United States
Department of
Agriculture

**Forest
Service**

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# Environmental Assessment

## Echo Staley Road Storage and Illegal Household Trash Site Management Project

**Middle Fork Ranger District**
**Willamette National Forest**
**Lane and Douglas Counties, Oregon**

**Legal Location: T23S R4E S 23, 29, 32; T24S R4E S 13, 15, 19, 21, 22, 30, 31, 33; T25S R4E S 4-6, 7, 16-18, 20, 21, 23-25; T25S, R5E S 19, 30; T20S R1E S 3, 12, 13; T20S R3E S 28, 33; T21S R2E S 1, T21S R3E S 1, 2, 5, 11, 12, 14, 34; T21S R4E S 6, 8. W.M.**

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# Summary

The Willamette National Forest proposes to implement road closures and road storage measures as follows:

**Road Storage:** The Middle Fork Ranger District proposes to close up to 23 miles of roads in the Echo, Staley, Simpson, and Noisy Creek drainages within the Upper Middle Fork watershed to motorized traffic, and place about 21 miles of these roads into maintenance storage condition for 10 or more years (see Figures 2-1). Road storage means that the roads would be placed in a hydrologically stable condition using various methods such as water bars, ditching over culverts, culvert removal, ditch cleaning, blading, and other road maintenance work **to reduce the potential for erosion and road failure**. Road entrances would be closed with a combination of an earthen berm, deep ditch, and possibly boulders.

**Trash Sites:** The District also proposes to close up to 33 miles of road and two dispersed sites within the Middle Fork Willamette River/Lookout Point, North Fork of Middle Fork Willamette River, and Salmon Creek watersheds year-round or seasonally with boulders or gates **to reduce illegal household trash dumping** (see Figure 2-2). Of these miles, up to about 17 miles of road would be closed year-round with boulders or gates, up to about 16 miles (Road 5828 system) would be closed seasonally with a gate from Dec. 15 to July 1, and up to two dispersed sites would be blocked with boulders. Implementation would occur in Summer 2007 and closures would be enforced with CFR road closure orders prohibiting motorized vehicle traffic.

The project area is located in the Upper Middle Fork Willamette, Middle Fork Willamette River/Lookout Point, North Fork of Middle Fork Willamette River, and Salmon Creek watersheds and is within the Middle Fork Ranger District, Willamette National Forest, Lane and Douglas Counties, Oregon.

This action is needed to reduce the potential for erosion, sedimentation and mass failure of roads in the Upper Middle Fork Willamette watershed, to reduce the number of illegal household trash dumping sites, and because of the difficulty of managing an extensive forest road system with limited operating funds. .

The proposed action may limit recreational and forest activities that require driving motorized vehicles; and may limit access for forest fire suppression.

In addition to the proposed action, the Forest Service also evaluated the following alternatives:

- Alternative 1 is the No Action alternative. We would not implement any restoration if this alternative is selected.
- Alternative 3 is the second action alternative. Alternative 3 is the same as Alternative 2 except the roads in the Echo Staley portion of the project area would not be closed to

motorized vehicles. Instead, the roads would be treated with rolling drain dips to stabilize the roads and vehicles would be able to drive over them. Roads and sites in the trash site portion of the project area would be treated the same as in the trash site portion of Alternative 2.

- Alternative 4 is the third action alternative. Alternative 4 would treat the roads in the Echo Staley portion of the project area the same as in the Echo Staley portion of Alternative 2. Roads and sites in the trash site portion of the project area would be treated the same as in Alternative 2 except the Rd. 2404 system and the Rd. 5828 system would not be closed year-round or seasonally. About 9 miles of road in the trash site portion would be closed. The chronic trash dumping problem would continue to be addressed by Forest Service law enforcement and public education efforts.

Based upon the effects of the alternatives, the responsible official will decide which alternative meet the needs of the forest users, government agencies and will best protect the forest resources. The decision to be made by the District Ranger is whether or not to close the roads proposed for closure, whether to implement road storage measures, which method of storage (number of miles, which roads to store, and how to store roads) best addresses the resource, administrative , and public use needs now and in the future. The District Ranger will also decide whether to recommend certain key roads to be closed. The decisions will be compatible with multiple use objectives and meet the desired future conditions for the area as defined in the Forest Plan as amended by the Northwest Forest Plan.

# 1. Purpose of and Need for Action

## 1.1 Introduction

### 1.1.1 Document Structure

The Forest Service has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- **Introduction:** This section includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- **Comparison of Alternatives, including the Proposed Action:** This section provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes possible mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- **Environmental Consequences:** This section describes the environmental effects of implementing the proposed action and other alternatives. This analysis is organized by resource area. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- **Agencies and Persons Consulted:** This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- **Appendices:** The appendices provide more detailed information to support the analyses presented in the environmental assessment.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Middle Fork Ranger Station in Westfir, OR.

### 1.1.2 Background

#### 1.1.2.1 Roads Analysis

In August 1999, the Washington Office of the USDA Forest Service published Miscellaneous Report FS-643 titled "Roads Analysis: Informing Decisions about Managing the National Forest Transportation System." The objective of roads analysis is to provide decision makers with critical information to develop road systems that are safe and responsive to public needs and

desires, are affordable and efficiently managed, have minimal negative ecological effects on the land, and are in balance with available funding for needed management actions.

A key feature of the road policy includes using a science-based road analysis process to better identify the minimum road system needed to meet forest plan goals and standards. (Forest Service Memo, File Code 1900/7700, October 18, 1999)

In October 1999, the agency published Interim Directive 7710-99-1 authorizing units to use, as appropriate, the road analysis procedure embodied in FS-643 to assist land managers making major road management decisions. The Pacific Northwest Region of the Forest Service then published a roads analysis guidance document as a supplement to Appendix 1 of FS-643. This document provides guidance concerning the appropriate scale for addressing the roads analysis.

In January 2001, the Forest Service adopted a new road management policy. The policy includes a science-based Roads Analysis Process (RAP) designed to help managers make better decisions on roads. The Willamette National Forest is in the process of modifying its forest-scale roads analysis, which is incorporated into the analysis of the Middle Fork Ranger District.

The current road system was developed to meet a different set of landscape management objectives than presently exist. With the advent of the Northwest Forest Plan much of the Forest previously identified for intensive forest management was changed to a withdrawn category. This change significantly reduced the miles needed to manage the Middle Fork Ranger District. The existing transportation system is beyond the immediate needs of management activities. The proposed reduction would also better enable the District to meet goals and objectives associated with aquatic and terrestrial values. In most situations both aquatic and terrestrial resources are enhanced by a reduction in the road system mileage.

The process was large enough in scope to insure that the revised transportation system is sufficient to address the long-term needs of the District as well as those of the neighboring Districts, forest users, and owners of adjacent lands. The results of analysis would allow the remaining road maintenance funds to be concentrated on providing a safer, more environmentally sensitive transportation system that protects natural resource values.

#### 1.1.2.2 Illegal Household Trash Problem

Illegal household trash dumping on National Forest land has been a problem on the district for many years. In 2004, the University of Oregon worked with the Middle Fork Ranger District to address the chronic problem of illegal trash sites and identify where they were located on the Middle Fork District lands within the Highway 58 corridor area. The Middle Fork district has been working with Secure rural Schools Act funds (PayCo), YCC crews, and Forest Service law enforcement officers to clean up these trash sites. However, normal cleanup activities are not effective in addressing this chronic problem.

## 1.2 Proposed Action

**Road Storage:** The Middle Fork Ranger District of the Willamette National Forest is proposing to close up to 23 miles of roads in the Echo, Staley, Simpson, and Noisy Creek drainages within the Upper Middle Fork watershed to motorized traffic, and place about 21 miles of these roads into maintenance storage condition for 10 or more years (see Figures 2-1). Road storage means that the roads would be placed in a hydrologically stable condition using various methods such as water bars, ditching over culverts, culvert removal, ditch cleaning, blading, and other road maintenance work **to reduce the potential for erosion and road failure**. Road entrances would be closed with a combination of an earthen berm, deep ditch, and possibly boulders.

**Trash Sites:** The District is also proposing to close up to 33 miles of road and two dispersed sites within the Middle Fork Willamette River/Lookout Point, North Fork of Middle Fork Willamette River, and Salmon Creek watersheds year-round or seasonally with boulders or gates **to reduce illegal household trash dumping** (see Figure 2-2). Of these miles, up to about 17 miles of road would be closed year-round with boulders or gates, up to about 16 miles (Road 5828 system) would be closed seasonally with a gate from Dec. 15 to July 1, and up to two dispersed sites would be blocked with boulders. Implementation would occur in Summer 2007 and closures would be enforced with CFR road closure orders prohibiting motorized vehicle traffic.

**Implementation:** Implementation for both the Echo Staley and the Trash Site portions of the project would occur in Summer 2007. Closures would be enforced with CFR road closure orders prohibiting motorized vehicle traffic. The closed roads would not be withdrawn from the Forest road system. Roads that are gated would be available for administrative use at the discretion of the District Ranger.

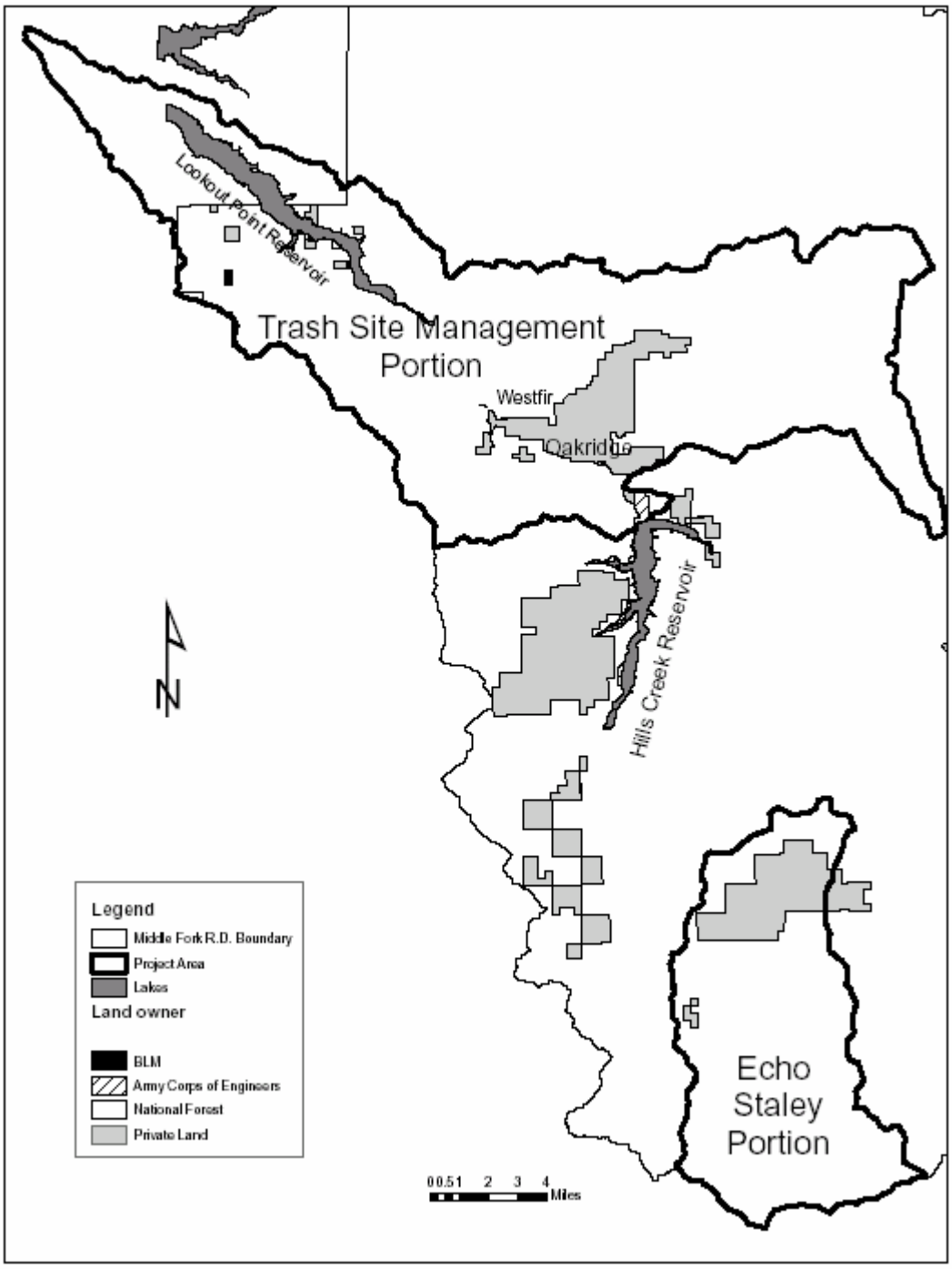
**Administrative Exceptions:** Verizon Wireless would be granted access to Rd. 5258 for cell tower maintenance as needed. Disciples of Dirt mountain bike club would also be granted access to do annual trail maintenance work on Alpine ridge trail # 3450 in the spring each year. Mitigation measures common to all action alternatives are in section 2.3.

**Mitigation:** Because motorcycles are allowed on Flat Creek trail, motorcyclists would be allowed to ride up Rd. 2404 to gain access to the Flat Creek trailhead. Motorcyclists would not be allowed to go farther up Rd. 2404 or Rd. 2404-212, however. Also see section 2.3, Mitigation Measures Common to All Action Alternatives.

**Discrepancies in closure miles:** Discrepancies between proposed road closure miles in the Scoping Letter to the public and road closure miles in this E.A. are due to omissions of some roads that are tributary to roads proposed for closure with gates, boulders, or berms. The corrected mileages are used in this E.A.

A full description of the Proposed Action is included in Chapter 2.

**Figure 1-1: Project Area**



## 1.3 The Need for Action

The Middle Fork Ranger District proposes to improve undesirable resource conditions within the Echo Staley Road Storage and Illegal Household Trash Site Management project area. These undesirable resource conditions include (1) the potential for soil erosion, sedimentation, and mass failure on certain roads in the Echo Staley portion of the project area, (2) a chronic and recurring illegal household trash dumping problem in the trash sites portion of the project, and 3) the inability to maintain roads under current and projected budgetary constraints.

### 1.3.1 Potential for soil erosion, sedimentation, and road failure

The areas with potential for soil erosion, sedimentation, and road failure lie primarily in the Echo Staley portion of the project, which is in the Upper Middle Fork watershed. The Upper Middle Fork Watershed Analysis (USDA, 1996) identified the need and recommended the closure and storage of roads to reduce the environmental effects of the road system. A majority of the roads were constructed prior to 1980, used sidecast construction methods. Some of these roads have already started to fail and others are at risk for failure as a result of latent construction defects. In addition, a high percentage of the roads were built on steep, erosive soils, conducive to mass failures (WA, page 26). The road systems interrupt subsurface flow which expands the drainage network and delivers runoff to the stream systems within a shorter period of time. The road system intersects the stream network providing a conduit to funnel water and creates potential to deliver fine sediment from the road surfaces into the stream network. The intersections between the roads and stream systems also contribute to adverse impact to fish distribution and aquatic habitat functions. High road densities in this area cause disturbance to big game and create adverse impact to other terrestrial species habitat.

The district has not been successful in preventing illegal four-wheel drive (4WD) damage in the old Mule Meadow near the junction of Roads 24 and 2404. As a result, deep ruts created by 4WD vehicles are causing erosion and sedimentation.

The Middle Fork Ranger District Supplemental Roads Analysis (USDA, 2004) provides specific road closure recommendations for roads within this project area. The District road analysis evaluated each individual road segment on the District with criteria relating to terrestrial, aquatic, administrative, and public use factors. Road closure recommendations for the District transportation system were made based on the rating system.

### 1.3.2 Illegal household trash dumping

There is a chronic illegal household trash dumping problem on certain roads and sites within the trash site portion of this project. The Middle Fork district has been working with Rural Secure Schools Act funds (PayCo), Youth Conservation Corps (YCC) crews, and Forest Service law enforcement officers to clean up these trash sites. However, normal cleanup activities are not effectively addressing this chronic problem. The garbage being dumped creates a visual blight on the landscape and has the potential to contaminate rivers and streams. There is a need to manage

these roads and sites to reduce garbage dumping. Two of the roads proposed for year-round (Rd 2404) or seasonal closure (Rd 5828) to reduce trash dumping were recommended as key roads to keep open in the Forest and District Roads Analyses. Roads 2400019 and 5828101(not key roads) were also recommended to be kept open. However, the Roads Analysis process allows these designations to be changed and adjusted over time to respond to changing circumstances such as budgets, land management objectives, or other management opportunities. The chronic illegal household trash dumping problem is a changing circumstance that is driving the need to reduce access to certain roads, some of which were recommended as key roads to keep open.

#### 1.3.3 Inability to maintain roads under current and projected budgetary constraints

One of the key findings of the Willamette National Forest Roads Analysis Report (USDA, 2003) was the dilemma of managing an extensive forest road system with limited operating funds. The Forest Road Analysis identified the need to manage a minimum road system that is safe and responsive to public needs and desires, is affordable and efficient, has minimal adverse effects on ecological processes and health, diversity, and productivity of the land, and is in balance with available funding for needed management actions.

## 1.4 Project Objectives

The main objective of this project is to promote healthy watersheds. The sub-objectives are:

- **1) To minimize the potential for down slope effects** of erosion and sedimentation to other resources in the Echo Staley portion of the project area (Upper Middle Fork Watershed Analysis, pp. 24-28). This objective is analyzed in section 3.2.
  Measurement:
  See Issue #2, Water Quality (section 1.8.1.2).
- **2) To reduce illegal trash dumping** and potential for watershed contamination in the trash site portion of the project area. This objective is analyzed in section 3.2.
  Measurement:
  - Number of illegal trash sites blocked from access.
- **3) To implement Road Storage and Trash Site measures in a cost-effective manner**. There are several different methods and treatments to close and put a road into a hydrologically stable and stored condition. Each of these methods has a cost related to the implementation of the project, a longer term cost to maintain the closure, and the cost of re-opening the roads when they are needed in the future. This objective is analyzed in section 3.8.
  Measurement:
  - Cost of road storage methods
  - Cost of road and site closures for trash management
  - Cost of reopening and restoring roads in future.

**Additional benefits** of closing roads to motorized vehicles in both the Echo Staley portion and the illegal trash site portion include reducing human related risks and disturbances to wildlife.

## 1.5 Applicable Laws, Regulations, EISs, and Local Assessments

### 1.5.1 Laws and Regulations

Development of this EA follows implementing regulations of the Forest and Rangeland Renewable Resources Planning Act of 1974; Title 36, Code of Federal Regulations, Part 219 (36 CFR 219); Council of Environmental Quality, Title 40; CFR, Parts 1500-1508, National Environmental Policy Act (NEPA).

Many federal and state laws, including the National Forest Management Act (NFMA), Endangered Species Act, Clean Air Act, and Clean Water Act also guide this analysis. A summary of how this project and the design of alternatives comply with the federal and state laws can be found in Appendix A of this E.A.

### 1.5.2 Tiered Environmental Impact Statements

This EA is tiered to the Final Environmental Impact Statement (FEIS) for the Land and Resource Management Plan –Willamette National Forest (USDA, 1990) and the Final Supplemental Environmental Impact Statement on the Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (USDA, USDI, 1994).

### 1.5.3 Plans and Local Assessments Incorporated by Reference

#### 1.5.3.1 LRMP and Northwest Forest Plan -

The Willamette National Forest Land and Resource Management Plan (LRMP) (USDA, 1990) as amended by the Record of Decision for Amendments to Forest Service And Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and S&Gs for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (Northwest Forest Plan) (USDA, 1994) are incorporated by reference. The Willamette Forest Plan as amended provides a forest-level strategy for managing land and resources and the Northwest Forest Plan provides a regional strategy for management of old-growth and late-successional forest ecosystems on federal lands

The LRMP as amended by the Northwest Forest Plan gives management guidance and direction for this project area. These documents established the standards and guidelines for numerous land use allocations. The following Management Areas compose the majority of the project area: 16 - Late-successional Reserve, 11 - Scenic, and 14 - General Forest. Other allocations within the boundaries of this proposed project are: 5 - Special Interest Areas, 6 - Wild and Scenic Rivers, 9-

**Figure 1-2: LRMP Allocations – Echo Staley Portion**

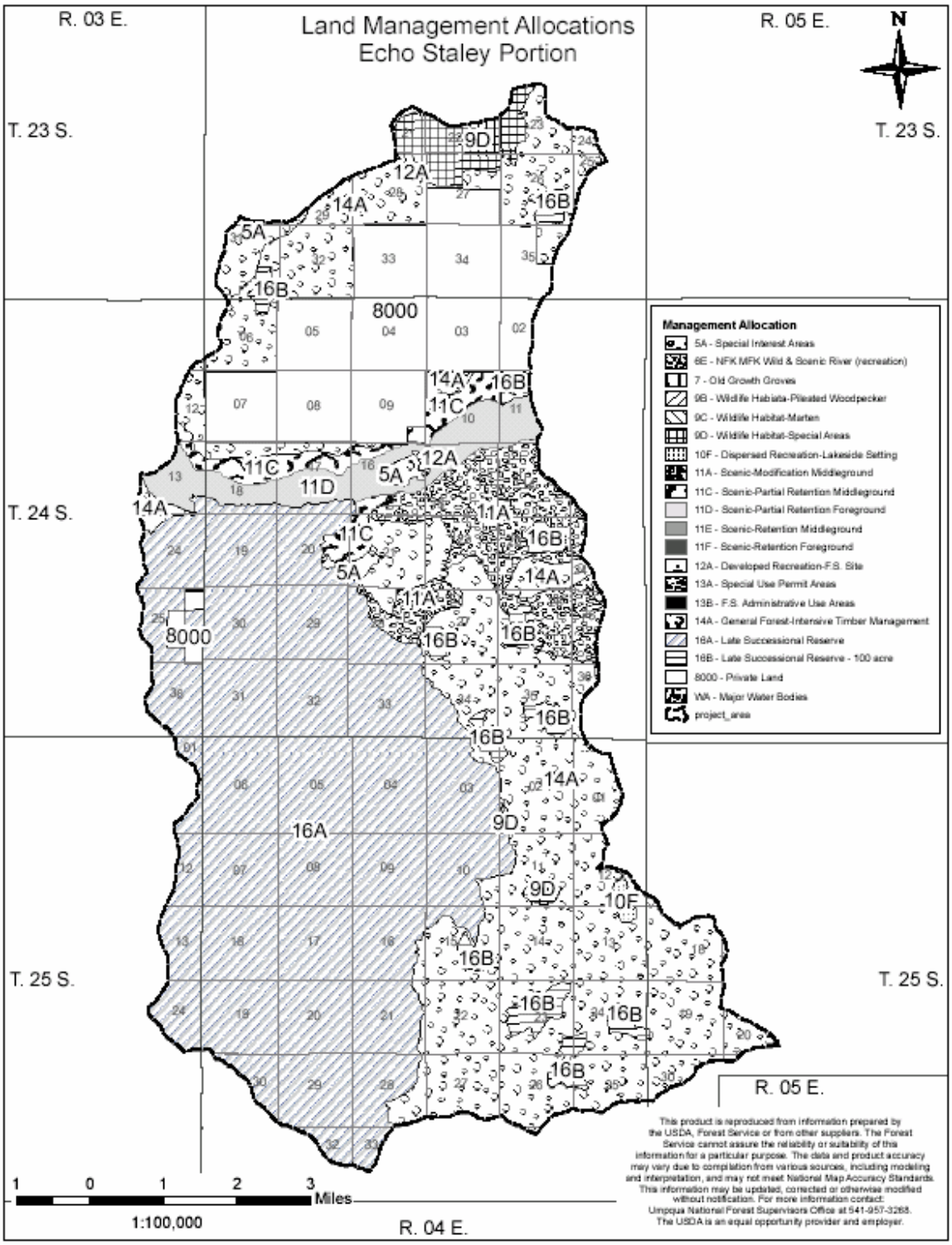
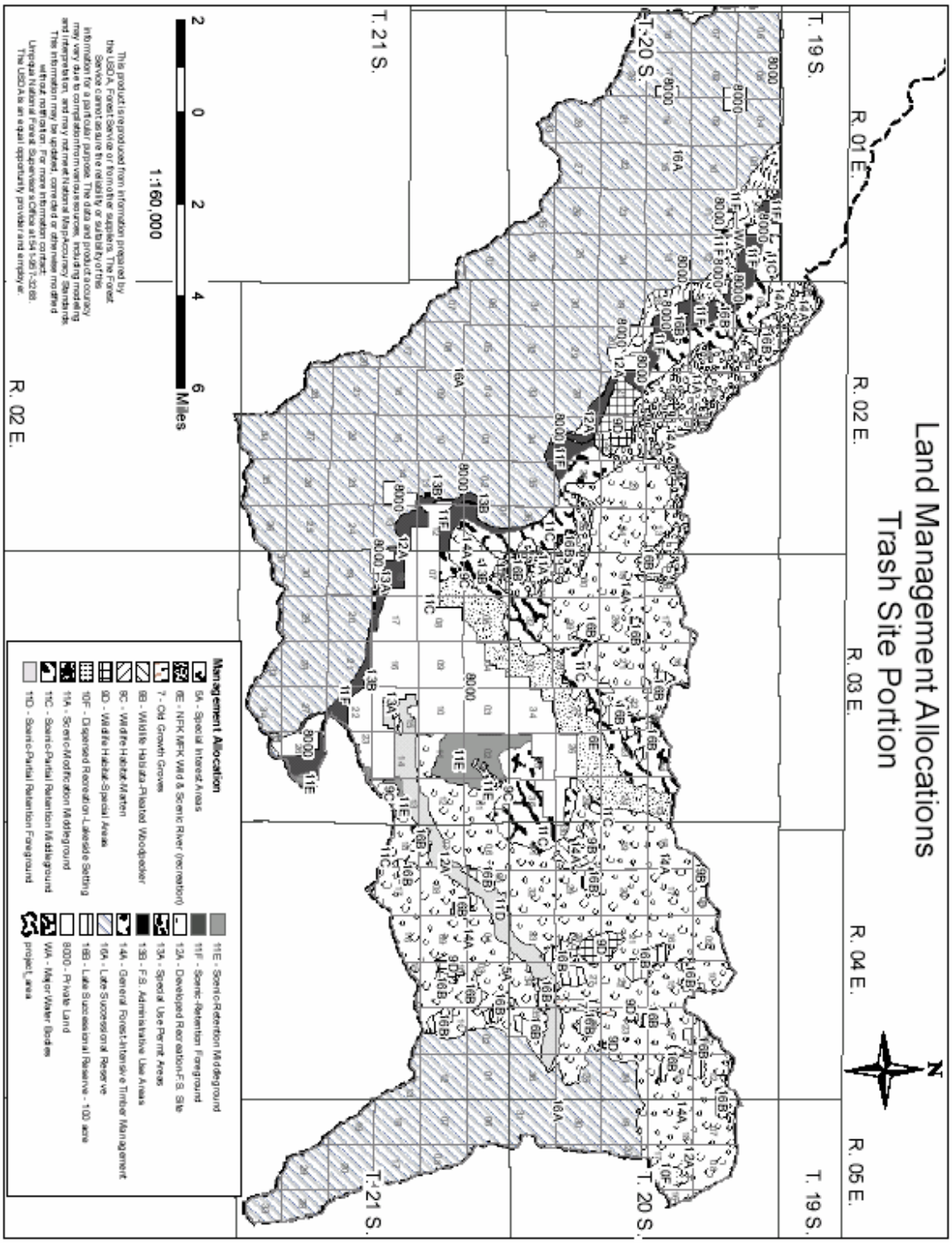


**Figure 1-3: LRMP Allocations – Trash Site Portion**



Special Wildlife Habitat Areas, 10-Dispersed Recreation, 11- Scenic, 12 - Developed Recreation Sites, 13 - Administrative Use Sites, Matrix, and Riparian Reserves. (See Figures 1-2 and 1-3)

Proposed activities would occur in the allocations of General Forest, various Scenic allocations, Late-successional Reserves, Wildlife Habitat, Wild and Scenic River, and Riparian Reserves Management Areas. Management goals and objectives, descriptions of each area, and applicable standards and guidelines can found in the Forest Plan, Chapter IV, and the Northwest Forest Plan, Attachment A to the Record of Decision. Figures 1-2 and 1-3 display the location of the Management Areas within the project area.

