



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
MEDFORD DISTRICT OFFICE  
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Medford, Oregon 97504  
email address: or110mb@or.blm.gov

IN REPLY REFER TO:

6600(OR116)

JUN 10 2008

Dear Interested Public:

The Ashland Resource Area of the Medford District Bureau of Land Management (BLM) is proposing a project to improve fish and aquatic habitat by adding large wood to Ninemile Creek. Nine Mile Creek is a tributary of Thompson Creek. Completing this project will lead to enhanced survival of juvenile fish and increase spawning opportunities for adult fish. A general vicinity map is enclosed.

The Ashland Resource Area has completed an Environmental Assessment (EA) for the Ninemile Creek habitat restoration project. The EA is available on line at:

<http://www.blm.gov/or/districts/medford/plans/index.php>

or you may receive a hard copy by making a telephone request. The EA is made available for public review until June 30, 2008. After June 30, 2008, I will make a decision whether to proceed with the project or if changes are needed based on public comment.

We welcome your comments on the content of the EA. We are particularly interested in comments that address one or more of the following: (1) new information that would affect the analysis, (2) information or evidence of flawed or incomplete analysis; (3) BLM's determination that there are no significant impacts associated with the proposed action beyond those impacts addressed in the *Medford District Proposed Resource Management Plan/ Environmental Impact Statement*, and (4) alternatives to the Proposed Action that would respond to purpose and need. Specific comments are the most useful.

Comments received, including names and addresses, will be available for public review. Individual respondents may request confidentiality. If you wish to withhold your name and/or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law but we cannot guarantee anonymity. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

All comments should be made in writing and mailed to Edward Reilly, Ashland Resource Area, 3040 Biddle Road, Medford, OR 97504. Comments must be received by June 30, 2008. Any questions, or if you wish to be mailed a hard copy, should be directed to the Ashland Planning Department at (541) 618-2497.

Sincerely,

John Gerritsma  
Field Manager  
Ashland Resource Area

Enclosure

**U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
MEDFORD DISTRICT  
ASHLAND RESOURCE AREA**

**ENVIRONMENTAL ASSESSMENT**

**FOR**

**NINE MILE CREEK**

**AQUATIC HABITAT RESTORATION PROJECT**

OR116-08-05

June, 2008

## EA COVER SHEET

**Resource Area:** Ashland

**EA Number:** OR-116-08-05

**Action/Title:** Ninemile Creek Aquatic Habitat Restoration

**Location:** T39S R4W Section 19 and 30. Willamette Meridian, Jackson County, Oregon.

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# **Chapter 1: Purpose of and Need for the Proposed Action**

## **I. Introduction**

This Environmental Assessment (EA) will analyze the impacts of a proposal by the Ashland Resource Area, Medford District, Bureau of Land Management (BLM) to install fish habitat improvement structures in Ninemile Creek. The EA will provide the Ashland Resource Area Field Manager with the information needed to determine if impacts are within those anticipated in the Medford District Resource Management Plan/Environmental Impact Statement and whether a Finding of No Additional Significant Impact (FONASI) is appropriate.

## **II. What is the BLM Proposing and Where?**

The BLM is proposing to place large wood structures crafted from natural logs in specified locations within the stream channel of Ninemile Creek, a large tributary to Thompson Creek in the Middle Applegate River Watershed. Funding for this project has been secured, and would allow for a minimum of 25 pieces of large wood to be placed in structures consisting of up to five pieces each within the mainstem channel of Ninemile Creek (a minimum of 5 structures). Dependent upon costs and site specific recommendations, up to an additional 3 structures could be placed in the stream (maximum of 8 structures). Restoration sites were selected based on (1) stream reach fish habitat deficiencies (2) mechanical feasibility of improving habitat and (3) resource sensitivity (i.e. Special Status Plants and archeological sites). This project would be completed by October, 2008.

The BLM has identified the Ninemile Creek drainage as a priority for aquatic habitat restoration, as it supports spawning and rearing by federally listed “threatened” Southern Oregon/Northern California (SONC) coho salmon, as well as steelhead and cutthroat trout. The proposed project is located on public lands administered by the BLM, and would occur within the stream channel and portions of the Riparian Reserve as designated in the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (NWFP, p. 7).

## **III. Objectives for the Proposal**

The objective for this project is to improve fish and aquatic habitat conditions in a roughly 1 mile long reach of Ninemile Creek. This restoration project is in conformance with the Medford District Resource Management Plan/ Record of Decision (RMP/ROD) (p. 31). The RMP/ROD (p. 31) direction is to “design and implement fish and wildlife habitat restoration and enhancement activities in a manner that contributes to attainment of Aquatic Conservation Strategy and Riparian Reserve objectives.” Current aquatic habitat conditions in the Ninemile Creek drainage are limited due to deficiencies in large wood and a lack of pools. Adding large wood structures to the stream channel would facilitate trapping of spawning gravels, creation of rearing pools for juvenile salmonids, dissipation of energy of flowing water during flood events, and would create refugia and resting habitat for both juvenile and adult salmonids.

## IV. Decision Factors

In choosing the alternative that best meets project objectives and other management needs, the BLM will consider the extent to which each alternative would improve aquatic habitat conditions for salmonids.

### A. Conformance with Land Use Plans and Other Documents

The above project has been reviewed and found to be in conformance with and tiered to the 1995 *Medford District Record of Decision and Resource Management Plan*, as amended by the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (USDI, USDA 2001). The Medford District Resource Management Plan incorporated the *Record of Decision and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl*. (NWFP) (USDA and USDI 1994). These documents are available at the Medford BLM office.

### B. Relationship to Statutes, Regulations, and Other Plans

This project is covered under the April 28, 2007 Biological Opinion issued by the National Marine Fisheries Service (NMFS) for Ongoing Programmatic Activities within Riparian Reserves. The project is within the scope of the category of “**Large Wood, Boulder, and Gravel Placement and Tree Removal for Large Wood Projects.**” This Biological Opinion satisfies Section 7 requirements of the Endangered Species Act. Other Relationships to statutes, regulations and other plans include:

- **Oregon and California Lands Act of 1937 (O&C Act).** Requires the BLM to manage O&C lands for permanent forest production. Timber shall be sold, cut, and removed in accordance with sustained-yield principles for the purpose of providing for a permanent source of timber supply, protecting watersheds, regulating stream flow, contributing to the economic stability of local communities and industries, and providing recreational facilities.
- **Federal Land Policy and Management Act of 1976 (FLPMA).** Defines BLM’s organization and provides the basic policy guidance for BLM’s management of public lands.
- **National Environmental Policy Act of 1969 (NEPA).** Requires the preparation of environmental impact statements for major Federal actions which may have a significant effect on the environment.
- **Endangered Species Act of 1973 (ESA).** Directs Federal agencies to ensure their actions do not jeopardize species listed as “threatened and endangered” or adversely modify designated critical habitat for these listed species.
- **Clean Air Act of 1990 (CAA).** Provides the principal framework for national, state, and local efforts to protect air quality.
- **Archaeological Resources Protection Act of 1979 (ARPA).** Protects archaeological resources and sites on federally-administered lands. Imposes criminal and civil penalties for removing archaeological items from federal lands without a permit.

