial value. EFH within the Action Area is the same as CCH. Table 5 displays streams with EFH within the Action Area by river miles.

### **Overview of SONCC and OC Coho Salmon**

The Forest is located in several geologic provinces in SW Oregon: Klamath Mountains, Coastal Franciscan and Cascade Mountains (Western and High Cascades). Anadromous and resident fish populations have occupied the Forest lands for many thousands of years during periods of variable climate and periodic floods, large and smaller area fires, wind storms and tectonic movements that caused aquatic and riparian habitat changes. These fish inhabit diverse habitats on the Forest in streams, ponds, lakes, and reservoirs at elevations from near sea level to more than 5,000 feet elevation. Anadromous fish occupy at least 1,300 miles of streams and rivers on the Forest; including two races of Chinook salmon, coho salmon, two races of steelhead and sea-run cutthroat trout. Coho salmon and its critical habitat on the Forest are listed as threatened under the Endangered Species Act for the Southern Oregon/Northern California Coasts (SONCC) and Oregon Coast (OC) coho salmon Evolutionary Significant Units (ESU). Coho salmon and Chinook habitat on this Forest are listed as commercially viable for Essential Fish Habitat under the Magnuson Steven Fisheries Management Act. Resident trout and other species occupy approximately 2,000 miles of streams on the Forest. The preponderance of anadromous fish habitat is

found in the western portion of the Forest due to natural and human-made migration barriers in portions of the eastside of the Forest, e.g., Lost Creek Lake Dam and Applegate Dam.

The Forest contains portions of six designated Wild and Scenic Rivers, including the: upper Rogue, lower Rogue, Chetco, Illinois, Elk, and North Fork Smith Rivers; five of which have fisheries Outstanding and Remarkable Values; excluding upper Rogue located above Lost Creek Lake reservoir, an anadromous fish barrier. Lake habitats are also abundant on the Forest, particularly within the Sky Lakes and Red Buttes Wilderness Areas, where many high elevation lakes are stocked with trout.

## V. DESCRIPTION OF ENVIRONMENTAL BASELINE AND POTENTIAL EFFECTS OF THE PROPOSE ACTION

This analysis evaluates the direct and indirect potential effects of the proposed action on SONCC and OC coho salmon, CCH, and EFH. There is potential to affect CCH and EFH. CCH and EFH are the same in the Action Area, so any potential effect to one (i.e. CCH) would obviously result in an effect to the other (EFH). This analysis will discuss affects to CCH for feasibility and readability, recognizing that the same effect would apply to EFH. Different PCEs and Habitat Indicators will be lumped together when appropriate.

The Rogue River-Siskiyou National Forest Motorized Vehicle Use project involves the designation of a motorized travel system for the Forest. Following completion of the plan, motorized travel on the forest will be restricted to designated routes and areas only. This project is merely designating permitted vehicle use on the existing system of routes within the Forest. Accordingly, the baseline (i.e. pre-project) condition includes all negative impacts to aquatic biota populations and habitat from the existing route network. The magnitude and extent of existing road and trail impacts to fish populations and fisheries habitat is highly variable depending on site specific characteristics.

Coho distribution and CH information used in this analysis utilizes RRSNF Geographic Information System data, Watershed Analysis, and Aquatic Habitat Inventories data. This data is field verified data; a few data gaps may exist. Properly Functioning Condition ratings are based on the NOAA Table of Population and Habitat Indicators, as modified by the Rogue River/South Coast Level 1 Team for the Klamath Province/Siskiyou Mountains.

The proposed actions of the project can be divided into three Project Elements, Table 7.

**Table 7. Proximity of Project Elements to CCH**

<b>Project Elements (PE)</b>	<b>Distance to CCH</b>
Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use	Administrative only
Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use and Construct Motorized Trail	Adjacent to CCH in some locations. Administrative activity only.
Close Areas to Cross-Country Motorized Travel	Adjacent to CCH in some locations. Administrative activity only.

### **Overall Baseline Conditions (WA, Table 2, and R6 Level II Stream Surveys)**

Native fish, particularly salmonids, on the Forest require cool clean water, gravels with little fine sediment for spawning, shade along streams from vegetation and diverse habitats for successful growth during periods of their life history in fresh water. Large wood plays several important roles in fish habitat: for shade along streams, large mass to create habitat when wood enters the water, and in the formation and maintenance of stream channels.

Large wood also has an ecological role associated with slope stability, soil retention, stream channel scouring, organic matter for primary aquatic production and formation of large stream features (fans, wood complexes and blockages, large sediment deposits) during storm episodes. Fish habitat on the Forest is generally lacking in diversity and complexity where past management activities, e.g., wood removal and road building have simplified instream diversity. Here fish habitat is lacking the quality and quantity of pool habitat and spawning gravels expected within the range of historical conditions. Some areas, particularly in the Siskiyou Mountains, naturally lack the expected numbers of large wood pieces per mile due to channel steepness and intensity of storms. Historically in SW Oregon, fire, wind, floods and landslides have routinely changed in-stream habitats, with large changes occurring during episodic events.

Comparing past stochastic episodes with management of the Forest the past several decades indicates a change of disturbance patterns from irregular and episodic to more chronic patterns of anthropogenic disturbance from timber harvest, mining, road construction and maintenance, livestock grazing, and suppression of fire. Timber harvest and associated road development and road traffic have greatly decreased since the mid to late 1980's. Within the National Forest, passive recovery of harvested stands and areas has placed stream networks in most watersheds on a recovery trajectory. Though, roads continue to have chronic sediment and drainage effects on fish populations and water quality in many watersheds, and placer mining is a chronic disturbance in many Klamath Mountain streams. High recreation use in specific local riparian areas also creates some chronic disturbance. Watershed restoration has occurred intensively on the Forest since the Northwest Forest Plan, 1994. Stream, riparian, and upland restoration is a process being implemented on high priority watersheds across the Forest.

At the landscape scale, it is well documented that motorized routes modify the frequency, timing, and magnitude of disturbance to aquatic systems. The current motorized travel system on the Forest includes over 5,800 miles of motorized routes. Many of these routes are located within proximity to occupied fish habitat. The overriding negative effect of this motorized travel system on the fisheries resource is via sediment input to stream systems, Riparian Reserve fragmentation, and to a lesser degree fragmentation of aquatic habitats due to impassable or partially impassable road/stream crossings. These conditions have contributed to decreased distribution and abundance of native salmonid stocks, particularly anadromous salmon and steelhead.

## **A. All Habitat Indicators and Watershed Conditions Indicators**

### **Effects**

*Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use and Construct Motorized Trail*

Proximity *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use and Construct Motorized Trail* project element activities are located within fifteen 5<sup>th</sup> field watersheds on the RRSNF. These actions occur on the Powers, Gold Beach, Wild Rivers, and Siskiyou Mountains Ranger Districts and are in proximity to SONCC and OC CCH. No such actions are proposed for the High Cascades Ranger District. There is **no causal** mechanism from any of the indicators since they involve a change in the type of use (e.g. elimination of motorized use of a trail). There are no on-the-ground construction, restoration or rehabilitation actions included in this action. The route would remain on the landscape regardless of the type of public use that the road or trail segment would receive. Consequently, these activities would result in a **neutral effect** to all habitat indicators and watershed condition indicators.

**Element/Indicator Summaries:** There is no causal mechanism for *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail* to all the Habitat Indicators and Watershed Condition Indicators because the affected routes are currently part of the RRSNF travel route network, and the project only involves an administrative change to the type of use (e.g. mixed-use, non-motorized, etc.) that an existing route would receive. There is no ground disturbing action from this activity. Road maintenance currently occurs and will continue. Any ground disturbing activity that may occur in the upcoming years, i.e., culvert replacement, would be covered under a different effects analysis and consultation process. The only exception to this description involves the on-the-ground construction of the Penn Sled Trail on the Siskiyou Mountains Ranger District. However, this proposed trail is entirely located upstream of Applegate Dam, and thus does not occur within a watershed that contains coho critical habitat.

This project would result in a **neutral (0) effect** from *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail* to all indicators.

## **B. All Habitat Indicators (except for Sediment and Pool Character and Quality) and Watershed Condition Indicators**

### **Effects**

#### *Closing Areas to Cross-Country Motorized Travel*

Proximity There is **no causal** mechanism from *Closing Areas to Cross-Country Motorized Travel* to any of the indicators, except for Sediment and Pool Character and Quality from this action, since this action involves an administrative change in the type of use that certain areas of the Forest would receive. There is no on-the-ground construction, restoration or rehabilitation action included in this action. The Motorized Vehicle Use Project would eliminate cross country motorized travel across the Forest, with the exception of the existing Woodruff Play Area on the High Cascades Ranger District. This action would affect approximately 275,000 acres of land where cross country motorized travel is currently allowed. These areas are scattered across the Forest, and occur within and outside of coho salmon occupied watersheds. Although the majority of the acres are located on the High Cascades Ranger District, upstream of permanent man-made (e.g. Lost Creek Lake Dam) and natural (Butte Falls) barriers, well upstream of CCH.

**Element and Indicator Summary:** There is **no causal** mechanism from *Closing Areas to Cross-Country Motorized Travel* to the Habitat Indicators (except for Sediment & Pool Character & Quality) and Watershed Condition Indicators, since this action involves an administrative change in the type of use that certain areas of the Forest would receive. There is no on-the-ground construction, restoration or rehabilitation action included in this action. Any ground disturbing activity that may occur in the upcoming years, i.e., culvert replacement, would be covered under a different effects analysis and consultation process. This project would result in a **neutral (0) effect** to all indicators, with the exception of sediment and Pool Character & Quality.

## SEDIMENT and POOL CHARACTER & QUALITY HABITAT INDICATORS

### Effects

#### *Close Areas to Cross-Country Motorized Travel*

Proximity The project would *close approximately 275,000 acres of the RRSNF to cross-country motorized travel*. These areas are depicted in blue on the attached map. There is a causal mechanism from this action within multiple watersheds that do contain SONCC and OC coho CH since some cross-country motorized areas are in proximity to SONCC and OC coho CH.

Probability *Closing Areas to Cross-Country Motorized Travel* in watersheds that do contain SONCC and OC CCH provides a mechanism for potential reduction in upland erosion and sediment influx into stream networks. This sediment reduction could lead to improvement and/or maintenance of existing CCH, although the benefit would probably be discountable.

Magnitude Sediment reduction from *Closing Areas to Cross-Country Motorized Travel* could lead to improvement and/or maintenance of existing CCH. Though these benefits are not expected to occur at magnitudes where the effects are measurable, or discernable when compared to the ongoing natural sediment production, and that which will continue to occur as a result of the remaining road and trail system.

**Element and Indicator Summary:** There would be a **discountable insignificant beneficial (+) effect** to the Sediment and Pool Character and Quality Habitat indicator from *Closing Areas to Cross-Country Motorized Travel*, within watersheds which contain CCH since the project element provides a mechanism for potential reduction in upland erosion and sediment influx into stream networks. This reduction would support the maintenance and improvement of OC coho PCE's and SONCC coho Essential Features, particularly coho spawning and rearing habitat, both of which are closely tied to pool character and quality within the respective stream segment.