#### 1.5.3.2 Watershed Analyses

The Upper Middle Fork Watershed Analysis (WA) (USDA, 1996) and WA updates (USDA, 2002), Salmon Creek WA (USDA, 1996), North Fork of the Middle Fork of the Willamette River WA (USDA, 1995), and Lookout Point WA (USDA, 1997) are incorporated by reference. These documents provide the Responsible Official with comprehensive information upon which to base land management decisions and establish a consistent, watershed level context to project level analysis. The watershed analysis provides descriptions of the reference, historic, and existing conditions of the important physical, biological, and social components of the fifth field watersheds. The studies analyzed activities and processes that cumulatively altered the landscapes over time and recommend watershed management activities based upon landscape and ecological objectives. The watershed analysis is used to characterize elements of the watersheds, provide background information for the cumulative effects analyses, and provide recommendations for management activities that move the systems toward reference conditions or management objectives.

#### 1.5.3.3 Road Analyses

The Willamette National Forest Road Analysis Report (USDA, 2003) and the Middle Fork Ranger District Supplemental Road Analysis (USDA, 2004) are incorporated by reference. The Forest Road Analysis provides the Responsible Official with information needed to identify and manage a minimum road system that is safe and responsive to public needs and desires, is affordable and efficient, has minimal adverse effects on ecological processes and ecological health, diversity, and productivity of the land, and is in balance with available funding for needed management actions. The District road analysis evaluated each individual road segment on the District with criteria relating to terrestrial, aquatic, administrative, and public use factors. Based on the rating system, road closure recommendations for the District's transportation system were made.

The Forest Road Analysis Report provided recommendations for key roads to be kept open and maintained and for non key roads that should be considered for closure. The District Supplemental Road Analysis Report provides specific road and closure recommendations for roads within the project area. Two key roads proposed for seasonal closure (Rd. 5828) or year-

round closure (Rd. 2404) in this project were recommended to be kept open in the Forest Road Analysis. Roads 2400019 and 5828101 (not key roads) were also recommended to be kept open. However, the Roads Analysis process allows these designations to be changed and adjusted over time to respond to changing circumstances such as budgets, land management objectives, or other management opportunities. Copies of the road analysis documents are available at the Middle Fork Ranger Station in Westfir, Oregon

## 1.6 Decision Framework

Given the purpose and need, the deciding official reviews the proposed action and the other alternatives in order to make the following decisions:

The Responsible Official for this proposal is the District Ranger of the Middle Fork Ranger District on the Willamette National Forest. After completion of the EA, there will be a 30-day public comment period. Given the purpose and need, the analysis disclosed in this EA, and the public response to this EA, the Responsible Official will review the proposed action and the other alternatives to make decisions regarding this project. The decisions will be documented in a Decision Notice. The Responsible Official can decide to:

•Select the proposed action, or

•Select an action alternative that has been considered in detail, or

•Modify an action alternative, or

•Select the no-action alternative, and

•Identify what mitigating measures will apply.

The scope of the project and the decisions to be made are limited to whether to close certain roads in the project area, what type of closure and storage treatments would be used, mitigation measures necessary to reduce the adverse affects of the project, whether to change the "open/closed" recommendation for any roads, and what to monitor during the implementation of the project.

## 1.7 Public Involvement

The public involvement process included (1) posting of the proposed actions at the actual sites in the field, (2) placing the proposed project in the Forest SOPA (Schedule of Proposed Actions), and (3) sending scoping information to the public, other agencies, and tribal contacts. Using the comments from the public, other agencies, and tribes (see Issues, section 1.8), the interdisciplinary team developed a list of issues to address.

### 1.7.1 Posting of Proposed Road Closures

The roads and sites being proposed for closure and road storage or trash site management were posted in the field with a public notice about possible changes in access during the fall and winter of 2006. The notices asked for input, stating "Your Input is Needed…Road and trail access within this areas MAY BE CHANGED".

### 1.7.2 Schedule of Proposed Actions

The project was first listed in the Willamette National Forest's Schedule of Proposed Action (SOPA) starting in with the January-March SOPA of 2007. The SOPA is mailed out to a Forest mailing list of people interested in the management activities of the Forest. The SOPA provides one of the means of keeping the public informed of the progress of individual projects. The SOPA is also made available to the public on the Willamette Forest website.

### 1.7.3 Scoping

A Forest Service interdisciplinary team of resource specialists and Middle Fork Ranger District management staff defined the proposed actions elements, identified preliminary issues and project opportunities, and identified potentially interested and affected individuals and groups.

Scoping letters summarizing the proposal and preliminary issues were sent to a mailing list of interested individuals, groups and organizations, elected officials, other agencies, and tribal representatives for comment during the scoping process. The scoping letters were mailed to the tribal contacts on February 23, 2007 and to the public and other agencies on February 26, 2007. The letter explained the purpose and need for the project, a description of the proposed action and alternatives, provided a map of the project area, and solicited comments on the proposed action. The letters asked that comments be sent to the Project Team Leader by March 26, 2007 for timely input. Discrepancies between proposed road closure miles in the Scoping Letter to the public and road closure miles in this E.A. are due to omissions of some roads that are tributary to roads proposed for closure with gates, boulders, or berms. The corrected mileages are used in this E.A.

A copy of this scoping letter was placed on the bulletin board in the Westfir Post Office on March 5, 2007. An article was placed in the Dead Mountain Echo on March 15, 2007 summarizing the proposal and asking for public input.

### 1.7.4 Public Response to Scoping

Three written comment letters, four e-mails, and several phone calls were received as a result of these notifications. Copies of the letters and documentation of phone conservations can be found in the Public Involvement section of the Analysis File. The results of the scoping were used to guide the public involvement process, establish analysis criteria and explore possible alternatives and their probable effects. The following is a listing of individuals and organizations who

submitted comments and a brief summary of the comment topics raised specific to the road and site closures:

**Figure 1-4: List of Commenters and Summary of Comment Topics**

| Comment # and Name of Individual or Organization | Comment Topic Summary |
|---|---|
| 1) Robert Tarr | Concerned about closing Rd. 1910-698 (site #6) Likes to drive in part way and walk his dog on the road from there (no traffic, dead end road). Said he wouldn't like walking from the beginning of the road because too close to trail there. Doesn't think the garbage problem on this road is that bad. Suggested closing this road farther up the road at the existing gate. |
| 2) Randy Dreiling | Supportive of closing Rd. 2404 (site #11a). Concerned with closing Rd. 5828 seasonally (site #12) as this would restrict access to the Alpine Trail for the Disciples of Dirt mountain bike club to do volunteer maintainence on Alpine Trail a couple times each spring. |
| 3) Stephen and Penny Weber | Concerned with closing Rd. 2404 (site #11a) because it provides access to Flat Creek trailhead, which they hike often. Convenient access, quick round trip, close to town, perfect climb and grade, separation from city noise, cars, and trains, scenic beauty, variety, good for winter hiking. If had to walk the road to get to the trail it would be an uninteresting, straight, wide, hot. Suggested alternative –build the trail along Flat Creek beginning at Salmon Cr. Road. Also, people like to run their dogs from cars and hunt by car on Rd. 2404. |
| 4) Stephen Weber | A few illegal trash dumpers would ruin things for hikers, hunters, and sightseers. Trash dumpers would just move on to another road or site. Suggested posting signs at the old mule meadow to keep 4WD vehicles out, using surveillance cameras, and fining violators. Flat Creek trail has lots of variety and is close to town. People can leave from work, drive a few minutes, and still get a rewarding hike in. If Rd. 2404 is closed, he doubts that kind of hike could be made. All other local trails pale in comparison. Suggested increased law enforcement and fines for garbage dumpers. Is interested in learning what kind of a new trailhead could be created. Prefers Alternative A or D. |
| 5) Steve Skinner | Concerned that we might be closing Rd. 2400018 (near site # 14) to all access. Was concerned that he wouldn't be able to walk into the dispersed camping area on this road by Salmon Creek any more. It was explained to him that Rd. 2400018 is not being considered for closure. However Rd. 2400019 (site #14) is being proposed for closure. He was not concerned because he would still be able to access the dispersed camping area at the junction of 2400018 and 2400019. He said that site #10 on Salmon Cr. Road has lots of trash and was supportive of boulder placement at that site. |
| 6) Craig Allen | Concerned that we were going to close access to the North Fork Trail or Rd. 1910. He was satisfied after it was explained to him that we are not proposing to close access to the trail or Rd. 1910. |
| 7) Dennis Fish | Enjoys off-road use with his ATV. Suggested that we need more trails and roads for OHV use. Has seen a lot of areas closed to OHV use. Have so few areas to ride in. Concerned about east & west sides of Staley Creek. Likes to hunt the Grassy Glade area and the Dome Rock side. Wants to see road 264 opened for OHV use. |
| 8) Bill Dwyer, Lane County Commissioner | Concerned with closing roads in areas where he hunts. Said that this is the public's land and should remain open to the public. He objects to many of these closures. |
| 9) Janie Wittnebel | Concerned with closure of Rd. 2400019 (site #14) off Salmon Cr. Road. She |

| Comment # and Name of Individual or Organization | Comment Topic Summary |
|---|---|
| | uses the dispersed camping site on this road about 2-3 times a year. She hasn't noticed any garbage there. Doesn't like to see dispersed sites closed. Supports boulder placement at site # 10. |
| 10) Edwin S. Johnson | Dumping household trash is a big concern, but done by a small portion of people. He is very much against shutting down any roads in any manner. Not fair to publics who enjoy the back roads. Concerned that there won't be as many places to ride OHV's where it is not crowded. ATV users help the economy in the state (ATV, camper, and motorhome sales). |
| 11) Dave Hallock, Disciples of Dirt Mountain Bike Club | Supportive of Rd. 2404 closure. |
| 12) Lenthal Henderson | Was concerned with road closures in Staley Creek and wanted to know which roads are proposed for closure. He hunts up in that area and uses Staley Creek Rd. 2134. When he saw the map of proposed road closures, he was no longer conerned with any of the proposed closures. He supports the blocking off of site #10 because of the trash problem. |
| 13) Chandra LeGue, Oregon Wild (formerly Oregon Natural Resources Council) | Generally supportive of the proposed action to put roads into storage in the Echo Creek and Staley Creek drainages. She wrote that this will help reduce road density and impacts of poorly-maintained roads in the area. Also supportive of the proposed action to close roads that lead to problem areas for illegal trash dumping. She appreciated the additional action alternatives for this proposal that seem to address some legitimate public concerns. Due to the Forest Service budget issues, though, they (Oregon Wild) are skeptical that Alternative C or D would lead to the desired results, due to funding needs and increased maintenance and law enforcment costs. Suggested funding the trail and soil damage repair work by using retained receipts from stewardship contracting in the District (e.g. Jim's Creek project). |
| 14) Middle Fork Willamette Watershed Council | Supportive of the project. It will benefit the watershed. |
| 15) Joe Brown, Verizon Wireless | Concerned that if Rd.5828 is closed in the winter months when the most blowdown occurs, there could be down trees across the road that aren't getting removed like they would if the road was kept open, which would hinder their access to the cell tower site. |
| 16) Bob Drongesen | Was concerned that the Forest Service might be closing the dispersed campsite at the junction of Road 2400018 and 2400019. Likes to camp at that site. He was supportive of the project after hearing that we are proposing to leave the dispersed site at this juncition open to motorized vehicles, and that we are only proposing to block motorized vehicle access to the 019 spur. |
| 17) Francis Pokorny | Was concerned with possible closure of sites to target shooting on Salmon Creek Rd. (site 10) and at Larison rock pit. It was explained to him that only motorized access is being eliminated at both sites. He was mainly concerned with plans for restoration at site #10, which he believed would eventually make it unusable as a shooting range. Was supportive of the overall effort to control trash dumping, however. |

The interdisciplinary team reviewed the comments and incorporated the concerns into the issues or alternatives when applicable. Information related to these concerns was either addressed in the discussion of the issues and environmental consequences or can be found throughout the different sections of the EA, Analysis File or Decision Notice.

Following is a summary of how the comments were used:

Comment #1 - Road 1910-698 will still be accessible for the use described, walking his dog, in all alternatives.

Comment #2 – An alternative (4) was developed that would not close Rd. 5828 seasonally. If Rd. 5828 is closed seasonally, then the Forest Service would grant access to Rd. 5828 so that Disciples of Dirt can perform their annual Spring volunteer trail maintenance work.

Comment # 3 and 4 – Two alternatives (1 and 4) were developed that do not close Rd. 2404. If Rd. 2404 is closed (Alternatives 2 and 3), then the Flat Creek trailhead could be moved to Salmon Creek Road in the future as funding is made available. There is no funding available to increase law enforcement patrols to catch illegal trash dumpers. See section 2.1.5.

Comment # 5, 6, 11, 12, 13, 14, 16 - Supportive of the project, or had no concerns after the proposal was clarified.

Comment #7, 8, 10 - Three alternatives (1, 3, and 4) were developed that close fewer roads than the proposed action. Use of roads by OHVs (off-highway vehicles) will be addressed in the forthcoming Forest-wide Travel Management Rule, expected to be completed in 2009. None of the actions proposed in this project will preclude any decisions that may be made in the Travel Management Rule. Opening of currently closed roads (such as Rd. 264 in comment #7) for ATV use is outside the scope of this analysis.

Comment #9 – The dispersed camping sites on Rd. 2400019 would still be accessible by walking in. The closest site is about a 0.1 mile walk and the farthest is about a 0.3 mile walk. There are several other dispersed camping sites along Salmon Creek not affected by closures in this project that are still accessible to driving in.

Comment # 15 - It is not anticipated that maintenance of Rd. 5828 will change from the current condition. The road would still be open in the summer and fall. During the winter months, Forest Service employees would still be driving the road for administrative purposes.

Comment #17 - Shooting and target practice are accessible by membership at another nearby location, the Oakridge Gun Club.

### 1.7.5 EA Comment Period

A public notice will be published in the local newspaper requesting comments on the proposed actions and EA. The comment period will be for 30 days. A letter will also be sent to the individual and organizations who have previously submitted comments to notify them that the EA is available for review and that they have a second chance to comment on the projects.

The responsible official will review all the comments along with their supporting reasons before making the final decision. The final decision on the selected alternative along with the rationale

for that decision will be documented in a Decision Notice. This notice of the decision will be published in The Register Guard newspaper of Eugene, Oregon and sent out to the people who have submitted comments.

### 1.7.6 Additional Information on Public Involvement

Additional information on public involvement can be found in the Chapter 4, Consultation and Coordination section of this document. Copies of these various documents and their attached mailing lists can be found in the Analysis File under Public Involvement.

## 1.8 Issues

Issues are points of concern about environmental effects that may occur as a result of implementing the proposed action. They are generated by the public, other agencies, organizations, and Forest Service resource specialists and are in response to the proposed action.

Significant issues describe a dispute or present an unresolved conflict associated with potential environmental effects of the proposed action. Significant issues are used to formulate alternatives, prescribe mitigation measures, and focus the analysis of environmental effects. Significant issues are also determined based on the potential extent of their geographic distribution, duration of their effects, or intensity of interest or resource conflict, if not mitigated or otherwise addressed. The significant issues for this project were identified by the IDT (interdisciplinary team) after scoping and preliminary analysis of the project area and reviewing all the public comments. The significant issues were approved by District Ranger Chip Weber.

Significant issues are tracked through issue identification (Chapter 1), alternative development and description (Chapter 2), and Environmental Consequences (Chapter 3). Measurement criteria have been identified for the all the issues and are used to compare alternatives (Chapter 2).

In addition to the significant issues, other issues (or nonsignificant issues) were raised by the public or Forest Service resource specialists. These issues were determined to be nonsignificant because they were; 1) outside the scope of the proposed action, 2) already decided by law or regulation, Forest Plan, or other higher level decision, 3) irrelevant to the decision to be made, or 4) conjectural and not supported by scientific or factual evidence. These issues are less focused on the elements of the Purpose and Need and did not influence the formulation of alternatives. Many of the nonsignificant issues are also included in the environmental effects analysis (Chapter 3) because of the relation to meeting Forest Plan S&Gs, laws, regulatory or policy direction, or relevant to resource analyses.

#### 1.8.1.1 Access to roads for public and for fire suppression (Significant Issue)

Prohibiting motorized access to roads would limit access and recreational and forest activities that are based upon driving motorized vehicles on roads to access areas of public interest. Decreased

access to some roads in the project area could potentially affect such activities as camping, pleasure driving on the forest roads, hunting, firewood gathering, berry picking, mushroom gathering. Verizon Wireless operates a cell tower in the project area. Access to this tower by Verizon could be affected if the road is not maintained. Fire suppression and other administrative access to roads that are closed with boulders or berms would be made more difficult. Boulders would have to be moved and heavy equipment would be needed to make roads drivable for fire access. This issue is analyzed in the section 3.1.

Measurement:

- Miles of road proposed for closure to motorized vehicles (seasonal and year long)
- Percentage of road system that is closed by 5th field watershed
- Miles of road closed with berm or boulders
- Extra cost of opening up roads for fire access and the cost of putting it back in storage
- Extra cost of suppressing a potentially bigger fire due to more difficult access

### 1.8.1.2 Water Quality (Significant Issue)

Culverts on certain roads in the Echo Staley area are getting plugged, causing erosion of soils and sedimentation in streams. Erosion and sedimentation is occurring in the old Mule Meadow near the junction of Roads 24 and 2404 from ruts caused by four-wheel drive (4WD) vehicles. This issue is analyzed in section 3.2.

Measurement:

- Increase or decrease in the aquatic risk by miles of road hydrologically stabilized.
- Increase or decrease in aquatic risk by acres no longer accessible to OHV and 4WD soil damage.
- Miles of road closed with high aquatic risk rating
- Number of illegal trash sites blocked from access

### 1.8.1.3 Access to trails (Nonsignificant Issue)

Seasonal closure of Rd. 5828 may affect access to Alpine ridge trail #3450 between December 15 and July 1. The Alpine ridge trail would still be accessible from Rd. 5828 during the summer months, when use is highest. Closure of Rd. 2404 may affect access to Flat Creek trail # 3566 year-round. Bicyclists, motorcyclists, hikers, and equestrians would be able to walk, cycle, or ride horses or motorcycles on Rd. 2404 to the Flat Creek trail until a potential to reroute Flat Creek trail to a new trailhead on Salmon Creek Road is developed. This issue is analyzed in section 3.3.

Measurement:

Number of trailheads where access to trailhead by vehicle is blocked seasonally and year-round.

### 1.8.1.4 Wildlife (Nonsignificant Issue)

#### Open road density

Big game habitat effectiveness – roads factor (HEr) exceeds Forest Plan S&Gs pertaining to big game mgt in some areas (BGEAs). Big game security may be affected by high open road densities. This issue was not considered significant because the project could only influence one of the habitat variables for big game habitat effectiveness (roads).

Measurement:

- Pre- and post HEr by BGEA

#### Noise disturbance

Noise generated by activities associated with some proposed methods of road closure may disturb spotted owls during the breeding season. This issue was not considered significant because all alternatives would meet the law (Endangered Species Act), regulations, and Forest Plan standards and guidelines. Disturbance impacts are mitigated in the action alternatives with the same measures that have been commonly prescribed and used on other road management project for several years. These mitigation measures are listed in Chapter 2.

Measurement:

- number of activity centers within 0.25 mile of noise generating activities.

The wildlife issues are analyzed in section 3.4.

### 1.8.1.5 Invasive Weeds (Nonsignificant Issue)

This issue was not considered significant for designing alternatives because specific mitigating measures would be used in all action alternatives to prevent expansion of existing invasive weed populations. See Mitigation Measures in Chapter 2. The effects of the proposed action and other alternatives on invasive weeds are discussed in section 3.5 under Vegetation.

### 1.8.1.6 Heritage Resources (Nonsignificant Issue)

This issue was not considered significant because all alternatives would meet the state and federal law (National Historic Preservation Act and Programmatic Agreement (PA) between ACHP and Oregon State Historic Preservation Office). These activities are specifically addressed in the 2004 PA with the SHPO, under the road decommissioning activities described in Appendix B (5, 7, and 8) of that agreement. Since the proposed project activities would take place entirely in the road prism, it is recommended that it be excluded from case-by-case review, based on inspection and monitoring, as per the PA. In the event heritage properties are located during the course of this project, all work in the area of the find shall be suspended immediately, while an archaeologist is notified to assess the find. This issue is analyzed in the section 3.7.

# 2. Alternatives, including the Proposed Action

This chapter describes and compares the alternatives considered for the Echo Staley Road Storage and Illegal Household Trash Site Management project. It includes a description and map of each alternative considered. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative (i.e., type of road closure treatment or method) and some of the information is based upon the environmental, social and economic effects of implementing each alternative (i.e., the amount of erosion or cost of closure treatments).

## 2.1 Alternatives Considered but Eliminated from Detailed Analysis

### 2.1.1 Road Obliteration:

An alternative was considered by the IDT that would decommission these roads. After evaluating the future need for road access to this area and the economic feasibility, it was determined that the roads may be needed for fire prevention and suppression, timber management, and administrative purposes. If the roads are obliterated, and reentry is needed in the future, decommissioning and then re-constructing these roads would be cost prohibitive. Also, this E.A. does not preclude future decisions to allow managed use of OHVs (off-highway vehicles, including motorcycles and all-terrain vehicles) as part of the Willamette National Forest Travel Management Rule planning process.

