

Susan Creek Stew WUI Environmental Assessment

EA #OR – 104 – 08 – 06

**U.S. Department of Interior
Bureau of Land Management
Roseburg District
Swiftwater Field Office
Roseburg, Oregon**

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U.S. Department of the Interior, Bureau of Land Management
Roseburg District Office
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Comments on this environmental assessment, including the names and street addresses of respondents, will be made available for public review at the above address during regular business hours, 8:00 A.M. to 4:30 P.M., Monday through Friday, except holidays.

Individual respondents may request confidentiality. Such requests will be honored to the extent allowed by the law. If you wish to withhold your name or street 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. Submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

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Chapter 1. Introduction

A. Background:

The Susan Creek road system is designated as an escape route in the Susan Creek Community Wildfire Protection Plan (September 2004) and as Wildland Urban Interface (WUI) in the Roseburg District Fire Management Plan (June 2005). This area is within the General Forest Management Area (GFMA) and Riparian Reserve land use allocations.

Lightning has historically been the primary cause of wildfires throughout Douglas County. However, wildfire occurrence has magnified due to increases in dispersed recreation in forested settings, debris burning at private residences located within the WUI in general, and timber management activities on private and public lands. The Susan Creek area maintains a high level of recreational use (a major potential ignition source) within a five mile radius of the project area. This project would reduce the likelihood of a fire starting from the Susan Creek Road system (including road numbers: 26-2-14.0, 26-2-14.3, 26-2-14.4, 26-2-15.0, and 26-2-23.0), reduce the fire danger to local landowners and recreationists, and provide a safe escape route for people using the area should a fire occur.

B. Purpose & Need:

Approximately 21 standing trees adjacent to the Susan Creek road system are dead or dying and assessed as Hazard Trees (Appendix B). Numerous trees have already blown down during recent storm events and have contributed to the fuel load in parts of this area.

The Bureau of Land Management (BLM) proposes to fell hazardous trees along the Susan Creek road system (including road numbers: 26-2-14.0, 26-2-14.3, 26-2-14.4, 26-2-15.0, and 26-2-23.0) that are likely to fall into the road or onto private facilities. The BLM, also, needs to reduce the fire danger from excessive brush, dead and dying trees in the WUI within the Susan Creek drainage. In addition, the BLM proposes to reduce hazardous fuels adjacent to the Susan Creek Mobile Home Park to reduce its risk from forest fire.

The purpose of the action is to improve the fire safety in the WUI and reduce the public safety hazards, and ensure access along the roadway. The BLM needs to fell dead/dying standing trees in the area that have been assessed as hazards and could damage vehicles and injure persons traveling along the roads or that could prevent ingress or egress to residences accessed by the road. In addition, downed trees would need to be removed to prevent dangerous fuels buildup near residences within the WUI. Merchantable trees, identified for removal, would be sold to help offset costs of the project. The brush slated for removal may also be sold as biomass if the market allows.

C. Proposed Action:

The BLM proposes a hazardous fuels reduction project to treat approximately 24 acres along approximately two miles of road in Sections 13 and 14 of T. 26 S., R. 2 W., Willamette Meridian. The proposed action would include removal of approximately 21 standing dead/dying trees, salvage of blow-down, hand cutting of brush, and chipping or removal of cut material. The trees, if merchantable, would be sold or removed (e.g. logs for restoration, barriers, etc.) from the project area to reduce hazardous fuel levels. Brush and

small trees, less than 6 inches diameter breast height (DBH), that act as a ladder for fire to climb into the tree tops of surrounding trees would be cut 50 feet from either side of the roadway and either chipped on site or removed and sold as biomass. In addition to the road treatment, a 100 foot fire defensible area would be created along the west side of Susan Creek Mobile Home Park where fuels would be treated using the same criteria as for the roadway, however, no hazard trees are identified for removal adjacent to the mobile home park.

D. Conformance with the Land Use Plan

This environmental assessment (EA) analyzes the environmental consequences of the Proposed Action Alternative and the No Action Alternative, to explain the environmental effects of each in the decision-making process. In addition to the 1995 *Roseburg District Record of Decision and Resource Management Plan* (1995 ROD/RMP) and periodic plan maintenance as published in the *Roseburg District Annual Program Summary and Monitoring Report Fiscal Year 2008* (2008 APS), this analysis tiers to the assumptions and analysis of consequences provided by the following NEPA analyses:

- The *Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late-Successional and Old-Growth Related Species Within the Range of the Northern Spotted Owl* (USDA and USDI 1994);
- The *Final Supplement to the 2004 Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standard and Guidelines* (USDA and USDI 2007).

Implementation of the actions proposed in this analysis would conform to the requirements of the 1995 ROD/RMP, incorporating the standards and guidelines therein.

E. Objectives

- Comply with Section 1 of the O&C Act (43 USC § 1181a) which stipulates that O & C Lands be managed "... for permanent forest production, and the timber thereon shall be sold, cut, and removed in conformity with the principal of sustained yield for the purpose of providing a permanent source of timber supply, protecting watersheds, regulating stream flow, and contributing to the economic stability of local communities and industries, and providing recreational facilities..."
- Fell trees in Riparian Reserves when they pose a safety risk. Keep felled trees on site when needed to meet Aquatic Conservation Strategy and Riparian Reserve objectives (1995 ROD/RMP, pgs. 28 and 56).
- Remove trees along rights-of-way if they are a hazard to public safety. Consider leaving material on site if available coarse woody debris is inadequate. Consider topping of trees as an alternative to felling (1995 ROD/RMP, pg. 30).
- Consider the interests of adjacent and nearby rural land owners, including residents, during analysis, planning, and monitoring related to managed rural interface areas. These interests include personal health and safety, improvements to property and quality of life (1995 ROD/RMP, pg. 54).

- Use minimum impact suppression methods for fuels management in accordance with guidelines for reducing risks of large scale disturbances (1995 ROD/RMP, pg. 76).
- Reduce hazards through methods such as prescribed burning, mechanical or manual manipulation of forest vegetation and debris, removal of forest vegetation and debris, and combinations of these methods (1995 ROD/RMP, pg.77).

F. Issues for Analysis:

Given the limited scope of the action, only two resource issues were identified by the interdisciplinary team for analysis:

- Northern spotted owl and its suitable habitat - *What is the effect of removing approximately 21 standing dead/dying trees, on the northern spotted owl and its suitable habitat along the Susan Creek Road?*
- Fuel loading and fire risk - *How do these dead/dying trees contribute to fuel loading and fire risk in the wildland urban interface? How would removing them affect fuel loading and fire risk?*

Chapter 2. Proposed Action and Alternatives

A. Alternative One – No Action:

Under this alternative, BLM would not fell and remove approximately 21 standing dead/dying trees, nor remove approximately 19 down trees along the Susan Creek road system. These trees would continue to die and decompose naturally, and contribute to existing fuel loads. Fuels within 50 feet on both sides and the length of the right-of-way would not be reduced by the removal of shrubs and trees less than 6 inches diameter. Brush and sapling trees along the road sides would continue to provide ladder fuels for fire to get to the upper reaches of surrounding trees.

B. Alternative Two – Proposed Action:

The BLM proposes to remove approximately 21 standing dead/dying trees ranging between 8 to 56 inches DBH and remove approximately 19 down trees along the Susan Creek road system. All standing trees and blowdown are easily accessible from the existing gravel road and would be removed from the project site. Vegetation within 50 feet, either side of the roadway and under 6 inches DBH would be cut and chipped on site or removed off site for use as biomass. Within this 50 foot corridor, trees would be pruned up to eight feet from the ground or half the height of the tree, whichever is less. Similarly, a 50 foot corridor of vegetation along the west side of the Susan Creek Mobile Home Park would be treated to reduce hazardous fuels.