**Table 8. Motorized Vehicle Use Project Actions**

Activity	Watershed	ESU	Total Units (miles/acres)	Units w/in Riparian Reserve	Units outside Riparian Reserve	Location in Watershed (lower, middle, upper)	Distance from CH/EF H	Effect Det.	Comments
Convert mtn. Level 1 to motorized trail	Rogue River	SONCC	2.90	0.20	2.70	Upper/mid	2.40	NE	Non-Fish Bearing Rip. Res.
Convert mtn. Level 1 to motorized trail	Hunter Creek	SONCC	2.68	0.39	2.29	Upper	11.50	NE	Non-Fish Bearing Rip. Res.
Convert mtn. Level 1 to motorized trail	Lawson Ck-Illinois R	SONCC	3.69	0	3.69	Upper	5.10	NE	Ridgetop Road
Convert mtn. Level 1 to motorized trail	Hellgate Canyon – Rogue River	SONCC	0.29	0	0.29	Upper	1.20	NE	Ridgetop Road
Prohibit motorized use on an existing trail	Rogue River	SONCC	0.78	0	0.78	Middle	0.50	NE	
Prohibit motorized use on an existing trail	Lawson Ck – Illinois R	SONCC	14.27	2.59	11.68	Mid/Low	0	NE	Crosses coho critical habitat twice
Prohibit motorized use on an existing trail	Briggs Creek	SONCC	11.11	0.89	10.22	Upper/mid	6.70	NE	
Prohibit motorized use on an existing trail	Silver Creek	SONCC	1.85	0.71	1.14	Middle	12.50	NE	
Prohibit motorized use on an existing trail	Sucker Creek	SONCC	2.98	0.32	2.66	Upper	3.00	NE	
Prohibit motorized use on an existing trail	Indian Creek	SONCC	1.08	0	1.08	Upper	1+ miles	NE	Ridgetop trail
Prohibit motorized use on an existing trail	Headwaters Applegate River	SONCC	3.84	1.22	2.62	Upper	8.20	NE	Upstream of Applegate Dam
Prohibit motorized mixed use	Chetco River	SONCC	12.51	0.52	11.99	Middle	0.05	NE	
Prohibit motorized mixed use	Josephine Ck – Illinois R	SONCC	11.97	3.43	8.54	Lower	0	NE	Crosses coho critical habitat twice
Designate motorized mixed use	Shasta Costa – Rogue R.	SONCC	0.17	0.12	0.05	Lower	0.70	NE	Burnt Ridge Road
Prohibit motorized public use	W. Fork Illinois	SONCC	7.65	0.30	7.35	Middle	0.10	NE	
Prohibit motorized public use	Josephine Ck – Illinois R.	SONCC	4.82	2.56	2.26	Mid/Low	0	NE	Crosses coho critical habitat once
Prohibit motorized public use	Deer Creek	SONCC	1.52	1.20	0.32	Lower	0	NE	Crosses coho critical habitat once
Construct motorized trail	Headwaters Applegate River	SONCC	1.18	0	1.18	Middle	6.30	NE	Upstream of Applegate Dam
Close Areas to Motorized Cross-Country Travel	Multiple Watersheds across the Forest	SONCC, OC	~275,000 acres	-	-	-	-	BE, NLAA	<b>Beneficial Effect</b>

## VI. ESA AND EFH DETERMINATION

### **Determination on Effects on OC and SONCC Coho Salmon and OC and SONCC Coho Critical Habitat from implementation of the Motorized Vehicle Use Project**

The effects are determined to be neutral for all indicators except sediment and pool character & quality, which had a slight positive effect from project actions. Much of the discussion of possible effects to coho salmon, essential features of critical habitat and essential fish habitat (EFH) centers on reduction of fine sediment delivery to the stream system and critical habitat downstream. This improvement is exclusively linked to the elimination of cross-country motorized travel within the boundaries of the Rogue River-Siskiyou National Forest (RRSNF), and the potential decrease in upland erosion and sediment influx into stream channels that could result from this action. As a result the *Closing Areas to Cross-Country Motorized Travel* would have a **beneficial effect** on individual OC and SONCC coho salmon, OC and SONCC coho salmon critical habitat and **beneficial effect on** essential fish habitat (EFH) for coho and Chinook salmon. All other Project Elements would have **no effect** whatsoever to individual OC and SONCC coho salmon, OC and SONCC coho salmon critical habitat, or EFH for coho and Chinook salmon.

### **Determination and Conclusions**

The Motor Vehicle Use Project would result in positive effects to OC and SONCC coho salmon and OC and SONCC coho salmon critical habitat on the RRSNF. Thus, a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for OC coho salmon, and OC coho salmon critical habitat and a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for SONCC coho salmon, and SONCC coho salmon critical habitat. This determination is exclusively linked to the elimination of cross-country motorized travel within the boundaries of the Rogue River-Siskiyou National Forest (RRSNF), and the potential decrease in upland erosion and sediment influx into stream channels that could result from this action.

Essential Fish Habitat is the same as CCH in the Action Area. Therefore, the same determination of effects applies to EFH. The project is **Beneficial, Will Not Adversely Affect** Essential Fish Habitat for coho salmon or Chinook salmon.

Rationale and approval from NOAA Fisheries, 2011 for use of the Programmatic Consultation for Fish Habitat Restoration Activities in Oregon and Washington, CY2007-2012 (ARBO), to cover project consultation requirement for ESA listed fish species and critical habitat and EFH is stated below:

On November 9, 2005, the *Final Rule for Travel Management; Designated Routes and Areas for Motor Vehicle Use* (hereafter referred to as Travel Management Rule) was published in the Federal Register; affecting 36 Code of Federal Regulations (CFR) parts 212, 251, 261, and 295. The Rule revises several regulations to require designation of roads, trails, and areas for motor vehicle use on National Forests and National Grasslands.

Highlights of the Travel Management Rule include: each National Forest or Ranger District will designate those roads, trails, and areas open to motor vehicles: designation will include class of vehicle and, if appropriate, season of use for motor vehicle. Once the designation process is complete, the rule will prohibit motor vehicle use off the designated system and use that is inconsistent with the designations.

The Rogue River-Siskiyou National Forest began the designation process in spring 2006. The Preferred Alternative is being carried forward in accordance with the Travel Management Rule.

USDA Forest Service Region 6 guidance to local Forests included:

*Designation of routes, trails and areas decided by previous administrative decisions through publication of a Motor Vehicle Use Map (MVUM), where no NEPA is required (36 CFR 212.50), does not constitute either a major Federal action under NEPA nor a Federal agency action under the ESA.*

Designation is considered to be purely an administrative action mapping an existing situation in which decisions have been implemented and the environmental consequences have already occurred. Designation, therefore, has no environmental consequences that can be meaningfully evaluated (40 CFR 1508.14).

For the purposes of NEPA, the “proposed action” consists of the **change(s)** being proposed to current Forest Plan and transportation system to implement the Travel Management Rule (36 CFR 212, 251, 261, 295). For the purposes of ESA compliance, the NEPA “proposed action” is the same as the “Federal agency action” (ESA Section 7(a)(2)).

Thus, inclusion of existing routes with continuation of existing use does not constitute an “action” by the Forest, and thus no consultation ESA §7(a)(2) is required.

This same approach was successfully used on the Deschutes and Ochoco National Forests (DONF) during the analysis of their motorized travel planning effort, and disclosure of effects to ESA listed Middle Columbia River Steelhead. During this analysis, the DONF determined that closure of 298,180 acres to cross-country motorized travel resulted in a beneficial effect to steelhead. The DONF, in concert with the NOAA Fisheries Oregon State Office, utilized **ARBO category 9 (reduction of recreation impacts)**, to meet the consultation obligations of ESA §7(a)(2).

### Dichotomous Key for Making Section 7 Determination of Effects

**Location:** Rogue River-Siskiyou National Forest

**Project Name:** Motorized Vehicle Use

**Species:** OC coho salmon

**Watersheds within Project Area:** Watersheds within the RRSNF, Table 1

1. Are there any proposed/listed anadromous salmonids and/or proposed/designated critical habitat in the watershed or downstream from the watershed?

NO.....No Effect

**YES.....May affect, go to 2**

2. Will the proposed action(s) have any effect whatsoever\* on the species and/or critical habitat?

NO.....No Effect

**YES.....Go to 3**

3. Does the proposed action(s) have the potential to hinder attainment of relevant properly functioning indicators from checklist?

**NO.....Go to 4**

YES.....Likely to adversely affect

4. Does the proposed action(s) have the potential to result in “take”\*\* of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat?

**NO. There is a negligible (extremely low) probability of take of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat.....Not likely to adversely affect**

YES. There is more than a negligible probability of take of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat.....Likely to adversely affect\*\*\*

---

\*"Any effect whatsoever" includes small effects that are unlikely to occur, and beneficial effects, i.e. a "no effect" determination is only appropriate if the proposed action will literally have no effect whatsoever on the species and/or critical habitat, not a small effect, an effect that is unlikely to occur, or a beneficial effect.

\*\*"Take" – The ESA (Section 3) defines take as "to harass, harm, pursue, hunt, shoot, wound, trap, capture, collect or attempt to engage in any such conduct". The USFWS further defines "harm" as "significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering" and "harass" as "actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering".

\*\*\*Document expected incidental take on appropriate form.

**Dichotomous Key for Making Section 7 Determination of Effects**

**Location:** Rogue River-Siskiyou National Forest

**Project Name:** Motorized Vehicle Use

**Species:** SONCC coho salmon

**Watersheds within Project Area:** Watersheds within the RRSNF, Table 1

5. Are there any proposed/listed anadromous salmonids and/or proposed/designated critical habitat in the watershed or downstream from the watershed?

NO.....No Effect

**YES.....May affect, go to 2**

6. Will the proposed action(s) have any effect whatsoever\* on the species and/or critical habitat?

NO.....No Effect

**YES..... Go to 3**

7. Does the proposed action(s) have the potential to hinder attainment of relevant properly functioning indicators from checklist?

**NO..... Go to 4**

YES.....Likely to adversely affect

Does the proposed action(s) have the potential to result in "take"\*\*\* of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat?

**NO. There is a negligible (extremely low) probability of take of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat.....Not likely to adversely affect**

YES. There is more than a negligible probability of take of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat.....Likely to adversely affect\*\*\*

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\*"Any effect whatsoever" includes small effects that are unlikely to occur, and beneficial effects, i.e. a "no effect" determination is only appropriate if the proposed action will literally have no effect whatsoever on the species and/or critical habitat, not a small effect, an effect that is unlikely to occur, or a beneficial effect.

\*\*"Take" – The ESA (Section 3) defines take as "to harass, harm, pursue, hunt, shoot, wound, trap, capture, collect or attempt to engage in any such conduct". The USFWS further defines "harm" as "significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering" and "harass" as "actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering".

\*\*\*Document expected incidental take on appropriate form.

Name of Biologist: /s/ Steve Brazier Date: July 19, 2011

### **Literature Cited**

Bennett, G. 2009. Personal communication regarding fish species observed and recorded during July 2009 Level II Stream Survey of Quosatana Creek.

Joplin, M. 2011. Rogue River-Siskiyou National Forest, Travel Management-Hydrologic Analysis.

NMFS 2008. Biological Opinion for Fish Habitat Restoration Activities in Oregon and Washington, CY 2007-2012. NMFS No: 2008/03505. 150 pages.

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NMFS 1996. Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. Prepared by: The National Marine Fisheries Service, Environmental and Technical Services Division, Habitat Conservation Branch. 32 pages.

USFWS 1997. Biological Opinion for Programmatic Aquatic Habitat Restoration Activities in Oregon and Washington. 8330.F0055(07). 258 pages.