### 2.1.2 Keep Rd. 2404 open to Flat Creek trailhead:

An alternative was considered that would keep Rd. 2404 open as far as the trailhead for Flat Creek trail. A gate would be placed and the road would be closed just past the trailhead parking area to reduce trash dumping on this road. A gate would also be placed on Rd. 2404212. This alternative was not developed further because: 1) the old mule meadow would still be vulnerable to soil damage from 4WD vehicles; 2) other means of keeping 4WD vehicles out of the mule meadow have a low probability of effectiveness; and 3) Alternative 4 addresses the Flat Creek trailhead issue by not closing Rd. 2404.

### 2.1.3 Restore soil damage in Mule Meadow

It was determined that it would be more feasible to include the proposal to restore soil damage in the old Mule Meadow with the Oakridge/Westfir Thinning and Fuel Reduction Project. Meadow restoration could more likely be funded with money generated from that project. Part of the purpose and need for that project is to restore meadow habitat in this vicinity.

#### 2.1.4 Rolling drain dips on Rd. 2404 system

Two alternatives were considered that would construct drivable drain dips on Rd. 2404 after closure. The Rd. 2404 system would be needed for access and log hauling in the proposed Oakridge/Westfir Thinning and Fuel Reduction (OWTFR) project. Since we would not want rolling drain dips to be installed on the Rd. 2404 system until after the OWTFR project is completed, it was determined to be more reasonable to propose and analyze them in an alternative in the OWTFR project E.A.

#### 2.1.5 Increase law enforcement patrols

An alternative was considered that would increase law enforcement patrols to discourage illegal household trash dumping instead of closing roads. This alternative would also implement an "adopt-a-road" program to encourage volunteers to pick up garbage. This alternative was determined to be not feasible because there is no funding for increased law enforcement, nor funding to manage an "adopt-a-road" program. Funding for these purposes is not likely to be increased in the future.

#### 2.1.6 Sites that were dropped from analysis in this EA:

The following sites were dropped from detailed analysis in this EA because they are administrative sites, did not receive negative comments from the public, did not have resource concerns, or are improving the effectiveness of a closure that was already in place, and can be implemented without a NEPA decision:

- Site #5 - Boulders will be placed to keep vehicles from driving around an existing gate on a dirt road that takes off of the old Westfir scaling station road.
- Site #8 - Additional Jersey barriers will be placed at the edge of Road 1910 to prevent dumping of trash and old cars.
- Site # 9 – Motorized vehicle access will be blocked on the roads leading into Larison rock pit with a gate and boulders to prevent trash dumping. The site will still be accessible by walking in.
- Site #11b – Boulders will be placed to keep vehicles from driving around an existing gate on Road 2400029.
- Site #13 – This is the old scaling station on Salmon Creek Road, just east of the Rd. 2404 junction. Permanent closure to prevent illegal trash dumping will be deferred at this time, to allow for discussions about possible future uses of this site.

## 2.2 Alternatives Given Detailed Analysis

### 2.2.1 Alternative 1 – No Action

Under the No Action alternative, current management plans would continue to guide management of the project area. This analysis acknowledges that under No Action the natural landscape and

the transportation system will change with time, even if no administrative changes are prescribed. The current trend of reduced maintenance funding (which results in declining accessibility), reduced timber haul, and very little additional recreation funding would result in "uncontrolled" changes to the transportation system.

As considered here, No Action means that none of the roads considered in the Echo Staley portion of this proposed project would be put in storage and none of the roads or sites considered in the trash site portion would be closed at this time. Road densities would remain the same; some damaged roads would continue to receive little or no maintenance. The roads proposed for closure would continue to be an increased risk to bull trout, resident fish, and other aquatic species in affected areas. Roads currently accessible by motorized vehicles would continue to be accessible, unless reduced maintenance of roads or damage from storm events limits access. . Because funding for trash cleanup is not dependable and is likely to be reduced in future years, trash dumping would become an even greater problem in the future on roads and sites in the trash site portion of the project.

### 2.2.2 Alternative 2 – Proposed Action

**Echo Staley portion:**

About 23.3 miles of roads with desired objective maintenance level 1 in the Echo Staley portion of the project area would be closed to all motorized vehicles. Of these miles, about 20.7 miles would have various treatments applied (see Figures 2-1, 2-3) to place them in a maintenance storage condition for 10 or more years. The roads that are closed would remain closed and not be maintained for a minimum of 10 years. All of these 23.3 miles were recommended for closure in the Middle Fork District Roads Analysis, 2004. These roads would still be available for non-motorized activities such as hiking, hunting, camping, horseback riding, and bicycling.

The roads would be stored utilizing several different methods, depending on road location on the landscape, road condition, proximity to stream, and potential for failure or sedimentation to streams. Road entrances would be closed with a combination of an earthen berm, deep ditch, and possibly boulders. Most roads would have water bars cut into the road surface to direct water flow off of the road. Many of the roads would have a water bar cut into the road on the downhill side of each culvert. In the event the culvert becomes plugged with debris, water bars direct the water across the road, helping storm proof the road from erosion. Many culverts would have deep ditches cut in the fill directly above the culvert. This would allow the stream to stay in the same watercourse in the event the culvert becomes plugged and overtops the fill. One culvert would be completely removed and the stream restored to a natural stream course.

**Trash Site portion:**

About 33.4 miles of road and two dispersed sites in the trash site portion of the project area would be closed to all motorized vehicles with boulder or gate placement to prevent illegal trash

dumping (see Figures 2-2, 2-4). Of these miles, about 17.6 miles of road would be closed year-round with gates or boulders, including the Rd. 2404 system; about 15.8 miles would be closed seasonally with a gate from Dec. 15 to July 1(Rd. 5828 system); and two dispersed sites would be blocked with boulders (no road miles affected). Of the 33.4 miles, the District Roads Analysis recommended keeping open approximately 11.6 miles. In this alternative all 33.4 miles would be closed with either year-round or seasonal closures due to the chronic illegal household trash problem.

Site restoration activities are proposed for site #10 including soil ripping, tree planting, movement of soil waste piles to create a berm, and placement of boulders.

The recommendation for key road 2404 and non-key road 2400019 would be changed from "open" to "close" and the recommendation for key road 5828 and non-key road 5828101 would be changed from "open" to "close seasonally" due to the chronic trash dumping problem.

**Implementation:**

Implementation would occur during the summer months in 2007. All closures would be enforced with a CFR road closure order prohibiting motorized vehicle traffic. All closures would be year-round except the proposed gate on Rd. 5828 (site # 12), which would be closed Dec. 15 to July 1st.

**Administrative Exceptions:**

- Verizon Wireless would be granted access to Rd. 5258 for cell tower maintenance as needed.
- Disciples of Dirt mountain bike club would be granted access to do annual trail maintenance work in the spring each year.

**Mitigation:**

- Because motorcycles are allowed on Flat Creek trail, motorcyclists would be allowed to ride up Rd. 2404 to gain access to the Flat Creek trailhead. Motorcyclists would not be allowed to go farther up Rd. 2404 or Rd. 2404-212, however.

See also section 2.3, Mitigation Measures Common to All Action Alternatives.

**Discrepancies in closure miles:** Discrepancies between proposed road closure miles in the Scoping Letter to the public and road closure miles in this E.A. are due to omissions of some roads that are tributary to roads proposed for closure with gates, boulders, or berms. The corrected mileages are used in this E.A.

Figures 2-1 and 2-2, below, display the roads and sites proposed for closure to motorized vehicles in this alternative, the length of the road, the Roads Analysis recommendation, closure method, and treatments proposed. Each road was previously evaluated utilizing the Roads Analysis process. The process evaluated the impact that leaving a road open or closing the road would have on the following use categories: administrative use, public use, terrestrial and aquatic

wildlife. Personnel from the district watershed department conducted field surveys of the portion of the project in Lane County to verify resource needs. The Douglas County roads were not verified in the field due to time constraints, but were listed from previous experience and map analysis. The Douglas County roads will be field verified before project implementation.

**Figure 2-1: Road closure treatments in Echo Staley portion of Alternative 2 – Proposed Action**

| Road Number | County | Miles of Road Placed in Storage | Miles of Road Blocked to Motorized Vehicles* | Treatment Type | Road Analysis Prescription |
|---|---|---|---|---|---|
| 2120463 | Lane | 0.87 | 0.87 | WB/DITCH/BERM | Close |
| 2134150 | Douglas | 0.10 | 0.10 | WB/DITCH/BERM | Close |
| 2134237 | Lane | 0 | 0.14 | No treatment. Access controlled by proposed closure on Rd. 2134255 | Close |
| 2134243 | Lane | 1.27 | 1.73 | WB/DITCH/BERM/CR | Close |
| 2134254 | Lane | 0.32 | 0.32 | WB/DITCH/BERM | Close |
| No number | Lane | 0.20 | 0.20 | WB/DITCH/BERM | N/A |
| 2134255 | Lane | 0.63 | 0.63 | WB/DITCH/BERM | Close |
| 2134258 | Douglas | 0.91 | 0.91 | WB/DITCH/BERM | Close |
| 2134259 | Lane | 0.49 | 0.87 | WB/DITCH/BERM | Close |
| 2134260 | Douglas | 0.18 | 0.18 | WB/DITCH/BERM | Close |
| 2134261 | Lane | 0.23 | 0.23 | WB/DITCH/BERM | Close |
| 2134262 | Lane | 0 | 0.23 | No treatment. Access controlled by proposed closure on Rd. 2134259 | Close |
| 2135294 | Lane | 1.76 | 0.54 | WB/DITCH/BERM | Close FS/Verify Pvt |
| 2135295 | Lane | 1.33 | 1.33 | WB/DITCH/BERM | Close FS/Verify Pvt |
| 2135296 | Lane | 0.37 | 0.37 | WB/DITCH/BERM | Close |
| 2135297 | Lane | 0.52 | 0.52 | WB/DITCH/BERM | Close |
| 2135304 | Lane | 0 | 0.14 | No treatment. Access controlled by proposed closure on Rd. 2135295 | Close |
| 2136274 | Douglas | 0.50 | 0.50 | WB/DITCH/BERM | Close |
| 2136277 | Douglas | 0.78 | 0.78 | WB/DITCH/BERM | Close |
| 2136279 | Douglas | 1.08 | 1.08 | WB/DITCH/BERM | Close |
| 2136280 | Douglas | 1.26 | 1.26 | WB/DITCH/BERM | Close |
| 2136283 | Douglas | 0 | 0.29 | No treatment. Acess controlled by proposed closure on Rd. 2136280 | Close |
| 2136285 | Douglas | 0.49 | 0.49 | WB/DITCH/BERM | Close |

| Road Number | County | Miles of Road Placed in Storage | Miles of Road Blocked to Motorized Vehicles* | Treatment Type | Road Analysis Prescription |
|---|---|---|---|---|---|
| 2136289 | Douglas | 0.14 | 0.14 | WB/DITCH/BERM | Close |
| 2137039 | Douglas | 0.19 | 0.19 | WB/DITCH/BERM | Close |
| 2137274 | Lane | 0.38 | 0.63 | WB/DITCH/BERM | Close |
| 2137276 | Lane | 0 | 0.08 | No treatment. Access controlled by proposed closure on Rd. 2137274 | Close |
| 2143204 | Lane | 0 | 0.09 | No treatment. Access controlled by proposed closure on Rd. 2143315 | Close |
| 2143205 | Lane | 0 | 0.21 | No treatment. Access controlled by proposed closure on Rd. 2143315 | Close |
| 2143210 | Lane | 0 | 0.07 | No treatment. Access controlled by proposed closure on Rd. 2143315 | Close |
| 2143315 | Lane | 0.16 | 1.06 | WB/DITCH/BERM | Close |
| 2143319 | Lane | 0.88 | 0.88 | WB/DITCH/BERM | Close |
| 2143322 | Lane | 0.95 | 0.95 | WB/DITCH/BERM | Close |
| 2143324 | Lane | 0.72 | 0.83 | WB/DITCH/BERM | Close |
| 2143327 | Lane | 0 | 0.47 | No treatment. Access controlled by proposed closure on Rd. 2143322 | Close |
| 2143329 | Lane | 0.95 | 0.95 | WB/DITCH/BERM | Close |
| 2144335 | Douglas | 3.03 | 3.03 | WB/DITCH/BERM | Close |
| **Total** | | **20.69** | **23.29** | | |

BERM=Closing road with a berm or very large ditch to close road to motor vehicle access.

DITCH= Cutting large ditch in road above the culvert to keep overtopping stream in streambed

WB= Water bar-Small ditch and berm placed in road surface/below culvert to divert water

CR= Culvert removal

* Miles of Road Blocked to Motorized Vehicles only includes miles of road that are not currently closed.

**Figure 2-2: Road and site closures in Trash Site portion of Alternative 2 – Proposed Action**

| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| 1910698 | 6 | Lane | 2.09 | Year-round | Boulders | Close |
| Dispersed site off Rd. 1910 | 7 | Lane | 0.01 | Year-round | Boulders | N/A |
| 2400011 | 10 | Lane | 0.01 | Year-round | Boulders | Close |
| 2400019 | 14 | Lane | 0.31 | Year-round | Boulders | Open |
| 2404000 | 11a | Lane | 4.54 | Year-round | Gate | Open |
| 2404074 | | Lane | 0.56 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404101 | | Lane | 0.04 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404102 | | Lane | 0.33 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404103 | | Lane | 0.14 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404190 | | Lane | 0.50 | Year-round | Access controlled by proposed gate on Rd. 2404 | Not analyzed |
| 2404191 | | Lane | 0.14 | Year-round | Access controlled by proposed gate on Rd. 2404 | Not analyzed |
| 2404210 | | Lane | 0.41 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404211 | | Lane | 0.23 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404212 | | Lane | 1.64 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404213 | | Lane | 0.09 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 5828000 | 12 | Lane | 6.72 | Dec 15 – July 1 | Gate replacement | Open |
| 5828017 | | Lane | 0.10 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. | Close |

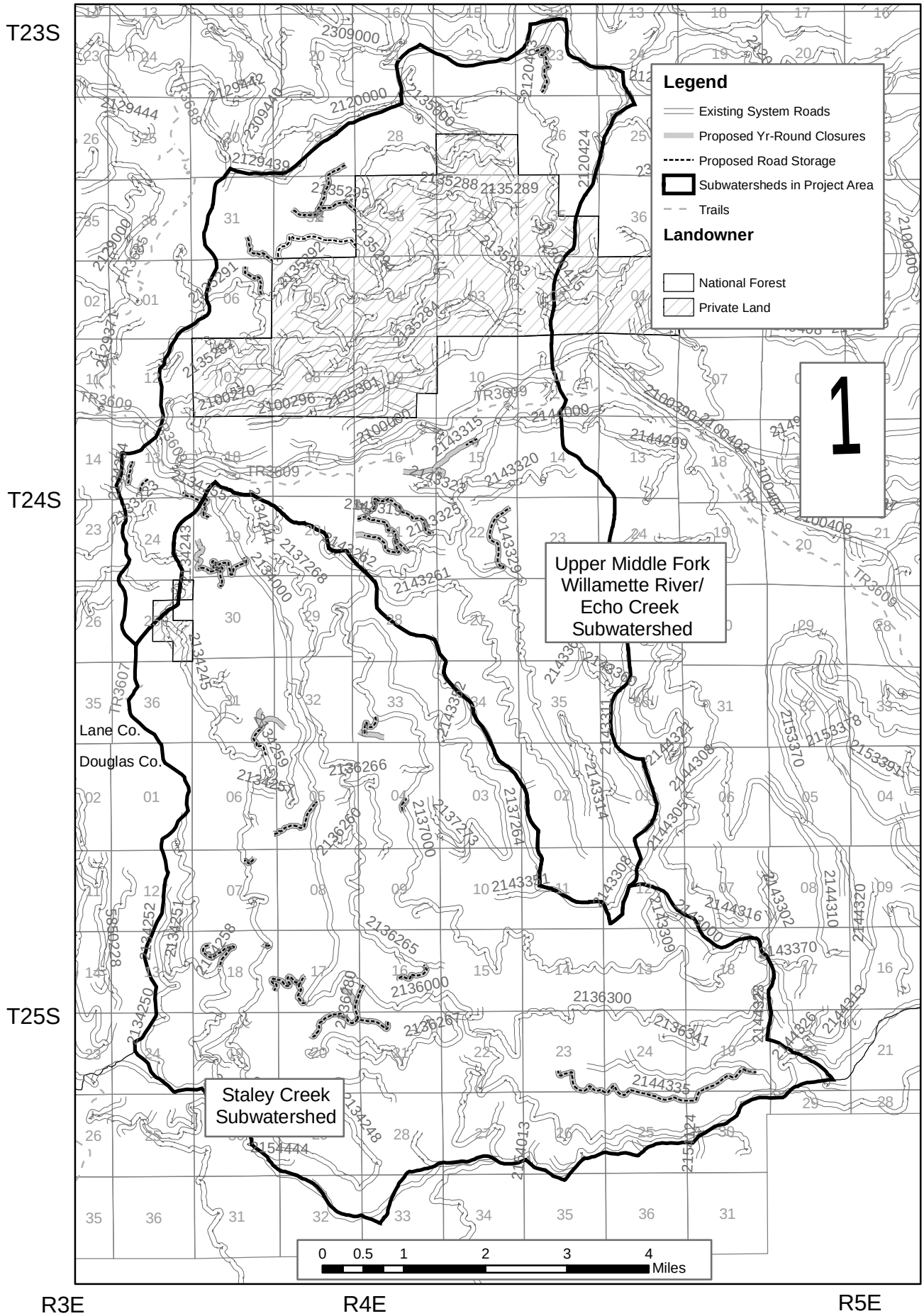
| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| | | | | | 5828 | |
| 5828101 | | Lane | 0.06 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Open |
| 5828390 | | Lane | 0.37 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828391 | | Lane | 0.88 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828520 | | Lane | 0.08 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828560 | | Lane | 0.50 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828580 | | Lane | 0.30 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828585 | | Lane | 1.05 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close/Open |
| 5828586 | | Lane | 0.25 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828685 | | Lane | 0.09 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828686 | | Lane | 0.58 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828687 | | Lane | 3.05 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Prohibit Seasonally (Jan 15-July31) |
| 5828689 | | Lane | 0.60 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Prohibit Seasonally (Jan 15-July31) |
| 5828692 | | Lane | 1.20 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| no number | 1 | Lane | 0.17 | Year-round | Boulders | N/A |
| 5835509 | 2b | Lane | 0.31 | Year-round | Boulders | Close |

| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| 5835510 | 4 | Lane | 0.65 | Year-round | Boulders | Close |
| 5835511 | | Lane | 0.09 | Year-round | Access controlled by proposed closure of Rd. 5835510 | Close |
| 5835515 | 2a | Lane | 3.57 | Year-round | Boulders | Close |
| 5835520 | 3 | Lane | 1.04 | Year-round | Boulders | Close |
| 5835522 | | Lane | 0.64 | Year-round | Access controlled by proposed closure of Rd. 5835520 | Close |
| 5835530 | | Lane | 0.08 | Year-round | Access controlled by proposed closure of Rd. 5835520 | Close |
| **Total** | | | **33.42** | | | |

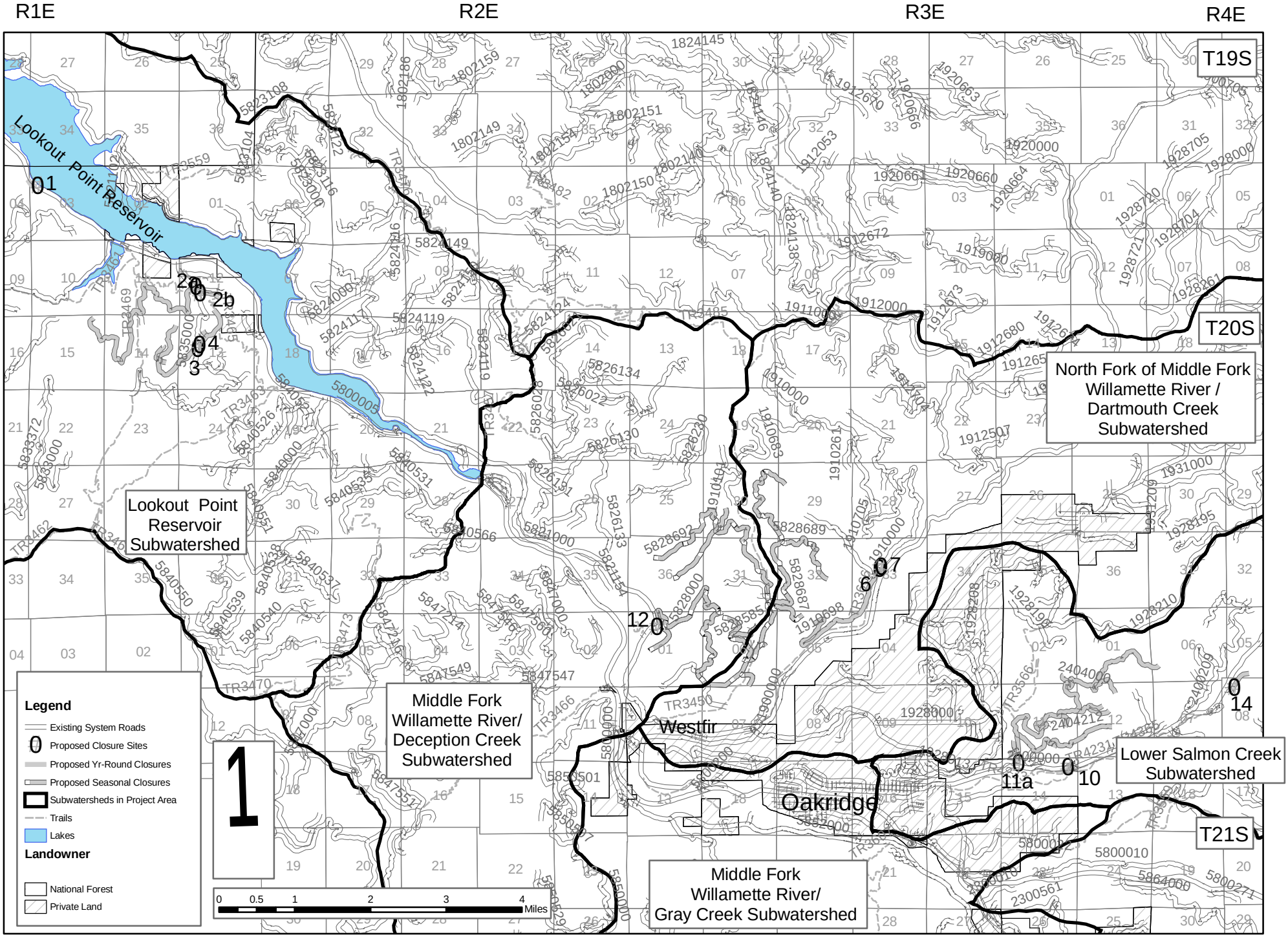
*Miles of Road Blocked to Motorized Vehicles only includes miles of road that are not currently closed.

The following two maps, Figures 2-3 and 2-4, display the existing road and trail systems, proposed year-round closures, proposed road storage, subwatersheds, and private land in the Echo Staley portion and the trash site portion of the project area for Alternative 2.

Figure 2-3
Alternative 2 - Echo Staley Portion



# Figure 2-4
# Alternative 2 - Trash Site Portion



### 2.2.3 Alternative 3

**Echo Staley portion:**
Alternative 3 would be the same as Alternative 2 except the roads in the Echo Staley portion of the project area would not be closed to motorized vehicles. Instead, the roads would be treated with rolling drain dips and vehicles would be able to drive over them. See Figures 2-5, 2-7.

**Trash Site portion:**

Roads and sites in the trash site portion of the project area would be treated the same as in the trash site portion of Alternative 2. See Figures 2-6, 2-8.

The recommendation for Key road 2404 and non-key road 2400019 would be changed from "open" to "close" and the recommendation for key road 5828 and non-key road 5828101 would be changed from "open" to "close seasonally" due to the chronic trash dumping problem.

**Implementation:**

Implementation would occur during the summer months in 2007. All closures would be enforced with a CFR road closure order prohibiting motorized vehicle traffic. All closures would be year-round except the proposed gate on Rd. 5828 (site # 12), which would be closed Dec. 15 to July 1st.

**Administrative Exceptions:**

- Verizon Wireless would be granted access to Rd. 5258 for cell tower maintenance as needed.
- Disciples of Dirt mountain bike club would also be granted access to do annual trail maintenance work in the spring each year.

**Mitigation:**

- Because motorcycles are allowed on Flat Creek trail, motorcyclists would be allowed to ride up Rd. 2404 to gain access to the Flat Creek trailhead. Motorcyclists would not be allowed to go farther up Rd. 2404 or Rd. 2404-212, however.