C. Issues Considered but Eliminated from Further Analysis

Is upgrading the Susan Creek road system outside the parameters of the proposed action?

An engineering proposal for road upgrading was eliminated from this analysis because, while the road could be upgraded to improve and ensure access, such improvements would be beyond the scope of the project to remove hazard trees and to reduce fuel loading.

Would leaving the majority of felled trees and downed trees on site adversely affect the WUI and fuel loading along the Susan Creek road system?

This alternative was not considered further because additional felled trees would increase hazardous fuel loading within the WUI. In addition, leaving felled trees would attract larger numbers of destructive insects which could attack the remaining standing trees.

How would felling and removing the dead and dying trees affect soil productivity? Soil productivity would remain unaffected by the proposed action since heavy equipment would not leave the rocky roads to yard logs. In addition, there would be minimal ground disturbance using standard Best Management Practices (BMPs) and Project Design Features (PDFs) from yarding the logs to the road. Therefore, soil displacement and compaction would not be a concern.

Would the proposed action significantly affect water quality, aquatic habitat, or aquatic species through sediment delivery to the streams (including listed fish and Special Status Species)? Water quality, aquatic habitat, and aquatic species related issues are eliminated because there are no perennial or fish-bearing streams within the project area. There is one non-fish-bearing intermittent stream which crosses the 26-2-23.0 road and one other road accessing a private residence. Because only selective vegetation would be removed to reduce fuel hazards and all heavy equipment would stay on the roadway, no impact to water quality or water resources is expected as a result of this project. Also, because there are no fish-bearing streams within the project area, this project will have no mechanism for affecting the Oregon Coast coho salmon or other aquatic Special Status Species downstream of the project.

Would the proposed action significantly affect cultural resources? Cultural resource inventories conducted in the vicinity of the proposed project over the years have resulted in the recordation of four archaeological sites within the project area. None of the sites would be impacted because only non-surface disturbing activities, such as hand-brushing and chipping, would occur in the proposed project. The surface-disturbing aspect of the project, the removal of dead trees, would be conducted in locations where there are no recorded sites. Therefore, there would be no impacts to known cultural resources as a result of the project.

Would the proposed action significantly affect Special Status plant (SSP) species or the spread of noxious weed species in the area? Although botanical surveys have not been completed on the project area, surveys have been conducted on adjacent areas of similar habitat. No botanical species of concern were found in these adjacent areas. Although the project area is within the range of the federally Threatened Kincaid's lupine (*Lupinus sulphureus* ssp. *kincaidii*), and the federally Threatened rough popcorn flower (*Plagiobothrys hirtus*), it does not contain habitat for these listed species.

Noxious weed presence in the area is very low and would continue to be monitored for new invasions. If infestations occur, they would be treated in accordance with the Roseburg District's noxious weed program (BLM EA # OR-100-94-11). As in District policy (BLM

Manual 9015, December 2, 1992) on all ground disturbing activities, the equipment used to harvest the trees should be pressure-washed to avoid importing weed seeds or propagules from off site.

D. Project Design Criteria as part of the Action Alternative

1. To reduce fuels along the road system:

- a) Prune trees to a maximum height of eight feet from the ground or half the height of the tree, whichever is less.
- b) Remove shrub vegetation less than 6 inches DBH.
- c) Remove approximately 21 dead and dying trees.
- d) Remove approximately 19 dead, down logs.

2. To protect Special Status plants and animals:

- a) If during implementation of the proposed action, any Special Status Species are found, operations would be suspended as necessary and appropriate protective measures would be implemented as needed before operations would be resumed.
- b) The proposed project area occurs within suitable habitat for the northern spotted owl. There are no known, historic northern spotted owl nest sites or activity centers within 65 yards of the proposed project area. However, the area has not been surveyed to protocol. To avoid the removal of an unknown nesting spotted owl, the falling, bucking and yarding of trees would be seasonally restricted during the nesting/brooding season of March 1st through September 30th. To avoid noise disturbance to unknown nesting spotted owls within 65 yards of the project, brushing, pruning and chipping of the fuels treatment area would be restricted during the critical nesting / brooding season from March 1st through July 15th. Surveys are planned for completion in 2009 and 2010. If future surveys locate an activity center or nest within 65 yards of the proposed project area, seasonal restrictions from March 1st through July 15th would be applied to mitigate disturbance impacts to nesting spotted owls and pre-dispersal fledglings. Seasonal restrictions may be waived when current calendar year surveys indicate: 1) spotted owls are not present 2) spotted owls are present, but not attempting to nest, or 3) spotted owls are present, but nesting attempt has failed.

3. To protect soil productivity and reduce compaction:

No equipment would leave the road surface to yard logs.

Chapter 3. Affected Environment and Environmental Consequences

A. Forest Vegetation

1. Affected Environment

The proposed treatment area mainly runs through stands with a birth-date of 1900. There are two younger stands in the treatment area that were harvested in the 1950's and one of them was pre-commercially thinned in 1985. Two of the 1900-aged stands were commercially thinned in 1970. The area is mostly mixed conifer-hardwood stands composed of Douglas-fir, sugar pine, grand fir, western hemlock, incense cedar, western red cedar, and big leaf maple. Pacific yew, Oregon white oak, and Oregon ash were observed in some locations. The trees in the managed stands are typically even spaced and approximately 10– 20 inches DBH. Understory vegetation is typically minimal. The unmanaged stands are structurally more diverse with seedlings, saplings, and shrubs occupying the understory. The typical size trees are from 10– 30 inches DBH. Shrubs that occur in the area include, but are not limited to: salal, sword fern, Oregon-grape, poison oak, manzanita, oceanspray, hazel, and huckleberry. Blackberry and scotch broom occur along the roads.

Scattered wind-thrown and dead trees occur singly or in clumps throughout the project area. Most mortality involves Douglas-fir, sugar pine, and grand fir. Insects and pathogens identified in the area were Douglas-fir beetle (*Dendroctonus pseudotsugae*), mountain pine beetle (*D. ponderosae*), flatheaded woodborers (several species, family *Buprestidae*), and *Armillaria ostoyae* (cause of *Armillaria* root disease) (Goheen, 2008).

2. No Action Alternative

If the BLM does not remove the 21 standing dead/dying trees, they would be at risk of falling into the road, structure, or property as they naturally decay or during disturbance events such as windstorms. Should the trees fall into the road, access to residences along the road may be restricted until the tree could be removed, and the tree could damage vehicles or injure persons traveling along the road.

No treatment would be applied to reduce the threat of insects or disease by the BLM, including the removal of standing and downed trees. Douglas-fir beetles would continue to breed in weakened trees, especially wounded, root diseased, felled, or wind-thrown hosts. “[B]eetle populations can build up to high levels and nearby healthy, standing trees may be attacked and killed. Outbreaks in green trees are sporadic and usually of short duration. Even so, outbreaks can have significant impacts on stand structure since Douglas-fir beetles show a strong preference for large trees and often kill trees in groups” (Goheen, 2008). Dead trees with *Armillaria* root disease infections and adjacent live, but symptomatic trees have a high probability of falling (Goheen, 2008).

3. Proposed Action Alternative

Insect and disease threats to the surrounding trees would be reduced. Dead and dying trees that are currently a host for Douglas-fir beetles and *Armillaria* root disease infections would be removed.