# Aquatic Biota Biological Evaluation & Specialist Report

## Motorized Vehicle Use on the Rogue River-Siskiyou National Forest



Rogue River-Siskiyou National Forest  
3040 Biddle Road  
Medford, OR 97504

# I. Title Page

**Project Name:** Motorized Vehicle Use on the Rogue River-Siskiyou National Forest (RRSNF)

**Project Location:** USDA Forest Service, Rogue River-Siskiyou National Forest

**Table 1. Fifth Watersheds within the Action Area**

<b>Fifth Field</b>	<b>Fifth Field</b>
Althouse Creek	Little Applegate River
Bear Creek	Little Butte Creek
Big Butte Creek	Lobster Creek
Briggs Creek	Lower Applegate River
Chetco River	Middle Applegate River
Deer Creek	North Fork Smith River
East Fork Illinois River	Pistol River
Elk Creek	Rogue River
Elk River	Shasta Costa Ck-Rogue River
Euchre Creek-Frontal Pacific	Silver Creek
Headwaters Applegate Riv.	Sixes River
Headwaters Rogue River	South Fork Coquille River
Hellgate Canyon-Rogue River	South Fork Rogue River
Hunter Creek	Stair Creek-Rogue River
Indian Creek	Sucker Creek
Indigo Creek	Upper Applegate River
Josephine Ck-Illinois River	West Fork Cow Creek
Klondike Ck-Illinois River	West Fork Illinois River
Lawson Ck-Illinois River	Winchuck River

**Watershed Analyses (WA):** Listed in Table 2.

**Table 2. Watershed Analysis Completed within the Project Area**

<b>Watershed, Year Completed</b>	<b>Watershed, Year Completed</b>
Bear Creek, 1995	Lower Illinois, 2000
Beaver-Palmer, 1994	Lower Rogue, 1995
Bradford Creek, 1996	Middle Applegate, 1998
Briggs Creek, 1994	Middle Illinois, 1999
Cheney/Slate, 1996	North Fork Smith River, 1995
Chetco River, 1996	Pistol River, 2003
Collier Creek, 1997	Quosatana Creek, 1996
Deer Creek, 1997	Rogue River above Galice, 1995
East Fork Illinois River, 2000	Rogue River below Agness, 2000
Elk Creek, 1996	Rogue River Marial/Agness, 1999
Elk River, 1998	SF Coquille River, 1995
Grayback/Sucker 1998	Shasta Costa Creek, 1996
Horse Sign Creek, 1998	Silver Creek, 1995
Hunter Creek, 1998	Sixes River, 1997
Indigo Creek, 1998	Squaw/Elliott/Lake, 1995
Kalmiopsis Wilderness, 1995	Upper Bear Creek, 2003
Lawson Creek, 1997	Upper Big Butte Creek, 1995
Little Applegate River, 1995	Upper Rogue River, 1995
Little Butte Creek, 1997	West Fork Illinois, 1997
Lobster Creek, 1999	Winchuck River, 1999

**Land Allocation of Project Area:** Administrative Study Area (MA-15)  
 Backcountry Recreation (MA-6)  
 Botanical (MA-4)  
 Late Successional Reserve (MA-8)  
 Matrix (MA-14)  
 Riparian Reserve (MA-11)  
 Special Wildlife Site (MA-9)

**Administrative Unit:** Rogue River-Siskiyou National Forest (RRSNF): Gold Beach, High Cascades, Powers, Siskiyou Mountains, and Wild Rivers Ranger Districts

**Prepared By:** Steve Brazier, Fisheries Biologist, RRSNF

**Reviewed By:** Susan Maiyo, Forest Fisheries Biologist, RRSNF

**Document Date:** July 19, 2010

## II. EXECUTIVE SUMMARY

### Biological Evaluation Background Information

The Biological Evaluation process (FSM 2672.43) is intended to conduct and document activities necessary to ensure Proposed Actions will not likely jeopardize the continued existence or cause adverse modification of habitat for:

- A. Fish species listed or proposed to be listed as **Endangered** (E) or **Threatened** (T) or **Proposed** for Federal listing (P) by the National Marine Fisheries Service.
- B. Fish species listed as **Sensitive** (S) by USDA, Forest Service.

### Threatened, Endangered, Sensitive, and Proposed Fish Species (TESP)

In compliance with Section 7 of the Endangered Species Act (ESA) and the Forest Service Biological Evaluation process for TESP fish species, the list of species potentially occurring within the project area was reviewed. Lists for the Rogue River-Siskiyou National Forest (RRSNF) and the Pacific Northwest Region (R-6) were reviewed in regard to potential effects on any of these species by actions associated with the Motorized Vehicle Use Project. Pre-field and reconnaissance results are summarized in the table below.

**Table 3. Potentially Affected Species, Status, and Habitats Assessed (Pacific Northwest Regional Forester’s Sensitive Species List updated January 2008)**

Species/Habitat		Pre-field Review	Field Surveys
Common name	Scientific Name	Existing Sighting or Potential Habitat (Yes*/No**)	Habitat or Species Confirmed (Yes*/No**)
<b><i>Threatened Species</i></b>			
SONCC Coho salmon	<i>Oncorhynchus kisutch</i>	Yes	Yes
OC Coho Salmon	<i>O. kisutch</i>	Yes	Yes
<b><i>Critical Habitat</i></b>			
SONCC Coho salmon	<i>O. kisutch</i>	Yes	Yes
OC coho salmon	<i>O. kisutch</i>	Yes	Yes
<b><i>Essential Fish Habitat</i></b>			
Coho salmon	<i>O. kisutch</i>	Yes	Yes
Chinook Salmon	<i>O. tshawytscha</i>	Yes	Yes
<b><i>Sensitive Species</i></b>			
SONCC Chinook salmon	<i>O. tshawytscha</i>	Yes	Yes
PC chum salmon	<i>O. keta</i>	No	No
OC Steelhead	<i>O. mykiss</i>	Yes	Yes
Inland redband trout	<i>O. mykiss</i>	No	No
Pit sculpin	<i>Cottus pitensis</i>	No	No
Western ridged mussel	<i>Gonidea angulata</i>	No	No
Klamath rim pebblesnail	<i>Fluminicola sp.</i>	No	No
Highcap lanx	<i>Lanx alta</i>	No	No
Scale lanx	<i>Lanx klamathensis</i>	No	No
Robust walker	<i>Pomatiopsis binneyi</i>	No	No
Pacific walker	<i>Pomatiopsis californica</i>	No	No
Pristine springsnail	<i>Pristinicola hemphilli</i>	No	No

\***Yes** – The proposed project’s potential effects on these species will be further analyzed in this document.

\*\***No** – No further analysis is necessary, and a determination of “No Impact” is rendered.

## Summary of Findings

Proposed activities included in all Action Alternatives (Alternatives 2, 3, 4, 5) would have a **Beneficial, Not Likely to Adversely Affect** on SONCC coho salmon, SONCC coho critical habitat, OC coho salmon, and OC coho salmon critical habitat. Further, these activities will have a **Beneficial, Not Likely to Adversely Affect** to Essential Fish Habitat for coho salmon and Chinook salmon. These Beneficial Effects are covered under the existing programmatic consultation for Fish Habitat Restoration Activities in Oregon and Washington (NMFS 2008, NMFS 2006, USFWS 2007), under category 9 “Reduction of Recreation Impacts”. For detailed effects analysis related to SONCC coho salmon, SONCC coho salmon critical habitat, OC coho salmon, OC coho salmon critical habitat, and coho and Chinook Essential Fish Habitat, please refer to the Fisheries Biological Assessment for the Motorized Vehicle Use Project (Brazier 2011).

Proposed activities (excluding the Woodruff Trail Connector in Alt. 3, see below) included in all Action Alternatives (Alternatives 2, 3, 4, and 5) would have a **Beneficial Impact** to SONCC Chinook salmon, and OC steelhead. **No Impact** was determined for effects on PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, and pristine springsnail.

Construction of the Woodruff Trail connector would create a new sediment source within the Quosatana Creek subwatershed, which is CCH and occupied by SONCC Chinook salmon. Accordingly this action **May Affect, Not Likely to Adversely Affect** SONCC coho salmon and SONCC coho CH. Further, this action **May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species** (SONCC Chinook salmon).

The No Action Alternative would have **No Effect** to SONCC coho salmon, SONCC coho critical habitat, OC coho salmon, and OC coho salmon critical habitat. Further, this alternative would have **No Effect** to Essential Fish Habitat for coho salmon and Chinook salmon, and **No Impact** on SONCC Chinook salmon, PC chum salmon, OC steelhead, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, and pristine springsnail.

## III. DESCRIPTION OF THE PROPOSED ALTERNATIVES

On November 9, 2005, the *Final Rule for Travel Management; Designated Routes and Areas for Motor Vehicle Use* (hereafter referred to as Travel Management Rule) was published in the Federal Register; affecting 36 Code of Federal Regulations (CFR) parts 212, 251, 261, and 295. The Rule revises several regulations to require designation of roads, trails, and areas for motor vehicle use on National Forests and National Grasslands.

Highlights of the Travel Management Rule include: each National Forest or Ranger District will designate those roads, trails, and areas open to motor vehicles: designation will include class of vehicle and, if appropriate, season of use for motor vehicle. Once the designation process is complete, the rule will prohibit motor vehicle use off the designated system and use that is inconsistent with the designations.

**The actions of the project can be divided into three Project Elements and are described below:**

- 4) *Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use (Alternative 2, 3, 4, and 5).*

- 5) *Close Areas to Cross-Country Motorized Travel (Alternatives 2, 3, 4, and 5).*
- 6) *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail (Alternatives 3, 4, and 5).*

**Table. 4 Proposed Alternatives with Activities**

Alternative	Project Element 1 (administrative only)	Project Element 2	Project Element 3						
	Enact Forest and District-wide plan amendments.	Close area to Motorized Cross-country travel (acres)	Convert ML1 Road to Motorized Trail (miles)	Prohibit Motorized use of an existing Trail (miles)	Prohibit motorized Mixed Use (miles)	Designate Motorized Mixed Use (miles)	Prohibit Motorized Public Use (miles)	Construct Motorized Trail (miles)	Develop Motorized Play Area (acres)
1	0	0	0	0	0	0	0	0	0
2	Forest-wide	275,000	0	0	0	0	0	0	0
3	Forest-wide	275,000	13.91	31.51	24.48	36.83	14.64	1.48	10.0
4	Forest-wide	275,000	0	128.71	24.92	0.14	51.45	0	0
5	Forest-wide	275,000	9.56	36.82	24.48	0.17	14.64	1.18	0

**Alternative 1 – No Action**

Under the No Action Alternative, the existing condition, as reflected in the Forest route inventory and analysis of the transportation system completed in August 2008, would continue. These existing routes on the Forest would primarily be used for public wheeled motor vehicle use. Cross-country travel and route proliferation would still occur in isolated areas on the Forest. Areas for dispersed activities would continue to be used by public wheeled motor vehicles, primarily for the purpose of dispersed camping and parking. No changes would be made to the current National Forest transportation system and no cross-country travel prohibition would occur.

**Alternative 2**

*Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use – similar to all action alternatives*

- Enact Forest-wide Plan Amendments to make the plans consistent with the Travel Management Rule. Two separate Forest Plans guide the Rogue River-Siskiyou National Forest.
- Enact project-level Forest Plan Amendments to make the plans consistent with current and historical motorized use.

District Specific Activities

#### Gold Beach Ranger District

- Amend the Siskiyou LRMP to make current motorized use of the Game Lake Trail (#1169), Lawson Creek Trail (#1173), Illinois River Trail (#1161), Silver Peak Hobson Horn Trail (#1166), and two unnamed connector trails consistent with the Standards and Guidelines for the Allocations through which they pass (Backcountry Recreation).

#### Wild Rivers Ranger District

- Amend the Siskiyou LRMP to make motorized use of the Boundary Trail (#1207) consistent with Standards and Guidelines for the allocations in which it passes through (Research Natural Area).

#### Siskiyou Mountains Ranger District

- Amend the Rogue River LRMP to make motorized use of the Boundary Trail (#1207) and two connecting trails (#900 and #903) consistent with Standards and Guidelines for the allocations in which it passes through.

#### *Close Areas to Cross-Country Motorized Travel*

Similar to all the action alternatives, Alternative 2 would close approximately 275,000 acres of the RRSNF to cross-country motorized travel. The vast majority of these acres are located on the High Cascades Ranger District, in watersheds that do not contain coho salmon critical habitat, due to the presence of the Lost Creek Dam and other permanent passage barriers (i.e. Butte Falls on Big Butte Creek). In addition, there are specific project activities for some of the Districts as stated below.