- **Safe Drinking Water Act (SDWA) of 1974 (as amended in 1986 and 1996).** Protects public health by regulating the Nation’s public drinking water supply.
- **Clean Water Act of 1987 (CWA).** Establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation’s water.

## **V. What are the Relevant Issues?**

### **A. Scoping**

The Oregon Department of Fish and Wildlife, Oregon Division of State Lands, and U.S. Army Corp of Engineers were involved with the project review. This proposal was not scoped, nor was the public involved in its development.

### **B. Relevant Issues**

#### **1. Aquatic Systems:**

Ninemile Creek has a low salmonid fresh water survival rate because of limited quality aquatic rearing habitat. The short-term and long-term effects on aquatic habitat and salmonid freshwater survival of no treatment and treating the area by adding large wood were assessed.

#### **2. T&E/Sensitive Wildlife Species**

Surveys have been completed and no T&E species have been found within the area.

#### **3. Special Status Animal Species**

Special status animal species are located in the proposed area.

#### **4. Cultural Resources**

Surveys have been completed. Historic mining tailings and ditches are located along the riparian area of Ninemile Creek.

#### **5. Sensitive Plants**

Surveys have been completed. Special status plants are located in or near the proposed project area. Yellow Star thistle occurs roadside in the proposed project area.

### **C. Issues Considered but Eliminated from Further Analysis**

Issues were discussed during the ID Team meetings for these proposals (see Chapter V for a list of preparers). After discussing the issues, the ID Team determined that while these issues and concerns were real, many were outside the scope of the EA and others were not major issues that would affect the human environment for this proposal.

1) Transportation System

2) Visual Resources Management (VRM): Project meets ROD/RMP VRM standards.

3) Air Quality

## **VI. Decisions to be Made Based on the Analysis**

This Environmental Assessment will provide the information needed for the authorized officer, the Ashland Resource Area Field Manager, to render a decision regarding the selection of a course of action to be implemented for the Ninemile Creek Aquatic Habitat Restoration Project. The Ashland Resource Area Field Manager must decide whether to implement the Proposed Action as designed or whether to select the no-action alternative. In choosing the alternative that best meets the project purpose and need, the Field Manager will consider the extent to which each alternative responds to the purposes identified for this project. The forthcoming decision will document the authorized officer's rationale for selecting a course of action based on the effects documented in the EA, and the extent to which each alternative:

1. Address the balance between positive and negative environmental effects;
2. Addresses the costs both short-term and long-term for managing the lands in the project area (project must be economically practical);
3. Maintains aquatic habitat for recovery of at risk stocks of fish;
4. Maintains and improves water quality within Ninemile Creek;
5. Maintains both short term and long term habitat for special status plant and animal species;

The decision will also include a determination whether or not the impacts of the proposed action are significant to the human environment. If the impacts are determined to be within those impacts analyzed and disclosed in the Medford District Resource Management Plan/EIS (USDI 1995) and the Northwest Forest Plan (USDA/USDI 1994), or otherwise determined to be insignificant, a Finding of No Additional Significant Impact (FONASI) can be issued and a decision implemented. If this EA determines that the significance of impacts are unknown or greater than those previously analyzed and disclosed in the RMP/EIS and the NWFP SEIS, then a project specific EIS must be prepared.

## **Chapter 2: What are the Alternative Ways of Accomplishing the Objectives?**

### **I. Introduction**

In this chapter you will find a description of the No Action Alternative and the Action Alternative. The project ID Team developed one action alternative to achieve the project objectives of improving aquatic habitat conditions in Ninemile Creek.

### **II. Alternative 1 – No Action**

Analysis of this alternative provides a baseline against which the effects of the action alternatives can be compared. For this EA, the No Action Alternative is defined as not implementing the aquatic restoration project.

### **III. Alternative 2**

Using a mobile yarder, between 5-8 wood structures would be constructed in the lower 0.8 miles of the mainstem channel of Ninemile Creek. Each structure would consist of two to five wood pieces. The wood sources include dead roadside hazard trees within the Ninemile Creek drainage, dead trees within the Riparian Reserve adjacent to the channel of Ninemile Creek, and potentially some root wads from blow down near/across roads that may occur during the winter from across the Resource Area. At present funding, up to 20 dead trees (snags) would be cut and/or pulled over with a cable yarder (used to keep the rootwads attached). The snags would be within 200 feet of the road and likely most would require some dragging from the stump site to the road and/or stream. All areas disturbed by large wood retrieval activities would be re-contoured, seeded and mulched.

Eight potential restoration sites have been identified on the ground, based on the need for wood, the feasibility of placing the wood (including proximity to roads and riparian wood sources), and the ability to key structures into existing trees. All sites are accessible either from the main road, or an unmapped but drivable old road that closely parallels Ninemile Creek. The sites are as follows, from downstream to upstream, measured from the mouth of Ninemile Creek, and estimated from GIS:

Table 1: Proposed habitat structure sites.

Site #	Mile	UTM (10N)	Comments
1	.15	0481167 X 4668157	
2	.20	0481226 X 4668126	6 snags near this site
3	.25	0481262 X 4668043	~ 180 downstream of flume crossing
4	.33	0481344 X 4667939	~ 300 upstream of flume crossing
5	.48	0481516 X 4667796	At bottom end of gravel pile
6	.53	0481551 X 4667711	Top end of gravel pile, 9 snags opposite creek
7	.67	0481632 X 4667517	Accessed via old spur road
8	.72	0481703 X 4667512	Near private access road jct.