Hazards to persons and property would be reduced along the roadways through the removal of 21 standing dead/dying trees and 19 downed logs. These trees are currently hosts for insect infestations for Douglas-fir beetles and transmission of *Armillaria* root disease. Removal of infested trees would also reduce insect infestation and transmission of *Armillaria* root disease to the surrounding live trees.

B. Fire & Fuels

1. Affected Environment

Existing fuel conditions in the WUI of the Susan Creek Area are best described by descriptive code 2-MC-3 of *Photo Series for Quantifying Natural Residues in Common Vegetation Types of the Pacific Northwest* (Maxwell and Ward, 1980). Total fuel loading is estimated at 20.4 tons/acre (Figure 1). Fuels cover approximately 73 percent of the project surface area, to an average depth of approximately 3 inches. The total fine fuel in the area is estimated at 5.8 tons per acre; however, the referenced photo (2-MC-3) does not accurately depict the amount of large downed wood in the insect kill area which would increase the large fuel load considerably. The present risk for wildfire in the WUI of the project area would be considered moderate based on existing fuels load, stand characteristics, and understory vegetation that could contribute to fire spread.



Figure 1. Current Fuel Conditions.

2. No Action Alternative

The fuel loading in the area would continue to increase naturally, over time, thereby diminishing the effectiveness of the roadways as an escape route and increasing the potential of a fire being started from the roadside. The increased fuel loading would increase the intensity of a fire burning near the roadway making it more difficult to safely pass on the road.

For the short term, the fire risk associated with the forest stands in the project area would remain moderate. Over the long term, however, the fuel load would steadily increase, primarily as a consequence of increased mortality of diseased and stressed trees in the stands. As these stands degrade, conditions could worsen to the point of fuel loads as high as 89 tons per acre. Of these 89 tons per acre, the majority (67 tons) is in large fuels over 9-20 inches in diameter which would dramatically increase the potential fire intensity if the area were to burn. This intensity level would likely make fighting a fire in the area dangerous and difficult as well as producing enough heat to kill many remaining trees. During a fire under normal weather conditions, heat per unit area levels could reach 1,500 Btu/ft² (British thermal units per square foot) and flame lengths of 6 feet (measured from the ground to the top of the flame body) which are not easily contained by even heavy equipment (Rothermel, 1983).

3. Proposed Action Alternative

How would felling and removing the dead/dying trees, as well as brush removal affect fuel loading and fire risk in the wildland urban interface?

Reduction of fuel loads would help to lessen the chance of wildfire from occurring along the road system.

As stated in the 2008 ROD/RMP (pg. 43), the Roseburg District is to “[a]pply fuels treatment to stands of any age in order to reduce the fuel hazards. Fuel treatments would include such activities as: tree cutting and removal, brush cutting, pruning, reducing crown bulk density, treating of activity fuels, removing of biomass, and prescribed burning.” The urban interface ownership pattern that is typical in the project area makes the proposed action particularly crucial, because wildfire potential is not dependent on BLM management activities alone.

The felling and removal of the dead and dying trees as well as the brush along the road would remove a fuel source and reduce the risk of wildfire within the WUI. If the cut brush is chipped on site rather than removed this chip layer does provide more fine fuels. However, this chip layer usually compacts and therefore retains moisture. The change of fuels from upright and multilayered to low and compact (Figure 2) also makes fighting fire in the area more practical and simple as the flames would be lower to the ground. After treatment, the flame lengths of an average fire would be expected to be 4 feet and the heat per unit area 500 Btu/ft² which can be contained with ground forces and hand tools (Rothermel, 1983).

The reduction of brush along the roadways would also increase visibility for traffic at corners thereby improving safety for residents. Future cutting treatments would be expected to occur to maintain the reduction of fuel loading.



Figure 2. Example of Desired Fuel Conditions.

C. Wildlife

1. Affected Environment

a. Threatened and Endangered Species

Northern Spotted Owl

- 1) *Home Range* – The project area falls within unsurveyed, suitable northern spotted owl habitat and is located within the 1.2 mile home range of four known spotted owl activity centers: Honey Creek (IDNO 0510A), Smith Springs (IDNO 2287O), South Susan (IDNO 4018O), and Susan Creek (IDNO 1928A). The home range represents an area of assumed owl use based upon the physiographic province in which they occur. Portions of home ranges frequently overlap between adjacent spotted owl pairs. Table 1 shows the project acres which fall within each affected spotted owl home range.

- 2) *Core Area* – The core area is a 0.5 mile-radius circle used to describe the area most heavily used by spotted owls during the nesting season (USDI *et al*, 2008b). Core areas represent areas defended by territorial spotted owls and generally do not overlap the core areas of other spotted owl pairs. The project does not fall within the core area of any of the four owl activity centers.

- 3) *Nest Patch* – Within the core area, the nest patch is defined as the 300-meter radius circle around a known spotted owl nest site (USDI *et al*, 2008b). Activities within this area are considered likely to affect the reproductive success of nesting spotted owls and are used in determination of incidental take. The project does not encompass the nest patch of any of the four owl sites.

- 4) *Known Owl Activity Centers (KOAC)* have been designated to minimize impacts and protect nest sites found before 1994 (USDI, 2005). There is a 100-acre KOAC established for each owl site within the project area. The proposed project would not treat habitat within any of the four KOACs.

- 5) *Critical Habitat* is a specific geographical area designated by the USFWS as containing habitat essential for the conservation of a Threatened or Endangered species. The action area is within designated Critical Habitat for the spotted owl under the 1992 Final Rule for Determination of Critical Habitat for the Northern Spotted Owl (57 FR 1796-1838). Critical Habitat for the spotted owl was re-designated by USFWS in 2008 (73 FR 47326-47374) and the action area is not included in critical habitat under the 2008 Rule.

Table 1. Impacts of Proposed Action to Northern Spotted Owl Habitat within Known Home Ranges.

Northern Spotted Owl Site (IDNO)		Federal Land (acres)	Suitable Habitat on Federal Lands Only (acres)	
			Current Condition	Habitat Modified* through Proposed Action
Honey Creek (0510A)	Home Range (2,895 acres)	1068	924	3.03
	Core Area (502 acres)	342	342	0
	Nest Patch (70 acres)	70	70	0
Smith Springs (2287O)	Home Range (2,895 acres)	1337	1034	24.24
	Core Area (502 acres)	326	231	0
	Nest Patch (70 acres)	67	58	0
South Susan (4018O)	Home Range (2,895 acres)	1758	1331	15.15
	Core Area (502 acres)	485	351	0
	Nest Patch (70 acres)	70	60	0

Northern Spotted Owl Site (IDNO)		Federal Land (acres)	Suitable Habitat on Federal Lands Only (acres)	
			Current Condition	Habitat Modified* through Proposed Action
Susan Creek (1928A)	Home Range (2,895 acres)	1525	1114	10.42
	Core Area (502 acres)	227	168	0
	Nest Patch (70 acres)	58	48	0

* Under the Proposed Action, suitable habitat would have a reduction in quality; however, it would maintain its function.

2. No Action Alternative

The quality and availability of northern spotted owl habitat would be unaffected under the No Action alternative. Potential nesting structures would remain in the stand and the small tree and shrub layers, as well as the coarse woody debris, would continue to provide structural complexity in the stand.

As the dying trees fall and add to the existing fuel loads, the potential for fire to impact the stand would increase. A high intensity fire in the stand would potentially remove nesting structures and prey habitat, as well as displace any spotted owls using the stand.