#### **Alternative 3 – Proposed Action**

The Proposed Action is based on the Forest's analysis of the transportation system process and focuses on the change from the current condition. It aims to strike a balance for various forms of motorized use by identification of sustainable motorized use opportunities with minimal adverse resource impacts, and enacting the Travel Management Rule.

Under the Proposed Action, amendments to the Rogue River and Siskiyou Land and Resource Management Plans would provide consistency with the 2005 Travel Management Rule. All roads and trails and areas would be closed to motorized use unless designated as open.

Under the Proposed Action (Alternative 3), the Forest proposes to:

*Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*

- Similar to Alternative 2.

#### *Close Areas to Cross-Country Motorized Travel*

- Similar to Alternative 2.

*Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail*

- Similar to all the action alternatives, formally designate approximately 3,183 miles of road where mixed use would be allowed. Mixed use is defined as designation of a National Forest System (NFS) road for use by both highway-legal and non-highway-legal motor vehicles.
- Construct two motorized trails to provide loop route opportunities (approximately 2 miles).
- Convert approximately 12 miles of NFS roads to motorized trails.
- Designate two areas where off-road motorized use would be allowed. This includes continued use of the Woodruff area near Prospect and the development of an additional area near Willow Lake. Both areas are located on the High Cascades Ranger District. All other cross country travel would be prohibited.
- Prohibit public motorized use on approximately 7 miles of roads and 31 miles of trail currently open in order to minimize or reduce resource damage.

There are specific project activities for the Districts as stated below.

#### Powers Ranger District

- Off-road motorized travel for dispersed camping is generally allowed along all roads designated open, except where otherwise prohibited. No off-road motorized travel for dispersed camping would be allowed within ¼ mile of developed recreation sites.
- Designate approximately 6.2 miles of paved road for motorized mixed use on a portion of Road 3348 (Eden Valley Road).

#### Gold Beach Ranger District

- Off-road motorized travel for dispersed camping is generally allowed along all roads designated open, except where otherwise prohibited. No off-road motorized travel for dispersed camping would be allowed within ¼ mile of developed recreation sites.
- Amend the Siskiyou LRMP to make current motorized use of the Game Lake Trail (#1169), Lawson Creek Trail (#1173), Illinois River Trail (#1161), Silver Peak Hobson Horn Trail (#1166), and two unnamed connector trails consistent with the Standards and Guidelines for the Allocations through which they pass (Backcountry Recreation).
- Prohibit motorized mixed use on approximately 12.6 miles of road where it is currently authorized on portions of Roads 1376010, 1376012, 1376013, 1376015, 1376019, 1376902, 1376903, and 1376908.
- Prohibit motorized use on approximately 10.1 miles in the lower portions of the Lawson Creek (#1173) and Game Lake (#1169) trails, which currently allow motorized use.
- Construct approximately 0.5 miles of new motorized trail that would connect to the Woodruff Trail.
- Designate approximately 0.2 miles of paved road for motorized mixed use on a portion of Road 3313.
- Convert approximately 9.3 miles of roads currently designated as Maintenance Level 1 to motorized trails (portions of Roads 3313103, 3313110, 3313117, 3680190, 3680195, 3680220, 3680351, 3680353, and 3680409).

#### Wild Rivers Ranger District

- No off-road motorized travel for dispersed camping would be allowed. The only authorized parking would be along-side of open roads (not to exceed 20 feet) or in previously constructed landings.
- Amend the Siskiyou LRMP to make motorized use of the Boundary Trail (#1207) consistent with Standards and Guidelines for the allocations in which it passes through (Research Natural Area).
- Convert approximately 3.0 miles of roads currently designated as Maintenance Level 1 to motorized trails (portions of Roads 4402494, and 2509640).
- Prohibit motorized mixed use on approximately 11.8 miles of road where it is currently authorized on portions of Roads 4201029, 4201881, 4300011, 4300910, and 4300920.
- Prohibit public motorized use on approximately 13.8 miles of road, including portions of Roads 4400445, 4400459, 4400460, 4400480, 4300011, 4300910, 4300920, 4300925, 4201016, and 4103011.
- Prohibit motorized use on approximately 0.6 miles of Road 2600050.

- Prohibit motorized use on approximately 11.3 miles of trail that currently allows motorized use on portions (or entirely) of the following trails: Taylor Creek (#1142), Big Pine Spur (1142A), Onion Way (#1181), Secret Way (#1182), Secret Way Spur (1182A), and Swede Creek (#1135).
- Prohibit motorized use on approximately 1.8 miles of trail that currently allows motorized use on the Silver Lake Trail (#1184).
- Prohibit motorized use on approximately 4.1 miles of trail that currently allows motorized use on portions (or entirely) of the following trails: Mt. Elijah(#1206), Bigelow Lake (#1214), Bolan Lake (#1245), and Kings Saddle (#1245A).

#### Siskiyou Mountains Ranger District

- Off-road motorized travel for dispersed camping is generally allowed up to 300 feet along roads designated as open, except for areas currently closed by a Forest Order.
- An amendment to the Rogue River Land and Resource Management Plan to make motorized use of the Boundary Trail (#1207) and some connecting trails (#900 and #903) consistent with Standards and Guidelines for the allocations through which it passes.
- Prohibit motorized use on approximately 4.0 miles of the Horse Camp Trail (#958) that currently allows motorized use.
- Construct and relocate approximately 1.2 miles of the Penn Sled Trail (#957) east of Applegate Lake that would allow motorized use for Class III vehicles.

#### High Cascades Ranger District

- Off-road motorized travel for dispersed camping is generally allowed up to 300 feet along most roads designated as open, except within the Elk Creek Watershed, and areas currently closed by Forest Order.
- Develop a motorized play area (approximately 10 acres) near the junction of road 3050 and county road 821.
- Designate approximately 31.5 miles of paved road for motorized mixed use on portions of Roads 34, 37, 3705, 3720, and within developed campgrounds adjacent to routes that allow mixed use. These campgrounds included Union Creek, Farewell Bend, Natural Bridge, Woodruff Bridge, Abbott Creek, and Whiskey Springs.

### **Alternative 4**

Alternative 4 addresses the significant resource issues identified through the scoping process and propose a reduction in motorized use relative to the current condition and to Alternative 3.

Under Alternative 4, amendments to the Rogue River and Siskiyou Land and Resource Management Plans would provide consistency with the 2005 Travel Management Rule. All roads and trails and areas would be closed to motorized use unless designated as open.

Based on the stated Purpose and Need for action and as a result of the recent analysis of the transportation system, Alternative 4 proposes to:

*Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*

- Similar to Alternatives 2 and 3.

#### *Close Areas to Cross-Country Motorized Travel*

Similar to Alternatives 2 and 3.

*Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail*

- Similar to all the action alternatives, formally designate approximately 3,047 miles of road where mixed use would be allowed. Mixed use is defined as designation of a National Forest System (NFS) road for use by both highway-legal and non-highway-legal motor vehicles.
- Prohibit motorized public access on approximately 43 miles of roads currently open in order to minimize or reduce resource damage.
- Prohibit motorized use on approximately 114 miles of trails currently open in order to minimize or reduce resource damage and user conflicts.

There are specific project activities for each of the Districts as stated below.

**Powers Ranger District**

- Off-road travel for dispersed motorized camping would not be allowed along paved roads. All other open roads would allow off-road motorized travel for dispersed camping. No off-road motorized travel would be allowed within ¼ mile of developed recreation sites or where otherwise prohibited.
- Prohibit motorized use on the one-mile Big Tree Trail (#1150).

**Gold Beach Ranger District**

- Off-road travel for dispersed motorized camping would not be allowed along paved roads. All other open roads would allow off-road motorized travel for dispersed camping. No off-road motorized travel would be allowed within ¼ mile of developed recreation sites or where otherwise prohibited.
- Prohibit motorized mixed use on approximately 12.6 miles of road where it is currently authorized on portions of Roads 1376010, 1376012, 1376013, 1376015, 1376019, 1376902, 1376903, and 1376908.
- Prohibit motorized use on approximately 6.0 miles of road where it is currently authorized on portions of Roads 1107350, 1107357, 1107950, 1205245, 1205246, 1205248, 1205249, and 1205321.
- Prohibit motorized use on the one-mile Red Flat Trail, located in the Hunter Creek Watershed.
- Prohibit motorized use on approximately 33.2 miles of trail that include 16.9 miles on the Game Lake (#1169) and Lawson Creek (#1173) trail system, 9.7 miles on the lower portion of the Illinois River Trail (#1161) and the “Nancy Creek” Trail (unnumbered) northeast of Buzzards Roost, 1.2 miles of an unnumbered trail east of the Rogue River (near Shasta Costa Creek), and 5.4 miles on the Lower Rogue River Trail (#1168).
- Prohibit motorized use on the 17.2 mile Silver Peak-Hobson Horn (#1166) located on both the Gold Beach and Wild Rivers Ranger Districts, and the 3-mile Fish Hook Trail (#1180), also located on both Districts.

**Wild Rivers Ranger District**

- No off-road motorized travel for dispersed camping would be allowed. The only authorized parking would along-side of open roads (not to exceed 20 feet) or in previously constructed landings.
- Prohibit motorized use on approximately 1.8 miles of trail that currently allows motorized use on the Silver Lake Trail (#1184).
- Prohibit motorized mixed use on approximately 4.8 miles of Road 2512091.
- Prohibit motorized use on approximately 0.6 miles of Road 2600050.
- Prohibit motorized use on approximately 11.3 miles of trail that currently allow motorized use, including portions of Taylor Creek (#1142), Big Pine Spur (#1142A), Onion Way (#1181), Secret Way (#1182), Secret Way spur (#1182A), Briggs Creek (#1132), Red Dog (#1143), Phone (#1153), Dutchy Creek (#1146) and Swede Creek (#1135) Trails.

- Prohibit motorized use on approximately 3.9 miles of road including portions of Roads 4300011, 4300910, 4300925, 4201016, and 4103011. In Addition, prohibit motorized use on approximately 4.4 miles of road, including portions of Roads 4103087, 4201844, 4201846, 4201847, 2524847, 2524015, and 2524048. These roads would still be open for permitted or limited administrative use.
- Prohibit motorized mixed use on approximately 10.8 miles of road where it is currently authorized on portions of Roads 4201029, 4201881, 4300011, 4300910, and 4300920.
- Prohibit motorized use on approximately 7.6 miles of road including all or portions of Roads 4400445, 4400459, 4400460, and 4400480.
- Prohibit motorized use on approximately 24.8 miles of road including all or portions of Roads 4402019, 4402172, 4402206, 4402259, 4402450, 4402530, and 4402550.
- Prohibit motorized use on approximately 15.2 miles of trail that currently allows motorized use on the following trails: Boundary Trail (#1207), Elk Creek (#1230), Mt. Elijah (#1206), Bigelow Lake (#1214), Bolan Lake (#1245) and Kings Saddle.

Siskiyou Mountains Ranger District

- Off-road motorized travel for dispersed camping would only be allowed along certain designated Maintenance Level 2 and 3 roads.
- Prohibit motorized use on approximately 3.8 miles of trail that includes the Sturgis Fork (#903) and O'Brien Creek (#900) trails.
- Prohibit motorized use on approximately 29.1 miles of trail that includes the Horse Camp Trail (#958), Cook and Green Trail (#959) and the Mule Mountain complex of trails: Mule Mountain (#919), Mule Creek (#920), Charley Buck/Baldy Peak (#918), and Little Grayback (#921).

High Cascades Ranger District

- There would be no changes on the High Cascades Ranger District. The Prospect OHV system would remain in place. Off-road motorized travel for dispersed camping would be allowed along currently identified “green-dot” roads only.