See section 2.3 for Mitigation Measures Common to All Action Alternatives

**Discrepancies in closure miles:** Discrepancies between proposed road closure miles in the Scoping Letter to the public and road closure miles in this E.A. are due to omissions of some roads that are tributary to roads proposed for closure with gates, boulders, or berms. The corrected mileages are used in this E.A.

Figures 2-5 and 2-6, below, display the roads and sites proposed for closure to motorized vehicles, the length of the road, the Roads Analysis recommendation, closure method, and treatments proposed. Each road was previously evaluated utilizing the Roads Analysis process. The process evaluated the impact that leaving a road open or closing the road would have on the following use categories: administrative use, public use, terrestrial and aquatic wildlife. Personnel from the district watershed department conducted field surveys of the portion of the

project in Lane County to verify resource needs. The Douglas County roads were not verified in the field due to time constraints, but were listed from previous experience and map analysis. The Douglas County roads will be field verified before project implementation.

**Figure 2-5: Road closure treatments in Echo Staley portion of Alternative 3**

| Road Number | County | Miles of Road Placed in Storage* | Miles of Road Blocked to Motorized Vehicles | Treatment Type | Road Analysis Prescription |
|---|---|---|---|---|---|
| 2120463 | Lane | 0.87 | 0 | Rolling Drain Dips | Close |
| 2134150 | Douglas | 0.10 | 0 | Rolling Drain Dips | Close |
| 2134243 | Lane | 1.27 | 0 | Rolling Drain Dips | Close |
| 2134254 | Lane | 0.32 | 0 | Rolling Drain Dips | Close |
| No number | Lane | 0.20 | 0 | Rolling Drain Dips | N/A |
| 2134255 | Lane | 0.63 | 0 | Rolling Drain Dips | Close |
| 2134258 | Douglas | 0.91 | 0 | Rolling Drain Dips | Close |
| 2134259 | Lane | 0.49 | 0 | Rolling Drain Dips | Close |
| 2134260 | Douglas | 0.18 | 0 | Rolling Drain Dips | Close |
| 2134261 | Lane | 0.23 | 0 | Rolling Drain Dips | Close |
| 2135294 | Lane | 1.76 | 0 | Rolling Drain Dips | Close FS/Verify Pvt |
| 2135295 | Lane | 1.33 | 0 | Rolling Drain Dips | Close FS/Verify Pvt |
| 2135296 | Lane | 0.37 | 0 | Rolling Drain Dips | Close |
| 2135297 | Lane | 0.52 | 0 | Rolling Drain Dips | Close |
| 2136274 | Douglas | 0.50 | 0 | Rolling Drain Dips | Close |
| 2136277 | Douglas | 0.78 | 0 | Rolling Drain Dips | Close |
| 2136279 | Douglas | 1.08 | 0 | Rolling Drain Dips | Close |
| 2136280 | Douglas | 1.26 | 0 | Rolling Drain Dips | Close |
| 2136285 | Douglas | 0.49 | 0 | Rolling Drain Dips | Close |
| 2136289 | Douglas | 0.14 | 0 | Rolling Drain Dips | Close |
| 2137039 | Douglas | 0.19 | 0 | Rolling Drain Dips | Close |
| 2137274 | Lane | 0.38 | 0 | Rolling Drain Dips | Close |
| 2143315 | Lane | 0.16 | 0 | Rolling Drain Dips | Close |
| 2143319 | Lane | 0.88 | 0 | Rolling Drain Dips | Close |
| 2143322 | Lane | 0.95 | 0 | Rolling Drain Dips | Close |
| 2143324 | Lane | 0.72 | 0 | Rolling Drain Dips | Close |
| 2143329 | Lane | 0.95 | 0 | Rolling Drain Dips | Close |
| 2144335 | Douglas | 3.03 | 0 | Rolling Drain Dips | Close |
| **Total** | | **20.69** | | | |

BERM=Closing road with a berm or very large ditch to close road to motor vehicle access.

DITCH= Cutting large ditch in road above the culvert to keep overtopping stream in streambed
WB= Water bar-Small ditch and berm placed in road surface/below culvert to divert water
CR= Culvert removal
* Miles of Road Blocked to Motorized Vehicles only includes miles of road that are not currently closed.

**Figure 2-6: Road and site closures in Trash Site portion of Alternative 3**

| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| 1910698 | 6 | Lane | 2.09 | Year-round | Boulders | Close |
| Dispersed site off Rd. 1910 | 7 | Lane | 0.01 | Year-round | Boulders | N/A |
| 2400011 | 10 | Lane | 0.01 | Year-round | Boulders | Close |
| 2400019 | 14 | Lane | 0.31 | Year-round | Boulders | Open |
| 2404000 | 11a | Lane | 4.54 | Year-round | Gate | Open |
| 2404074 | | Lane | 0.56 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404101 | | Lane | 0.04 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404102 | | Lane | 0.33 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404103 | | Lane | 0.14 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404190 | | Lane | 0.50 | Year-round | Access controlled by proposed gate on Rd. 2404 | Not analyzed |
| 2404191 | | Lane | 0.14 | Year-round | Access controlled by proposed gate on Rd. 2404 | Not analyzed |
| 2404210 | | Lane | 0.41 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404211 | | Lane | 0.23 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404212 | | Lane | 1.64 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 2404213 | | Lane | 0.09 | Year-round | Access controlled by proposed gate on Rd. 2404 | Close |
| 5828000 | 12 | Lane | 6.72 | Dec 15 – July 1 | Gate replacement | Open |
| 5828017 | | Lane | 0.10 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828101 | | Lane | 0.06 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Open |
| 5828390 | | Lane | 0.37 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |

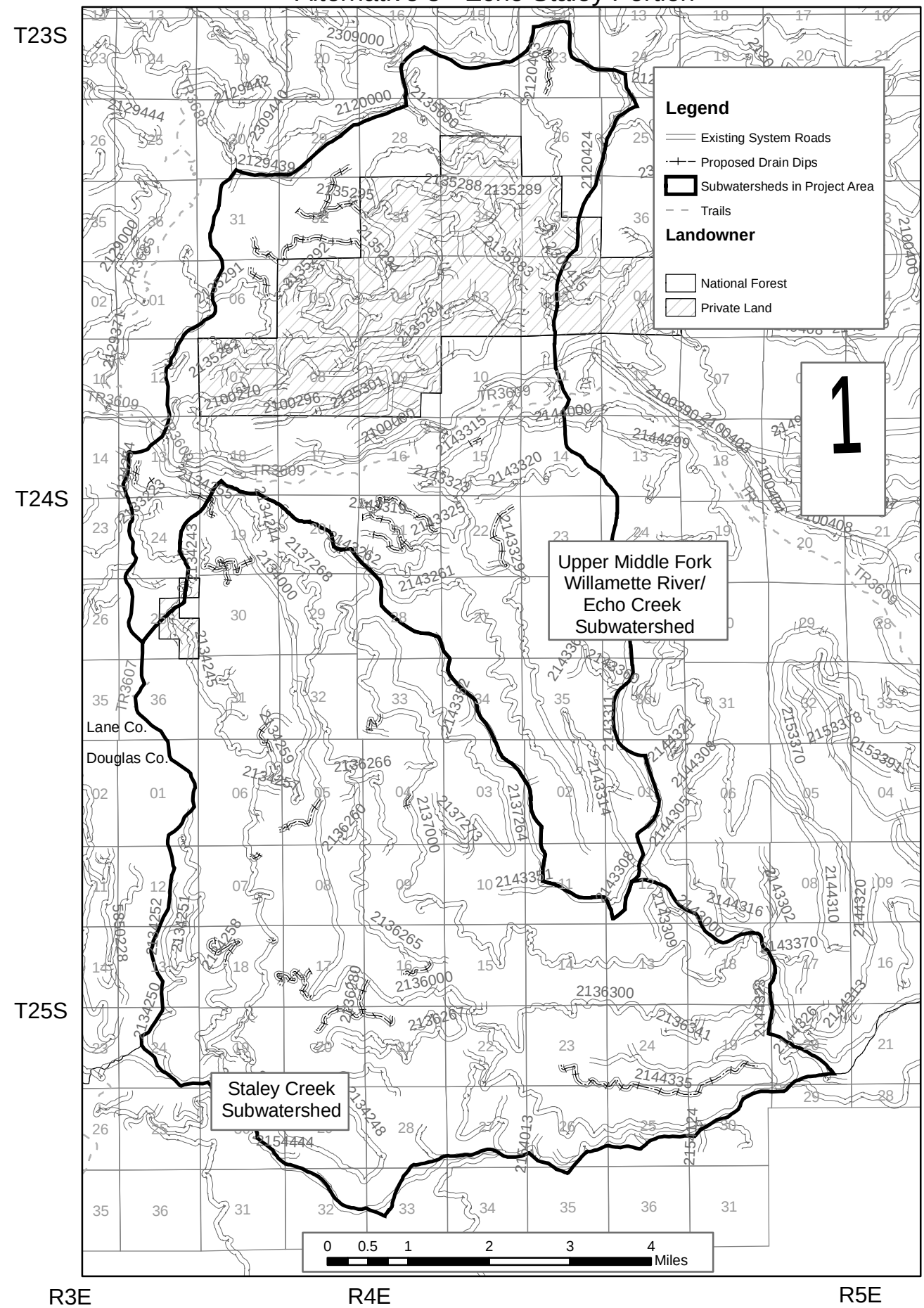
| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| 5828391 | | Lane | 0.88 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828520 | | Lane | 0.08 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828560 | | Lane | 0.50 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828580 | | Lane | 0.30 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828585 | | Lane | 1.05 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close/ Open |
| 5828586 | | Lane | 0.25 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828685 | | Lane | 0.09 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828686 | | Lane | 0.58 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| 5828687 | | Lane | 3.05 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Prohibit Season-ally (Jan 15-July 31) |
| 5828689 | | Lane | 0.60 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Prohibit Season-ally (Jan 15-July 31) |
| 5828692 | | Lane | 1.20 | Dec 15 – July 1 | Access controlled by proposed gate on Rd. 5828 | Close |
| no number | 1 | Lane | 0.17 | Year-round | Boulders | N/A |
| 5835509 | 2b | Lane | 0.31 | Year-round | Boulders | Close |
| 5835510 | 4 | Lane | 0.65 | Year-round | Boulders | Close |
| 5835511 | | Lane | 0.09 | Year-round | Access controlled by proposed closure of Rd. 5835510 | Close |
| 5835515 | 2a | Lane | 3.57 | Year-round | Boulders | Close |
| 5835520 | 3 | Lane | 1.04 | Year-round | Boulders | Close |
| 5835522 | | Lane | 0.64 | Year-round | Access controlled by proposed closure of Rd. 5835520 | Close |
| 5835530 | | Lane | 0.08 | Year-round | Access controlled by proposed closure of Rd. 5835520 | Close |

| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| **Total** | | | **33.42** | | | |

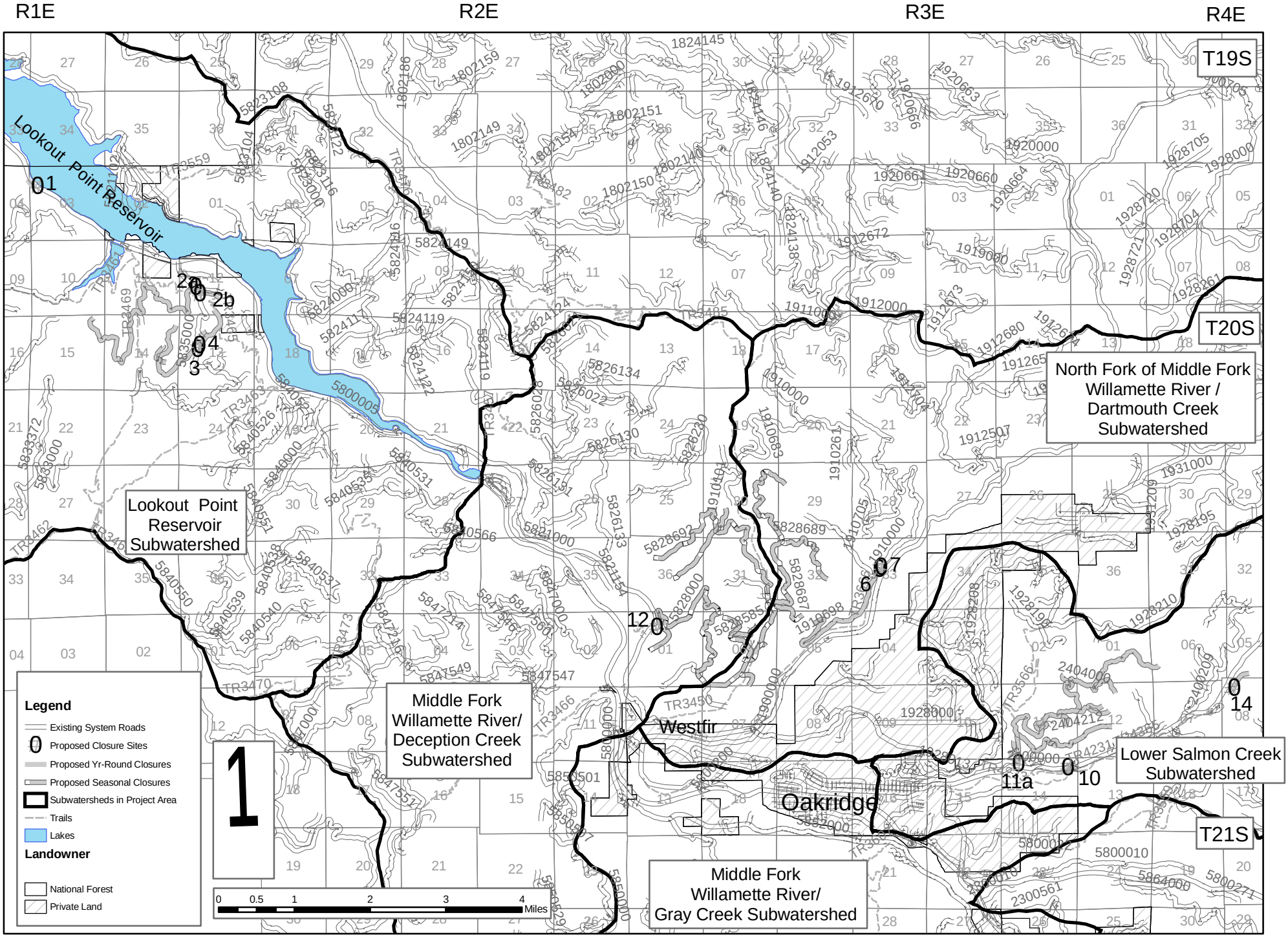
* Miles of Road Blocked to Motorized Vehicles only includes miles of road that are not currently closed.

The following two maps, Figures 2-7 and 2-8, display the existing road and trail systems, proposed year-round closures, proposed road storage, subwatersheds, and private land in the Echo Staley portion and the trash site portion of the project area for Alternative 3.

Figure 2-7
Alternative 3 - Echo Staley Portion



# Figure 2-8
# Alternative 3 - Trash Site Portion



### 2.2.4 Alternative 4

**Echo Staley portion:**
Alternative 4 would treat the roads in the Echo Staley portion of the project area the same as in the Echo Staley portion of Alternative 2. See Figures 2-9, 2-11.

**Trash Site portion:**

Roads and sites in the trash site portion of the project area would be treated the same as in Alternative 2 except the Rd. 2404 system and the Rd. 5828 system would not be closed year-round or seasonally. About 9.0 miles of road would be closed. The chronic trash dumping problem would continue to be addressed by Forest Service law enforcement and public education efforts. See Figures 2-10, 2-12.

The recommendation for non-key road 2400019 would be changed from "open" to "close" and the recommendation for non-key road 5828101 would be changed from "open" to "close seasonally" due to the chronic trash dumping problem.

**Implementation:**

Implementation would occur during the summer months in 2007. All closures would be enforced with a CFR road closure order prohibiting motorized vehicle traffic. All closures would be year-round.

**Mitigation:** See section 2.3, Mitigation Measures Common to All Action Alternatives,

**Discrepancies in closure miles:** Discrepancies between proposed road closure miles in the Scoping Letter to the public and this E.A. are related to omissions of some roads that are tributary to roads being closed with gates, boulders, or berms. The corrected mileages are used in this E.A.

Figures 2-9 and 2-10, below, display the roads and sites proposed for closure to motorized vehicles, the length of the road, the Roads Analysis recommendation, closure method, and treatments proposed. Each road was previously evaluated utilizing the Roads Analysis process. The process evaluated the impact that leaving a road open or closing the road would have on the following use categories: administrative use, public use, terrestrial and aquatic wildlife following use categories: administrative use, public use, terrestrial and aquatic wildlife. Personnel from the district watershed department conducted field surveys of the portion of the project in Lane County to verify resource needs. The Douglas County roads were not verified in the field due to time constraints, but were listed from previous experience and map analysis. The Douglas County roads will be field verified before project implementation.

**Figure 2-9: Road closure treatments in Echo Staley portion of Alternative 4**

| Road Number | County | Miles of Road Placed in Storage* | Miles of Road Blocked to Motorized Vehicles | Treatment Type | Road Analysis Prescription |
|---|---|---|---|---|---|
| 2120463 | Lane | 0.87 | 0.87 | WB/DITCH/BERM | Close |
| 2134150 | Douglas | 0.10 | 0.10 | WB/DITCH/BERM | Close |
| 2134237 | Lane | 0 | 0.14 | No treatment. Access controlled by proposed closure on Rd. 2134255 | Close |
| 2134243 | Lane | 1.27 | 1.73 | WB/DITCH/BERM/CR | Close |
| 2134254 | Lane | 0.32 | 0.32 | WB/DITCH/BERM | Close |
| No number | Lane | 0.20 | 0.20 | WB/DITCH/BERM | N/A |
| 2134255 | Lane | 0.63 | 0.63 | WB/DITCH/BERM | Close |
| 2134258 | Douglas | 0.91 | 0.91 | WB/DITCH/BERM | Close |
| 2134259 | Lane | 0.49 | 0.87 | WB/DITCH/BERM | Close |
| 2134260 | Douglas | 0.18 | 0.18 | WB/DITCH/BERM | Close |
| 2134261 | Lane | 0.23 | 0.23 | WB/DITCH/BERM | Close |
| 2134262 | Lane | 0 | 0.23 | No treatment. Access controlled by proposed closure on Rd. 2134259 | Close |
| 2135294 | Lane | 1.76 | 0.54 | WB/DITCH/BERM | Close FS/Verify Pvt |
| 2135295 | Lane | 1.33 | 1.33 | WB/DITCH/BERM | Close FS/Verify Pvt |
| 2135296 | Lane | 0.37 | 0.37 | WB/DITCH/BERM | Close |
| 2135297 | Lane | 0.52 | 0.52 | WB/DITCH/BERM | Close |
| 2135304 | Lane | 0 | 0.14 | No treatment. Access controlled by proposed closure on Rd. 2135295 | Close |
| 2136274 | Douglas | 0.50 | 0.50 | WB/DITCH/BERM | Close |
| 2136277 | Douglas | 0.78 | 0.78 | WB/DITCH/BERM | Close |
| 2136279 | Douglas | 1.08 | 1.08 | WB/DITCH/BERM | Close |
| 2136280 | Douglas | 1.26 | 1.26 | WB/DITCH/BERM | Close |
| 2136283 | Douglas | 0 | 0.29 | No treatment. Acess controlled by proposed closure on Rd. 2136280 | Close |
| 2136285 | Douglas | 0.49 | 0.49 | WB/DITCH/BERM | Close |
| 2136289 | Douglas | 0.14 | 0.14 | WB/DITCH/BERM | Close |
| 2137039 | Douglas | 0.19 | 0.19 | WB/DITCH/BERM | Close |
| 2137274 | Lane | 0.38 | 0.63 | WB/DITCH/BERM | Close |

| Road Number | County | Miles of Road Placed in Storage* | Miles of Road Blocked to Motorized Vehicles | Treatment Type | Road Analysis Prescription |
|---|---|---|---|---|---|
| 2137276 | Lane | 0 | 0.08 | No treatment. Access controlled by proposed closure on Rd. 2137274 | Close |
| 2143204 | Lane | 0 | 0.09 | No treatment. Access controlled by proposed closure on Rd. 2143315 | Close |
| 2143205 | Lane | 0 | 0.21 | No treatment. Access controlled by proposed closure on Rd. 2143315 | Close |
| 2143210 | Lane | 0 | 0.07 | No treatment. Access controlled by proposed closure on Rd. 2143315 | Close |
| 2143315 | Lane | 0.16 | 1.06 | WB/DITCH/BERM | Close |
| 2143319 | Lane | 0.88 | 0.88 | WB/DITCH/BERM | Close |
| 2143322 | Lane | 0.95 | 0.95 | WB/DITCH/BERM | Close |
| 2143324 | Lane | 0.72 | 0.83 | WB/DITCH/BERM | Close |
| 2143327 | Lane | 0 | 0.47 | No treatment. Access controlled by proposed closure on Rd. 2143322 | Close |
| 2143329 | Lane | 0.95 | 0.95 | WB/DITCH/BERM | Close |
| 2144335 | Douglas | 3.03 | 3.03 | WB/DITCH/BERM | Close |
| **Total** | | **20.69** | **23.29** | | |

BERM=Closing road with a berm or very large ditch to close road to motor vehicle access.

DITCH= Cutting large ditch in road above the culvert to keep overtopping stream in streambed

WB= Water bar-Small ditch and berm placed in road surface/below culvert to divert water

CR= Culvert removal

* Miles of Road Blocked to Motorized Vehicles only includes miles of road that are not currently closed.

**Figure 2-10: Road and site closures in Trash Site portion of Alternative 4**

| Road Number | Site Num-ber | County | Miles of Road Blocked to Motorized Vehicles* | Duration of Closure | Closure Method | Road Analysis Prescrip-tion |
|---|---|---|---|---|---|---|
| 1910698 | 6 | Lane | 2.09 | Year-round | Boulders | Close |
| Dispersed site off Rd. 1910 | 7 | Lane | 0.01 | Year-round | Boulders | N/A |
| 2400011 | 10 | Lane | 0.01 | Year-round | Boulders | Close |
| 2400019 | 14 | Lane | 0.31 | Year-round | Boulders | Open |
| no number | 1 | Lane | 0.17 | Year-round | Boulders | N/A |
| 5835509 | 2b | Lane | 0.31 | Year-round | Boulders | Close |
| 5835510 | 4 | Lane | 0.65 | Year-round | Boulders | Close |
| 5835511 | | Lane | 0.09 | Year-round | Access controlled by proposed closure of Rd. 5835510 | Close |
| 5835515 | 2a | Lane | 3.57 | Year-round | Boulders | Close |
| 5835520 | 3 | Lane | 1.04 | Year-round | Boulders | Close |
| 5835522 | | Lane | 0.64 | Year-round | Access controlled by proposed closure of Rd. 5835520 | Close |
| 5835530 | | Lane | 0.08 | Year-round | Access controlled by proposed closure of Rd. 5835520 | Close |
| **Total** | | | **8.97** | | | |

* Miles of Road Blocked to Motorized Vehicles only includes miles of road that are not currently closed.

The following two maps, Figures 2-11and 2-12, display the existing road and trail systems, proposed year-round closures, proposed road storage, subwatersheds, and private land in the Echo Staley portion and the trash site portion of the project area for Alternative 4.