3. Proposed Action Alternative

How would removal of approximately 21 standing dead/dying trees and treating the roadside vegetation for 50 feet on either side affect the northern spotted owl and its habitat?

The project proposes to remove approximately 21 standing dead/dying trees that have been identified as hazard trees with the potential to fall into or across the roadway. Six of the 21 trees are sugar pine snags, which are generally not a preferred nest species (USFWS, May 2008a). These pine snags are tall and exposed above the main canopy with no evidence of cavity formation or top breakage to provide nesting opportunities. Four of the remaining fifteen trees are 30 inches DBH or greater and thus have the greatest potential to provide nesting habitat for spotted owls (USFWS, May 2008a). Three of these trees are dead Douglas fir currently without broken tops or limbs to provide nesting cavities in the bole and no adjacent tree crowns to provide cover. If left in the stand, these trees could break off and provide snag habitat and potential nest cavities in the future. The one green, dying tree over 30 inches DBH to be removed is isolated from the adjacent stand, has a dead top bole which has not broken off, and shows no obvious signs of cavities or platforms within the crown. Therefore, the project would remove four trees which may currently provide nesting opportunities for the northern spotted owl.

The untreated stand surrounding the project area contains numerous dead or dying trees over 30 inches DBH that may provide current and future nest sites as they decay and break off. The dead and dying trees would also add coarse woody debris to the forest floor as they decay and fall. Nesting, roosting, and foraging capability of the stand would be maintained, but with reduced future nesting and roosting opportunities, after the hazard trees are removed.

The removal of coarse woody debris and small trees (< 6 inches DBH) and shrubs along the road system would not prevent the stand from continuing to function as suitable habitat. The surrounding, untreated stand has a large amount of coarse woody debris from blowdown and breakage that will remain post treatment. By removing coarse woody debris from recent blowdown and shrubs within 50 feet of the roadways, the project would result in the modification of habitat for small mammals, which are important prey species for the owl.

While the proposed action would reduce owl nesting opportunities and remove small vegetative structures along the roadway, it would not affect overall stand age or affect the ability of the stand to continue to function as suitable habitat. The project may temporarily reduce the utility of the roadside treatment area for prey species and other wildlife by removal of small trees and shrubs which provide nesting habitat and hiding cover. The roadside vegetation would be expected to re-grow within 2-3 years, although it will be maintained at a lower height than currently exists.

Chapter 4. Contacts, Consultations, and Preparers

A. Agencies, Organizations, and Persons Consulted

The Agency is required by law to consult with certain federal and state agencies (40 CFR 1502.25).

1. Threatened and Endangered (T&E) Species Section 7 Consultation

The Endangered Species Act of 1973 (ESA) requires consultation to ensure that any action that an Agency authorizes, funds or carries out is not likely to jeopardize the existence of any listed species or destroy or adversely modify critical habitat.

U.S. Fish & Wildlife Service

A Biological Assessment (BA) was prepared as part of consultation under Section 7 of the Endangered Species Act of 1973 (ESA), as amended, for this project. It conforms to the requirements and procedures outlined in the Alternative Consultation Agreement (ACA) between the Bureau of Land Management (BLM), NOAA Fisheries and the U.S. Fish and Wildlife Service

(USFWS) executed March 3, 2004. The Susan Creek Stew WUI project is aligned with the goals of the National Fire Plan (NFP) and meets the criteria required to qualify as a NFP project. A project compliance form has been completed, signed on September 22, 2009.

Disruption associated with the project will be minimized by application of PDC that impose operating restrictions during the critical breeding season within disruption distances of unsurveyed suitable habitat and known spotted owl sites. Hazard tree removal and salvage would occur outside the breeding period of March 1 to September 30. Brushing and pruning activities would occur outside the critical breeding period of March 1 to July 15. Therefore, breeding spotted owls are unlikely to be present within disruption threshold distances during critical periods and adverse effects are very unlikely to occur beyond these distances.

It has been determined that the Susan Creek Stew WUI project *may affect* but is *not likely to adversely affect* the Northern Spotted Owl.

NOAA Fisheries Service

The Swiftwater fisheries staff has determined that this project would have no mechanism for an effect on Oregon Coast coho salmon. The proposed action and its interrelated and interdependent actions would have no direct effects on the Oregon Coast coho salmon and will not destroy or adversely modify designated critical habitat.

1. Cultural Resources Section 106 Compliance

A “No Effect” determination was made. Compliance with Section 106 of the National Historic Preservation Act under the guidance of the 1997 National Programmatic Agreement and the 1998 Oregon Protocol has been documented with a Project Tracking Form dated March 16, 2009.

B. Public Notification

1. Notification was given (February 27, 2008) to **adjacent landowners, landowners along the Susan Creek Road and trailer park, holders of registered water rights within one mile downstream of the project area**, and interested members of the **general public**. No comments were received.
2. Notification was provided (September 10, 2008) to affected **Tribal Governments** (Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz, and the Cow Creek Band of Umpqua Tribe of Indians). No comments were received.

3. The **general public** was also notified via the *Roseburg District Planning Updates* (i.e. Winter 2007; Spring, Summer, Fall, and Winter 2008; and Spring 2009) which were sent to approximately 150 addressees. These addressees consist of members of the public that have expressed interest in Roseburg District BLM projects.

4. If the decision is made to implement this project, FONSI and DR will be sent to USFWS, NOAA Fisheries, Oregon Department of Environmental Quality, and the Oregon Department of Fish and Wildlife and would be provided to certain **State, County and local government** offices.

5. A 30-day **public comment period** would be established for review of this EA. A Notice of Availability would be published in *The News-Review*. The public comment period will begin with publication of the notice published in *The News-Review* on September 29, 2009 and end close of business October 28, 2009. Comments must be received during this period to be considered for the subsequent decision. This EA and its associated documents will be published online at <http://www.blm.gov/or/districts/roseburg/plans/index.php>. Hardcopies will be sent to parties requesting them. If the decision is made to implement this project, a notice will be published in *The News-Review* and notification sent to all parties who request them.

C. List of Preparers

Core Team

Krisann Kosel	Project Leader
Bruce Baumann	Pre-sale Forestry/Layout
A. C. Clough III	Management Representative
Jeff McEnroe	Fisheries
Dan Cressy	Soils
Daniel Dammann	Hydrology
Krisann Kosel	Fuels Management
Melanie Roan	Wildlife
Jeff Wall	Planning & Environmental Coordinator
Timothy Thompson	Engineering
Ron Wickline	Botany/Weeds
Joe Keady	Cruising

Expanded Team (Consulted)

Isaac Barner	Cultural Resources
Ron Murphy	Recreation / Visual Resource Management

References:

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U.S. Department of the Interior, U.S. Fish & Wildlife Service; Bureau of Land Management; and U.S. Department of Agriculture, U.S. Forest Service. September 2008b. Methodology for estimating the number of northern spotted owls affected by proposed federal actions. Version 2.0. Oregon Fish and Wildlife Office, Fish and Wildlife Service, Portland, OR. 34 pgs.

Appendix A. Wildlife Special Status Species

Project: Susan Creek Stew WUI
Prepared By: Melanie Roan
Date: March 30, 2009
SSSP List Date: July 26, 2007 (IM-OR-2007-072)

The following tables include those species which are documented or suspected to occur within the Roseburg District BLM. Those Bureau Sensitive or Bureau Strategic species which are suspected or documented to occur within the project area may be further discussed in the body of the EA as appropriate.