Fifteen potential wood source sites have also been identified, with each site containing from one to 9 suitable snags within them. All source sites are within the Ninemile Creek drainage, and are within 200' or less of a road. Eight sources are within a Riparian Reserve, either of the main channel or a tributary to Ninemile Creek, and contain a total of 28 snags of suitable size to be utilized for this project, while 7 sources are in upland areas (accessed via the 39-4-14.1 and 19.2 spurs) and contain 24 suitable snags. It is estimated that one snag would provide at least two usable logs (greater than 40' long and 20" diameter). In general, the snags in the riparian areas are larger than the snags available in the upland areas, and one riparian snag could potentially provide as many as 4 logs. As such, and assuming that all eight proposed restoration sites are deemed feasible, a maximum of 20 snags could be felled for this project. Snags selected to be used for this project would be reviewed by wildlife and botanical specialists prior to felling. Maps 1 and 2 (Appendix B, pgs 25 and 26) display the potential restoration and wood source sites.

The large wood structures would be keyed in to the bank channel roadside trees in order to keep

them in place during high flow events. Structures would be constructed to withstand and remain in place during high flow events, while simulating debris jams and enhancing gravel retention which would help to recreate the channels historical condition. The logs used for the restoration project would be at least 20 inches in diameter and 2x bankfull width (~ 40 feet in length) (ODFW and ODF standards 1995). If root wads become available, they would be keyed into the log structures as well.

Although this project would necessitate some amount of disturbance, it would be minimized as all heavy equipment would be limited to existing roads and skid trails. All skid trails created from snag extraction would be mulched, seeded with native grasses, and planted after project completion. Disturbed ground on the floodplain and within the channel of Ninemile Creek itself would be limited to the 5-8 sites selected for the structure placement. Placement of the logs into the channel could potentially disturb some vegetation and possibly bare some soil in channel adjacent areas, but as stated disturbances would be limited to small areas near the 5-8 selected sites, and minimized by utilizing Project Design Features as described below.

## **IV. Project Design Features**

The following Project Design Features (PDFs) are included in the design of this project. The PDFs serve as a basis for resource protection in the implementation of the project and will be considered in the analysis of impacts in Chapter 3.

1. A mobile yarder would use full suspension to place logs near archeological mining sites.
2. All in-stream work would occur between July 1 and September 15 (both days inclusive) of any given year.
3. Seed all exposed soil areas with an approved native grass seed mix.
4. Cover all exposed soil areas with an approved mulch material to a depth of 4 inches.
5. Minimize channel disturbance and avoid channel disturbance near sensitive plant sites.
6. All access routes for machinery entering Riparian Reserves would be designated and approved in advance by BLM personnel.
7. Set up yarder outside the active stream channel.
8. Require equipment operator to have current state operating permit to operate power machinery. All state industrial fire regulations would be followed.
9. Require a hazardous material action plan and a containment and cleanup kit on-site.
10. Maintain fish passage at all times.
11. Activities would not be allowed during heavy rain events and 48 hours afterwards.
12. Clean all equipment before entering stream channel.
13. Leave 4 snags per acre in snag/hazard tree removal areas.
14. All project work will take place outside the critical breeding season for Spotted Owls (critical breeding season considered March 1 through June 30).
15. Activities will not be allowed do disturb talus areas.
16. All trees removed will have been inspected for raptor nests prior to removal.
17. A “no disturbance” buffer will protect one *Cypripedium montanum* site and an historic ditch structure.
18. Noxious weed sites shall be flagged and avoided by all equipment and ground-disturbing activities.
19. Equipment shall be cleaned prior to moving offsite.

## **Chapter 3: Affected Environment**

### **I. Introduction**

This chapter describes the current condition of the environment within the proposed project area that would be affected by the proposed action. The information in this chapter would serve as a general baseline for determining the effects of the alternatives. The information is organized around the major issues identified by the ID Team. Only enough detail has been given to determine if any of the alternatives would cause significant impacts to the human environment as

defined in 40 CFR 1508.27.

## **II. General Description of the Proposed Project Area**

The project area is located within a low terrace-constrained stream (Ninemile Creek) upstream from the confluence with Thompson Creek. Thompson Creek is a large subwatershed within the Middle Applegate River Watershed, while Ninemile Creek is the largest tributary (drainage basin) to Thompson Creek. Stream substrate in Ninemile Creek is composed of boulders, cobbles, gravels, sand, and silt with cobble and gravel being the dominant substrates. Management activities, such as road building, mining, logging, and water withdrawals have reduced both quantity and quality of fish habitat in Ninemile Creek. Instream habitat conditions prior to current conditions most likely included a greater amount of large woody debris, spawning gravel and quality pools. Current overstory vegetation adjacent to the project sites is dominated by conifers (yew, incense cedar, Douglas fir, and ponderosa pine), with a smaller component of hardwoods (alder, maple).

### **A. Fish, Aquatic Habitat, and Hydrology**

A variety of resident and anadromous fish species are present in the Ninemile Creek drainage. Anadromous fish that are known to utilize Ninemile Creek are coho salmon (*Oncorhynchus kistutch*), and summer and winter steelhead trout (*O. mykiss*). Resident fish found in Star Gulch include rainbow trout (*O. mykiss*), cutthroat trout (*O. clarki*) and reticulate sculpin (*Cottus sp.*). Coho salmon are listed as a threatened species under the Endangered Species Act (ESA) of 1973, as amended.

The BLM has conducted adult coho spawning surveys and random juvenile coho snorkel surveys in Ninemile Creek from 2002 to present. During years of adequate flow and moderate returns of coho to the Rogue basin, adult coho have been observed to successfully spawn in the lower mile of Ninemile Creek, suggesting that spawning habitat is adequate. Snorkel surveys following these years have documented very low densities of over-summering juveniles, suggesting that rearing habitat in Ninemile Creek is not adequate to support high numbers of juvenile coho through the critical rearing period.

ODFW (1996) conducted an intensive aquatic habitat inventory to assess the current condition of aquatic habitat of Ninemile Creek. Analysis of the inventory data revealed aquatic habitat in Ninemile to be in fair condition based on relevant stream habitat condition indicators. The most notable stream habitat deficiencies identified were a lack of pools and large wood. Ninemile Creek is identified as water quality limited for habitat modification on the Oregon Department of Environmental Quality's 303(d) list. Ninemile has a reduced freshwater survival rate for salmonids as a result of these deficiencies.

### **C. Soils**

The soils in the proposed project area are Caris, Offenbacher, Vannoy, Voorhies. These soils are deep and moderately deep and are well drained. Runoff is medium and the potential for water

erosion is moderate on slopes less than 35 percent.