Figure 2-11
Alternative 4 - Echo Staley Portion

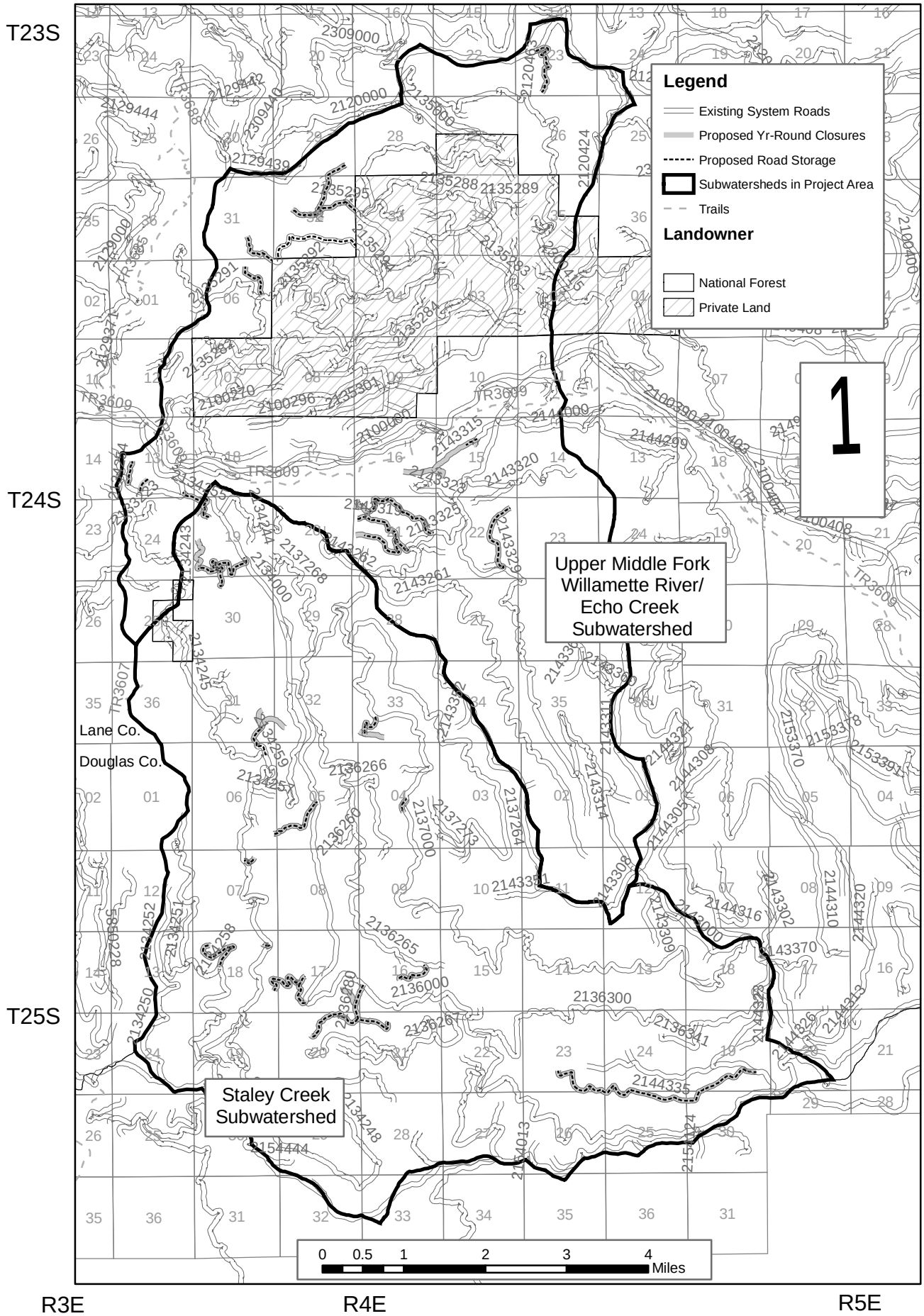
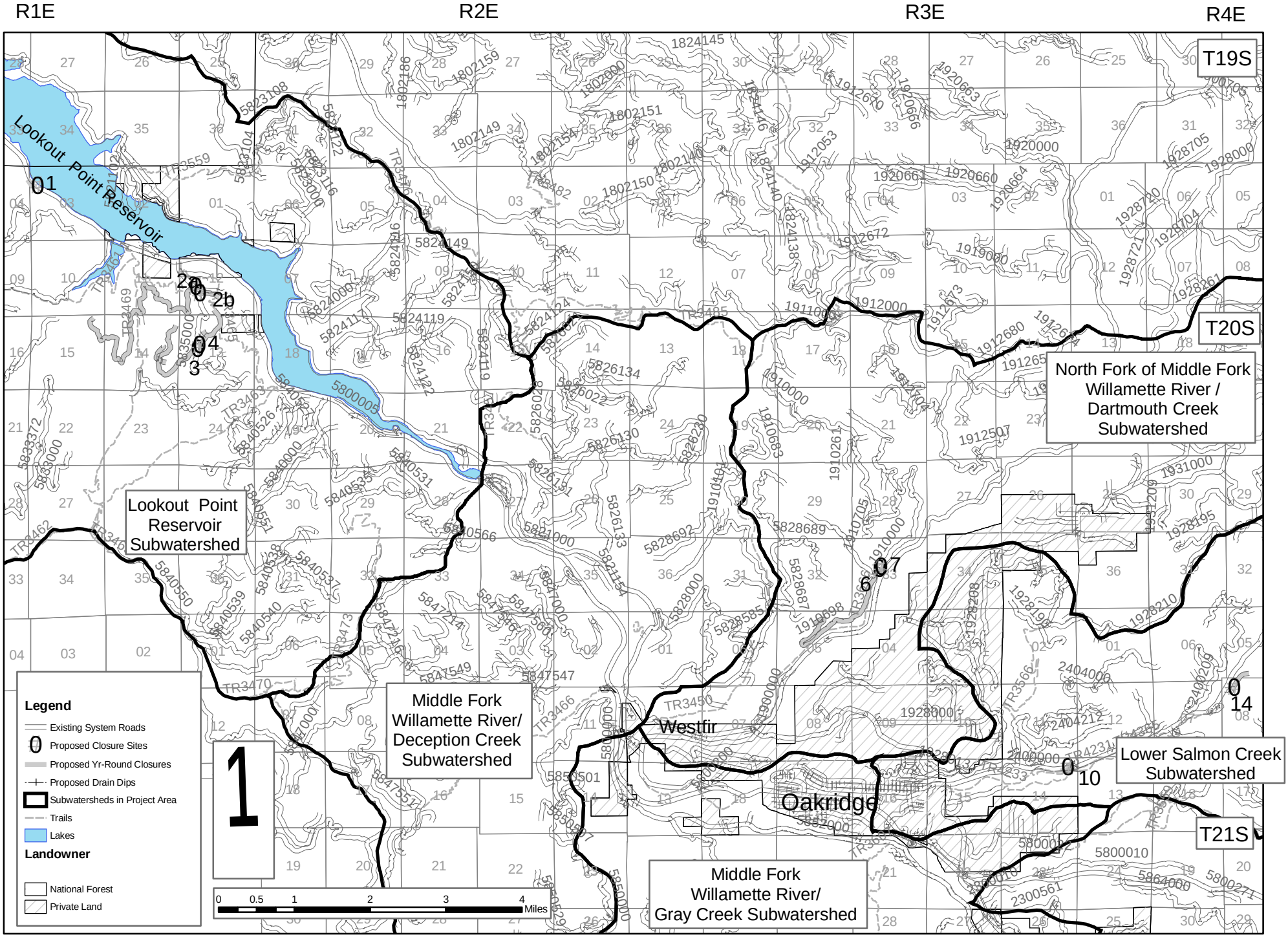


Figure 2-12
Alternative 4 - Trash Site Portion



## 2.3 Mitigation Common to All Alternatives

In response to public comments on the proposal, mitigation measures were developed to ease some of the potential any adverse impacts the various alternatives may cause. The mitigation measures may be applied to any of the action alternatives.

The following mitigation measures are part of the action alternatives 2, 3, and 4. The measures relate to the Northwest Forest Plan (USDA/USDI, 1994) and the General Water Quality Best Management Practices (BMP's) of Pacific Northwest Region (USDA, 1988). These measures would be practiced in each alternative to comply with management direction and environmental laws and to minimize any adverse impacts from the proposed forest management activities. The specific mitigation measures are discussed below.

The road closures and storage treatments would be implemented during the dry season to minimize the potential for sediment delivery to streams. This period would be from July 15-October 30.

Erosion control methods would be used on slopes adjacent to stream channels and roadside ditches within 200 feet of a stream crossing where bare soil has the potential to deliver excessive amounts of sediment. The erosion control methods could include but are not limited to mulching, erosion booms and re-vegetation. Other areas susceptible to erosion would be treated with a suitable native erosion control seed mixture and fertilizer.

Heavy equipment would be inspected for fuel, oil and fluid leaks before working near stream channels to protect water quality. In addition, absorbent pads and emergency phone numbers would be readily available on site in case a spill was to occur.

Heavy equipment would be inspected for noxious weeds in tracks, wheels, buckets, etc. to mitigate spread of weeds to other areas of landscape. Cleaning of equipment would be carried out as described in Executive Order 13112, dated February 3, 1999: "Implementation Guidelines to Minimize the Spread of Invasive Plants on Timber Sales, and Road Construction and Reconstruction Projects". Pre-treat work areas if necessary to remove sources on new invader weed seed prior to project activities.

No operations would occur on Roads 2135297, 2135294, and 2143319 from March 1st to July 15th for any given year, as all three roads have segments within 0.25 mile of a spotted owl activity center.

If any cultural sites are found during implementation the District Archeologist would be notified to allow for project monitoring for archeological concerns on that site.

## 2.4 Design Measures

**Best Management Practices**

Appendix H of the Willamette National Forest Land and Resource Management Plan describes how Best Management Practices (BMPs) are the primary mechanism that enables achievement of water quality standards. BMPs are selected and tailored for site specific conditions.

The actions proposed by this project would include BMPs such as: R-2, Erosion Control Plan; R-3, Timing of Construction Activities; R-5, Road Slope and Waste Area Stabilization; R-7 Control of Surface Road Drainage Associated with Roads; and R-18 Maintenance of Roads. Other BMPs would be identified and implemented as site specific conditions require.

## Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in the table is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

**Figure 2-13: Comparison of Alternatives by Objectives and Issues**

| | Alt. 1 - No Action | Alt. 2 – Proposed Action | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| **Objective 1: Minimize potential for downslope effects from existing road system** | | | | |
| Miles of road proposed for treatment with ditches/water bars/berms or rolling drain dips | 0 | 20.7 | 20.7 | 20.7 |
| **Objective 2: Reduce illegal trash dumping and potential for watershed contamination** | | | | |
| Number of illegal trash sites blocked from access | 0 | 34 | 34 | 23 |
| **Objective 3: Implement road storage and trash site measures in a cost-effective manner** | | | | |
| Cost of road storage and stabilization methods | $0 | $68,305 | $202,000 | $68,305 |
| Future maintenance costs for Echo Staley portion | $82,800 | $0 | $82,800 | $0 |
| Cost of road and site closures for trash management | $0 | $10,200 | $10,200 | $7,200 |
| Cost to re-open and restore roads in the future | 0 | $68,305 | $13,950 | $68,305 |
| Total Costs | $82,800 | $146,810 | $308,950 | $143,810 |
| **Issue 1: Access for Public and for Fire Suppression (Significant Issue)** | | | | |
| **a) Public Access** | | | | |
| Miles of road proposed for year-round closure | 0 | 40.9 | 17.6 | 32.3 |
| Miles of road proposed for seasonal closure (Dec. 15 – July 1) | 0 | 15.8 | 15.8 | 0 |

| | | Alt. 1 - No Action | Alt. 2 – Proposed Action | Alt. 3 | Alt. 4 |
|---|---|---|---|---|---|
| **Percentage of National Forest road system closed year-round by 5th-field watershed**(includes past, present, and foreseeable future road closures) | Upper MF Willamette | 13.4% | 17.9% | 13.4% | 17.9% |
| | MF Willamette/ Lookout Point | 9.7% | 12.3% | 12.3% | 12.3% |
| | NFMF Willamette | 3.3% | 3.6% | 3.6% | 3.6% |
| | Salmon Creek | 2.5% | 5.2% | 5.2% | 2.6% |
| **b) Access for Fire Suppression** | | | | | |
| Miles of road closed with berm or boulders | | 0 | 32.3 | 9.0 | 32.3 |
| Extra cost of opening up roads for fire access + cost of putting back in storage | | 0 | High | Low | High |
| Extra cost of suppressing a potentially larger fire due to the delay caused by re-opening roads | | 0 | High | Low | High |
| **Issue 2: Water Quality (Significant Issue)** | | | | | |
| Increase or decrease in aquatic risk by miles of road hydrologically stabilized | | +20.7 | -20.7 | -20.7 | -20.7 |
| Increase or decrease in aquatic risk by acres no longer accessible to OHV's. | | +21.5 | -21.5 | -21.5 | +21.5 |
| Miles of road with high aquatic risk ratingclosed year-round and seasonally | | 0 | 20.8 | 14.1 | 13.8 |
| **Issue 3: Access to Trails (Nonsignificant Issue)** | | | | | |
| Number of trailheads where access to trailhead by motorized vehicles is blocked year-round. | | 0 | 1 | 1 | 0 |
| **Issue 4: Wildlife (Nonsignificant Issue)** | | | | | |
| Number of spotted owl activity centers within 0.25 mile of noise generating activities | | 0 | 3 | 3 | 3 |
| Big Game Habitat Effectiveness – roads factor (HEr) | Noisy | 0.36 | 0.38 | 0.36 | 0.38 |
| | Simpson | 0.34 | 0.37 | 0.34 | 0.37 |
| | Indian Steeple | 0.29 | 0.29 | 0.29 | 0.29 |
| | Spider Plus | 0.34 | 0.37 | 0.34 | 0.37 |
| | Gorge-Echo | 0.38 | 0.40 | 0.38 | 0.40 |
| | Staley Dome | 0.37 | 0.40 | 0.37 | 0.40 |
| | West Goodman | 0.29 | 0.29 | 0.29 | 0.29 |
| | East Goodman | 0.35 | 0.49 | 0.49 | 0.49 |
| | Short-Hemlock | 0.35 | 0.37 | 0.37 | 0.37 |
| | Tire | 0.36 | 0.47* | 0.47* | 0.36 |

| | | Alt. 1 - No Action | Alt. 2 – Proposed Action | Alt. 3 | Alt. 4 |
|---|---|---|---|---|---|
| | Shitepoke | 0.30 | 0.32 | 0.32 | 0.31 |
| | Flat | 0.32 | 0.39 | 0.39 | 0.32 |

*Increases in HEr for Alternatives 2 and 3 in the Tire BGEA would only be during the seasonal closure proposed for Dec. 15-July1

# 3. Environmental Consequences

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives presented in the chart above.

The cumulative effects discussed in this chapter include an analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the proposed action and its alternatives may have a continuing, additive and significant relationship to those effects. The cumulative effects of the proposed action and the alternatives in this analysis are primarily based on the aggregate effects of the past, present and reasonably foreseeable future actions. Individual effects of past actions have not been listed or analyzed and are not necessary to describe the cumulative effects of this proposal or alternatives (CEQ Memorandum, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005).

**Reasonably foreseeable future actions** in the project area include the following:

- Oakridge/Westfir Thinning and Fuel Reduction Project. This project proposes up to 3,600 acres of commercial thinning to reduce fire risk, 300-400 acres of small fuels reduction, meadow restoration (including soil and vegetation restoration in the old Mule Meadow), and prescribed burning to maintain low fire risk. Implementation of this project is planned to begin in 2008.
- Upper Middle Fork Watershed Stormproofing and Restoration Project, which proposes to close and stormproof up to 23.2 miles of road in the Upper Middle Fork watershed.
- A Forest-wide Travel Management Rule is expected to be completed in 2009. This plan will address which roads will be open to mixed use and OHV use on the Willamette National Forest, including the Middle Fork Ranger District. None of the actions proposed in the Echo Staley Road Storage and Illegal Household Trash Site Management project will preclude any decisions that may be made in the Travel Management Rule.

## Middle Fork District Road Analysis Process

Middle Fork Ranger District completed a roads analysis that recommended which roads to retain, which roads to close and the appropriate level of maintenance. The objective was to balance funding levels available for road maintenance with needs for access in a manner that minimized road related effects to resources. Each road segment was evaluated for its potential effects to the primary interests. Road use on the Middle Fork Ranger District can be considered from four primary interests; Public Use, Administrative Use, Aquatic Values and Terrestrial Values. The

procedure for evaluating these interests, along with the actual rankings for each road being considered for closure in this E.A., is displayed in Appendix B.

## 3.1 Access to Roads

### 3.1.1 Existing Condition - Public and Fire Suppression Access

There are currently about 1, 678.4 miles of road in the four fifth field watersheds within the project area. About 98 miles (6%) of these roads are currently closed year-round. About 94% percent of the road miles are available for year-round or seasonal use by motorized vehicles. The following figure shows the total miles by fifth field watershed:

**Figure 3-1: Miles of road by fifth field watershed**

| Fifth Field Watershed | Total Miles of National Forest Roads | Miles of National Forest Roads Closed Year-round |
|---|---|---|
| **Upper Middle Fork** | 516.3 | 45.8 |
| **N. Fk. M. Fk. Willamette** | 258.7 | 25.2 |
| **M. Fk. Willamette/Lookout Point** | 576.4 | 18.8 |
| **Salmon Creek** | 327.0 | 8.2 |
| **Total** | 1,678.4 | 98.0 |

These roads are used by the public for activities such as camping, pleasure driving, hunting, firewood gathering, berry picking, and mushroom gathering. Verizon Wireless operates a cell tower in the project area and uses Rd. 5828 to access the tower for routine maintenance. Rd. 5828 is close to Westfir and gets it greatest amount of use in the summer and fall. Rd. 2404 is in close proximity to Oakridge. The roads in the project area are also used for access to areas of the district for fire suppression. Roads that are closed with gates are not considered to be restrictive for fire suppression access. Roads that are closed with boulders or berms are considered to be a hindrance to fire suppression access and result in a delayed response time.

### 3.1.2 Environmental Consequences

#### 3.1.2.1 Direct and Indirect Effects – Public Access

Under the No Action Alternative 1 none of the roads considered in this proposed project would be closed; there would be no immediate change to public access. Travel would continue as long as road conditions permit.

In Alternatives 2, 3, and 4, prohibiting motorized access to roads would limit access and recreational and forest activities that are based upon driving motorized vehicles on roads to access areas of public interest. Decreased access to some roads in the project area could potentially affect such activities as camping, pleasure driving on the forest roads, hunting, firewood gathering, berry picking, mushroom gathering and OHV (off-highway vehicle) use.

Alternatives 2 and 3 would close Rd. 5828 seasonally, from Dec. 15 to July 1. This would not have a large effect on recreational driving since this road gets most of its use in the summer and fall.

Alternative 2 would have the greatest effect on public access by closing 40.9 miles year-round and 15.8 miles seasonally. Verizon Wireless would be granted permission to enter the gate whenever needed for cell tower maintenance. It is not anticipated that there would be a change in maintenance of Rd. 5828 as it would only have a seasonal closure and it will be available for administrative use year-round. There would be no effect to trail maintenance on Trail # 3450 by the Disciples of Dirt mountain bike club, as this group would be granted access for trail maintenance in the spring each year.

Alternative 3 would have the least effect on public access as it closes 17.6 miles year-round and 15.8 miles seasonally. Verizon Wireless would be granted permission to enter the gate whenever needed for cell tower maintenance. It is not anticipated that there would be a change in maintenance of Rd. 5828 as it would only have a seasonal closure and it will be available for administrative use year-round. There would be no effect to trail maintenance on Trail # 3450 by the Disciples of Dirt mountain bike club, as this group would be granted access for trail maintenance in the spring each year.

Alternative 4 would have an effect between Alternatives 2 and 3, with 32.3 miles of year-round closure and no seasonal closures. Access for Verizon Wireless and trail maintenance would not be affected.

**Figure 3-2: Public Access – Direct and Indirect Effects**

| | | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---|---|---|---|---|
| **Miles of road proposed for year-round closure** | | 0 | 40.9 | 17.6 | 32.3 |
| **Miles of road proposed for seasonal closure** (Dec. 15 – July 1) | | 0 | 15.8 | 15.8 | 0 |
| | 5th-field Watershed | | | | |
| **Percentage of National Forest road system closed year-round** (includes this project's actions only) | Upper MF Willamette | 0% | 4.5% | 0% | 4.5% |
| | MF Willamette/ Lookout Point | 0% | 2.6% | 2.6% | 2.6% |
| | NFMF Willamette | 0% | 0.4% | 0.4% | 0.4% |
| | Salmon Creek | 0% | 2.7% | 2.7% | 0.1% |

### 3.1.2.2 Direct and Indirect Effects – Fire Access

Under the No Action Alternative 1, none of the roads considered in this proposed project would be closed; there would be no immediate change to public access. Travel would continue as long

as road conditions permit. In the long term, public and fire suppression access would become increasingly more difficult and unsafe in the Echo Staley portion of the project area.

Under Alternatives 2, 3, and 4 fire suppression and other administrative access to roads that are closed with boulders or berms would be made more difficult. Heavy equipment would be needed to move boulders, and to smooth out berms and water bars to make roads drivable for fire access. This would result in more costly fire suppression due to having to re-open roads, putting them back in storage after fire suppression is completed. Higher fire suppression costs would also result because of delays in the ability to respond to fires, resulting in larger fire growth before initial attack begins. Drivable drain dips would require response vehicles to drive a little slower, but would not prevent timely access.

Alternatives 2 and 4 would close 32.3 miles of road with berms and boulders, resulting in the highest impact on fire suppression response time and the highest fire suppression costs.

Alternative 3 does not close roads in the Echo Staley portion and uses drivable drain dips rather than water bars and ditches, resulting in only 9.0 miles of road closed with berms and boulders. This alternative would have the least impact on fire suppression access and costs.

**Figure 3-3: Access for Fire Suppression – Direct and Indirect Effects**

| | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| Miles of road closed year-round with berm or boulders | 0 | 32.3 | 9.0 | 32.3 |
| Extra cost of opening up roads for fire access and putting them back in storage | 0 | High | **Low** | High |
| Extra cost of suppressing a potentially larger fire due to delays | 0 | High | Low | High |

### 3.1.2.2 Cumulative Effects – Access for Public and for Fire Suppression

The cumulative effects area used for analyzing effects to public access includes the fifth field watersheds in the project area.

**Alternative 1 – No Action:**

Alternative 1 would have the lowest cumulative effect to public access because it would not close any roads. However, the cumulative effect for all alternatives, including No Action, do include past closures and the reasonably foreseeable future road closures proposed in the Upper Middle Fork Watershed Stormproofing and Restoration Project.

**Alternatives 2, 3, and 4:**

Road related recreational uses have decreased in the last 10 years due to past road closures and this project would continue to decrease the mileage of roads available for vehicle-base recreation. Percentage of National Forest road system that would be in a closed status by fifth-field watershed is displayed below. These percentages include the past, present, and future road closures. Alternative 2 would have the largest cumulative increase in closed roads in the four watersheds. Alternative 4 has the next lowest increase, and Alternative 3 has the lowest increase. There would be no increase with Alternative 1 (No Action). There are still hundreds of miles of roads available for driving across the Middle Fork Ranger District, and all the roads that have been closed now provide for an entirely different but still valuable and attractive recreational use (in particular road-based but non-vehicular hunting) that otherwise would virtually be non-existent had the roads not been closed.

**Figure 3-4: Public Access – Cumulative Effects**

| | Watershed | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---|---|---|---|---|
| **Percentage of National Forest road system closed year-round** (includes past, present, and foreseeable future road closures) | Upper MF Willamette | 13.4% | 17.9% | 13.4% | 17.9% |
| | MF Willamette/ Lookout Point | 9.7% | 12.3% | 12.3% | 12.3% |
| | NFMF Willamette | 3.3% | 3.6% | 3.6% | 3.6% |
| | Salmon Creek | 2.5% | 5.2% | 5.2% | 2.6% |

## 3.2 Water Quality

### 3.2.1 Existing Condition

**Road Conditions:**

Road conditions in the planning area were assessed through a combination of field surveys of proposed harvest units by interdisciplinary team members including the Fisheries Biologist, Soil and Water Scientist, and Hydrologic Technician. Additional information was obtained by analysis of stream survey reports, water temperature monitoring, and utilizing information contained in the Willamette National Forest Geographical Information System.

Results of field surveys found that many roads proposed for closure currently have drainage structures and ditches that have a risk of failure during high runoff events (see the District Watershed Improvement Needs database for detailed information by road). Failure of these drainage systems could result in chronic sediment source areas for streams or catastrophic failure leading to mass wasting events delivering large quantities of sediment to streams. In either case, these failures would have a detrimental affect on water quality and in-stream habitat for aquatic organisms.

**Soil Damage in the old Mule Meadow**

The district has not been successful in preventing illegal four-wheel drive (4WD) damage in the old Mule Meadow near the junction of Roads 24 and 2404. As a result, deep ruts and soil displacement created by 4WD vehicles are causing erosion and sedimentation.

**Beneficial Uses for Willamette River Tributaries:**

The Oregon Department of Environmental Quality has identified beneficial uses for Willamette River tributaries in Oregon Administrative Rules 340-41-340 Table 340A. Beneficial uses within the watershed include:

- • Public Domestic Water Supply
- • Potential Anadromous Fish Passage
- • Salmonid Fish Rearing
- • Salmonid Fish Spawning
- • Resident Fish and Aquatic Life
- • Recreational Fishing
- • Water Contact Recreation
- • Aesthetic Quality

**Water Quality Limited Streams:**

The state of Oregon has established water quality standards set out in Chapter 340, Division 41 of the Oregon Administrative Rules. Water bodies that do not meet state water quality standards are termed “water quality limited” and are placed on a list by the Oregon Department of Environmental Quality in accordance with Section 303(d) of the Federal Clean Water Act (303(d) list). The main-stem of the Middle Fork of the Willamette River (Middle Fork) downstream of the Echo Staley portion from Staley Creek to Hills Creek Reservoir is currently designated as water quality limited on the 303(d) list for high summer water temperatures. The listed segment of the Middle Fork is located downstream of the Echo Staley portion and upstream of the trash site portion. No other stream segments are currently designated as water quality limited for any parameter within the Upper Middle Fork Willamette fifth-field watershed. The North Fork of the Middle Fork of the Willamette is 303d listed for stream temperatures from river mile 0 to 28.3. Several of the illegal trash sites are near the North Fork of the Middle Fork Willamette River and are in the riparian area or close by along the road system. This project proposes no vegetation management in or immediately adjacent to any water body currently designated as water quality limited.