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

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

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

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

Table A-1. Bureau Sensitive & Strategic Wildlife Species.

Species	General Habitat Requirements	Present in Project Area?	Impacts to Species	
			No Action	Alternative 1
BUREAU SENSITIVE				
American Peregrine Falcon <i>Falco peregrinus anatum</i>	Cliffs, rock outcrops; open habitats for hunting birds	No Habitat	No Effects	
Bald Eagle <i>Haleaetus leucocephalus</i>	Late successional forests with multi-canopies, generally within two miles of a major water source	No Known Nest/ Roost Sites	No Effects	
Chace Sideband <i>Monadenia chaceana</i>	Rocky, talus habitats in the Klamath Province and southwards	Out of Range	No Effects	
Columbian White Tailed Deer <i>Odocoileus virginianus leucurus</i>	Bottomlands, oak/hardwood forests; cover for fawning	No Habitat	No Effects	
Crater Lake Tightcoil <i>Pristiloma arcticum crateris</i>	Perennially wet areas in late seral forests above 2000ft elevation and east of Interstate-5; seeps, springs, riparian areas	Suspected	No Effect	No measurable effect because project will not treat within riparian or spring areas.
Fisher <i>Martes pennanti</i>	Natal and foraging habitat consists of structurally complex forests; mature open forests with large live trees, snags, and down wood.	Suspected	No Effect	No effects to suitable natal and foraging habitat.
Foothill Yellow-legged Frog <i>Rana boylei</i>	Low gradient streams/ponds; gravel/cobble, bedrock pools	No Habitat	No Effects	
Fringed Myotis <i>Myotis thysanodes</i>	Late-successional forest features (e.g. snags or trees with deeply furrowed bark, loose bark, cavities), caves, mines, bridges, rock crevices	Suspected	No Effect	Potential loss of roosting snags when hazard trees are removed.

Species	General Habitat Requirements	Present in Project Area?	Impacts to Species	
			No Action	Alternative 1
Green Sideband <i>Monadenia fidelis beryllica</i>	Coast Range, riparian forests at low elevations; deciduous trees & shrubs in wet, undisturbed forest	Out of Range	No Effects	
Harlequin Duck <i>Histrionicus histrionicus</i>	Mountain Streams in forested areas on west slope of the Cascade Mountains	No Habitat	No Effects	
Lewis' Woodpecker <i>Melanerpes lewis</i>	Open woodland habitat near water; open woodland canopy and large diameter dead/dying trees, snag cavities	No Habitat	No Effects	
Northwestern Pond Turtle <i>Clemmys marmorata marmorata</i>	Ponds, low gradient rivers; upland over-wintering habitat, CWD	No Habitat	No Effects	
Oregon Shoulderband <i>Helminthoglypta hertleini</i>	Talus and rocky substrates, grasslands or other open areas with low-lying vegetation	No Habitat	No Effect	
Oregon Vesper Sparrow <i>Pooecetes gramineus affinis</i>	Open habitats such as grasslands, meadows, farmlands	No Habitat	No Effects	
Pallid Bat <i>Antrozous pallidus</i>	Usually rocky outcroppings near open, dry open areas; occasionally near evergreen forests	No Habitat	No Effects	
Purple Martin <i>Progne subis</i>	Snags cavities in open habitats (e.g. grasslands, brushlands, open woodlands)	Foraging Habitat	No Effect	No measurable effect to foraging habitat.
Rotund Lanx <i>Lanx subrotundata</i>	Major rivers and large tributaries with cold, well-aerated water and rocky substrate	Out of Range	No Effects	
Scott's Apatanian Caddisfly <i>Allomyia scotti</i>	High-elevation (>4,000ft), cold streams in the mountainous regions of Oregon	Out of Range	No Effects	
Spotted Tail-dropper <i>Prophyaon vannattae pardalis</i>	Mature conifer forests in the Coast Range; associated with significant deciduous tree/shrub component	Out of Range	No Effects	
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	Late-successional forest features (e.g. snags or trees with deeply furrowed bark, loose bark, cavities), caves, mines, buildings, bridges, tunnels	Suspected	No Effect	Potential loss of roosting snags when hazard trees are removed.
Western Ridgemussel <i>Gonidea angulata</i>	Creeks, rivers, coarse substrates; Umpqua R. and possibly major tributaries.	Out of Range	No Effects	
White-Tailed Kite <i>Elanus leucurus</i>	Open grasslands, meadows, emergent wetlands, farmlands, lightly, wooded areas; wooded riparian habitats close to open hunting; tall trees and shrubs	No Habitat	No Effects	
BUREAU STRATEGIC				
Broadwhorl Tightcoil <i>Pristiloma johnsoni</i>	Moist forest sites, typically with deciduous component; Coast/Cascades in WA, Coast Range in OR, as far south as Lane County	Out of Range	No Effects	
Klamath Tail-Dropper <i>Prophyaon sp. nov.</i>	Moist, open areas along streams or springs in Ponderosa Pine forests; as far North as Crater Lake	Out of Range	No Effects	
Merlin <i>Falco columbarius</i>	Coniferous forests adjacent to open habitats, along forest edges.	Winter Range	No Effect	No measurable effect to foraging habitat.
Pristine Springsnail <i>Pristinicola hemphilli</i>	Shallow, cold, clear springs/seeps; strongly spring-influenced streams, slow-moderate flow; Umpqua R. drainage	Out of Range	No Effects	
Oregon Giant Earthworm <i>Driloleirus macelfreshi</i>	Deep, moist, undisturbed soils of riparian forests.	Out of Range	No Effects	

Appendix B. Detection and Correction of Hazard Trees on the Roseburg BLM District

A hazard tree contains some form of structural defect, a peculiar location or combination of both giving it a possibility of failing and causing personal injury or property damage. For a hazard to exist there must be a valuable target (e.g., structures, facilities, parking areas, benches, trails or developed high use areas).

A systematic inspection of each recreation site is carried out annually. All trees within falling distance of campsites, picnic sites, roadside viewpoints, monuments, buildings, parking lots, or any place where people congregate are examined. Every tree in the recreation site is reviewed, determining whether or not it is a hazard. The degree to which a tree is hazardous hinges on four factors:

- 1) its potential for failure,
- 2) its potential for striking a target,
- 3) the potential that serious damage will result, and
- 4) the value of the target(s).

After determining whether or not a tree is a hazard each tree is given two different ratings:

- 1) **failure potential** from very low to very high and
- 2) a **damage potential** from no damage to extensive damage.

Trees that have medium to very high potential for both receive additional evaluations and each tree is bored with a 18" long 3/8" drill bit. Boring the tree determines the minimum safe-tree shell good wood thickness, at various heights. A general guideline (Detection and Correction of Hazard Trees, pg. 24) is that a tree must be about 1/3 sound wood, so a 30" tree that is hollow in the middle must have at least 10" of good sound wood or 5 inches shell thickness on either side of the tree. When the minimum safe shell thickness is insufficient for a tree's diameter, the failure potential is high. If a valuable target is within reach of the tree, then the tree is removed. Removal of a hazard can be accomplished by falling or topping the hazard tree to eliminate the possibility of it hitting the target. Tree topping takes the weight off the top and shortens distance to a target.