**D. Archeology**

The Ninemile Creek drainage has some historic placer mining tailings scattered within it. Tailings piles are not common in the vicinity of the project sites, but there are several sites that show evidence of past exploratory diggings into the banks of the mainstem channel. There are also ditches and flume crossings in the vicinity of the project sites, which are still actively used for irrigation.

**E. Wildlife**

**General Habitat:**

Plant associations in this project area are diverse and include a mosaic of shrubland and early, mid and mature conifer stands. The primary tree species in the project area are Douglas fir, ponderosa pine, incense cedar, and madrone. Shrub species include California hazel, deerbrush ceanothus, and oceanspray. Hardwood tree species in riparian areas include alder, yew, ash, bigleaf maple. This variety of vegetation types provides for an array of wildlife species.

The primary impacts of the project to wildlife would be due to the removal of snags for the project, and the disturbance associated with the placement of the logs.

**Threatened and Endangered (T&E) and Special Status Species (SSS) Wildlife Species.**

The species of special concern for this project are recognized in two categories; Special Status Species, and Birds of Conservation Concern (including Game Birds Below Desired Condition). Species are recognized as "special status" if they are federally listed as threatened or endangered, proposed or a candidate for federal listing as threatened or endangered, or if they are a BLM sensitive species. BLM policy is to manage for the conservation of these species and their habitat so as not to contribute to the need to list additional species, and to recover listed species. Special Status Species known or likely to be present in the project area are displayed in Table 2.

**Table 2:** *Special Status Species (Terrestrial Wildlife)*

Species	Status
Lewis’s Woodpecker ( <i>Melanerpes lewis</i> )	BS
Foothill Yellow-legged Frog ( <i>Rana boylei</i> )	BS
Siskiyou Mountains Salamander ( <i>Plethodon stormi</i> )	BS
Northern Spotted Owl ( <i>Strix occidentalis caurina</i> )	FT
Pallid bat ( <i>Antrozous pallidus</i> )	BS
Fringed myotis ( <i>Myotis thysanodes</i> )	BS

Bureau Sensitive = BS

Federal Threatened = FT

### Birds of Conservation Concern

BLM recently issued interim guidance for meeting BLM’s responsibilities under the Migratory Bird Treaty Act and Executive Order 13186. Both the Act and the EO promote the conservation of migratory bird populations. The interim guidance was transmitted through Instruction Memorandum No. 2008-050. The I.M. relies on two lists prepared by the U.S. Fish and Wildlife Service in determining which species are to receive special attention in land management activities; the lists are *Bird Species of Conservation Concern* (BCC) found in various Bird Conservation Regions and *Game Birds Below Desired Condition* (GBBDC). Table 3 displays those species that are known or likely to be present in the project area.

Table 3: Bird Species of Conservation Concern

Species	Status
Black-throated gray warbler ( <i>Dendroica nigrescens</i> )	BCC
Lewis’s woodpecker ( <i>Melanerpes lewis</i> )	BCC
Olive-sided flycatcher ( <i>Contopus cooperi</i> )	BCC
Rufous hummingbird ( <i>Selasphorus rufus</i> )	BCC
Mourning Dove ( <i>Zenaida macroura</i> )	GBBDC
Band-tailed pigeon ( <i>Columba fasciata</i> )	GBBDC

### **F. Botany – Special Status Species**

Plant surveys for federally listed, state listed and bureau special status plants were conducted by a qualified botanist during spring 2008. The project area is within the range of the federally-listed vascular plant species *Fritillaria gentneri*, but was not detected during surveys. Some fungi surveys were conducted near the proposed project area in 2001 and 2002. No special status fungi were found at that time. Table 2 lists the special status species that occur in the project area.

<b>Table X. Special Status Plant Species Project Area and District Occurrences</b>			
<b>Plant</b>	<b>Status<sup>1</sup></b>	<b>PA sites<sup>2</sup></b>	<b>District<sup>3</sup></b>
<i>Cypripedium montanum</i>	S&M C (2003)	1	389

<sup>1</sup>Survey and Manage Category C (Manage Known Sites) – 2003 Annual Species Review

<sup>2</sup>Project Area Known sites.

<sup>3</sup>Medford District known sites prior to 2007.

*Cypripedium montanum* (S&M C) is a native perennial orchid that is found in a wide variety of coniferous or mixed-evergreen habitats, from full sun on eastern mountain slopes to full shade in moist wooded valleys. Its range is western North America and Alaska. There is one known site in or adjacent to a proposed project area consisting of five individuals.

### **Noxious Weeds**

One roadside infestation of Yellow Starthistle, *Centaurea solstitialis*, occurs along BLM Rd. 39-

4-19.1 in or adjacent to the project area. This site will be treated by handpulling or herbicide (glyphosate) spraying prior to implementing the project.

## **Chapter 4: Environmental Consequences**

### **I. Introduction**

This chapter is organized by issue to describe the anticipated environmental effects of the alternatives, including the Proposed Action, on the affected environment. It provides the basis for comparing the alternatives presented in Chapter 2. The detail and depth of analysis is generally limited to that which is necessary to determine if significant environmental effects are anticipated.

Several resources were considered by the ID Team, but were not analyzed in detail because they are either not found in the proposed project area or are not expected to be affected under the proposed action. These resources are Wilderness Values, Areas of Critical Environmental Concern, Air Quality, Prime or Unique Farmlands, Wild and Scenic Rivers, Native American Religious Concerns, Wetlands, and Flood Plains.

A wildlife biologist reviewed the wood sources for this project and determined the site is not located near any sensitive or Threatened & Endangered animal species. After removal of the identified snags needed for the restoration work, the area would continue to meet snag retention and coarse woody debris requirements.

### **II. Past and Future Actions**

The cumulative effects of the past and future actions of BLM, Forest Service and private, must be considered in this analysis of the project area. The Forest Service is required to meet the same environmental protection standards including using Best Management Practices and protecting riparian areas as the BLM, while private timber companies are not. The BLM, Forest Service and private land owners are expected to continue proposing timber harvest and other landscape activities within the watershed in the future. Management activities that have occurred or are expected to occur in the near future in the Ninemile drainage are as follows:

#### **Mining**

Large scale hydraulic mining in the mid to late 1800's had a dramatic effect on stream channels in the Middle Applegate Watershed, including portions of Thompson and Ninemile Creeks. As a result the channels are more entrenched and sinuosities have been lowered as gradients increased. Present small scale "hobby" mining takes place throughout the project area in Ninemile Creek, but has not been observed to be a major contributor to degradation of aquatic habitat.