**Alternative 5 – Preferred Alternative**

Alternative 5 is a blend activities included in Alternatives 3 and 4, which would provide for a designated and managed system, enact changes to reduce existing resource damage from motorized use, and reduce social impacts such as user conflicts and safety concerns. Alternative 5 would propose a reduction in motorized use relative to the current condition and Alternative 3, though not to the extent of Alternative 4.

Based on the stated Purpose and Need for action and as a result of the recent analysis of the transportation system process, under Alternative 5, the Forest proposes to:

*Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*

- Similar to Alternatives 2 through 4.

*Close Areas to Cross-Country Motorized Travel*

- Similar to Alternatives 2 through 4.

*Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail*

- Similar to all the action alternatives, formally designate approximately 2,999 miles of road where mixed use would be allowed. Mixed use is defined as designation of a National Forest System (NFS) road for use by both highway-legal and non-highway-legal motor vehicles.
- Construct one motorized trail to provide loop route opportunities (approximately 1.5 miles).
- Convert approximately 10 miles of NFS roads to motorized trails.
- Designate one area where off-road motorized use would be allowed. This would include continued use of the Woodruff area near Prospect. This area is located on the High Cascades Ranger District.
- Prohibit public motorized use on approximately 7 miles of roads and 37 miles of trail currently open in order to minimize or reduce resource damage.

There are specific project activities for most of the Districts as stated below.

#### Powers Ranger District

- Prohibit motorized use on the one-mile Big Tree Trail (#1150).

#### Gold Beach Ranger District

- Amend the Siskiyou LRMP to make current motorized use of the Game Lake Trail (#1169), Lawson Creek Trail (#1173), Illinois River Trail (#1161), Silver Peak Hobson Horn Trail (#1166), and two unnamed connector trails consistent with the Standards and Guidelines for the Allocations through which they pass (Backcountry Recreation).
- Prohibit motorized mixed use on approximately 12.5 miles of road where it is currently authorized on portions of Roads 1376010, 1376012, 1376013, 13760150, 1376019, 1376902, 1376903, and 1376908.
- Prohibit motorized use on approximately 14.2 miles of trail that include 6.9 miles on the Game Lake Trail (# 1169), 4.1 miles on the Lawson Creek Trail (#1173), and 3.2 miles on a portion of the Illinois River Trail (#1161).
- Convert approximately 9.3 miles of roads currently designated as Maintenance Level 1 to motorized trails (portions of Roads 3313103, 3680190, 3680195, 3680220, 3680351, 3680353, and 3313117). These roads are located in the following areas south of the Rogue River: Upper Lawson Creek, Signal Butte, and Kimball Butte.
- Prohibit motorized use on approximately 0.8 miles of trail (#1164) in the Woodruff Meadow area.
- Designate approximately 500 feet of paved road for motorized mixed use on a portion of Road 2308 (Burnt Ridge Road).

#### Wild Rivers Ranger District

- Route-specific Forest Plan Amendments: An amendment to the Siskiyou Land and Resource Management Plan is proposed to make motorized use of the Boundary Trail (#1207) consistent with Standards and Guidelines for the allocations through which it passes (Research Natural Area).
- Prohibit motorized mixed use on approximately 10.2 miles of road where it is currently authorized on portions of Roads 4400445, 4400459, 4400460, 4400461, and 4400480.
- Prohibit motorized mixed use on approximately 11.9 miles of road where it is currently authorized on portions of Roads 4201029, 4201881, 4300011, 4300910 and 4300920.
- Prohibit public motorized use on approximately 6.4 miles of road including portions of Roads 4300011, 4300910, 4300920, 4300925, 4201016, and 4103011. These roads would still be open for permitted or limited administrative use.
- Convert approximately 0.3 miles of Road 2509640, currently designated as a Maintenance Level 1 road, to a motorized trail.
- Prohibit motorized use on approximately 0.6 miles of Road 2600050.

- Prohibit motorized use on approximately 11.1 miles of trail that currently allows motorized use on portions (or entirely) of the following trails: Taylor Creek (#1142), Big Pine Spur (1142A), Onion Way (#1181), Secret Way (#1182), Secret Way Spur (1182A), and Swede Creek (#1135).
- Prohibit motorized use on approximately 1.9 miles of trail that currently allows motorized use on the Silver Lake Trail (#1184).
- Prohibit motorized use on approximately 4.1 miles of trail that currently allows motorized use on portions (or entirely) of the following trails: Mt. Elijah(#1206), Bigelow Lake (#1214), Bolan Lake (#1245), and Kings Saddle (#1245A).

Siskiyou Mountains Ranger District

- An amendment to the Rogue River Land and Resource Management Plan to make motorized use of the Boundary Trail (#1207) and some connecting trails (#900 and #903) consistent with Standards and Guidelines for the allocations through which it passes.
- Prohibit motorized use on approximately 3.8 miles of the Horse Camp Trail (#958) that currently allows motorized use.
- Construct and relocate approximately 1.2 miles of the Penn Sled Trail (#957) east of Applegate Lake that would allow motorized use for Class III vehicles.

## IV. DESCRIPTION OF AFFECTED SPECIES AND HABITAT

### Status of Listed Species and Habitat

#### Oregon Coast Coho Salmon and Critical Habitat (threatened)

Oregon Coast (OC) coho ESU was listed as threatened on August 10, 1998 (63 FR 42587). This listing was reevaluated and NMFS determined listing OC coho was not warranted on January 17, 2006. The listing was once again reevaluated and NMFS determined a listing of threatened was warranted on February 4, 2008 (73 FR 7816). OC coho salmon critical habitat was designated as threatened also on February 11, 2008 (73 FR 7816). Final protective regulations for OC coho salmon were issued on February 11, 2008 (73 FR 7816). On April 28, 2009 NMFS announced that it was initiating a status review of OC coho. On May 26, 2010, NMFS affirmed the listing of the OC coho salmon as Threatened (75 FR 29489).

Critical habitat is defined in Section 3(5)(A) of the ESA as “the specific areas within the geographical area occupied by the species Oregon Coast Coho on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” Section 7 of the ESA prohibits the destruction or adverse modification of designated critical habitat (CCH). Table 5 lists streams with OC coho presence and/or CCH within the Action Area. The lateral extent of OC CCH is limited to the ordinary high water mark (i.e. bankfull elevation).

**Table 5. Oregon Coast Coho Salmon ESU Critical Habitat within Action Area**

5 <sup>th</sup> Field Watershed	5 <sup>th</sup> Field Watershed (acres)	Miles of Occupied Coho Habitat (miles)	CCH and EFH (miles)
Sixes River	85,832	7.66	8.66
South Fork Coquille River	108,300	15.41	20.79
West Fork Cow Creek	55,892	0	5.0

On the RRSNF, the South Fork Coquille River, though occupied by OC coho, is exempt from critical habitat designation due to economic benefits of exclusion outweighing the benefits of designation. Further, marine habitats are not included as critical habitat due to the difficulty in identifying specific areas critical to the species. The habitat indicators addressed in this BA that are pertinent to aquatic habitat health, also represents the primary constituent elements of proposed CH for OC coho salmon. Therefore, this analysis is sufficient for consultation of proposed CH as well.

NMFS developed a list of Primary Constituent Elements (PCEs) that are essential for the conservation of OC coho, and which are based on the life history of the coho salmon. These PCEs are: freshwater spawning sites, freshwater rearing sites, freshwater migration corridors, estuarine areas, nearshore marine areas, and offshore marine areas. These PCEs in concert with OC coho distribution data, were used to delineate the spatial extent of the critical habitat. The lateral extent of this designation is limited to the ordinary high water mark (i.e. bankfull elevation). For the purposes of this BA, the PCEs are cross referenced with the respective Habitat Indicators in Table 6 below.

**Table 6. OC Coho Critical Habitat Essential Habitat Features and Respective Habitat Indicators**

<b>PCEs of OC coho Critical Habitat</b>	<b>Habitat Indicator</b>
Freshwater Spawning Sites	Change in Peak/Base Flows, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Substrate
Freshwater Rearing Sites	Change in Peak/Base Flows, Floodplain Connectivity, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Water Quality Indicators, Riparian Reserves, Substrate, Large Woody Debris, Pool Frequency, Pool Quality, Width/depth Ratio, Off-channel Habitat, Streambank Condition
Freshwater Migration Corridors	Physical Barriers, Change in Peak/Base Flows, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Riparian Reserves, Substrate, Large Woody Debris, Pool Frequency, Pool Quality, Width/depth Ratio, Floodplain Connectivity, Off-channel Habitat, Streambank Condition
Estuarine Areas	Physical Barriers, Water Temperature, Sediment/Turbidity, Chemical Contamination/Nutrients, Change in Peak/Base Flows, Water Quality Indicators, Riparian Reserves, Substrate, Large Woody Debris, Pool Frequency, Pool Quality, Width/depth Ratio, Floodplain Connectivity, Off-channel Habitat, Streambank Condition
Nearshore Marine Areas	N/A to RRSNF Actions
Offshore Marine Areas	N/A to RRSNF Actions

### **SONCC Coho Salmon and Critical Habitat (Threatened)**

CCH for SONCC coho salmon was designated by NMFS on May 5, 1999 (64 FR 24049). CCH is defined in Section 3(5)(A) of the ESA as “the specific areas within the geographical area occupied by the species ... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” Critical habitat was designated (64 FR 24049, May 5, 1999) to include all river reaches accessible to listed coho salmon between Cape Blanco, Oregon, and Punta Gorda, California. Critical habitat consists of the water, substrate, and adjacent riparian zones of estuarine and riverine reaches (including off-channel habitats). Accessible reaches are those within the historical range of the ESU that can still be occupied by any life stage of coho salmon. Inaccessible reaches are those above specific dams or above long-standing, naturally impassable barriers (i.e., natural waterfalls in existence for at least several hundred years). Table 7 lists streams with SONCC coho presence and/or CCH within the Action Area.

**Table 7. SONCC Coho Critical Habitat within Action Area**

5 <sup>th</sup> Field Watershed	5 <sup>th</sup> Field Watershed (acres)	Miles of Occupied Coho Habitat (miles)	CCH and EFH (miles)
Althouse Creek	30,243	0.59	3.71
Bear Creek	231,244	0	4.09
Big Butte Creek	158,256	0	0
Briggs Creek	43,758	0	0
Chetco River	225,228	35.55	91.86
Deer Creek	72,605	1.94	2.64
East Fork Illinois River	57,779	7.71	12.72
Elk Creek	85,476	4.90	12.86
Elk River	58,398	21.55	25.91
Euchre Creek-Frontal Pacific	56,329	0	0
Headwaters Applegate Riv.	142,276	0	0
Headwaters Rogue River	248,577	0	0
Hellgate Canyon-Rogue River	93,369	10.31	14.95
Hunter Creek	28,458	0	0
Indian Creek	82,267	No data	No data
Indigo Creek	48,984	0	0
Josephine Ck-Illinois River	81,746	18.51	35.41
Klondike Ck-Illinois River	67,123	30.87	52.57
Lawson Ck-Illinois River	41,179	13.60	28.31
Little Applegate River	72,295	0	15.20
Little Butte Creek	238,882	7.12	18.80
Lobster Creek	44,316	9.47	14.79
Lower Applegate River	90,604	3.69	10.13
Middle Applegate River	82,603	0	0.57
North Fork Smith River	101,182	20.38	28.78
Pistol River	67,285	0	21.71
Rogue River	82,717	16.70	23.05
Shasta Costa Ck-Rogue River	45,026	9.35	16.39
Silver Creek	51,620	0	0
South Fork Rogue River	160,773	0	0
Stair Creek-Rogue River	36,544	13.41	13.41
Sucker Creek	61,515	11.75	12.83
Upper Applegate River	52,296	10.85	22.30
West Fork Illinois River	76,996	5.98	29.78
Winchuck River	45,634	22.85	38.8

The list of Primary Constituent Elements (PCEs) essential for the conservation of the SONCC coho ESU include, but are not limited to, spawning sites, food resources, water quality and quantity, and riparian vegetation (64 FR 24050, May 5, 1999). Specifically, the adjacent riparian area is defined as the area adjacent to a stream that provides the following functions: shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter. NOAA Fisheries defines 10 essential habitat features to include substrates, water quality, water quantity, water temperature, water velocity, cover/shelter, food, riparian vegetation, space, and safe passage conditions (64 FR 24059, May 5, 1999). For the purposes of this BA, the 10 essential habitat features are cross referenced with the respective Habitat Indicators in Table 8 below.