**Illegal Trash Sites:**

Surveys of illegal trash sites along the Hwy 58 corridor completed by the University of Oregon and several years of illegal household trash data collected during clean-up of illegal household trash sites verifies the number of sites and amount of trash collected. Many of the roads being considered for management include multiple illegal household trash sites that have had trash

removed yearly. To this point no hazardous materials have been found or picked up at the sites being considered for management.

**Figure 3-5: Streams listed by the DEQ as water quality limited (303(d) list)**

| Stream Name | Listed Segment (river mile) | Parameter |
|---|---|---|
| **Middle Fk. Willamette** | 52.3 to 82.2 | Temperature |
| **North Fk. Middle Fork Willamette** | 0 to 28.3 | Temperature |

## 3.2.2 Environmental Consequences

### 3.2.2.1 Direct and Indirect Effects

**Soil Erosion and Sedimentation:**

Aquatic risk levels were developed to reflect road conditions that given lack of road maintenance and high runoff storm events could harm the aquatic ecosystem. For this analysis, aquatic risk levels are used to reflect potential soil erosion and sedimentation where improving drainage would decrease the aquatic risk (reducing chances for road related erosion from reaching streams as sedimentation) and not improving road drainage would increase the aquatic risk (increase chances that road related erosion might reach streams as sedimentations).

Alternative 1 – No Action would continue with the same as current conditions. The road segments would continue to degrade from lack of road maintenance. The environmental effects of allowing access would result in higher risks of slope failure, soil movement, and sediment input into streams. Measures available to restrict 4WD access to the old Mule Meadow would be less effective than the Rd. 2404 closure in Alternatives 2 and 3. Unauthorized access by 4WD vehicles would continue and erosion and sedimentation would continue. The potential for soil erosion and sedimentation would increase over time. Refer to Figure 3-6 for aquatic risk associated with the No Action alternative.

Alternatives 2, 3, and 4 would have positive benefits by improving current road drainage and reduce the potential for road related sedimentation. Potential road runoff related problem areas and the potential for land stability problems would be improved with the proposed road restoration work. As a result of the restoration work at site#10, compaction would be ameliorated, increasing water infiltration and reducing runoff. With the proposed road restoration work, soil erosion and sedimentation would be increased for the short term but long term conditions would be improved. Alternative 2 would close (year-round and seasonally) the most miles of road (20.8 miles) with a high aquatic risk rating, followed by Alternative 3 with 14.1 miles, then Alternative 4 with 13.8 miles. Refer to Figure 3-6 for aquatic risk associated with the action alternatives.

Alternatives 2 and 3 would have the highest benefits from reducing 4WD access to the old Mule Meadow with the placement of a gate on Rd. 2404. Because the method of restricting 4WD

access would be more effective in these two alternatives, further soil damage in the old Mule Meadow would be avoided. Alternative 4 would have the same effect as Alternative 1 (No Action) in that it would be difficult to keep illegal 4WD activity out of the Mule Meadow and soil resources in the meadow would continue to be degraded.

**Stream Temperature**

The most important source of energy contributing to stream heating is from direct solar radiation . As a source of stream water heating, energy from the air is conducted to the stream at a very slow rate. Vegetation adjacent to streams that shade the channel can reduce the potential for direct solar radiation to increase water temperature. No action (Alt. 1) or any action alternatives (Alts. 2, 3, and 4) proposed for this project would have any direct or indirect effects on stream shading vegetation and therefore would not measurably affect stream temperatures.

**Peak Stream flow**

Peak stream flows within the drainage can be affected by management influences including alteration of tree canopy closure potentially affecting snow accumulation and melt particularly during rain-on-snow events. The extent of road development can also affect the magnitude of peak flows under some circumstances. None of the proposed actions would alter tree canopy closure or road density within the project area and therefore would not change peak stream flow.

**Flood Plains and Wetlands**

None of the alternatives will have any adverse affects on floodplains or wetlands.

Executive Orders 11988 and 11990: Floodplains and Wetlands:

Explanation: Executive Order 11988 requires government agencies to take actions that reduce the risk of loss due to floods, to minimize the impact of floods on human health and welfare, and to restore and preserve the natural and beneficial values served by floodplains. Executive Order 11990 requires government agencies to take actions that minimize destruction, loss, or degradation of wetlands. Streamside Riparian Reserves, seeps and other wet habitats are assessed too. All of the wetlands and streams near the project areas will remain buffered to protect the natural and beneficial values and minimize any detrimental effects to those wetlands and streams.

**Illegal Household Trash Sites**

Alternative 1 – No Action: Because funding for trash cleanup is not dependable and is likely to be reduced in future years, trash dumping would become an even greater problem in the future on roads and sites in the trash site portion of the project. Trash sites would continue to be scattered along many miles of roads, making it difficult personnel to find all the trash sites under current under the current and likely future funding situation.

Alternatives 2 and 3 would close the most miles of road with trash site problems, closing access year-round or seasonally to 34 sites. The Rd. 5828 system would be closed during the Spring, which is when the highest level of illegal trash dumping takes place.

Alternative 4 would close fewer sites than Alternatives 2 and 3 (23 sites) because Roads 2404 and 5828 would not be closed.

**Figure 3-6: Effects on Water Quality**

| | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| Increase or decrease in aquatic risk by miles of road hydrologically stabilized (Echo Staley portion) | +20.7 | -20.7 | -20.7 | -20.7 |
| Increase or decrease in aquatic risk by acres no longer accessible to OHV's | +21.5 | -21.5 | -21.5 | +21.5 |
| Miles of road with high aquatic risk rating closed year-round and seasonally | 0 | 20.8 | 14.1 | 13.8 |
| Number of illegal trash sites blocked from access | 0 | 34 | 34 | 23 |

### 3.2.2.2 Cumulative Effects

The cumulative effects analysis area used was the four fifth field watersheds affected by proposed activities. The proposed action alternatives (Alts 2, 3, and 4) would have beneficial cumulative effects when considered in context with past and reasonably foreseeable future road storage projects within the fifth field watersheds. The cumulative effects would be beneficial to improving road system drainage. These beneficial cumulative effects on aquatic habitat would contribute to the attainment of ACS objectives at the watershed scale.

#### Aquatic Conservation Strategy Objectives

This proposed action and alternatives are consistent with current management direction including Willamette National Forest Standards and Guidelines and attainment of Aquatic Conservation Strategy (ACS) Objectives at the watershed scale. Implementation of BMPs during project implementation would insure water quality is maintained adjacent and downstream of the project area.

The alternatives would have the following effects on the Aquatic Conservation Strategy objectives presented on page B-11 of the Northwest Forest Plan Standards and Guidelines (USDA/USDI, 1994).

Implementation of any of the action alternatives would be consistent with attainment of Aquatic Conservation Strategy objectives 4 (maintain and restore water quality) and 5 (maintain and restore sediment regime). Alternatives 2 and 3 would stabilize a greater area and would therefore contribute more toward long-term attainment of ACS objectives than would Alternative 4. Under the No Action Alternative, there would be a greater risk of road related failures in the future, potentially leading to adverse affects on water quality, sediment regime, instream habitat, and distribution of sediment to the riparian areas.

## 3.3 Access to Trails and Dispersed Sites

### 3.3.1 Existing Condition

Roads and dispersed sites in the project area are used by the public for recreational activities such as camping, pleasure driving, hunting, firewood gathering, berry picking, and mushroom gathering (see section 3.1 for impacts related to restricting public access to roads).

Trails in the area include the Alpine trail #3450, North Fork trail # 3666, and Flat Creek trail #3566, and Middle Fork trail # 3609. The Alpine trail is accessed from Rd. 5828. Flat Creek trail is accessed from Rd. 2404, and the North Fork trail and Middle Fork trails have numerous access points. All of these trails are relatively low elevation trails and can generally be accessed year-round. Flat Creek trail is open to hikers, equestrians, bicycles, and motorcycles. Motorcycle use is low.

Dispersed camping sites exist on some of the roads proposed for closure. There are also many dispersed sites on roads not proposed for closure.

### 3.3.2 Environmental Consequences

Impacts resulting from restricting public access to roads is discussed in section 3.1, above. This section will deal with impacts resulting from changing access to trails and dispersed sites.

#### 3.3.2.1 Direct and Indirect Effects on Public Trail Access

**Alternative 1 – No Action**

This alternative would not have an effect on trail access in the area because no roads would be closed.

**Alternatives 2 and 3:**

All trails would remain accessible, although accessibility would change.

Alpine ridge trail access from Rd. 5828 would not be available to the public between Dec. 15 and July 1. Seasonal closure of this road would not have a large impact on access to the Alpine ridge trail. The main trail head is on the North Shore road (Rd. 5821) just west of Westfir. Road 5828 or its tributary spur roads cross the Alpine ridge trail in three places above the trailhead, so closure of the road would preclude access to this central portion of the trail, but would also provide for a better overall trail experience in that traffic would not be noticeable in the areas close to those road crossings. Rd. 5828 road is a popular system for local hunters that do not want to drive a long distance from home and this road would still be open during hunting season.

Access to Flat Creek trail would be changed with a year-round closure on Rd. 2404. Closure of the 2404 road system would somewhat degrade the Flat Creek trail hiking experience in that about 2/3 mile of gravel road would become trail route to access the trailhead. The trailhead for Flat Creek trail could be moved down to Salmon Creek Rd. in the future as funding is made

available. The effect to mountain bikers and equestrians would be positive because there would be less traffic on the road. Motorcycle use would be allowed on Rd. 2404 up to the Flat Creek trailhead. Motorcycle use beyond that point would not be allowed.

**Alternative 4:**

Accessibility to Alpine ridge trail and Flat Creek trail would not change because Rd. 5828 and Rd. 2404 would not be closed.

#### 3.3.2.2 Direct and Indirect Effects on Dispersed Sites

Closure of the remainder of trash dumping sites would not affect any specific recreational activities in that none of these short spurs or pullouts access recreational features, with three exceptions, site #7, site #10, and Rd. 2400019. Site #7 is a dispersed camping site and Rd. 240019 has two dispersed camping sites along the road. Access to these sites would be changed. Site #7 is adjacent to Rd. 1910. The site would still be useable with a short walk. The sites on Rd. 2400019 are a 0.1 to .3 mile walk from the junction with Rd. 2400018. Site #10 is a short spur road accessing an area that was formally used in the past as a shooting range under a special use permit. That special use permit has since been closed out. The gun club that used that range is now located in a different location in Oakridge. Site #10 is still informally used as a site for plinking and gun sighting. Closing this road and restoring the site would change the accessibility of the site to motorized vehicles. There are other options available for shooting and target practice in the area, including a designated shooting range available by membership at the Oakridge Gun Club.

#### 3.3.2.3 Cumulative Effects

The only cumulative effects to trail access and dispersed site access would be from the road and site closures proposed in each alternative.

## 3.4 Wildlife

### 3.4.1 Existing Condition

The following summarizes effects or impacts determinations to species that have suitable habitat identified as either known to occur, or suspected to occur within the project area.

### 3.4.1.1 Threatened, Endangered, and Sensitive (TES) Species

**Figure 3-7: Summary of the Biological Evaluation process for Willamette TES (or Proposed) fauna associated with this project.**

| | **STEP 1** | **STEP 2** | **STEP 3** | **STEP 4** | STEP 6 |
|---|---|---|---|---|---|
| | *Prefield Review* | *Field Reconn.* | *Risk Assessment* | *Analysis of Significance* | *USFWS Review* |
| **SPECIES** | **Habitat Present (B,R,F,D)*** | **Occupancy Status** | **Conflicts?** | **Effects / Impacts** | Consultation? BA[1]/BO[2] |
| Northern Spotted Owl ***Strix occidentalis caurina*** | ALL Actions to occur within road prism | Unknown | No Conflict | NLAA- most of project area is outside the 0.25 mile disturbance /disruption restriction | NA BA 7/28/05 BO Ref. # 1-7-05-F-0663 |
| Northern Bald Eagle ***Haliaeetus leucocephalus*** | No | | | | |
| Canada Lynx ***Lynx canadensis*** | No | | | | |
| Least Bittern ***Ixobrychus exilis*** | No | | | | |
| Bufflehead ***Bucephala albeola*** | No | | | | |
| Harlequin Duck ***Histrionicus histrionicus*** | No | | | | |
| American Peregrine Falcon ***Falcon peregrinus anatum*** | ROAD PRISM | Unknown | No Conflict | NE | NA |
| Yellow Rail ***Coturnicops noveboracensis*** | No | | | | |
| Black Swift ***Cypseloides niger*** | No | | | | |
| Tricolored Blackbird ***Agelaius tricolor*** | No | | | | |
| Baird's Shrew ***Sorex bairdii permiliensis*** | No | | | | |
| Pacific Shrew ***Sorex pacificus cascadensis*** | No | | | | |
| Wolverine ***Gulo gulo*** | No | | | | |
| Fisher ***Martes pennanti*** | No | | | | |
| Pacific Fringe-tailed Bat ***M. thysanodes vespertinu*** | No | | | | |

| | STEP 1 | STEP 2 | STEP 3 | STEP 4 | STEP 6 |
|---|---|---|---|---|---|
| OR Slender Salamander ***Batrachoseps wrighti*** | No | | | | |
| Cascade Torrent Salamander ***Rhyacotriton cascadae*** | No | | | | |
| Foothill Yellow-legged Frog ***Rana boylii*** | No | | | | |
| Oregon Spotted Frog ***Rana pretiosa*** | No | | | | |
| Northwestern Pond Turtle ***C. marmorata marmorata*** | No | | | | |
| Mardon Skipper ***Polites mardon*** | No | | | | |
| **Crater Lake Tightcoil** ***Pristiloma arcticum crateris*** | No | | | | |
| **Great Gray Owl** ***Strix nebulosa*** | No | | | | |
| **Red Tree Vole** | No | | | | |

1 Date Consultation was initiated with USFWS

2 Date Biological Opinion or Concurrence issued from USFWS

NA = not applicable

NE = No Effect

NLAA = May Affect, Not Likely to Adversely Affect (requires informal consultation with the U.S. Fish and Wildlife Service)

### Northern Spotted Owl

Knowledge of spotted owl activity center locations near the project area is largely a result of past survey efforts associated with timber sale planning. The survey history shows numerous spotted owl activity centers located adjacent to the proposed activities. Only three such centers are located within 0.25 mile of the project treatment sites to be implemented and must be considered as occupied based on recent U.S. Fish & Wildlife Biological Opinions when considering some proposals that may disturb spotted owls. The roads with segments within 0.25 mile are 2135297, 2135294, and 2143319.

The northern spotted owl is a species strongly associated with old-growth forests containing a component of large diameter Douglas-fir. These forest stands commonly provide a variety of structural features such as large diameter trees having central cavities, dense canopies with a high level of vertical and horizontal diversity, and an abundance of snags and down logs. Stands with all these characteristics provide the best suitable (nesting, roosting, foraging) habitat for spotted owls. However, all of the above characteristics may not need to be present for spotted owls to make use of an area as nesting, roosting or foraging habitat. The owl's affinity to old-growth forest types also results from the adaptation of this species to foraging on prey animals commonly present in such stands and the lack of predation pressure and interspecies competition typical of more open areas. Nevertheless, spotted owls have been known to forage short distances into clearcut openings from a forested edge if a prey item is detected.

Dispersal-only habitat for the northern spotted owl generally consists of mid seral stage stands between 40 and 80 years of age with canopy closures of 40 percent or greater and trees with a mean dbh of 11 inches or greater. Older stands lacking structural development that supports nesting may be considered dispersal habitat, however on some occasions may provide roosting or foraging opportunities for the species. Spotted owls generally use dispersal habitat to move between blocks of suitable habitat or, for juveniles, to disperse from natal territories.

A detailed account of the biology and ecology of the northern spotted owl may be found in the following documents: 1987 and 1990 U.S. Fish and Wildlife Service Status Reviews (USDI 1987 and 1990); the 1989 Status Review Supplement (USDI 1989); the conservation Strategy for the Northern Spotted Owl/Interagency Scientific Committee (USDA and USDI 1990); and the draft Recovery Plan for the Northern Spotted Owl (USDI 1992).

**Figure 3-8: Spotted Owl Activity Centers**

| | Alt. 1 No Action | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| **Number of spotted owl activity centers within 0.25 mile of noise generating activities** | 0 | 3 | 3 | 3 |

### American Peregrine Falcon

In the Pacific states, preferred peregrine falcon nesting sites are sheer cliffs 150 ft. or more in height with horizontal ledges (USFWS 1982). On the Willamette National Forest, cliffs with potential for nesting by peregrine falcons include those that are at least 75 feet high, have horizontal ledges, ledges with overhangs or cave-like openings, have sheer faces inaccessible to ground predators and within .5 miles of riparian habitat. Peregrine falcons feed almost exclusively on birds, many of which may be associated with riparian zones, large bodies of water or an abundance of snag habitat. Other small birds, on which peregrine falcons feed, are present in drier open areas, particularly where hardwood shrubs and trees are abundant. Some avian prey species select for closed coniferous forest. Peregrine falcons can forage widely for prey and will hunt over closed coniferous forest canopies as well as in open areas and over hardwood patches - wherever prey is abundant.

There is no suitable peregrine nesting habitat in the immediate vicinity of the project area (Davis Pers. Comm. 2007). Adult and young peregrines from the nearby nest sites are known to forage for avian prey in watersheds surrounding the project area. Young peregrines may linger in this type of habitat while dispersing from the nest site. Proposed road improvement activities would not affect peregrines at the nest ledge. Some activities associated with this project occurs in both primary, secondary and tertiary zones could result in indirect disturbance to peregrines by influencing prey behavior and foraging success. However, due to the scale of this project, the

type of activities, and proposed scheduling, minimal risk of disturbance is expected by these project activities.

#### 3.4.1.2 Big Game

This project occurs within 12 big game habitat areas (BGEAs) as listed below in Figure 3-9. The management objectives for deer and elk habitat are applied to specific mapped "Emphasis Areas" within the Forest. The project area encompasses all, or a portion of fourteen Big Game Emphasis Areas (BGEA). Spider Plus and Tire BGEAs are designated as high level emphasis areas. Noisy, Simpson, Indian Steeple, Gorge-Echo, Staley Dome, West Goodman, and East Goodman BGEAs are designated as moderate level emphasis areas, and Short-Hemlock, Shitepoke, and Flat BGEAs are designated as low level emphasis areas. Forest Plan Standards and Guidelines (S&G) (FW-137) directs the use of a model to evaluate the effects of projects on habitat within BGEAs.

Spider Plus, Tire, Noisy, Simpson, Indian Steeple, Gorge-Echo, Staley Dome, West Goodman, and East Goodman all have HEr values lower than the desired level in the Forest Plan standard and guidelines.

#### 3.4.1.3 Survey and Manage Species

All Survey and Manage wildlife species known or suspected on the Middle Fork RD have been shifted to the Sensitive Species Program (ISSSP 2004), however, they are currently back under the purview of the 2001 ROD, due to litigation. Following the litigation, a Judgment was issued by Judge Marsha Pechman's stipulation and judgment on 10-11-06, re: case #04-CV-00844-ORD which further clarified that certain projects will be exempt from performing Survey and Manage Surveys. Three species under the previous direction of Survey and Manage program (Great Gray Owl, Crater Lake Tightcoil, and Red Tree vole) were reviewed with regard to the proposed activities. Since all the activities occur solely within the road prism and will not cause ground disturbing activities outside the road prism, it was determined that no habitat for these species exists within the road prism and therefore, does not "trigger" the need to survey.

Consequently, Survey and Manage Species will not be discussed further within this document.

### 3.4.2 Environmental Consequences

#### 3.4.2.1 Direct and Indirect Effects to TES species

**Northern Spotted Owls:**

The project area is located entirely within road prisms and some locations occur within or adjacent to the LSR networks denoted in the ROD or within designated critical habitat. Areas proposed for treatment would not modify suitable habitat and occur within the road prism only. Seasonal Restrictions for the three road sections discussed above will be enforced and documented in the contract language for the Critical (early) breeding season (March 1-July15th).

This project proposes no habitat modification that would affect spotted owls. Activities that may disturb spotted owls within 0.25 miles of known activity centers (AC) located within any Land

allocation (Biological Assessment for Disturbance Willamette Provincial Document FY2006-2007, p. 8) would be restricted for the duration of the breeding season. This will only affect timing of proposed treatment activities on Roads 2135297, 2135294, and 2143319. All other treatment sites are greater than 0.25 miles from known activity centers. Therefore it is determined that activities proposed under this project would not likely adversely affect (NLAA) northern spotted owls.

Communication with U.S. Fish and Wildlife Service (USFWS) is not required. This project is covered under the Programmatic Disturbance BA/BO for FY2006-2007 and a Letter of Concurrence from USFWS dated March 1, 2006.

**American Peregrine Falcon**

No known peregrine nest sites are directly associated with these sites within the project area, adjacent sites are monitored annually throughout the breeding season.

Natural events, as opposed to human activities, generally define the ambient baseline which influences behavior of potential avian prey throughout the project area. No suitable peregrine nesting habitat will be affected by this project. The action activities are all outside the zones of influences and therefore, are considered insignificant to the peregrine nest sites.

Activities as proposed in this project would not result in modification of peregrine nesting habitat, and would avoid disturbance to the species during the breeding season. In addition, monitoring will be performed at sites near the project area.

Communication with U.S. Fish and Wildlife Service is not required.

### 3.4.2.2 Direct and Indirect Effects to Big Game

Pre- and post-project habitat effectiveness - roads factor (HEr) are listed in the table below. While not all BGEAs currently meet the Willamette NF guidance for HEr (habitat effectiveness-roads factor), in most instances the post-project HEr would provide a slight improvement in the overall quality of the big game emphasis areas listed below and would increase the HEr value nearer to the desired level in the Forest Plan standards and guidelines (FW-148, 151,153). Alternative 2 would provide the highest increase in HEr for the most BGEAs. Alternative 2 would provide no increase in HEr because no roads would be closed. Alternatives 3 and 4 would fall somewhere between Alternatives 1 and 2.

**Figure 3-9: Direct and Indirect Effects on HEr by Big Game Emphasis Area**

| Big Game Emphasis Area (BGEA) | Emphasis | Habitat Effectiveness -roads (HEr) | | | |
|---|---|---|---|---|---|
| | | Alt.1 No Action | Alt. 2 | Alt. 3 | Alt. 4 |
| **Noisy** | Moderate | 0.36 | 0.38 | 0.36 | 0.38 |
| **Simpson** | Moderate | 0.34 | 0.37 | 0.34 | 0.37 |

| Big Game Emphasis Area (BGEA) | Emphasis | Habitat Effectiveness -roads (HEr) | | | |
|---|---|---|---|---|---|
| | | Alt.1 No Action | Alt. 2 | Alt. 3 | Alt. 4 |
| **Indian Steeple** | Moderate | 0.29 | 0.29 | 0.29 | 0.29 |
| **Spider Plus** | High | 0.34 | 0.37 | 0.34 | 0.37 |
| **Gorge-Echo** | Moderate | 0.38 | 0.40 | 0.38 | 0.40 |
| **Staley Dome** | Moderate | 0.37 | 0.40 | 0.37 | 0.40 |
| **West Goodman** | Moderate | 0.29 | 0.29 | 0.29 | 0.29 |
| **East Goodman** | Moderate | 0.35 | 0.49 | 0.49 | 0.49 |
| **Short-Hemlock** | Low | 0.35 | 0.37 | 0.37 | 0.37 |
| **Tire** | High | 0.36 | 0.47* | 0.47* | 0.36 |
| **Shitepoke** | Low | 0.30 | 0.32 | 0.32 | 0.31 |
| **Flat** | Low | 0.32 | 0.39 | 0.39 | 0.32 |

*The increases in HEr for Alternatives 2 and 3 in the Tire BGEA are only for the portion of the year when the seasonal closure would be in effect (Dec.15-July1).

#### 3.4.2.3 Cumulative Effects

The cumulative effects analysis area for big game is the twelve BGEAs affected by road closures, listed in Figure 3-9, above. In a reasonably foreseeable future action, the Upper Middle Fork Stormproofing project proposed to close and stabilize roads for resource protection and are also displayed below as a cumulative effect. Together (the Echo Staley Road Storage/Trash Site project and the Upper Middle Fork Stormproofing project) these projects have the potential to positively influence big game habitat within these areas by providing additional security through these road closures. These projects would also move these areas in a positive direction with regard to providing additional forage (as roads close in and are re-seeded). The BGEAs that are affected by both the Echo Staley/Trash Site project and the Upper Middle Fork Stormproofing project are Noisy and Gorge-Echo, as displayed below. Cumulative effects for HEr values for all the other BGEAs would be the same as in Direct and Indirect Effects, above.