#### **Timber Harvest**

Past timber harvesting has occurred in the Ninemile Drainage on both BLM and private lands. Intensive harvest (clear-cutting) appears to have primarily taken place in upland areas in the drainage, and this is evident at present day as many upland areas are in relatively young seral stages. Although old stumps are common in many riparian areas, generally they appear to have been subject to more selective harvest methods that retained at least some large overstory trees adjacent to the primary drainage channels.

### **Aquatic Restoration**

A short road segment was decommissioned, and an associated culvert was removed on a tributary to Ninemile Creek in 2005. Removal of the culvert has re-established aquatic connectivity to a more natural condition on the tributary stream. The banks and channel around the site of the culvert removal have been recovering since 2005, and are now stable and vegetated.

A BLM restoration project was completed in 1982 in the lower mile of Ninemile Creek in the project area. The project included placing 8 log weirs within and perpendicular to the stream channel to provide cover for rearing fish and to collect spawning gravels. The structures have proven effective at capturing gravel, although some are in the process of “failing” as the stream has cut down through aggraded substrates and now flows underneath several of the channel spanning logs. Several of the structures were effective at creating pools, but none of the structures resemble natural log jams, and do not provide quality refugia for juvenile salmonids.

## **III. Effects of Implementing Alternative 1 (No Action)**

### **A. Fish, Aquatic Habitat, and Hydrology**

Aquatic habitat conditions and current levels of fish production would be maintained over the short-term (less than 10 years) until large wood recruitment adds sufficient large wood to the channels (50 to 100 years or more). The No Action alternative would result in a continued lack of instream structure, habitat diversity, and protective cover needed by fish. This would maintain the current reduced freshwater survival of anadromous salmonids in Ninemile Creek. The no action alternative would have no effect on hydrology as large wood and complex pools associated with large wood would remain deficient, as at present.

### **B. Soils**

The no action alternative would have no effect on the condition of soils (see current condition). Past and future actions outlined above are not expected to affect the soils resources.

### **C. Archeology**

The no action alternative would have no effect to archeological resources (see current condition).

### **D. Wildlife**

The no action alternative would have no effect on wildlife resources (see current condition).

### **E. Botany**

The no action alternative would have no effect on special status plants in the project area (see current condition). The infestation of Yellow Star thistle (YST) would continue to spread without treatment. By not implementing this project the YST may not get treated and would continue to spread.

### **III. Effects of Implementing Alternative 2 (Proposed Action)**

#### **A. Fish, Aquatic Habitat, Hydrology**

##### **1) Direct and Indirect Effects**

This fish habitat improvement project would have some short-term, negative effects, coupled with both immediate and long-term positive effects on fish and fish habitat. Short-term negative effects to fish include reduced feeding opportunities from localized increases in turbidity and temporary displacement of fish from habitats where wood placement occurs. Experience observing similar restoration projects in creeks with similar gradient and turbidity patterns as Ninemile Creek indicates that the effects of both increased turbidity and fish displacement would be expected to only last several hours. This duration would be biologically insignificant to aquatic organisms, and well within the range of natural variation (i.e. summer thunderstorm that mobilizes sediment and results in increased turbidity for several hours). Positive indirect effects to SONC coho salmon (and other fishes and aquatic organisms) would result following placement of the structures from an increase in habitat quantity and quality (i.e. increased cover and rearing habitat). Increased spawning and rearing habitat would also benefit the population of coho in Ninemile Creek in the long term, as over time the structures would both capture and retain spawning gravels and encourage formation of scour pools.

This improvement project would also have both negative and positive effects to aquatic habitat. Negative effects would include a short term (up to several hours) increase in turbidity as the wood is placed in the channel, and short-term (weeks or months) changes in downstream habitats as the stirred-up sediment settles out over substrate. The sediment would not initially move very far downstream, as all instream work would take place during periods of low flow. It is anticipated that the first pool downstream of each wood structure would accumulate and store some amount of sediment, potentially decreasing habitat availability for macroinvertebrates and reducing feeding opportunities for fish. Levels of sediment deposition would decline substantially below these first pools, and likely would not be noticeable three or more pools downstream of the restoration sites. However, following the pattern of sediment movement in Ninemile Creek, deposited sediment would be flushed out during the first substantial flow event following wood placement, and transported to natural deposition areas, or carried by high flows through Thompson Creek and down to the Applegate River as a very brief pulse of slightly increased turbidity. This turbidity would not be detectable above background turbidity levels that would be anticipated to occur during a rain event capable of mobilizing the displaced sediment out of Ninemile Creek.

Positive effects include long term benefits derived from the addition of large wood to the stream

channel such as increased habitat complexity by the formation of pools and increased amount of cover provided by the wood. This would benefit juvenile rearing habitat in the main stem of Ninemile Creek. Aggradations of spawning gravels upstream of the wood would increase spawning habitat available to adult salmonids. Wood additions would also increase the potential for lateral stream movement, possibly encouraging formation of slow water habitats (a crucial winter rearing habitat that is currently almost non-existent in Ninemile Creek), adding to habitat complexity in Ninemile.

The project would not remove tree canopy along Ninemile Creek or its tributaries that provide shading to the stream. As such, this project would have little if any impact on stream temperatures, with only slight potential for minimal reductions in stream heating as a result of the additional shade and gradual channel improvement from placement of the large wood.

## **2) Cumulative Effects- Fisheries**

Implementation of the proposed project would be expected to increase the amount of desirable aquatic and riparian habitat in Ninemile Creek and mitigate some of the negative cumulative impacts which have occurred within the drainage in the past. Short-term, localized increases to baseline stream turbidity levels could have negative effects on fish and aquatic resources, but implementation of the appropriate PDFs would be expected to reduce the anticipated direct effects of the proposed actions to negligible levels.

There will be some ground disturbance including damage to some brushy vegetation and possibly a limited number of conifer seedlings (<2" diameter breast height) from stump site to the roadway resulting from the removal of the logs from the wood source sites. This may cause some short term erosion in the immediate vicinity. Disturbed areas will be water barred, seeded and mulched after use to reduce the potential for long term soil erosion. Designated skid trails will be kept to a minimum.

## **C. Soils**

The proposed action would disturb soil in the immediate area of the tree and root wad recruitment. This disturbance would be slight and localized with no off-site erosion anticipated.