References used:

Long-Range Planning for Developed Sites in the Pacific Northwest, The context of Hazard tree Management. USDA Forest Service
Detection and Correction of Hazard Trees in Washington's Recreation Areas, A how to Guide for Recreation Site Managers. Lynn J Mills and Kenelm Russell

Appendix C. Aquatic Conservation Strategy Assessment

Project: Susan Creek Stew WUI
Prepared By: Dan Dammann and Jeff McEnroe
Date: June 18, 2009

The Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The ACS must strive to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and restore currently degraded habitats. This approach seeks to prevent further degradation and restore habitat over broad landscapes as opposed to individual projects or small watersheds. (Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl, page B-9).

ACS Components:

Riparian Reserves (ACS Component #1)

Under the 2008 ROD/RMP, fish-bearing streams and perennial, non-fish bearing streams would have a Riparian Reserve of one site-potential tree height in width. Intermittent, non-fish bearing streams would have a Riparian Reserve of one-half of one site-potential tree height in width (2008 ROD/RMP, pg. 35).

Key Watersheds (ACS Component #2)

Under the 1994 ROD/RMP, Key Watersheds were established “as refugia . . . for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species [1994 ROD/RMP, pg. 20].” There are no key watersheds within the Middle North Umpqua River fifth-field watershed.

Watershed Analysis (ACS Component #3) and other pertinent information:

In developing the project, the Middle North Umpqua (2001) Watershed Analysis was used to evaluate existing conditions, establish desired future conditions, and assist in the formulation of appropriate alternatives. Existing watershed conditions are described in the EA (pg. 5-6) and in the Middle North Umpqua Watershed Analysis.

Watershed Restoration (ACS Component #4)

One of the purposes of this project is to apply fuels treatments to the Riparian Reserve as needed to reduce the potential for uncharacteristic wildfires (2008 ROD/RMP, pg. 36). Therefore, the treatments within the Riparian Reserve, as part of the proposed action are considered to be a watershed restoration project.

Additionally, since 1994, some stream enhancement projects have been implemented in the Middle North Umpqua Watershed. This includes placing instream structures (e.g. logs, boulders, root wads, etc...) to improve aquatic habitat along at least 1.5 miles of stream and replacing three culverts identified as barriers

to fish passage to open up access to additional habitat. This work has been done in collaboration with private timber companies, the Partnership for the Umpqua Rivers watershed council, Oregon Department of Fish and Wildlife, and the BLM. Future opportunities for restoration are discussed in the Middle North Umpqua Watershed Analysis. This work would be implemented as budgets allow.

Range of Natural Variability within the Upper Umpqua River Watershed:

Based on the dynamic, disturbance-based nature of aquatic systems in the Pacific Northwest, the range of natural variability at the site scale would range from 0-100 percent of potential for any given aquatic habitat parameter over time. Therefore, a more meaningful measure of natural variability is assessed at scales equal to or greater than the fifth-field watershed scale. At this scale, spatial and temporal trends in aquatic habitat condition can be observed and evaluated over larger areas, and important cause/effect relationships can be more accurately determined.

Natural disturbance events to aquatic systems in the Pacific Northwest include wildfires, floods, and landslides. The Middle North Umpqua is classified as having a moderate severity fire regime. A moderate severity regime can be classified as having a complex mix of low, medium, and high severity fires that occur infrequently (25-100 years) (Middle North Umpqua Watershed Analysis pg. 30). Most of the Middle North Umpqua watershed is dominated by an underlying geology of volcanic and sedimentary rock which has been subject to tectonic uplift and associated down cutting of streams and mass wasting processes. This has resulted in massive landslides and earth flow complexes of jumbled rock and earth and deep-seated failures involving bedrock that created a stair stepping slump/bench topography on a large scale (Middle North Umpqua WA pg. 66). On BLM land, future landslides, mostly during large storm events, are expected to deliver large wood and rock fragments to lower-gradient streams because of its presence in BLM Riparian Reserves. These events would more closely resemble landslides within relatively unmanaged forests. These disturbance events are the major natural sources of sediment and wood to a stream system and are very episodic in nature.

Due to the dynamic nature of these disturbance events, stream channel conditions vary based on the time since the last disturbance event. This results in a wide range of aquatic habitat conditions at the site level. Site level habitat conditions can be summarized by Oregon Department of Fish and Wildlife (ODFW) habitat surveys. Surveys have only been conducted on three tributaries administered by BLM in the Middle North Umpqua Watershed but give an indication of what stream conditions may be like in this area. Aquatic habitat survey data indicates that most of the tributaries are lacking large woody debris. This is likely the result of “stream cleaning” efforts of the past (Middle North Umpqua WA pg. 114). One of BLM’s objectives for managing Riparian Reserves is to maintain and enhance a source of large wood along streams.

Because of its dynamic nature, sediment effects to streams can only be described in general terms. Reference sites are often used to define desired conditions within a given watershed. Suitable reference sites could not be found in the Middle North Umpqua Watershed, however, several sites were found in the nearby Canton Creek Watershed. Results indicate that fine sediment percentages of streams in the Middle North Umpqua watershed are higher than the reference streams (Middle North Umpqua WA pg. 90).

Stream temperatures vary naturally in this watershed as a result of variation in geographic location, elevation, climate, precipitation, and distance from the source water. Stream temperatures also naturally vary as a response to the natural disturbance events mentioned in the previous paragraphs, as well as current practices on private forest and residential properties. The majority of riparian forests on BLM land in the Middle North Umpqua watershed are already in a late seral condition (Middle North Umpqua WA pg. 84). One of BLM’s objectives for managing Riparian Reserves is to maintain and enhance shade providing vegetation along streams.

Changes in stream flow can result from consumptive withdrawals and effects of land use activities on storm water runoff, infiltration, storage and delivery. USGS flow gauging stations are located near the upper and lower boundaries of the Middle North Umpqua Watershed. An analysis of low flows at both stations indicate that summer low flows in the mainstem North Umpqua change very little between these two stations (Middle North Umpqua WA pg. 85). BLM Forest management in Middle North Umpqua would be designed to reduce or prevent watershed impacts. One of BLM’s objectives for managing Riparian Reserve is to provide for riparian and aquatic conditions that supply stream channels with shade, sediment filtering, leaf litter and large wood, and streambank stability.

Table C-1. Individual Aquatic Conservation Strategy Objective Assessment.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
	<p><u>Scale Description:</u> 24 acres identified in this project is located in one seventh-field drainage (Susan Creek) totaling roughly 3270 acres in size. The BLM manages approximately 1,970 acres of this drainage (60%). Units proposed for treatment represent 0.7% of the total drainage area, and 1.2% of the BLM-managed lands in the drainage.</p>	<p><u>Scale Description:</u> This project is located in the Middle North Umpqua River 5th field watershed. This watershed is roughly 125,600 acres in size. The BLM manages approximately 11,800 acres in this watershed (9%). Acres proposed for treatment represent 0.02% of the total watershed area, and 0.2% of the BLM-managed lands in the watershed.</p>
<p>I. Maintain and restore the distribution, diversity, and complexity of</p>	<p>Because only selective vegetation would be removed to reduce fuel hazards and all heavy equipment would stay on the roadway, no impact</p>	<p>This treatment would also speed attainment of this objective at the watershed scale.</p>