**Table 8. Essential Habitat Features and Respective Habitat Indicators of SONCC CCH**

Essential Feature of CCH	Habitat Indicator
Substrate	Sediment, Pool Quality, Landslide Rates, Large Woody Debris
Water Quality	Temperature, Sediment, Road Density & Location
Water Quantity	Peak/base flows, Drainage Network Increase, Road Density and Location
Water Temperature	Temperature, Riparian Reserves, Refugia, Width/Depth Ratio, Streambank Condition, Peak/base flows, and Floodplain Connectivity.
Water Velocity	Peak/base flows, Drainage Network Increase, Floodplain Connectivity, Off-channel Habitat, Width/Depth Ratio, Road Density and Location, Streambank Condition, Large Woody Debris
Cover/shelter	Sediment, Pool Quality, Streambank Condition, Riparian Reserves, Refugia, Large Woody Debris, Off-channel Habitat, Width/Depth Ratio, Floodplain Connectivity
Food	Sediment, Riparian Reserves, Floodplain Connectivity, Large Woody Debris, Temperature
Riparian Vegetation	Riparian Reserves, Large Woody Debris, Disturbance History, Floodplain Connectivity
Space	Pool Quality, Off-channel Habitat, Floodplain Connectivity
Safe Passage Conditions	Refugia, Physical Barriers, Change in Peak/Base Flows

**Essential Fish Habitat**

Interim final rules for Essential Fish Habitat (EFH) under the Magnuson-Stevens Act (16 U.S.C. 1855(b)) were published in the Federal Register/ Vol. 62, No. 244, December 19, 1997 and final rules published in the Federal Register/ Vol. 67, No. 12, January 17, 2002. These rules are pertinent to Chinook salmon and coho salmon habitat within the Southern Oregon Coastal Basin. Essential Fish Habitat (EFH) has been defined by NMFS as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” This definition includes all waters historically used by anadromous salmonids of commercial value. EFH within the Action Area is the same as CCH. Table 5 displays streams with EFH within the Action Area by river miles.

**SONCC Chinook Salmon (sensitive)**

On the RRSNF, Southern Oregon and Northern California Coastal (SONCC) Chinook salmon occur within the Rogue, Pistol, Chetco, Winchuck, and Smith River basins, as well as several smaller coastal front drainages (e.g. Hunter Creek). The SONCC Evolutionarily Significant Unit (ESU) was determined to be not warranted for listing under the Endangered Species Act, by the National Marine Fisheries Service on September 16, 1999 (64 FR 50394). This ESU is listed as a Sensitive Species on the USFS Region 6 Special Status Species List.

**OC Steelhead (sensitive)**

On the RRSNF, Oregon Coast (OC) steelhead occurs within the South Fork Coquille, and Sixes River drainages. The OC steelhead trout distinct population segment (DPS) was proposed as threatened under the ESA on August 9, 1996 (61 FR 41541), but was found not warranted for listing. OC steelhead is currently listed as a species of concern by NMFS, and as a Sensitive Species by the USFS Region 6.

**Other Species (sensitive)**

PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, and pristine springsnail, are not know to occur or have suitable habitat within proximity to any of the proposed changes included within any of the action alternatives. As such, a **No Impact** determination is rendered and these species will not be discussed further within this document.

## **V. DESCRIPTION OF ENVIRONMENTAL BASELINE AND POTENTIAL EFFECTS OF THE PROPOSED ALTERNATIVES**

### **A. Environmental Baseline – Forest-wide**

The Forest is located in several geologic provinces in SW Oregon: Klamath Mountains, Coastal Franciscan and Cascade Mountains (Western and High Cascades). Anadromous and resident fish populations have occupied the Forest lands for many thousands of years during periods of variable climate and periodic floods, large and smaller area fires, wind storms and tectonic movements that caused aquatic and riparian habitat changes. These fish inhabit diverse habitats on the Forest in streams, ponds, lakes, and reservoirs at elevations from near sea level to more than 5,000 feet elevation. Anadromous fish occupy at least 1,300 miles of streams and rivers on the Forest; including two races of Chinook salmon, coho salmon, two races of steelhead and sea-run cutthroat trout. Coho salmon and its critical habitat on the Forest are listed as threatened under the Endangered Species Act for the Southern Oregon/Northern California Coasts (SONCC) and Oregon Coast (OC) coho salmon Evolutionary Significant Units (ESU). Coho salmon and Chinook habitat on this Forest are listed as threatened for Essential Fish Habitat under the MSA. Resident trout and other species occupy approximately 2,000 miles of streams on the Forest. The preponderance of anadromous fish habitat is found in the western portion of the Forest – Siskiyou Mountains – due to natural and human-made migration barriers in portions of the eastside of the Forest, e.g., Lost Creek Dam and Applegate Dam.

The Forest contains portions of six designated Wild and Scenic Rivers, including the: upper Rogue, lower Rogue, Chetco, Illinois, Elk, and North Fork Smith Rivers; five of which have fisheries Outstanding and Remarkable Values; excluding upper Rogue located above Lost Creek Lake reservoir, an anadromous fish barrier. Lake habitats are also abundant on the Forest, particularly at Fish Lake, Applegate Lake, and within the Sky Lakes and Red Buttes Wilderness Areas, where many high elevation lakes are stocked with trout.

Native fish, particularly salmonids, on the Forest require cool clean water, gravels with little fine sediment for spawning, shade along streams from vegetation and diverse habitats for successful growth during periods of their life history in fresh water. Large wood plays several important roles in fish habitat: for shade along streams, large mass to create habitat when wood enters the water, and in the formation and maintenance of stream channels. Large wood also has an ecological role associated with slope stability, soil retention, stream channel scouring, organic matter for primary aquatic production and formation of large stream features (fans, wood complexes and blockages, large sediment deposits) during storm episodes. Fish habitat on the Forest is generally lacking in diversity and complexity where past management activities, e.g., wood removal and road building have simplified instream diversity. Here fish habitat is lacking the quality and quantity of pool habitat and spawning gravels expected within the range of historical conditions. Some areas, particularly in the Siskiyou Mountains, naturally lack the expected numbers of large wood pieces per mile due to channel steepness and intensity of storms. Historically in SW Oregon, fire, wind, floods and landslides have routinely changed in-stream habitats, with large changes occurring during episodic events.

Comparing past stochastic episodes with management of the Forest the past several decades indicates a change of disturbance patterns from irregular and episodic to more chronic patterns of anthropogenic disturbance from timber harvest, mining, road construction and maintenance, livestock grazing, and suppression of fire. Timber harvest and associated road development and road traffic have greatly decreased since the mid to late 1980's. Tree-growth and healing of eroded areas has passively recovered and placed stream networks in most watersheds on a recovery trajectory within the National Forest. Roads continue to have a chronic sediment and drainage effect on fish populations and water quality in many watersheds and mining instream is a chronic disturbance in many Klamath Mountain streams. High recreation use in specific local riparian areas also creates some chronic disturbance. Watershed restoration has occurred intensively on the Forest since the Northwest Forest Plan, 1994. Stream, riparian, and upland restoration is a process being implemented on high priority watersheds on the Forest.

At the landscape scale, it is well documented that motorized routes modify the frequency, timing, and magnitude of disturbance to aquatic systems. The current motorized travel system on the Forest includes over 5,800 miles of motorized routes. Many of these routes are located within proximity to occupied fish habitat. The overriding negative effect of this motorized travel system on the fisheries resource is via sediment input to stream systems, Riparian Reserve fragmentation, and to a lesser degree fragmentation of aquatic habitats due to impassable or partially impassable road/stream crossings. These conditions have contributed to decreased distribution and abundance of native salmonid stocks, particularly anadromous salmon and steelhead.

## **B. Potential Effects of the Proposed Alternatives**

The NMFS “matrix of pathways and indicators” (NMFS 1996), was used to help determine the effects of the Action Alternatives (Alternatives 2, 3, 4, and 5). This process was intended to be utilized when considering project level effects at the watershed scale. All Action Alternatives would result in a **neutral** effect to the following indicators: *temperature, chemical contamination/nutrients, physical barriers, substrate, large woody debris, off-channel habitat, refugia, width/depth ratio, stream bank condition, floodplain connectivity, change in peak/base flows, increase in drainage network, road density, disturbance history, and Riparian Reserves*. This is due to the project activities occurring at sites that are currently part of the RRSNF travel route network, and in general merely involve an administrative change in the type of use (e.g. mixed-use, non-motorized, etc.) that an existing route would receive. There is no ground disturbing action from these actions. Road maintenance currently occurs and will continue. Any ground disturbing activity that may occur in the upcoming years, i.e., culvert replacement, would be covered under a different effects analysis and consultation process. The only exception to this description involves an on-the-ground construction of the Penn Sled Trail (included in Alternatives 3 and 5) on the Siskiyou Mountains Ranger District, and the Woodruff trail connector (Alternative 3) on the Gold Beach Ranger District. Effects of project activities to the *Sediment and Pool Frequency/Quality* indicator are disclosed below.

**Table 9. TMP Actions – Alternatives 1, 2, 3, 4, and 5 – relative to Riparian Reserves and Coho Salmon Critical Habitat**

Activity	Watershed	ESU	Total Units (miles/ acres)	Units w/in Riparian Reserve	Units outside RR	Location in Watershed (lower, middle, upper)	Distance from Anad. Habitat	Effect Det.	Alternative	Comments
No action	Multiple Watersheds across the Forest	All	N/A	N/A	N/A	N/A	N/A	NE	1	
Close Areas to Motorized Cross-Country Travel	Multiple Watersheds across the Forest	SONCC, OC	~275,000 acres	-	-	-	-	BE, NLAA	2, 3, 4, 5	<b>Beneficial Effect</b>
Convert mt. Level 1 to motorized trail	Rogue River	SONCC	3.77	0.75	3.02	Upper/mid	1.60	NE	3	Non-Fish Bearing Rip. Res.
			2.90	0.20	2.70	Upper/mid	2.40	NE	5	
Convert mt. Level 1 to motorized trail	Hunter Creek	SONCC	2.68	0.39	2.29	Upper	11.50	NE	3, 5	Non-Fish Bearing Rip. Res.
Convert mt. Level 1 to motorized trail	Lawson Ck-Illinois R	SONCC	3.69	0	3.69	Upper	5.10	NE	3, 5	Ridgetop Road
Convert mt. Level 1 to motorized trail	Hellgate Canyon – Rogue River	SONCC	0.29	0	0.29	Upper	1.20	NE	3, 5	Ridgetop Road
Convert mt. Level 1 to motorized trail	Klondike Ck-Illinois R	SONCC	0.76	0	0.76	Upper	1.25	NE	3	Ridgetop Road
Convert mt. Level 1 to motorized trail	NF Smith River	SONCC	2.72	0	2.72	Upper	0.70	NE	3	Ridgetop Road
Prohibit motorized use on an existing trail	Rogue River	SONCC	0.78	0	0.78	Middle	0.50	NE	5	
Prohibit motorized use on an existing trail	Lawson Ck – Illinois R	SONCC	10.65	1.23	9.42	Mid/Low	0	NE	3	Crosses anadromous habitat twice
			28.02	4.76	23.26	Mid/Low	0	NE	4	
			14.27	2.59	11.68	Mid/Low	0	NE	5	
Prohibit motorized use on an existing trail	Shasta Costa – Rogue R	SONCC	0.73	0.08	0.65	Low	0	NE	4	
Prohibit motorized use on an existing trail	Hunter Creek	SONCC	1.57	0	1.57	Upper	7.10	NE	4	
Prohibit motorized use on an existing trail	Pistol River	SONCC	0.13	0	0.13	Upper	2.80	NE	4	Ridgetop Trails
Prohibit motorized use on an existing trail	Chetco River	SONCC	0.20	0	0.20	Upper	1.95	NE	4	Ridgetop Trail
Prohibit motorized use on an existing trail	Indigo Creek	SONCC	13.80	1.20	12.60	Up/Mid/Low	0	NE	4	Crosses anadromous habitat once
Prohibit motorized use on an existing trail	Briggs Creek	SONCC	11.11	0.89	10.22	Upper/mid	6.70	NE	3, 5	
			27.08	11.49	15.59	Up/Mid/Low	3.85	NE	4	
Prohibit motorized use on an existing trail	Silver Creek	SONCC	1.85	0.71	1.14	Middle	12.50	NE	3, 5	
			11.14	1.78	9.36	Mid/Low	2.75	NE	4	
Prohibit motorized use on an existing trail	Sucker Creek	SONCC	2.98	0.32	2.66	Upper	3.00	NE	3, 5	
			6.49	1.01	5.48	Upper	3.00	NE	4	
Prohibit motorized use on an	Indian Creek	SONCC	1.08	0	1.08	Upper	1+ miles	NE	3, 4, 5	Ridgetop trail