Placing the structures in the stream would cause a localized increase in bank erosion particularly the first year after the work is completed. It is anticipated that the bank erosion would be minimal and erosion rates would return back to near normal within three years.

## **D. Archeology**

There are several historic tailing piles created during mining in the past. By using full suspension for log placement in the proximity of the tailing piles to avoid impacting the integrity of these features, or by completely avoiding tailing locations where full suspension is not possible, the project will be a "no adverse effect" undertaking relative to 36 CFR 800.

## **E. Wildlife**

### Lewis's Woodpecker

Lewis's Woodpecker primarily winters in Jackson County but there is some limited nesting

(Marshall et al. 2003). This species is predominantly associated with oak-woodland habitat during the winter (Tobalka 1997). Since the project would be taking place in the summer in mixed conifer habitat, and the snags to be felled would be examined for nesting activity before cutting, the project would have minimal, if any, impact to Lewis's Woodpecker.

#### Foothill Yellow-legged Frog

Foothill Yellow-legged Frog has not been documented in Ninemile Creek, but it could be present based on the habitat characteristics of the project area; e.g., low gradient shallow stream with some sunny areas. The project could impact this species, primarily by physical injury.

However, if it is present, the adults would be able to move away from the restoration site, and it is likely the tadpoles would also be able to move from the site due to the time of year the project would be occurring, i.e., they would be quite mobile at this time. Any impact would be minor.

#### Siskiyou Mountains Salamander.

Habitat for the Siskiyou Mountains Salamander (talus) is distributed throughout the Ninemile drainage in pockets of various sizes. Opportunistic surveys have been conducted in various locations, and salamanders have been found at several sites. None of the proposed wood source sites are located in a salamander site. Additional habitat surveys would be conducted around the snags while examining them for other wildlife use. If habitat is present, other snags would be substituted. There would not be any impact to this species.

#### Northern Spotted Owl Habitat

The Northern Spotted Owl is a federally listed threatened species. It is unlikely the species nests in the project area due to the existing habitat conditions, but there is the potential for foraging and dispersal—there are 3 known spotted owl sites within the provincial home range radius (1.3 miles) of the project. Removing approximately 20 snags along approximately 1.5 miles of road and placing up to 45 logs in Ninemile Creek would not adversely affect northern spotted owls.

The proposed project is in Northern Spotted Owl Critical Habitat Unit OR-74. The project would not remove any of the constituent elements of critical habitat, i.e., nesting, roosting, foraging and dispersal habitat; therefore, critical habitat would not be affected.

#### Pallid Bat/Fringed Myotis

Both species of bats use snags as roost sites. When using trees as roosts, they more typically use cavities but they also roost in deeply fissured bark. Some of the snags to be used for the project could provide roost sites. In order to minimize the probability that roost trees would be cut, each snag would be examined to determine the potential for bat use. Snags with high potential for bat use would not be used for the project. The accidental removal of any roost trees would be mitigated by the snag retention guidelines of the Northwest Forest Plan. Any impact to these species would be minor.

Some of the species of conservation concern found in the project area would not be affected or affected only to a minor degree – these species include Lewis's Woodpecker, Olive-sided

Flycatcher, Rufous Hummingbird, Mourning Dove, and Band-tailed Pigeon. The impact to these species would be inconsequential because there would not be a reduction in feeding, breeding and sheltering opportunities. The Black-throated Gray Warbler nests in Douglas fir forests with bigleaf maples and hazelnut interspersed (Guzy and Lowther 1997). This type of habitat is present at some restoration sites and nesting could be disrupted. The potential impact to this species would be mitigated since the in-stream work period begins after the bulk of nesting would be complete.

## **F. Botany**

### **Special Status Plant Species**

Bureau Special Status Plants and Fungi (SSP) include species that are listed as threatened or endangered under the Endangered Species Act (ESA), proposed or candidates for listing, State listed, and Bureau Sensitive species. For listed species, the BLM implements recovery plans, conservation strategies, and project design features from biological opinions to avoid adverse impacts from BLM activities. For bureau special status species, policy from BLM Manual 6840 is implemented to ensure that actions carried out by the BLM do not contribute to the need for species to become listed.

Some species on the SSP list may have Survey and Manage status. Survey and Manage standards and guidelines are designed to mitigate the impacts from land management activities on rare species associated with late-successional habitat. These actions include: (1) manage known sites; (2) survey prior to habitat-disturbing activities; and, (3) conduct extensive and general regional (strategic) surveys. These Survey and Manage species also have management recommendations that address known site protection measures.

On July 26, 2007, a new Special Status Species list went into effect bringing the criteria for designating BLM and Forest Service special status species into alignment (IM No. OR-2007-072). This new list has two categories, Sensitive and Strategic. The former categories of Bureau Assessment and Bureau Tracking no longer exist. The IM states, "If pre-project clearances have already been conducted for a project, there are no requirements to conduct pre-project clearances for newly designated Bureau Sensitive species or to address the newly added Bureau Sensitive species in the NEPA document." There is no pre-project clearance or management required for the Strategic species at the BLM District level. Therefore, Strategic species will not be analyzed in this document (IM No. OR-2007-072).

Surveys have been completed for this project. Since no *Fritillaria gentneri* occurs in the project area, there will be no effect on this species from implementing the proposed action. No bureau special status species occur in the project area. The one *Cypripedium montanum* (S&M C) site will be protected by a 100 foot no disturbance buffer. This will avoid trending this species towards listing under the ESA.

Although never detected during previous surveys in 2001 and 2002, there is a very slight chance that special status fungi could occur in the project area. However, since the scale of disturbance is so minute in a spatial and temporal context, there will be no effect on special status fungi

species.

### **Noxious Weeds**

Implementing the project design features in Chapter 2, Section IV should stop the Yellow Star thistle infestation along BLM Rd. 39-4-19.1 from spreading into adjacent areas: seeding all exposed soil areas with an approved native grass seed mix, flagging noxious weed sites and avoiding all equipment entry and ground-disturbing activities and cleaning equipment prior to moving offsite. Given adequate funding, future monitoring and weed control measures should diminish and potentially eradicate this population.

## **I. PUBLIC PARTICIPATION**

Public notice of the availability of this EA was provided through a direct mailing to downstream neighbors along with individuals and groups who previously asked to be kept informed about BLM projects. The EA was posted on the Medford District BLM NEPA and Planning website. A copy of this EA is available upon request from the Ashland Resource Area, Bureau of Land Management, 3040 Biddle Rd., Medford, OR 97540, (541)618-2497.