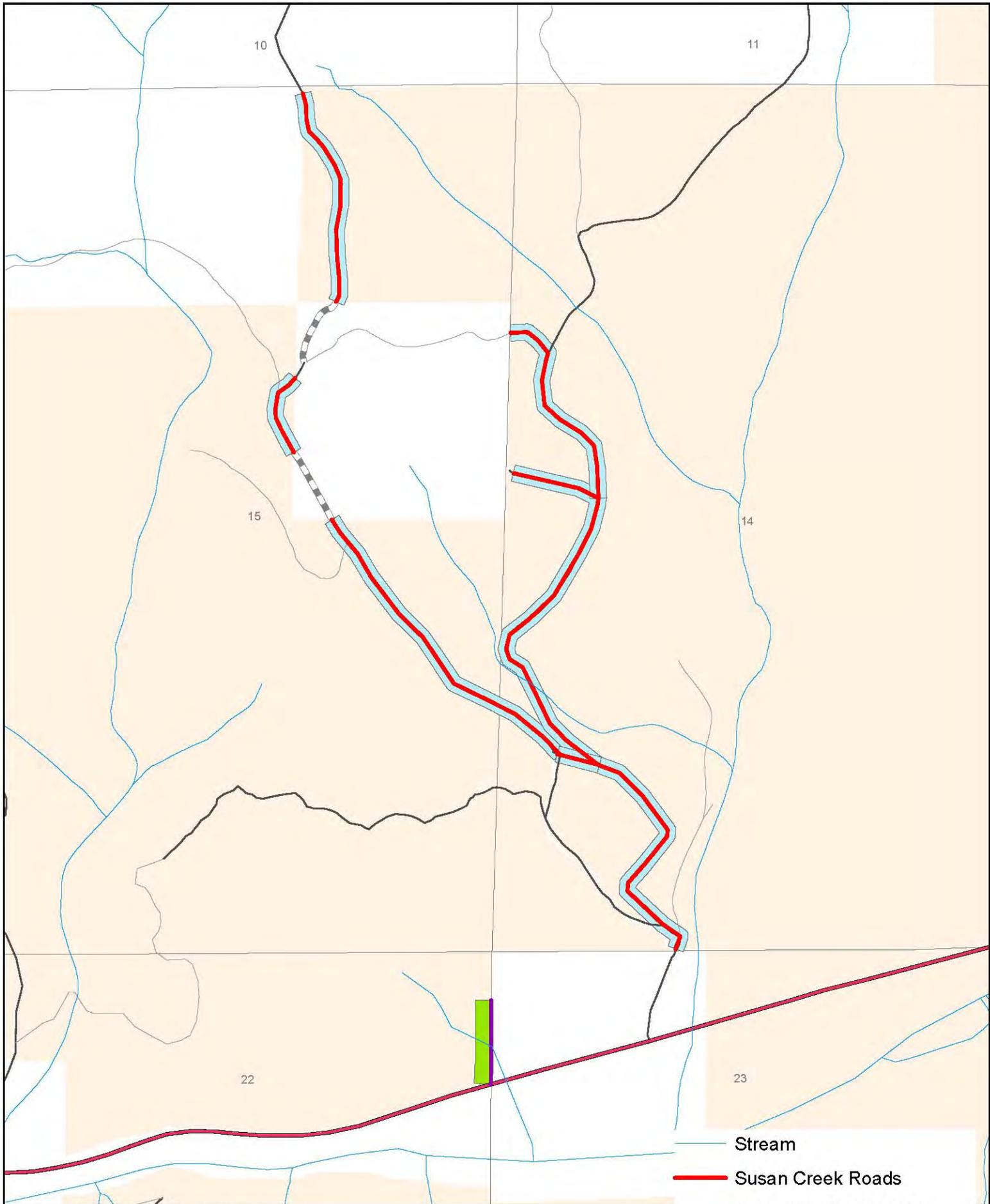
ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.	to water quality or water resources is expected as a result of this project. This treatment would speed attainment of this objective.	
2. Maintain and restore spatial and temporal connectivity within and between watersheds	Within the drainage, the proposed project would have no influence on aquatic connectivity. Therefore this treatment would maintain the existing connectivity condition at the site scale.	Within the watersheds, the proposed project would have no influence on aquatic connectivity. Therefore this treatment would maintain the existing connectivity condition at the watershed scale.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations	Treatments would not reduce canopy closure to an extent that could potentially influence in-stream flows or water quality. In addition, heavy equipment would not leave the rocked roads to yard logs. There would be minimal ground disturbance from yarding the logs to the road due to using standard Best Management Practices (BMPs) and Project Design Features (PDFs). This would prevent disturbance to stream channels and stream banks (EA, pg. 5). Therefore, these treatments would maintain the physical integrity of the aquatic system at the site scale.	This treatment would also maintain the physical integrity of the aquatic system at the 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,	Project design features (PDF) would ensure that water quality would not be adversely impacted by the proposed action (EA pg. 5). Therefore, this treatment would maintain the existing water quality at the site scale.	Based on the information discussed at the site scale, this project would also maintain water quality at the watershed scale.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
and migration of individuals composing aquatic and riparian communities.		
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved.	As mentioned above, Project design features prevent disturbance to soils, stream channels and stream banks. Therefore, this project would maintain the existing sediment regime.	This project would maintain the existing sediment regime at the watershed scale as well.
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing.	Treatments would not reduce canopy closure to an extent that could potentially influence in-stream flows. The project would involve selective removal of vegetation to reduce fuel hazards on less than one percent of the drainage area.	As discussed at the site scale, density management treatments would not reduce canopy closure to an extent that could potentially influence in-stream flows. Therefore, at the larger watershed scale, this treatment would also maintain stream flows within the range of natural variability.
7. Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and woodlands.	As discussed in #6 above, this project would maintain stream flows within the range of natural variability at the site scale. Therefore, it would also maintain stream interactions with the floodplain and respective water tables at the site scale.	At the watershed scale, this project would also maintain stream interactions with the floodplain and respective water tables within the range of natural variability.
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.	The proposed treatment is designed to return riparian stands to a more natural density and growth trajectory. Therefore this treatment would serve to restore plant species composition and structural diversity at the site scale.	The proposed treatment is designed to return riparian stands to a more natural density and growth trajectory. Therefore this treatment would serve to restore plant species composition and structural diversity at the larger watershed scale as well.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
<p>9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.</p>	<p>As mentioned previously, one of the objectives of this project is to restore riparian stand conditions in the proposed treatment areas. Implementation of riparian restoration projects will help restore adequate habitat to support riparian-dependent species at the site and watershed scales.</p>	<p>As mentioned previously, one of the objectives of this project is to restore riparian stand conditions in the proposed treatment areas. Implementation of riparian restoration projects will help restore adequate habitat to support riparian-dependent species at the site and watershed scales.</p>

ACS Summary:

Based upon the information listed above, the proposed action would meet ACS objectives at the site and watershed scale. In addition, based upon the restorative nature of the action, this project would not retard or prevent attainment of ACS objectives; it would actually speed attainment of these objectives. Therefore, this action is consistent with the ACS and its objectives at both the site and watershed scales.