Activity	Watershed	ESU	Total Units (miles/ acres)	Units w/in Riparian Reserve	Units outside RR	Location in Watershed (lower, middle, upper)	Distance from Anad. Habitat	Effect Det.	Alternative	Comments
existing trail										
Prohibit motorized use on an existing trail	S Fork Coquille	OC	0.91	0.21	0.70	Middle	0.05*	NE	4	Ridgetop trail
Prohibit motorized use on an existing trail	Upper Applegate R	SONCC	13.04	5.10	7.94	Middle	0	NE	4	
Prohibit motorized use on an existing trail	Headwaters Applegate River	SONCC	3.84	1.22	2.62	Upper	8.20	NE	3, 5	Upstream of Applegate Dam
		SONCC	25.60	7.36	18.24	Upper	3.20	NE	4	
Prohibit motorized mixed use	S. Fork Coquille	OC	0.17	0	0.17	Middle	0.40	NE	4	Ridgetop road
Prohibit motorized mixed use	Chetco River	SONCC	12.51	0.52	11.99	Middle	0.05	NE	3, 4, 5	
Prohibit motorized mixed use	Josephine Ck – Illinois R	SONCC	11.97	3.43	8.54	Lower	0	NE	3, 5	Crosses anadromous habitat twice
			7.45	1.73	5.72	Lower	0	NE	4	
Prohibit motorized mixed use	Silver Creek	SONCC	4.59	0	4.59	Upper	9.30	NE	4	Ridgetop Road
Prohibit motorized mixed use	Klondike Ck – Illinois R.	SONCC	0.20	0	0.20	Upper	1.25	NE	4	Ridgetop Road
Designate motorized mixed use	Shasta Costa – Rogue R.	SONCC	0.17	0.12	0.05	Lower	0.70	NE	3, 5	Burnt Ridge Road
Designate motorized mixed use	S Fork Coquille	OC	3.09	1.58	1.51	Upper	9.35	NE	3	Eden Valley Road
Designate motorized mixed use	W Fork Cow Creek	OC	2.44	0.95	1.49	Upper	0	NE	3	Eden Valley Road
Designate motorized mixed use	Rogue River	SONCC	0.14	0	0.14	Lower	0.10	NE	3, 4	
Designate motorized mixed use	Headwaters Rogue River	SONCC	5.72	3.72	2.00	Middle	20+	NE	3	Upstream of Lost Creek Dam
Designate motorized mixed use	S Fork Rogue River	SONCC	16.21	2.44	13.77	Middle	20+	NE	3	Upstream of Lost Creek Dam
Designate motorized mixed use	Big Butte Creek	SONCC	0.82	0.07	.75	Middle	10.8	NE	3	Upstream of Butte Falls
Designate motorized mixed use	Little Butte Creek	SONCC	8.24	0.80	7.44	Upper	4.40	NE	3	
Prohibit motorized public use	W. Fork Illinois	SONCC	7.65	0.30	7.35	Middle	0.10	NE	3, 5	
			16.69	0.30	16.39	Up/Mid/Low	0.15	NE	4	
Prohibit motorized public use	Silver Creek	SONCC	0.65	0.23	0.42	Middle	13.8	NE	3, 4, 5	
Prohibit motorized public use	Josephine Ck – Illinois R.	SONCC	4.82	2.56	2.26	Mid/Low	0	NE	3, 5	Crosses anadromous habitat once
			11.50	4.13	7.37	Mid/Low	0	NE	4	
Prohibit motorized public use	Deer Creek	SONCC	1.52	1.20	0.32	Lower	0	NE	3, 5	Crosses anadromous habitat once
Prohibit motorized public use	Briggs Creek	SONCC	0.32	0	0.32	Upper	8.10	NE	4	Ridgetop Road
Prohibit motorized public use	N Fork Smith River	SONCC	15.89	1.17	14.72	Upper/Mid	0	NE	4	
Prohibit motorized public use	Chetco River	SONCC	3.27	0	3.27	Upper/Mid	0.35	NE	4	
Prohibit motorized public use	Winchuck River	SONCC	3.13	0	3.13	Middle	0.65	NE	4	
Construct motorized trail	Headwaters Applegate River	SONCC	1.18	0	1.18	Middle	6.30	NE	3, 5	Upstream of Applegate Dam

Activity	Watershed	ESU	Total Units (miles/ acres)	Units w/in Riparian Reserve	Units outside RR	Location in Watershed (lower, middle, upper)	Distance from Anad. Habitat	Effect Det.	Alternative	Comments
Construct motorized trail	Rogue River	SONCC	0.30	0	0.30	Middle	1.65	NE	3	
Develop Motorized Play Area	Big Butte Creek	SONCC	10 acres	0	0	Middle	11.00	NE	3	Upstream of Butte Falls

**The actions of the project can be divided into three Project Elements and are described below:**

- 1) *Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use (Alternative 2, 3, 4, and 5).*
- 2) *Close Areas to Cross-Country Motorized Travel (Alternatives 2, 3, 4, and 5).*
- 3) *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use, and Construct Motorized Trail(Alternatives 3, 4, and 5).*

This analysis evaluates the potential direct and indirect effects of All Alternatives on SONCC coho, SONCC coho critical habitat, OC coho, OC coho critical habitat, coho and Chinook EFH, SONCC Chinook salmon, and OC steelhead. This analysis will discuss effects to CCH fish habitat for feasibility and readability, recognizing that CCH fully encompasses not only listed CCH, but also EFH and the distribution of SONCC Chinook salmon and OC steelhead within the project area. Project effects and ESA/EFH determinations for SONCC coho salmon, SONCC coho critical habitat, OC coho salmon, OC coho salmon critical habitat, and EFH are discussed in detail within the Fisheries Biological Assessment for the Motorized Vehicle Use Project (Brazier 2011).

#### **No Action Alternative**

Under the No Action Alternative, no administrative or on-the-ground changes to the existing transportation system would occur. Current aquatic habitat conditions and trends would continue. The Rogue River LRMP (1990), Siskiyou LRMP (1989), and Northwest Forest Plan (1994) would continue to guide land management actions across the Forest. The direction provided within these plans is adequate to protect and maintain aquatic biota populations and habitat throughout the Forest. Any impact to the aquatic biota populations and habitat from the existing route network would continue. Route proliferation would continue to result within areas where cross-country travel is permitted.

#### **Effects Common to All Action Alternatives (2, 3, 4, and 5)**

*Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*

These Forest Plan amendments are exclusively an administrative action. As such, there is **no causal** mechanism from these amendments to any of the habitat indicators. There is no on-the-ground construction, restoration or rehabilitation action included in this action.

#### *Closing Areas to Cross-Country Motorized Travel*

There is **no causal** mechanism from *Closing Areas to Cross-Country Motorized Travel* to any of the indicators, (except for Sediment and Pool Character and Quality) from this action since this action involves an administrative change in the type of use that certain areas of the Forest would receive. There is no on-the-ground construction, restoration or rehabilitation action included in this action. The Motorized Vehicle Use Project would eliminate cross country motorized travel across the Forest, with the exception of the existing Woodruff Play Area on the High Cascades Ranger District. This action would affect approximately 275,000 acres of land where cross country motorized travel is currently allowed. These areas are scattered across the Forest, and occur within and outside of anadromous fish occupied watersheds. Although the majority of the acres are located on the High Cascades Ranger District, upstream of permanent man-made (e.g. Lost Creek Lake Dam) and natural (Butte Falls) barriers, well upstream of CCH.

## Sediment and Pool Character and Quality

*Closing Areas to Cross-Country Motorized Travel* in watersheds that do contain CCH provides a mechanism for potential reduction in upland erosion and sediment influx into stream networks. This sediment reduction could lead to improvement and/or maintenance of existing CCH, although the benefit would probably be discountable. Sediment reduction from *Closing Areas to Cross-Country Motorized Travel* could lead to improvement and/or maintenance of existing CCH. Though these benefits are not expected to occur at magnitudes where the effects are measurable, or discernable when compared to the ongoing natural sediment production, and that which will continue to occur as a result of the remaining road and trail system.

### *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use*

These actions occur on all Ranger Districts and are in proximity to SONCC and OC CCH. There is no causal mechanism for *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use* to all the Habitat Indicators and Watershed Condition Indicators because the affected routes are currently part of the RRSNF travel route network, and the action only involves an administrative change to the type of use (e.g. mixed-use, non-motorized, etc.) that an existing route would receive. There is no ground disturbing action from this activity. Road maintenance currently occurs and will continue. Any ground disturbing activity that may occur in the upcoming years, i.e., culvert replacement, would be covered under a different effects analysis and consultation process.

### **Alternative 2 - Direct and Indirect Effects**

There are no direct effects to CCH from any action included in Alternative 2, because no ground disturbing action would occur within CCH.

Indirect effects to CCH from Alternative 2 are fully disclosed above within the “Effects Common to All Action Alternatives” section.

### **Alternative 3 (Proposed Action) - Direct and Indirect Effects**

There are no direct effects to CCH from any action included in Alternative 3, because no ground disturbing action would occur within CCH.

Indirect effects to CCH from *Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use, Closing Areas to Cross-Country Motorized Travel, and Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use*, are fully disclosed above within the “Effects Common to All Action Alternatives” section.

### *Construct Motorized Trail*

#### *Woodruff Trail Connector – Rogue River Watershed*

This action would occur within the Rogue River watershed, west of Quosatana Creek. This action would potentially create a long-term sediment source within the Quosatana Creek subwatershed, with potential to indirectly impact water quality within a tributary to Quosatana Creek, and to a lesser extent mainstem Quosatana Creek. The nearest CCH habitat is located 1.65 miles downstream of the proposed route, within Quosatana Creek. The influx of additional sediment into tributaries of and mainstem Quosatana Creek could result in a persistent negative impact; though these effects would be immeasurable and indiscernible due to the existing roaded nature of the subwatershed, and its existing sediment load.

Suspended and deposited sediment and associated increased turbidity at high enough levels could impair essential behavior patterns (e.g. feeding) and influence egg to fry survival and smolt growth (Suttle et al. 2004).

#### Forest Trail #957 (Penn Sled) – Upper Applegate River Watershed

The trail is in a low precipitation area with no riparian crossings. The new trail segment does not cross Riparian Reserve, and would have no impact on water quality (Joplin 2011).