### **APPENDIX A: Ninemile Creek Aquatic Habitat Restoration Aquatic Conservation Strategy**

**The Northwest Forest Plan's (NWFP) Aquatic Conservation Strategy (ACS) has four components: Riparian Reserves, Key Watersheds, Watershed Analysis, and Watershed Restoration. It is guided by nine objectives which are meant to focus agency actions to protect ecological processes at the 5<sup>th</sup>-field hydrologic scale, or watershed. How the four components of ACS relate to this project is explained below:**

1. Riparian Reserves: Riparian Reserve widths for streams, springs, wetlands, and unstable soils have been determined according to the protocol outlined in the NWFPs Aquatic Conservation Strategy.
2. Key Watersheds: Tier 1 Key Watersheds contribute directly to conservation of at-risk anadromous salmonids, bull trout, and resident fish species. They also have a high potential of being restored as part of a watershed restoration program. The Middle Applegate Fifth Field Watershed is not a Key Watershed.
3. Watershed Analysis: The BLM completed the Middle Applegate Watershed Analysis in 1995.
4. Watershed Restoration: The proposed project is part of a long term program of improving fish and aquatic habitat in the Ninemile Creek drainage. Current populations of salmonids within Ninemile Creek are low. The proposed project includes placing between 5 to 10 large wood structures within the lower one mile of Ninemile Creek. This is consistent with the ACS as written: A comprehensive, long term program of watershed restoration to restore watershed health and aquatic systems, including the habitat supporting fish and other aquatic and riparian

dependent organisms.

## **Evaluation of This Action's Consistency with Northwest Forest Plan Aquatic Conservation Strategy Objectives**

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

The intent of this project is to increase the diversity and complexity of aquatic habitat in Ninemile Creek. Adding large woody debris (LWD) will increase instream habitat complexity and habitat types that are needed for all life stages of salmonids within Ninemile. Addition of these structures would result in a beneficial affect that would be noticeable at both the site and drainage scales, but not at the much larger watershed scale.

### **2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.**

Adding LWD, a natural and beneficial component of forested stream systems, will not affect the spatial and temporal connectivity within Ninemile Creek. LWD structures would be designed in a manner that would not create barriers to any aquatic organisms. Connectivity at the watershed scale would remain unchanged.

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

Adding LWD to Ninemile Creek will help maintain and restore the physical integrity of the aquatic system. Some shorelines, banks and bottom configurations will adjust to the LWD being added at individual sites, however, this will be a beneficial process that will increase habitat complexity and have long term benefits for the aquatic system. Addition of these structures would result in a beneficial affect that would be noticeable at both the site and drainage scales, but not at the much larger watershed scale.

### **4. Maintain and restore water quality necessary to support healthy riparian, aquatic and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.**

There would be no effect on water temperature, because shade would be maintained along all stream channels. Short term there would likely be some amount of fine sediment entering stream

channels in the vicinity of the restoration sites. Upland work would have no effect on fine sediment levels, due to the filtering action of Riparian Reserve buffers. Any sediment increases resulting from the proposed project would be minor relative to existing sediment levels. Sediment inputs would likely be noticeably only at the site level, in pools immediately below the locations of the structures, and would persist only until the first fall rains.

**5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.**

Adding large wood to Ninemile Creek would help create historical instream conditions, typified by high levels of wood. LWD controls local energy expenditure, and consequent patterns of water depth, velocity, and sediment storage (A Macdonald, EA Keller). Hence, adding large wood would help restore the sediment regime under which Ninemile Creek evolved. This project would yield benefits at both the site and drainage levels, but would do little to ameliorate the altered regime that exists for the Middle Applegate Watershed as a whole.

**6. Maintain and restore instream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.**

Adding LWD to Ninemile Creek would maintain and improve patterns of sediment, nutrient, and wood routing. As stated in ACS objective #5, adding LWD would help sort and store sediment and other substrate. Adding LWD to Ninemile would facilitate trapping of smaller pieces of wood and debris that would otherwise be flushed further down stream into larger tributaries. Addition of wood to the channel of Ninemile Creek would not influence the volume of instream flows, but would help to dissipate flood energies. These affects would benefit both the site and drainage levels, but would be unnoticeable at the watershed scale.

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

Adding LWD to Ninemile Creek could potentially increase flood plain connectivity as aggraded materials build up incised portions of channels. Should this occur, it is unlikely to benefit the drainage or the watersheds as wholes.

**8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.**

This project would help restore the historical physical complexity and stability of Ninemile