-  Stream
-  Susan Creek Roads
-  Susan Creek MH park
-  Susan Creek Road Buffers
-  Susan Creek MH Park Buffer

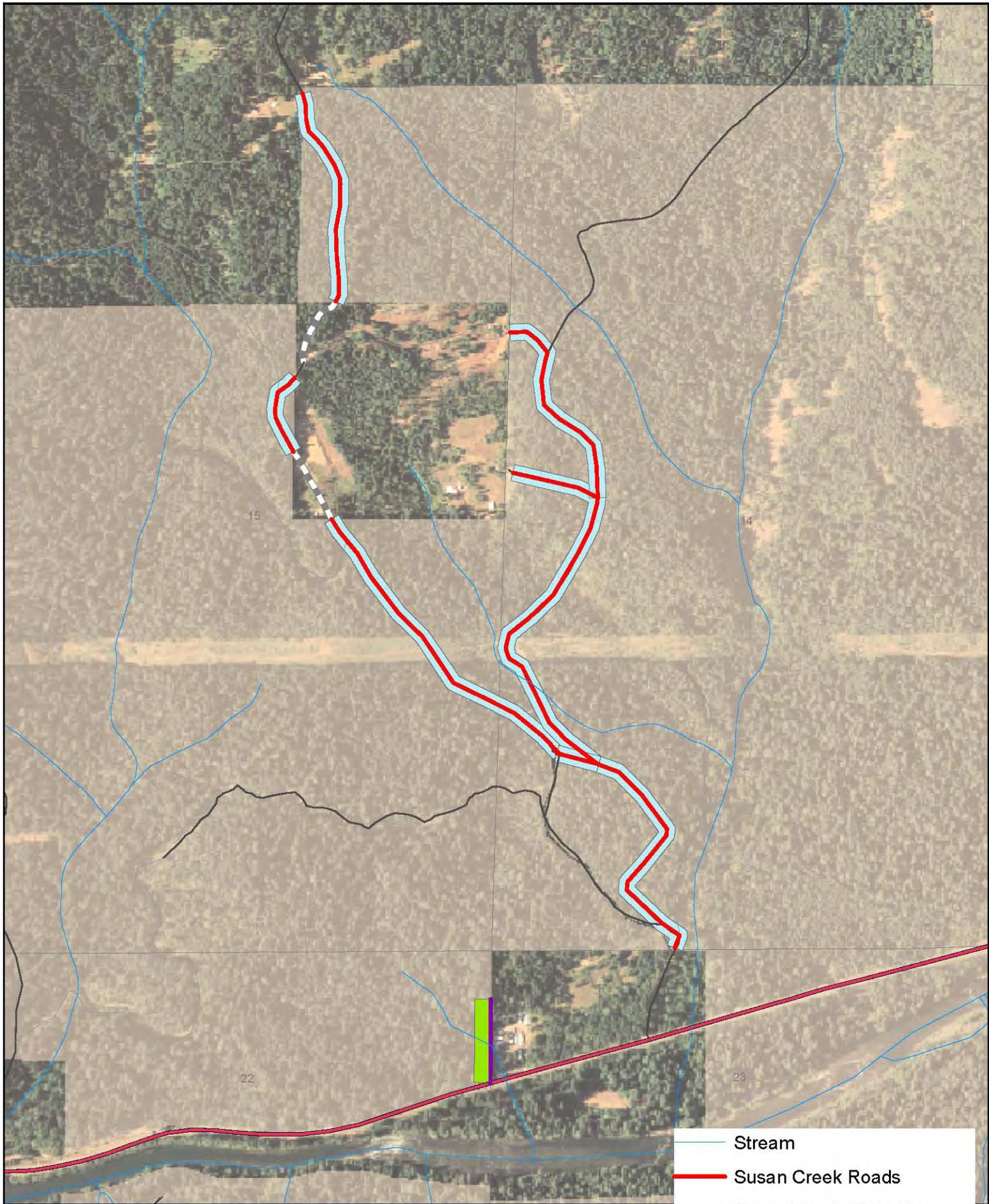
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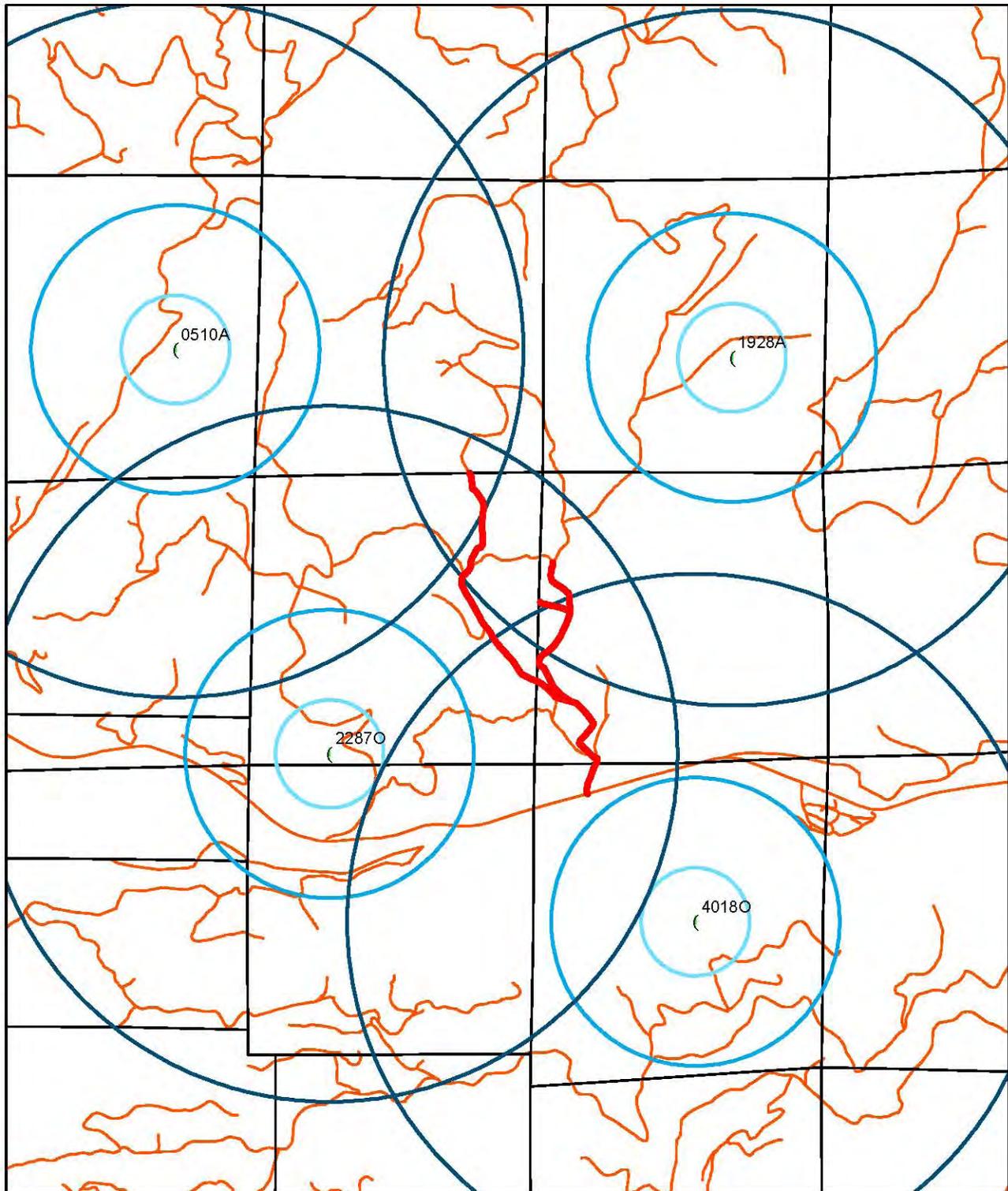
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Bureau Of Land Management
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Roseburg, Oregon 97470



-  Stream
-  Susan Creek Roads
-  Susan Creek MH park
-  Susan Creek Road Buffers
-  Susan Creek MH Park Buffer

Susan Creek WUI Stewardship Project

T26S R2W Sec. 13,14



Legend

-  Susan Creek Project Roads
-  NSO Home Range
-  NSO Core Area
-  NSO Nest Patch
-  NSO Site Center
-  Roads

0 0.25 0.5 1 Miles



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