This action would have no direct or indirect effect on CCH, as it is located upstream of the Applegate Dam; which is permanent barrier to anadromous fish species. Consequently, the Penn Sled Trail is located outside the range of CCH.

#### **Alternative 4 - Direct and Indirect Effects**

There are no direct effects to CCH from any action included in Alternative 4, because no ground disturbing action would occur within CCH.

Indirect effects to CCH from *Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use, Closing Areas to Cross-Country Motorized Travel, and Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail(excluding trail #920 which is discussed below), Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, Prohibit Motorized Public Use*, are fully disclosed above within the “Effects Common to All Action Alternatives” section.

#### *Prohibit Motorized Use of an Existing Trail*

#### Forest Trail #920 (Mule Creek) – Upper Applegate River Watershed

Trail #920 follows the majority of the main channel of Mule Creek up to the headwaters. This results in abundant tributary crossings near their confluence with the mainstem. The trail also intercepts many first order tributaries on its way to join Trail #919 at the ridge. The Squaw-Elliott Watershed Analysis states that Mule Creek typically becomes dry by June of most years and remains so until the autumn rains. This would tend to reduce the level of effect of motorized impact; however, motorized use following the channel so closely is inconsistent with ACS objectives protecting stream bank integrity and aquatic vegetation. Mule Creek also provides anadromous habitat near the confluence with the Applegate River; trail generated sediment is likely to be readily flushed into anadromous habitat. Prohibiting motorized use would alleviate some stream channel degradation, even if pedestrian use continues (Joplin 2011).

Elimination of motorized use along Trail #920 could result in an immeasurable indirect beneficial effect to CCH within Mule Creek, associated with reduced sediment influx. Though the continued presence of the trail and use by non-motorized traffic would continue create sediment, similar to the existing condition.

#### **Alternative 5 (Preferred Alternative) - Direct and Indirect Effects**

There are no direct effects to CCH from any action included in Alternative 5, because no ground disturbing action would occur within CCH.

Indirect effects to CCH from Alternative 5 are fully disclosed above within the “Effects Common to All Action Alternatives” section.

## VI. Cumulative Effects

Cumulative effects are those that result from the incremental accumulations of all land management activities across all ownerships. On the RRSNF, historic land management activities such as hydraulic mining, diking, channelization, riparian timber harvest, dam construction, large wood removal, flow alteration, floodplain development, and road construction have had an enduring and significant impact on salmonid production. Since adoption of the Northwest Forest Plan in 1994, many of the streams on public land are likely recovering from prior management activities due to current management guidelines and policies. For example, Gallo et al. (2005) and Reeves et al. (2006) assessed 250 sixth-field watersheds in the Pacific Northwest and found a general increase in stream habitat quality in the first 10 years after the adoption of the Northwest Forest Plan, particularly in key watersheds and late-successional reserves (LSR).

Several recent past and foreseeable future projects on the RRSNF have dealt with road generated sediment, and sediment influx into fish bearing habitats. These include the Applegate-McKee Legacy Roads Project (2010), Copper-Salmon Legacy Roads Project (planning in progress), Sucker Creek Legacy Roads Project (field reconnaissance in progress), and multiple small scale road decommission projects, as well as ongoing road maintenance activities. The beneficial effects of these projects on fish habitat would be cumulative with the expected reduction of sedimentation within stream channels and reduce upland erosion rates, which are associated with the elimination of cross-country travel within all action alternatives of the Motorized Vehicle Use Project.

## VII. Comparison of Alternatives

Table 10. Comparison of Effects to CCH for Each Alternative by Activity Type

Alternative	Close area to Motorized Cross-country Travel (acres)	Convert ML1 Road to Motorized Trail (miles)	Prohibit Motorized use of an existing Trail (miles)	Prohibit motorized Mixed Use (miles)	Designate Motorized Mixed Use (miles)	Prohibit Motorized Public Use (miles)	Construct Motorized Trail (miles)	Develop Motorized Play Area (acres)
1	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
2	Beneficial	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
3	Beneficial	Neutral	Neutral	Neutral	Neutral	Neutral	Negative	Neutral
4	Beneficial	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
5	Beneficial	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral

The **No Action** Alternative would not alter the existing travel management system on the Forest. Thus, a neutral effect to TES aquatic species or habitat would occur.

All of the Action Alternatives, 2 through 5, would have a similar neutral effect from “*Enact Forest-wide plan amendments to make the plans consistent with the Travel Management Rule and current historical motorized use*” and *Convert Maintenance Level 1 Road to Motorized Trail, Prohibit Motorized Use on an Existing Trail, Prohibit Motorized Mixed Use, Designate Motorized Mixed Use, and Prohibit Motorized Public Use*. These Forest Plan amendments are exclusively an administrative action. There is no on-the-ground construction, restoration or rehabilitation included in this action. The affected routes are currently part of the RRSNF travel route network, and the action only involves an administrative change to the type of use (e.g. mixed-use, non-motorized, etc.) that an existing route would receive. Road maintenance currently occurs and will continue. Any ground disturbing activity that may occur in the upcoming years, i.e., culvert replacement, would be covered under a different effects analysis and consultation process.

All of the Action **Alternatives, 2 through 5**, would have similar beneficial effects to TES aquatic species from the “*close area to motorized cross-country travel*” action. The primary effect under these alternatives would be a decrease in upland erosion and sediment influx into stream channels, associated with the elimination of cross-country motorized travel across the Forest.

Specific to **Alternative 3**, the construction of new motorized trail in the Quosatana Creek subwatershed would result in a new sediment source. Though, given the extensive roaded nature of the subwatershed, sediment effects from this new trail segment on TES aquatic species would be immeasurable and indiscernible, given the ongoing sediment load within the subwatershed.

Specific to **Alternative 4**, elimination of motorized use along Trail #920 could result in an immeasurable beneficial effect to coho critical habitat within Mule Creek, associated with reduced sediment influx; though the continued presence of the trail and use by non-motorized traffic would maintain the current sediment regime, similar to the existing condition.

Effects to the TES aquatic species are similar under all of the Action Alternatives, 2 through 5. This is due to many of the same site specific elements being included in all of these alternatives. The differences in activities between Action Alternatives are not large enough to create any measurable difference on TES aquatic species and habitat.

## **VIII. Conclusions of Determinations**

### *Alternative 1 – No Action*

Alternative 1 would have no direct, indirect or cumulative effects to SONCC coho salmon, SONCC coho CH, OC coho salmon, OC coho CH, SONCC Chinook salmon, OC steelhead, PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, or the pristine springsnail.

### *Alternative 2*

Based on a review of best available science and my professional judgment, I find indirect and cumulative effects from Alternative 2 would result in positive effects to OC and SONCC coho salmon and OC and SONCC coho salmon critical habitat on the RRSNF. Thus, a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for OC coho salmon, and OC coho salmon critical habitat and a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for SONCC coho salmon, and SONCC coho salmon critical habitat. This determination is exclusively linked to the elimination of cross-country motorized travel within the boundaries of the Rogue River-Siskiyou National Forest (RRSNF), and the potential decrease in upland erosion and sediment influx into stream channels that could result from this action. Further, Alternative 2 would create a **Beneficial Impact** to SONCC Chinook salmon, and OC steelhead. This Alternative would have **No Impact** to PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, or the pristine springsnail.

### *Alternative 3 – Proposed Action*

I also find that indirect and cumulative effects from Alternative 3 would result in positive effects to OC and SONCC coho salmon and OC and SONCC coho salmon critical habitat on the RRSNF. Thus, a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for OC coho salmon, and OC coho salmon critical habitat and a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for SONCC coho salmon, and SONCC coho salmon critical habitat. This determination is exclusively linked to the elimination of cross-country motorized travel within the boundaries of the Rogue River-Siskiyou National Forest (RRSNF), and the potential decrease in upland erosion and sediment influx into stream channels that could result from this action. Further, Alternative 3 would create a **Beneficial Impact** to SONCC Chinook salmon, and OC steelhead. This Alternative would have **No Impact** to PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, or the pristine springsnail.

Construction of the Woodruff Trail connector would create a new sediment source within the Quosatana Creek subwatershed, which is CCH and occupied by SONCC Chinook salmon. Accordingly this action **May Affect, Not Likely to Adversely Affect** SONCC coho salmon and SONCC coho CH. Further, this action **May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species** (SONCC Chinook salmon).

### *Alternative 4*

I also find that indirect and cumulative effects from Alternative 4 would result in positive effects to OC and SONCC coho salmon and OC and SONCC coho salmon critical habitat on the RRSNF. Thus, a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for OC coho salmon, and OC coho salmon critical habitat and a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for SONCC coho salmon, and SONCC coho salmon critical habitat. This determination is exclusively linked to the elimination of cross-country motorized travel within the boundaries of the Rogue River-Siskiyou National Forest (RRSNF) and prohibiting motorized use on Forest Trail #920 within Mule Creek, and the potential decrease in upland erosion and sediment influx into stream channels that could result from this action. Further, Alternative 4 would create a **Beneficial Impact** to SONCC Chinook salmon, and OC steelhead. This Alternative would have **No Impact** to PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, or the pristine springsnail.

### *Alternative 5-Preferred Alternative*

I also find that indirect and cumulative effects from Alternative 5 would result in positive effects to OC and SONCC coho salmon and OC and SONCC coho salmon critical habitat on the RRSNF. Thus, a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for OC coho salmon, and OC coho salmon critical habitat and a **Beneficial, May Affect, Not Likely to Adversely Affect** determination is rendered for SONCC coho salmon, and SONCC coho salmon critical habitat. This determination is exclusively linked to the elimination of cross-country motorized travel within the boundaries of the Rogue River-Siskiyou National Forest (RRSNF), and the potential decrease in upland erosion and sediment influx into stream channels that could result from this action. Further, Alternative 5 would create a **Beneficial Impact** to SONCC Chinook salmon, and OC steelhead. This Alternative would have **No Impact** to PC chum salmon, inland redband trout, pit sculpin, western ridged mussel, Klamath rim pebblesnail, highcap lanx, scale lanx, robust walker, pacific walker, or the pristine springsnail.

**Table 11. Summary of Conclusion of Effects**

<b>Species</b>	<b>Alt. 1</b>	<b>Alt. 2</b>	<b>Alt. 3</b>	<b>Alt. 4</b>	<b>Alt. 5</b>
SONCC coho	NE	B-NLAA	B-NLAA	B-NLAA	B-NLAA
SONCC coho CH	NE	B-NLAA	B-NLAA	B-NLAA	B-NLAA
OC coho	NE	B-NLAA	B-NLAA	B-NLAA	B-NLAA
OC coho CH	NE	B-NLAA	B-NLAA	B-NLAA	B-NLAA
EFH – coho	NE	B-NLAA	B-NLAA	B-NLAA	B-NLAA
EFH – Chinook	NE	B-NLAA	B-NLAA	B-NLAA	B-NLAA
SONCC Chinook	NI	BI	MIIH	BI	BI
OC steelhead	NI	BI	BI	BI	BI
PC Chum	NI	NI	NI	NI	NI
Inland redband trout	NI	NI	NI	NI	NI
Pit sculpin	NI	NI	NI	NI	NI
Western ridged mussel	NI	NI	NI	NI	NI
Klamath rim pebblesnail	NI	NI	NI	NI	NI
Highcap lanx	NI	NI	NI	NI	NI
Scale lanx	NI	NI	NI	NI	NI
Robust walker	NI	NI	NI	NI	NI
<b>Species</b>	<b>Alt. 1</b>	<b>Alt. 2</b>	<b>Alt. 3</b>	<b>Alt. 4</b>	<b>Alt. 5</b>
Pacific walker	NI	NI	NI	NI	NI
Pristine springsnail	NI	NI	NI	NI	NI

NE = No Effect

B-NLAA = Beneficial, Not Likely to Adversely Affect

NI = No Impact

MIIH = May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species

BI = Beneficial Impact

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