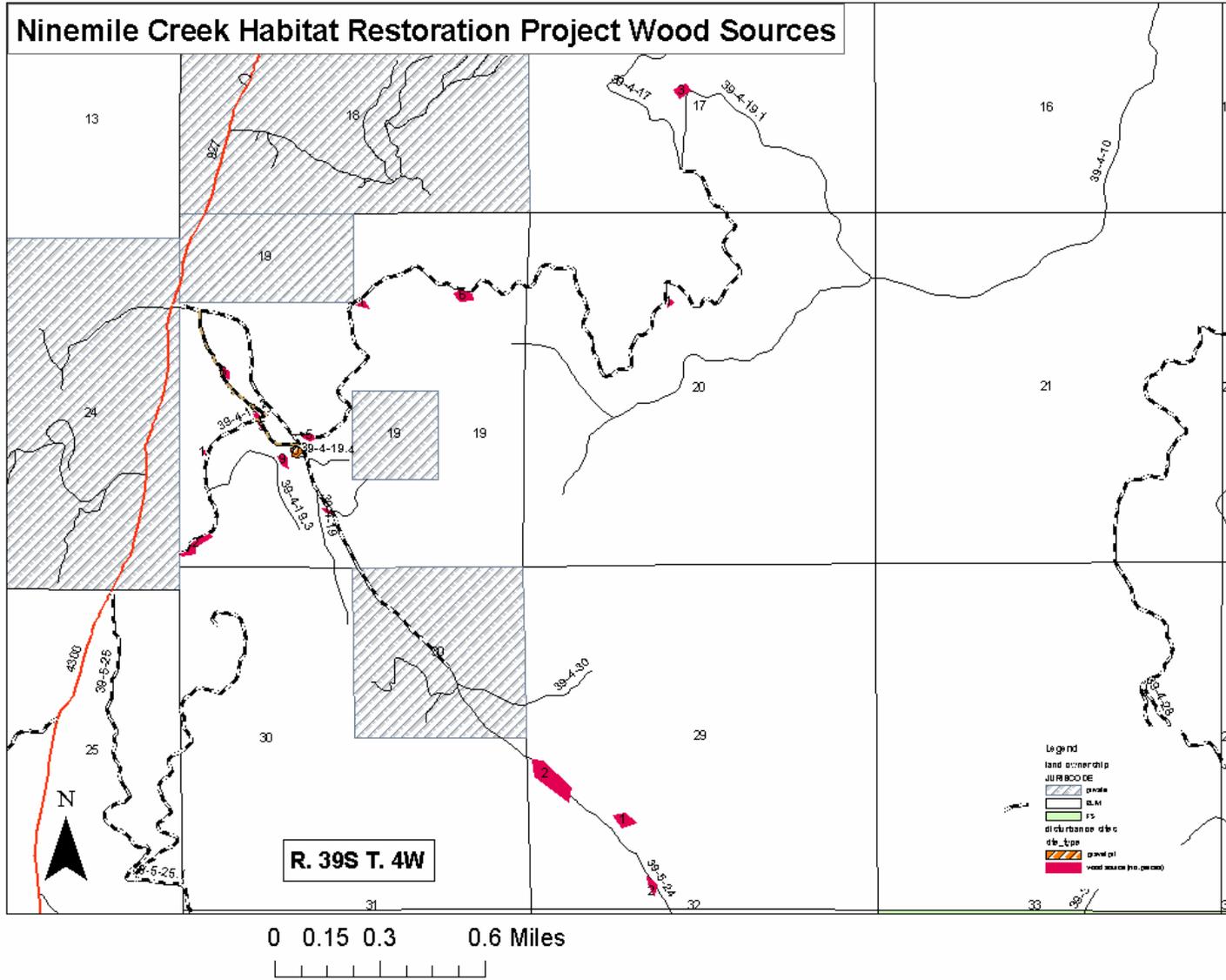
Creek by adding LWD. LWD slows the movement of gravel and sediment, promoting island and bar formation within the aquatic zone which would provide a substrate for the growth of plants, provide nutrient filtering, and possibly the formation of side channels for winter fish habitat. Affects would benefit site and drainage scales only.

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

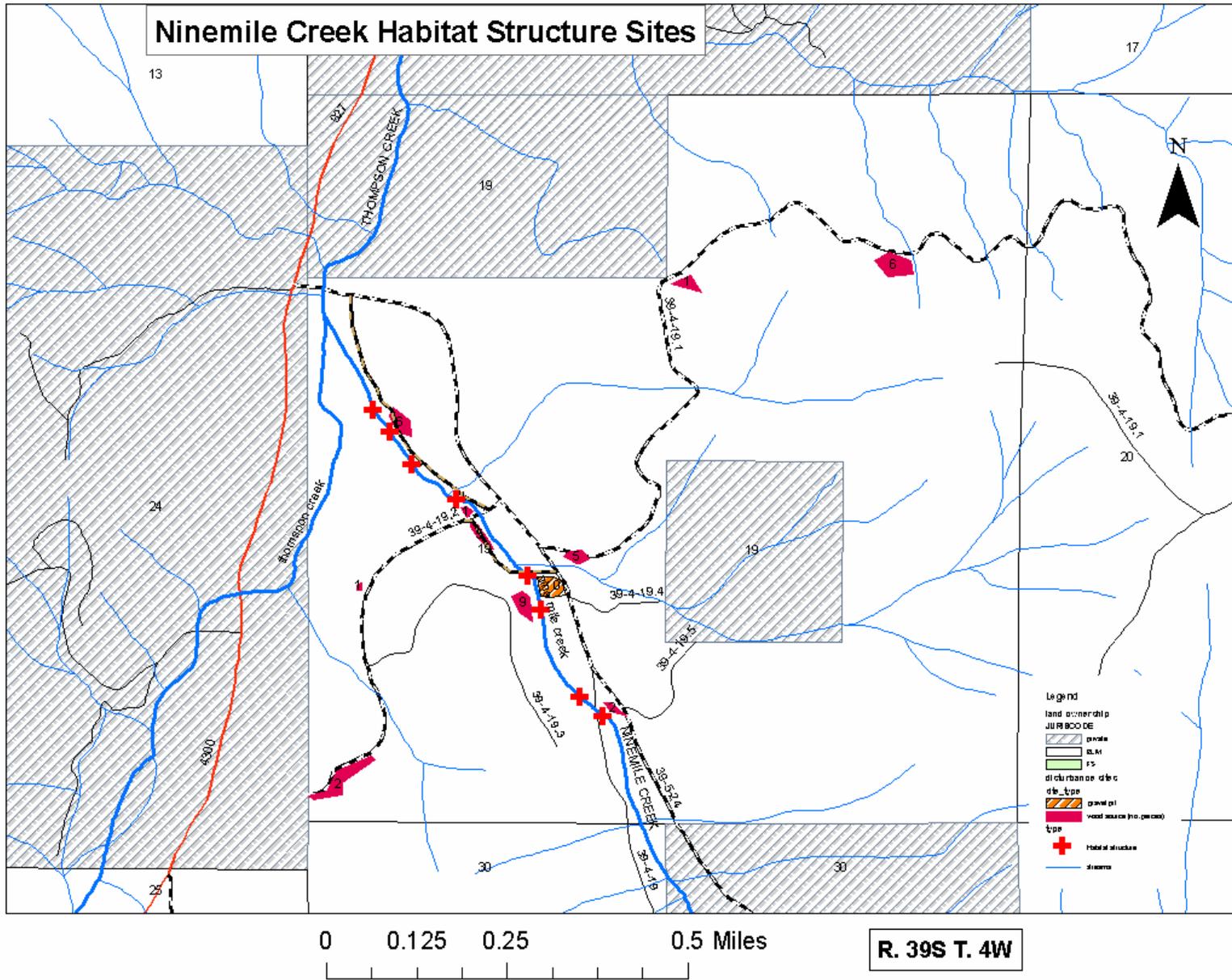
See previous objectives; addition of large wood structures would benefit aquatic organisms, and help restore aquatic habitat and processed both at the site level and within the Ninemile Creek drainage. Minor site level disturbances to riparian plant species would likely occur as a result of placing the log structures in the channel, but these would quickly recover. As previously stated, no ACS objectives, including this one, would be affected at the larger spatial scale of the watershed.

Appendix B: Maps

Map 1: Wood source sites.



Map 2: Restoration sites.



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