**Figure 3-10: Cumulative Effects on HEr by Big Game Emphasis Area**

| Big Game Emphasis Area (BGEA) | Emphasis | Habitat Effectiveness -roads (HEr) | | | |
|---|---|---|---|---|---|
| | | Alt.1 No Action | Alt. 2 | Alt. 3 | Alt. 4 |
| **Noisy** | Moderate | 0.36 | 0.38 | 0.36 | 0.38 |
| **Gorge-Echo** | Moderate | 0.38 | 0.40 | 0.38 | 0.40 |

## 3.5 Vegetation

### 3.5.1 - Sensitive Plants - Introduction

Forest management activities that may alter habitat for Sensitive plant species require a Biological Evaluation (FSM 2671.44) to be completed. The Biological Evaluation process (FSM 2672.43) is used to assist in determining the possible effects the proposed management activities have on:

A. Species listed or proposed to be listed as endangered (E) or threatened (T) by the U.S. Fish and Wildlife Service (FWS).

B. Species listed as sensitive (S) by the USDA Forest Service, Region 6. There are 72 plants listed on the Regional Forester's Sensitive Plant List that are documented or suspected to occur on the Willamette National Forest (Attachment 1).

### 3.5.2 Existing Condition - Sensitive Plants

Pre-field review of the project area was performed March 2007 in order to determine the presence of habitat or sites for survey and manage and sensitive plant species. Results of the pre-field review form the basis for analyzing effects.

Using the Willamette National Forest list of potential Sensitive plant species (compiled from current USFWS listings, Oregon Natural Heritage Program listings, Oregon Department of Agriculture listings, and the Regional Forester's sensitive species list), maps of known sensitive plant populations were checked for previously reported sites, aerial photos and topographical maps were scrutinized for potential habitat.

Habitat exists for 24 of the 72 botanical species listed as sensitive on the Willamette National Forest. Most of the habitat identified within road prism and dispersed site areas is marginal at best for many of these species, and is in some form of disturbance. There are some project sites where more suitable habitat is found adjacent at forested edges. There are a few species potentially found in or at the edge of these types of open/edge/gappy settings, that can also be associated with vegetation or ground disturbance of some kind. The forested plant series within the vicinity of project sites generally contain western hemlock, with scattered pockets of Douglas-fir, grand fir and Pacific silver fir, Pacific yew, western red cedar and incense cedar. Bigleaf maple, Oregon white oak and other hardwood tree and shrub species are subdominants. All are important host species components in plant series/associations where numerous survey and manage and sensitive botanical species are found to reside. The watersheds are host to an abundance of fungi, bryophytes and lichens, including cyanolichens. Documented sensitive and survey and manage species sites in the watersheds but not within proposed project areas include: Cimicifuga elata, Lewisia columbiana var. columbiana, Montia howellii, Romanzoffia thompsonii, Rhizomnium

nudum, and Usnea longissima. No site specific management recommendations relative to this project for any of these sites is deemed necessary at this time.

The lichen Usnea longissima (Category F species) is found nearby FS Road 2404 along FS Road 24 at several locations draped on oaks and conifers. The vascular tiny annual plant Montia howellii is found nearby the 2404 road at Flat Creek compound. It is found growing scattered in parking areas, but germinates in an ever-changing pattern from year to year, due to its seed being shifted around and is very tolerant of traffic disturbance.

Survey level for the project was Level A (attachment 2), which consisted of aerial photo interpretation and review of existing site records. No field surveys were conducted for vascular, bryophyte and lichen species. Determination was low to moderate or no potential for a listed species to occur within or adjacent to the proposed project area.

Surveys were not conducted for 17 ephemeral fungi because single pre-disturbance surveys for these species have been deemed impractical (USDA 1998; USDA, 2000; USDA, 2004) because fungi fruit inconsistently and would require multiple year surveys to determine their presence. All fungi except Bridgeoporus nobilissimus, which is a perennial conk, are Category B Survey and Manage Species (rare but pre-disturbance surveys impractical). In general, the habitat requirements of fungal species found on the Willamette National Forest sensitive species list are poorly understood. The literature provides very general habitat characteristics for most of these species; therefore, they are listed in Table 1b as having potential habitat in the project area

## 3.5.3 Environmental Consequences – Sensitive Plants

### 3.5.3.1 Direct and Indirect Effects

**Alternative 1 – No Action**

Alternative 1 is the No Action alternative where the proposed project does not take place. This Alternative is used as a point of reference for describing the environmental effects between the action alternatives. Under this alternative, there should not be direct or indirect effects to sensitive vascular, lichen, bryophyte or fungi species.

**Alternatives 2, 3, and 4**

Vascular Plants:

Direct or indirect impacts to vascular sensitive species, if species are present in areas where potential habitat has been identified, would be localized destruction or displacement of individuals from removal of vegetation, including species associates, or soil disturbance during project activities.

Lichens and Bryophtyes:

Changes in hydrology, including water temperature and sediment may affect aquatic lichens found on submerged rocks in clear, cold streams (USDA, USDI 2003). Persistence of the other lichen species may be threatened by host tree removal, wind-throw, changes in microsite conditions, changes in epiphyte ecology and competition in more open stands, and by dispersal limitations in more widely spaced stands (USDA, USDI 2003). Direct or indirect impacts to non-vascular sensitive lichen and bryophyte species, if species are present in site specific areas where potential habitat has been identified, would be localized destruction or displacement of individuals from removal of substrate or species associates (trees, other vegetation, rocks, etc.), soil disturbance or movement of rock in streams during culvert work and other road storage activities. Some lichens such as Usnea longissima are found in the branches of conifers and hardwoods overhanging road edges; any disturbance to branches could also disrupt lichen populations.

Fungi:

Most fungi form mycorrhizal relationships with conifers, and thinning has been shown to have negative short term (5-7 years) impacts to fungi (Pilz et al 2003). It is likely that individual sites of fungi may be negatively affected in the short term by host tree removal, physical disturbance, soil compaction, and disruption of mycelial networks if the fungi are present (Kranabetter and Wylie 1998, Amaranthus and Perry 1994). Activities associated road storage may cause some disturbance to soil-dwelling fungi through direct disturbance and potential removal of habitat, but in a much localized area.

#### 3.5.3.2 Cumulative Effects

The area analyzed for cumulative effects to botanical TES and Survey and Manage resources are the four fifth field watersheds, the Upper Middle Fork Willamette (01), Middle Fork Willamette River/Lookout Point (07), North Fork of Middle Fork Willamette River (06), Salmon Creek (04). These watersheds contain several sensitive and survey and manage species and similar habitats that increases the likelihood for those species suspected to be in project areas. Information about species elsewhere in the watersheds helps further define the local relative degree of rarity of species suspected or known to be in the project area. Watershed Analyses contain some background information regarding known species sites. New sites have been identified through other projects that have since been surveyed for botanical species including those associated with various timber sale projects, Survey and Manage Regional Random Grid surveys, and various other district projects. Some of these survey efforts have resulted in identification of new sites of vascular and non-vascular species.

**Alternative 1 – No Action**

There would be no cumulative effects to sensitive plants other than what has occurred from past actions.

**Common to Alternatives 2, 3, and 4**

None of the action alternatives would result in little to no additional cumulative effects to TES and Survey and Manage botanical species, if any species happen to be present in project work areas. Most of the areas involved are within road prism and dispersed sites, which are marginal habitat at best for most of the species suspected or known to be in or near these areas. Additionally, no or a low amount of habitat disturbance is involved in most of those areas where potential habitat would be affected.

### 3.5.3.3 Conclusions

In summary, for the species listed in the following table, all action alternatives were given a determination of May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species (MIIH) rating because existence of populations at project sites where there is potential habitat is unknown. Implementation of this project is expected to result in a low likelihood of risk to the persistence of populations of sensitive plants listed on the Regional Forester's (Region 6) list of sensitive plant species that have the potential to occur in the project area.

**Figure 3-11: Sensitive Plants Summary of Effects Determination by Alternative**

| Species | Alternative 1 – No Action | Alternative 2 - Proposed Action | Alternative 3 | Alternative 4 |
|---|---|---|---|---|
| **Cimicifuga elata** | NI | MIIH | MIIH | MIIH |
| **Dermatocarpon luridum** | Ni | MIIH | MIIH | MIIH |
| **Eucephalis(Aster) vialis** | NI | MIIH | MIIH | MIIH |
| **Iliamna latibracteata** | NI | MIIH | MIIH | MIIH |
| **Lycopodium complanatum** | NI | MIIH | MIIH | MIIH |
| **Montia howellii** | NI | MIIH | MIIH | MIIH |
| **Mycorrhizal Fungi** | NI | MIIH | MIIH | MIIH |
| **Parasitic Fungi** | NI | MIIH | MIIH | MIIH |
| **Saprophytic on Litter Fungi** | NI | MIIH | MIIH | MIIH |
| **Saprophytic on Wood** | NI | MIIH | MIIH | MIIH |
| **Usnea longissima** | NI | MIIH | MIIH | MIIH |

NI = No Impact

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

### 3.5.4 Invasive Plants - Introduction

An invasive plant is defined as "a non-native plant whose introduction does or is likely to cause economic or environmental harm or harm to human health" (Executive Order 13122). An estimated 420,000 acres of Forest Service lands in Region 6 are infested with invasive plants (USDA 2004). Invasive non-native plants, including noxious weeds, are a threat to native plant communities. These species thrive in a new environment because they arrive without the complement of predators, disease, and other ecosystem components found in their native region of the world. Most of these species take advantage of disturbance gaps such as logged units, roads, rock quarries, burned areas, the areas surrounding human structures, and trails. Weed seeds and other propagules can be introduced into an area by a variety of agents, most notably wind, highway and off-road vehicles, and construction equipment. They can also disperse by way of water, animals, and humans. Once established, these populations serve as a seed source for further dispersal, generally along road and trail corridors.

Contractors are now required to include provisions (B/BT6.35 - Equipment Cleaning) to minimize the introduction and spread of invasive plants. Weed populations in the units and along transportation routes must be mapped on the project map and equipment-cleaning areas need to be identified.

### 3.5.5 Existing Condition – Invasive Plants

Invasive plants in the project area that pose the most serious threat to native vegetation are both new invader and established species: Slender false brome (Brachypodium sylvaticum), Scot's broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), evergreen blackberry (Rubus laciniatus), knapweeds (Centaurea debeauxii, C. maculosa, C.diffusa), English ivy (Hedera helix) and everlasting peavine (Lathyrus polyphyllus). Reed canarygrass (Phalaris arundinacea), tansy ragwort (Senecio vulgaris), oxeye daisy (Leucanthmum vulgare), St. John'-wort (Hypericum perforatum), Periwinkle (Vinca major) foxglove (Digitalis purpurea), Common mullein (Verbascum thatpsus), White sweet clover (Melilotus alba), Canada and Bull thistle (Cirsium arvense and C. vulgare) are also present in the project area. These species are commonly associated with forest openings such as road corridors, clearcuts and young plantations. For more detailed information on these species, refer to the Botany Report in the Analysis File.

Many of the illegal trash dumping sites have become sites where invasive plants become established as a result of yard waste being dumped at these sites. Yard waste often contains seeds of weed species.

The following summarizes known new invader weed species locations relative to roads, quarries and other areas that were botanically surveyed in the past. This list is not a complete inventory of weeds in the entire project area, as not all areas have been surveyed for noxious weeds.

Site 1- Hwy 58 MP 15 - none identified, not yet surveyed.

Sites 2, 3, 4 - Off Rd 5835, spurs 514, 520, unnumbered spur (site 4) - none identified, not yet surveyed.

Site 6 - 1910-698 - none identified, not yet surveyed

Site 7 – Road 1910, first dispersed site on right across bridge - suspected false brome, not yet surveyed.

Site 10 - old Salmon Cr shooting range - Scot's broom, blackberries.

Site 11 – all Rd 2404, 2404-212, old helicopter landing, old Mule Meadow, Flat Cr trailhead - Scot's Broom, blackberries, everlasting peavine.

Site 12 – Rd 5828 Buckhead seed orchard - Scot's broom, blackberries, not yet surveyed

Site 14 – 2400-015 - none identified, not yet surveyed

2137039 - Known site Spotted knapweed RI-34 within 1 mile on 2137

## 3.5.6 Environmental Consequences – Invasive Plants

The action alternatives incorporate all the standards associated with the 2005 Forest Plan amendment for invasive plants and the corresponding mitigation measures identified in Chapter 2.

### 3.5.6.1 Direct and Indirect Effects

**Alternative 1 – No Action**

The No Action alternative would not manage for any invasive plant populations that persist in the project area. It is unknown whether invasive species are increasing, decreasing or stable because there is no available data on rates of weed spread on federal or non-federal lands in the watershed. Long-term data collection and monitoring of weed populations has not been done on road systems in the project area. False brome has been manually treated at Flat Creek for the past several years, and though it appears that patches are diminishing, conclusive eradication results cannot be determined as yet. Because no machinery would be dispatched to sites, there should be no risk of additional introduction from contaminated off-road equipment. Alternative A does not provide any treatment activities that could promote new short term weed flushes; no new ground would be opened to provide a seed bed for invasive species. No roads or trash sites would be closed either. Established weed populations already present in open dispersed and road prism areas would remain growing unchecked and left largely unmanaged, unless some other funding

provided treatment opportunities. Only specific new invader sites already under a treatment plan through the forest Invasive Species Program would be managed.

**General Effects Common to Action Alternatives**

Implementation of any action alternatives that include road and dispersed site closures decreases risk of invasive plant seed dispersal and establishment from development of more closed vegetation conditions that discourage invasive plants to pioneer disturbed sites and eventually out-compete native plants. A combination of soil disturbance and transport of seed constitutes the direct effects of site use on weed introduction and persistence. The alternatives that do not close some of the problem areas (roads and dispersed areas where weeds are already growing) contribute the higher risk of continued and expanding weed infestations from continual use by vehicles and other vectors that may bring seed in, and the greater the number of disturbed acres/miles of road left open, the higher the acreage of early seral habitat maintained for invasive weeds. The old Mule Meadow of Rd. 2404 is one such example. Weed invasion into adjacent forested areas could lead to competition with tree and shrub seedling establishment and growth, which in turn could affect future potential vegetation associated with sensitive botanical species. Weeds also directly compete with sensitive species like tall bugbane should they invade sensitive plant habitat.

Of particular concern are road systems that contain new invader species such as English ivy, false brome and knapweeds as it has been theorized that vehicular traffic facilitates movement of weed seed up and down road systems by moving seed caught in mud on vehicle undercarriages. Closure work could potentially bring in weed seed from contaminated machinery or materials. For example, road culverts may have to be removed, water as these increase the risk of noxious weed introduction through potential contamination from off-road equipment that is not cleaned off prior to entry, or during movement between work areas. There is one documented new invader site, and several established species located at or near proposed illegal trash closure areas. Most are either English ivy, blackberries and scattered or linear false brome sites. Flat Creek Trailhead # 3566 has a few weeds associated with this trail, mostly blackberries and Scot's broom. However, this trail has not been checked for new weed sites in recent years. Roads are well documented as vectors of weeds and where new populations could easily establish. There are no documented new invader sites identified within Echo Staley road closure areas, though there are knapweed populations within one to several miles of roads to be closed. Because weeds most often travel along road systems, risk of weed infestation decreases in areas where roads and landings are closed, rehabilitated, and seeded with desirable species.

Closing these trashy dispersed and roaded areas would help eventually decrease the risk of new weed establishment and continued growth when native vegetation is allowed to re-grow, with the provision that any current populations of invasive plants are treated effectively prior to closing. The old Salmon Creek shooting range is an example of a closure scenario where an improvement

to weed infested habitat would occur. One spotted knapweed site (RI-34) on 2137 is within a mile of Douglas County Road 2137-039.

**Alternative 2 - Proposed Action**

These actions will eventually help contribute to a decrease the risk of permanent weed establishment when native vegetation is allowed to re-grow, with the provision that any current populations of invasive plants are treated effectively prior to closing. One spotted knapweed site (RI-34) on 2137 is within a mile of Douglas County Road 2137-039.

**Alternative 3**

Alternative 3 is the same as the Proposed Action except that roads in the Echo Staley portion of the project would not be closed. They would be left open, but treated with rolling dips. This Alternative will also eventually contribute to a decrease in the risk of permanent weed establishment when native vegetation is allowed to re-grow, with the provision that any current populations of invasive plants are treated effectively prior to closing. One spotted knapweed site (RI-34) on 2137 is within a mile of Douglas County Road 2137-039.

**Alternative 4**

Of the action alternatives, this alternative has the highest risk of promoting weed infestations due to leaving more acres of open areas more easily accessible to habitat disturbance from unauthorized and uncontrolled off road activity in the 2404 area, e.g. the old Mule Meadow. This unregulated use has likely contributed to an increase in weed habitat and degradation of meadow habitat in the area, and would continue to progressively worsen over time.

#### 3.5.6.2 Cumulative Effects

Cumulative effects for weeds are analyzed on a watershed scale since the entire watersheds contain habitat and weed species similar to those in the project area. It would be reasonable to assume that modes and patterns of dispersal and rate of spread of species would be similar to that found elsewhere in the watersheds, thus it would be prudent to consider cumulative effects to all species found in the project area collectively with the other sites in the watersheds.

Past actions that created habitat for weeds within the watersheds include clear-cut and shelter wood harvesting by the Forest Service. It is assumed that clear-cut harvesting (stands < 20 years are assumed to be un-recovered) and management activities such as tractor yarding, temporary road construction, road maintenance and upgrade, soil restoration treatments, hand-piling, grapple piling and burning, and under burning contribute to an overall increase in early seral (potential weed) habitat in the watersheds.

Foreseeable future actions include repair of off road vehicle damage in old Mule Meadow off of and installation of drivable waterbars on Rd. 2404 under the Oakridge Thinning and Fuel Reduction Project. These actions will eventually help contribute to a decreased risk of permanent

weed establishment when native vegetation is allowed to re-grow, with the provision that any current populations of invasive plants are treated effectively prior to closing.

The FS road systems in the watersheds are the main travel routes along which infestations are moving. Road maintenance activities occur in these watersheds on an as needed basis depending upon level of use. There are 1,678.4miles of open roads in the four watersheds. The Upper Middle Fork Stormproofing project is a foreseeable future action that proposes to close 23.2 miles of road, which will reduce the amount of road open to spread of weeds.

**Alternative 1, No Action:**

No project activities would take place in Alternative A, the no action alternative. This alternative would not reduce the open road system and would also not create any additional habitat (zero percent), so this alternative should contribute no additional cumulative effects. Weeds are spread through a combination of human and wildlife activities, and natural events including wind and rain. Foreseeable activities within the project area are expected to be similar to past and current activities. Human activities that would vector weeds onto and within federal and non-federal lands in the watershed such as recreational use (such as off road vehicle traffic, etc.), road travel, road construction and maintenance, forest product collection would all continue to occur regardless of whether or not any of the action alternatives occur. Incremental measures of weed infestations, whether by human or natural disturbances, cannot be accurately predicted because of all the variables involved in vectoring weeds.

**Alternatives 2, 3, and 4:**

The general cumulative effect on invasive plants by project implementation will be to decrease the overall amount of area infested because more area will be closed off from ground disturbing activities and will overgrow over time into a more closed canopy vegetation condition. Alternative 2 would close the most miles of road year-round (40.9), representing the most acres of closed weed corridor. Alternative 4 is next with 32.3 miles closed. Alternative 3 closes the least miles of road year-round (17.6), representing the least acres of closed weed corridor.

#### 3.5.6.3 Conclusion

All alternatives, including No Action, would result in new and continued disturbances that promote introduction and colonization of new weed species and expansion of existing species in the project area. Affected acres can be quantified; however, the rates of spread and densities of noxious weeds in the watershed cannot be reliably predicted with any accuracy. The risk of future weed infestation can be reduced by implementation of Best Management Practices (BMPs) that are incorporated into project design. The mitigating measures to be applied would cumulatively lower the risk of invasive plants within the watersheds. Weed populations that have been treated for the past several years using appropriated weed treatment funds, and irregardless of alternative

design and implementation, treatment will continue when monitoring documents new localized populations.

## 3.6 Fisheries

### 3.6.1 Existing Condition

Fish species currently inhabiting these Middle Fork Willamette Watersheds include spring chinook salmon, bull trout, Oregon chub, rainbow trout, cutthroat trout, sculpin, lamprey, mountain whitefish, largescale suckers, dace, redside shiners, and northern pikeminnow. Spring chinook salmon are listed as Threatened and are indigenous to many of these watersheds, however upstream migration was blocked in the late 1950's and early 1960's by the construction of Fall Creek, Dexter, Lookout Point, and Hills Creek Dams. Spring chinook salmon are stocked into Lookout Point Reservoir by the Oregon Department of Fish and Wildlife (ODFW) to support a sport fishery. In 1993, ODFW began transporting pre-spawned adult spring chinook salmon into the Middle Fork Willamette, upstream of Hills Creek Dam. These adult salmon successfully spawn and the juveniles spend approximately one year near the spawning grounds before emigrating towards the sea. Emigrating salmon effectively pass through the turbine and regulating outlets of Hills Creek and Lookout Point Dams and are assumed to pass through Dexter Dam. Spring chinook salmon do occupy areas downstream of the project area. In 2001 a similar trap and haul program was started on the North Fork of the Middle Fork Willamette. Adult salmon spawn in the North Fork and the progeny of those fish disperse downstream throughout the mainstem of the Middle Fork Willamette River, Lookout Point and Dexter reservoirs.

Historically, bull trout inhabited the Middle Fork Willamette River and associated tributaries. These fish are also currently listed as Threatened. Since 1997, the Forest Service and ODFW have reintroduced more than10,000 bull trout fry into several sites above Hills Creek Dam. Bull trout currently occupy areas within and also downstream of the project area.

Oregon chub, listed as Endangered, may occupy habitat within the reservoirs and associated ponds within or near the project area. Oregon chub are native to the Willamette Valley of Western Oregon. The preferred habitat is slow moving water as is commonly associated with backwater sloughs and ponds with depositional substrates and an abundance of aquatic vegetation. Historically, Oregon chub were found in many of the side channels and backwater areas, possibly colonizing areas during flood events. Dam and highway construction have changed most of the original habitat, and the species now resides in Lookout Point and Dexter Reservoirs and shallow ponds where the highway has cut off side channels from the Middle Fork of the Willamette River.

### 3.6.2 Environmental Consequences

Road Decommissioning and Obliteration and Repair of Storm Damaged Road activities are included in the Northwest Programmatic Biological Assessment for on-going activities affecting bull trout and Upper Willamette spring chinook salmon. This category allows for the removal or stabilization of unnecessary, unstable, or poorly designed and constructed roads or portions of roads with an overall goal of restoring hydrologic function in the watershed. All activities of the illegal household trash sites portion of the project are covered under the programmatic as well. The effects determination for activities associated with the Echo Staley Road Storage and Illegal Household Trash Project is May Affect, Not Likely to Adversely Affect (NLAA) bull trout and spring chinook salmon, due to the fact that this type of project does not typically transmit sediment to stream channels and the work will largely be completed outside of riparian reserves.

**Critical Habitat**

National Marine Fisheries Service (NMFS) has designated critical habitat for 12 Evolutionarily Significant Units of West Coast Salmon and Steelhead in Washington, Oregon, and Idaho (70 FR 52630; effective January 2, 2006). Critical Habitat has been designated for both Upper Willamette River Chinook salmon in areas that the projects occur. However, based on the amount of sediment transport prevention measures taken and the overall distance the project is from the stream networks and listed critical habitat there will be no effect on spring Chinook salmon critical habitat.

Critical Habitat has been designated for bull trout by the US Fish and Wildlife Service (70 FR 56212; effective October 26, 2005). The USFWS designated critical habitat for bull trout in the Willamette River basin in the following streams: Blue River, Horse Creek, Lost Creek, McKenzie River, Middle Fork Willamette River, South Fork McKenzie River, Swift Creek, West Fork Horse Creek, and Willamette River. However, they excluded (pursuant to section 4 (a)(3) of the ESA) all stream reaches flowing through Federal land in the basin stating that it is adequately protected by the Northwest Forest Plan Aquatic Conservation Strategy. All aspects of the above listed project occur on Federal lands and are therefore excluded from bull trout critical habitat consideration.

Consultation requirements for the Echo Staley Road Storage and Illegal Household Trash Project have been met through the Programmatic Biological Assessment with the US Fish and Wildlife Service and the National Marine Fisheries Service. Therefore no further consultation is necessary.

Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Act does include habitat above Fall Creek Dam. However, the proposed project effects are short-term in nature with the long-term benefits out weighing short-term effects resulting from the project. It is further determined

that the project will not exceed the "May Adversely Affect" EFH threshold and is therefore not subject to EFH consultation with NMFS.

## 3.7 Heritage Resources

A number of the activities proposed in this project are specifically addressed in the 2004 PA (Programmatic Agreement) with the SHPO (State Historic Preservation Office), under the road decommissioning activities described in Appendix B (5, 7, and 8), as well as Appendix A (23, 27, and 29). Since the proposed project activities would take place entirely in the road prism, it is recommended that it be excluded from case-by-case review, based on inspection and monitoring, as per the PA. Activities in the vicinity of the historic Oregon Central Military Wagon Road (along Forest Road 21), as well as other areas determined to be potentially culturally sensitive, should be monitored by the district archaeologist or cultural resource technician, as previously discussed with the project manager. Hence, the district archaeologist must be notified when operations are scheduled begin, in order to schedule such monitoring. In the event that heritage properties are located during the course of this project, all work in the area of the find shall be suspended immediately, while an archaeologist is notified to assess the find.

## 3.8 Economics

### 3.8.1 Existing Condition

This project incorporates by reference the Willamette National Forest Road Analysis Report (USDA, 2003). One of the key findings in the report is the dilemma of managing an extensive forest road system with limited operating funding. The Forest Road Analysis Report estimates $3,400,000 per year is needed "on the ground" to perform the necessary annual maintenance on the Willamette National Forest. Total funding to the Forest is $1,400,000 per year, leaving an estimated budget shortfall of $2,000,000 per year. The direction in Forest Service Manual 7703 establishes policy to determine and provide for the minimum forest transportation system that best serves forest management objectives as identified in appropriate Land and Resource Management Plans. The policy also states that it is important that road analysis consider access needs in relation to realistic funding levels. Based on the funding levels and annual maintenance costs, there is more than $1,000,0000 annual shortfall even if the network of Key Forest roads are fully maintained to their current objective maintenance levels.

Another key finding from the Forest Roads Analysis that pertains to the project is that economics alone (financial efficiency) do not support large scale road closures or decommissioning in spite of the current imbalance in funding available for forest roads. Road decommissioning is a capital investment, just as road construction was, and decisions regarding these investments must be based on a sound analysis of resource values.

Cleanup of illegal household trash sites costs the Middle Fork Ranger District approximately $20,000 to $30,000 annually.

## 3.8.2 Environmental Consequences

There are several different methods and treatments to close and put a road into a hydrologically stable and stored condition. Each of these methods has a cost related to the implementation of the project and a longer term cost to maintenance the closure, and then the cost of re-opening the roads when they are needed in the future.

### 3.8.2.1 Direct and Indirect Effects

**Alternative 1 – No Action**

An estimated $82,800 would be needed to maintain the roads in the Echo Staley portion of the project area for the next 25 years if no road storage treatments are applied at this time. This cost would be slightly higher than Alternatives 2 and 4, but about one-fourth the cost of Alternative 3. This cost does not include the potential value of degraded water quality and aquatic habitat.

**Alternative 2 – Proposed Action:**

Alternative 2 would cost an estimated $68,305 to implement the road storage treatments prescribed in the Echo Staley portion of the project area. Road and site closures to discourage trash dumping would costs about $10,200. Total cost for this alternative would be about $78,505, slightly less than Alternative 1, slightly more than Alternative 4, and about one-fourth the cost of Alternative 3.

**Alternative 3:**

Alternative 3 would cost an estimated $202,000 to install the rolling drain dips prescribed in the Echo Staley portion of the project area. Estimated future maintenance to keep the drain dips in good condition would cost about $82,800 over a 24 year period. Road and site closures to discourage trash dumping would cost about $10,200. Total cost for this alternative would be $295,000 the highest cost for all of the alternatives.

**Alternative 4:**

Alternative 4 would cost an estimated $68,305 to implement the road storage treatments prescribed in this alternative. Road and site closures to discourage trash dumping would cost about $7,200. Total costs for this alternative would be about $75,505, slightly less than Alternatives 1 and 2, and about one-fourth the cost of Alternative 3.

**Figure 3-12: Direct and Indirect Costs of Implementing the Alternatives**

| | Alt. 1 - No Action | Alt. 2 – Proposed Action | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| Cost of road storage and stabilization treatments | 0 | $68,305 | $202,000 | $68,305 |
| Future maintenance costs for Echo Staley portion | $82,800 | 0 | $82,800 | 0 |
| Cost of road and site closures for trash management | 0 | $10,200 | $10,200 | $7,200 |
| Total Direct and Indirect Costs | $82,800 | $78,500 | $295,000 | $75,505 |

### 3.8.2.2 Cumulative Effects

Cumulative effects would be due to the cost of re-opening hydrologically stabilized roads if and when they are needed in the future.

**Alternative 1 – No Action**

There would be no cumulative costs for Alternative 1 other than the future maintenance described above, since roads would not be hydrologically stabilized and roads would not need to be re-opened. Total cumulative costs would be the same as Direct and indirect costs at about $82,800.

**Alternative 2 – Proposed Action**

Direct and indirect costs for Alternative 2 would be an estimated $78,500 as discussed above. If and when the Echo Staley roads are needed in the future, the estimated cost to restore these roads would be about $68,305. Total cumulative costs would be about $146, 810, slightly more than Alternative 4, but about half the cost of Alternative 3.

**Alternative 3**

Direct and indirect costs for Alternative 3 would be an estimated $295,000 as discussed above. If and when the Echo Staley roads are needed in the future, the cost of restoring these roads ( remove rolling drain dips) would be less than in Alternatives 2 and 4 (remove water bars, ditches, berms) at about $13,950. Total cumulative costs would be about 308,950, the highest of all alternatives.

**Alternative 4**

Direct and indirect costs for Alternative 4 would be an estimated $75,505 as discussed above. If and when the Echo Staley roads are restored, the estimated cost to restore these roads would be about $68,305. Total cumulative costs for this alternative would be about $143,810, slightly less than Alternative 2 and about half the cost of Alternative3.

**Figure 3-13: Cumulative Costs of Implementing the Alternatives**

| | Alt. 1 - No Action | Alt. 2 – Proposed Action | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| Direct and indirect costs (from figure 3-12, above) | $82,800 | $78,500 | $295,000 | $75,505 |
| Cost to re-open and restore roads in the future | 0 | $68,305 | $13,950 | $68,305 |
| Total Costs | $82,800 | $146,810 | $308,950 | $143,810 |

## 3.9 Air Quality

Air quality would not be affected, as disposal of waste or slash by burning is not proposed

## 3.10 Other Disclosures

### 3.10.1 Short term Uses and Long term productivity

NEPA requires consideration of the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity (40 CFR 1502.16). As declared by Congress, this includes using all practicable means and measures to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans (NEPA Section 101).

The Multiple Use – Sustained Yield Act of 1960 requires the Forest Service to manage National Forest System lands for multiple uses (including timber, recreation, fish and wildlife, range, and watershed). All renewable resources are to be managed in such a way that they are available for future generations. The harvest and use of standing timber can be considered a short term use of a renewable resource. As a renewable resource, trees can be re-established and grown again if the productivity of the land is not impaired.

Maintaining the productivity of the land is a complex, long-term objective. All alternatives protect the long-term objective of the project area through the use of specific Forest Plan S&Gs, mitigation measures, and BMPs. Long-term productivity could change as a result of the various management activities proposed in the alternatives. Management activities could have a direct, indirect, and cumulative effect on the economic, social, and biological environment. Those effects are disclosed in the analyses presented in Chapter 3.

Soil and water are two key factors in ecosystem productivity, and these resources would be protected in all action alternatives to avoid damage that could take many decades to rectify. Sustained yield of timber, wildlife habitat, and other renewable resources all rely on maintaining long-term soil productivity. Quality and quantity of water from the analysis area may fluctuate as

a result of short-term uses, but no long-term effects to water resources are expected to occur as a result of timber management activities.

All alternatives would provide the fish and wildlife habitat necessary to contribute to the maintenance of viable, well distributed populations of existing native and non-native vertebrate species. The abundance and diversity of wildlife species depends on the quality, quantity, and distribution of habitat, whether for breeding, feeding, or resting. The alternatives vary in risk presented in both fish and wildlife habitat capability.

None of the alternatives would have an effect on the long-term productivity of timber resources.

### 3.10.2 Irreversible and Irretrievable Commitment of Resources

NEPA requires that environmental analysis include identification of ". . . any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources have on future generations.

Irreversible effects primarily result from use or destruction of a specific resource (e.g., minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., disturbance of wildlife habitat); or is lost as a result of inaction (e.g., failure to monitor and treat forest vegetation to prevent infestation of insects).

The anticipated effects for all action alternatives described in this document are the same as those discussed in the FEIS for the Forest Plan (USDA, 1990b) on page IV-178. Some erosion and soil movement would result from road work.

The analysis revealed no significant irreversible or irretrievable commitment of resources associated with implementing the alternatives that are not already identified in the Willamette National Forest Plan FEIS

### 3.10.3 Unavoidable Adverse Effects

Several expected adverse effects, including some that are minimal and/or short term, were identified during the analysis. Resource protection measures or mitigations were identified and considered for each of these as a means to lessen or eliminate such effects on specific resources. See mitigation measures starting on Chapter 2. Resource areas determined to have potential adverse effects (resulting from any of the alternatives – including No Action and the Action Alternatives) are documented within the appropriate Environmental Consequences sections of each resource in this chapter. See the following sections:

Recreation and Public Access

Water Quality and Stream Conditions

Fisheries

Wildlife - Threatened and Sensitive Species

Wildlife - Survey and Manage Species

Wildlife – Management Indicator Species

Wildlife - Big Game Habitat

Vegetation: Invasive Weeds

### 3.10.4 Effects on Recreational Fisheries (Executive Order 12962)

This 1995 order's purpose is to conserve, restore, and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide. It requires federal agencies to evaluate the effects of federally funded actions on aquatic systems and document those effects relative to the purpose of this order.

There is a potential short term impact of sediments into the streams as a result of the road management activities. This short term impact would not threaten fish species. The short term impacts are outweighed by the long term benefits to the water quality and fisheries resource. Mitigating measures have been applied in the action alternatives to maintain anadromous fish and resident fish populations and habitat. These mitigating measures include best management practices during road work activities. Road closures have been proposed to reduce the risk of sedimentation to water quality and fisheries resources.

All action alternatives including associated mitigation actions and BMPs are consistent with current management direction including Willamette Forest Plan Standards and Guidelines, Aquatic Conservation Strategy (ACS) Objectives (at the watershed analysis level) and the Federal Clean Water Act. Implementation of required BMPs would insure protection of water quality and beneficial uses under all alternatives.

### 3.10.5 Effects on Consumers, Civil Rights, Minority Groups and Women

Implementation of any alternative may not by itself have any effect upon consumers, but in combination with other projects may have an effect upon the local economy, especially on communities of Lowell, Oakridge, Springfield and Eugene. The Forest Plan FEIS addresses social and economic effects on pages IV 119-128.

Implementation of this project has not been planned to either favor or discriminate against any social or ethnic group. Contracting procedures would ensure that projects made available through this project would be advertised and awarded in a manner that gives proper consideration to minority and women-owned business groups and meet Equal Employment Opportunity requirements. Because of this consideration, there would be no direct, indirect, or cumulative effects to consumers, minority groups, or women with implementation of any of the alternatives.

### 3.10.6 Effects on Minorities, Low-Income Populations, or Subsistence Users (Environmental Justice – Executive Order 12898)

The project is located near the cities of Oakridge and Westfir in Lane County, Oregon. These communities have minority populations of 8 percent and 7 percent, respectively. Lane County, in its entirety, has a minority population of 9 percent, (U.S. Census Bureau, 2000).

For the City of Oakridge, approximately 14.5 percent of the population is at or below poverty level. Approximately 12.2 percent of the population of the City of Westfir is at or below the poverty level. (U. S. Census Bureau, 2000). According to information from the Oregon Economic and Community Development Department (OECDD), Lane County, (excluding areas within the city limits of Eugene, Springfield, Coburg and Dunes City), is rated 1.30, (threshold 1.20), on the distressed area index.(OECDD, 2002). These Cities, as well as much of Lane County, have experienced a significant decline in timber-based jobs over the past decade, contributing to factors used to determine a distressed community.

Implementation of any alternative that provides the opportunity for employment may positively affect low-income families who are either unemployed or underemployed. Implementation of any alternative is not expected to impose a disproportionately high or adverse effect to those populations.

Subsistence and cultural use levels are difficult to quantify and differential patterns of subsistence consumption are unknown at this time. However, the Forest provides access to firewood, Christmas trees, mushrooms and other consumables through a personal-use permit system. Middle Fork Ranger District sells and issues permits for about 800 cords of firewood; about 2,000 Christmas tree permits; and about 300 personal-use mushroom permits per year.

Effects on fisheries are mitigated in all action alternatives to maintain anadromous fish and resident fish populations and habitat.

Road closures may impact subsistence in the immediate project area, but these impacts would be mitigated by the availability of other access routes throughout the area.

The Willamette National Forest has Memorandums of Understanding (MOU) with the Confederated Tribes of the Grand Ronde, the Confederated Tribes of Warm Springs, and the Confederated Tribes of Siletz. These MOUs provide the mechanism for regularly scheduled consultations on proposed activities. Beyond this, the Forest notifies and consults with tribal governments in a manner consistent with the government-to-government relationship on any matters that ripen outside of the meeting schedule. Any potential impacts are discussed and mitigated through these processes.

All alternatives comply with Executive Order 12989 “Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations”.

### 3.10.7 Effects on American Indian Rights

The Confederated Tribes of Grand Rhonde, Confederated Tribes of Siletz Indians, Confederated Tribes of Warm Springs, and the Klamath Tribe were notified of the project during the scoping of issues as part of the public participation process. No specific comments were received from these tribes as a result of scoping letters.

No specific sacred sites have been identified in the proximity of the proposed units. No impacts, as outlined in the American Indian Religious Freedom Act, are anticipated upon American Indian social, economic or subsistence rights.

All alternatives comply with Consultation and Coordination with Indian Tribal Governments Executive Order 13084 and Indian Sacred Sites Executive Order 13007.

### 3.10.8 Effects on Farmlands, Rangelands, Forest Land, and Floodplains

Executive Orders 11988 and 11990 direct Federal agencies to avoid, to the extent possible, both short-term and long-term adverse impacts associated with the modifications of floodplains and wetlands. None of the alternatives have specific actions that adversely affect wetlands and floodplains. Wetlands and streams with associated riparian reserves (includes adjacent floodplains) have been delineated for the project area. All of the wetlands and streams near treatment areas would protect the natural and beneficial values and minimize any detrimental effects to those wetlands and streams. Proposed activities are compliant with the orders and USDA Departmental Regulation 9500-3. See discussions related to this topic in the water quality and stream conditions, fisheries and soils resource sections in Chapter 3 for more information.

### 3.10.9 Monitoring

Based upon the purpose and need for the action and the issues identified during the scoping process and used in the design of the alternatives, the following Forest Plan S&Gs are recommended to be used as a guide for monitoring key components of the project.

**Road Closure (Purpose and Need)**

Did the project meet the recommendations in the District and Forest Road Analyses?

Did the road closures or access restrictions consider the effects on developed and dispersed recreation sites and trailheads (FW-313)

**Public Access**

Does the project meet the recreation access and travel management guides developed by the District (FW-023)?

Did the proposal contribute to the diversity of off-road vehicle recreational opportunities across the Forest and is it consistent with criteria specified in FSM 2355.12 (FW-024)?

Did the area closed or restricted to off road vehicle use get posted with a brief explanation of the reasons for the closure (FW -026)?

### Water Quality

Were the BMPs used to mitigate effects to water quality (FW-090, 092)?

### Illegal Household Trash Sites

Did the project reduce the number of illegal trash sites requiring annual cleanup in the project area?

# 4. Consultation and Coordination

The Forest Service consulted the following Federal, State, and local agencies, individuals, groups, and tribes during the development of this environmental assessment:

**INTERDISCIPLINARY TEAM MEMBERS:**

| | |
|---|---|
| Team Leader, Writer-Editor | Eric Ornberg |
| Recreation | Tim Bailey |
| Fishery Biologist | Doug Larson |
| Engineering | Mark Leverton |
| Heritage Resources | Cathy Lindberg |
| Botanist | Kim McMahan |
| Soil and Water Sciences | David Murdough |
| Fire Management | Dennis Sullivan |
| Wildlife Biologist | Deborah Quintana |

**FEDERAL, STATE, AND LOCAL AGENCIES:**

US Fish and Wildlife Service
U.S. Army Corps of Engineers
US Rep. 4th District Peter Defazio
Congressman Gordon Smith
Bonneville Power Administration
Oregon Dept. of Fish and Wildlife
Oregon Dept. of Environmental Quality
Oregon Dept. of Transportation
Lane County Board of Commissioners (Bill Dwyer and Anna Morrison)
Douglas County Board of Commissioners (Doug Robertson)
Lane County Public Works
Oakridge School District
City of Oakridge
City of Westfir

**TRIBES:**

Confederated Tribes of Grand Ronde
Confederated Tribes of Siletz Indians
Confederated Tribes of Warm Springs
Klamath Tribe

**OTHERS:**

American Forest Resource Council
American Lands Alliance
Jeff Ammon
Rich and Jan Anselmo
David Ashley
Back Country Horsemen of America
Alan Bennett
Daren and Zina Bert
Dave Black
Cascade Flyfishers
Cascadia Wildlands Project
Dennis Chappa
Jim Claffin
COMAC
Phillip Crane
J.Davidson and Sons
Dead Mountain Echo
Jon Devorak

Disciples of Dirt
Emerald Trail Riders Association
Dennis Fish
Becky Hope
Ed Johnson
Dick and Marcie Klocko
Lane County Audobon Society
McKenzie Flyfishers
John M. Moran
Mary O'Brien
Nancy Phelps
Obisidians
OOHVA
Terry Peters
Jerry Reid
Seneca Jones Timber Company
Steve Skinner
Southern Willamette Earth First!
Trout Unlimited
Stephen and Penny Weber
Randy Zustiak
Randy Dreiling
Drum Evens
Jeff Holmolka
Don Huffman
Betty Jean Keele
John Koenig
Many Rivers Group of Sierra Club
Middle Fork WillametteWatershed Council
Native Plant Society
Jim Person
Northwest Trail Riders
OMRA
Oregon Wild
Damon and Wendy Pocholec
Rocky Mountain Elk Foundation
Mike Sheetz
Smucker ATV Sales
Robert Tarr
Jack Watson
Della Webb

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USDI Fish and Wildlife Service. 2006. Biological Opinion and Letter of Concurrence for Effects to Bald Eagles, Northern Spotted Owls and Northern Spotted Owl Critical Habitat from the U.S. Department of the Interior; Bureau of Land Management, Eugene District and Salem

District; U.S. Department of Agriculture, Mt. Hood and Willamette National Forests, and Columbia River Gorge National Scenic Area – Calendar Years 2007-2008 Habitat Modification Activities within the Willamette Province. (FWS Reference Number pending) USFWS, 2006.

# Appendices

## Appendix A - Federal and State Laws, Regulations, and Executive Orders:

### The National Environmental Policy Act (NEPA) of 1969, as amended

The purposes of this Act are "To declare a national policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nations; and to establish a Council on Environmental Quality" (42 U.S.C. Sec. 4321). The law further states "it is the continuing policy of the Federal Government, in cooperation, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the present and future generations of Americans. This law essentially pertains to public participation, environmental analysis, documentation and appeals.

NEPA establishes the format and content requirements of environmental analysis and documentation such as the Echo Staley Road Storage and Illegal Household Trash Site Management project analysis. The entire process of preparing an environmental assessment was undertaken to comply with NEPA requirements, as codified by 40 CFR 1501 and the Forest Service Handbook 1909.15, Chapter 40.

### The National Forest Management Act (NFMA) of 1976

This Act guides development and revision of National Forest Land Management Plans and addresses a range of activities from required reporting that the Secretary must submit annually to Congress to preparation requirements for timber sale contracts. There are several important sections within the act, including Section 1 (purpose and principles), Section 19 (fish and wildlife resources), Section 23 (water and soil resources), and Section 27 (management requirements that relate to perspective project planning).

All alternatives were developed to be in full compliance with NFMA via compliance with the Willamette National Forest Land and Resource Management Plan, as amended. This EA contains references as to how this project complies with Forest Plan and Northwest Forest Plan standards and guidelines.

### The Endangered Species Act of 1973, as amended

The purposes of this Act are to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such tests as may be appropriate to achieve the purpose of the treaties and conventions set forth in subsection (a) of this section." The Act also states "It is further declared to be the policy of Congress that all

Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act."

Field surveys and Biological Evaluations for all listed endangered, threatened, or sensitive species have been conducted to determine possible effects of any proposed activities in the project area (see the Wildlife and Plant Biological Evaluations in the Analysis File).

**The Clean Water Act, as amended in 1977 and 1982**

The primary objective of this Act is to restore and maintain the integrity of the Nation's waters. This objective translates into two fundamental national goals: 1. Eliminate the discharge of pollutants into the nation's waters; and 2. Achieve water quality levels that are fishable and swimmable. This Act establishes a non-degradation policy for all federally proposed projects. Under Section 303(d) of the Clean Water Act, the State has identified water quality-limited water bodies in Oregon. The main-stem of the Middle Fork of the Willamette River (Middle Fork) from Staley Creek to Hills Creek Reservoir is currently designated as water quality limited on the 303(d) list for high summer water temperatures. The North Fork of the Middle Fork of the Willamette is 303d listed for stream temperatures from river mile 0 to 28.3. .

All action alternatives including associated mitigation actions and BMPs are consistent with current management direction including Willamette Forest Plan Standards and Guidelines, Aquatic Conservation Strategy (ACS) Objectives (at the watershed analysis scale) and the Federal Clean Water Act. Implementation of required BMPs would insure protection of water quality and beneficial uses under all alternatives.

**The Clean Air Act, as amended in 1990**

The purposes of this Act are "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population; to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution; to provide technical and financial assistance to state and local governments in connection with the development and execution of their air pollution prevention and control programs; and to encourage and assist the development and operation of regional air pollution prevention and control programs."

The action alternatives are designed to meet the National Ambient Air Quality Standards, as directed by the Oregon Smoke Management Act, through avoidance of practices which degrade air quality below health and visibility standards.

**National Historic Preservation Act of 1966, as amended**

This Act requires Federal agencies to consult with American Indian Tribes, and various State and local groups before nonrenewable cultural resources, such as archaeological and historic structures, are damaged or destroyed. Section 106 of this Act requires Federal agencies to review the effects project proposals may have on the cultural resources in the Analysis Area.

As described in Chapter 3, these activities are specifically addressed in the 2004 PA with the SHPO, under the road decommissioning activities described in Appendix B (5, 7, and 8). Since

the proposed project activity would take place entirely in the road prism, it is recommended that it be excluded from case by case review, based on inspection and monitoring, as per PA. Activities in the vicinity of the historic Oregon Central Military Wagon Road (along Forest road 21) should be monitored by the district archaeologist or cultural resource technician as previously discussed with the project manager. Hence, the district archaeologist should be notified when operations begin. In the event that heritage properties are located during the course of this project, all work in the area of this find shall be suspended immediately, while an archaeologist is notified to assess the find.

**Executive Order 13186 (Migratory Bird)**

On January 10, 2001, President Clinton signed an Executive Order (E.O. 13186) titled "Responsibilities of Federal Agencies to Protect Migratory Birds." This E.O. requires the "environmental analysis of Federal actions, required by NEPA or other established environmental review processes, evaluates the effects of actions and agency plans on migratory birds, with emphasis on species of concern."

Current science applied to S&Gs governing management of this area provide direction that would ensure the long term maintenance of amount and distribution of suitable habitat for native residents and migratory land bird species. The spatial and temporal extent of proposed activities that would result in disturbance to nesting birds in a small portion of the project area would mitigate the overall potential for disturbance and provide protection for nesting birds as intended under the Migratory Bird Treaty Act.

**Prime Lands**

The Secretary of Agriculture issued memorandum 1827 which is intended to protect prime farm lands and rangelands. The project area does not contain any prime farmlands or rangelands. Prime forestland is not applicable to lands within the National Forest System. National Forest System lands would be managed with consideration of the impacts on adjacent private lands. Prime forestlands on adjacent private lands would benefit indirectly from a decreased risk of impacts from wildfire. There would be no direct, indirect, or cumulative adverse effects to these resources and thus are in compliance with the Farmland Protection Act and Departmental Regulation 9500-3, “Land Use Policy”.

**Executive Order 13112 (Invasive Species)**

This 1999 order requires Federal agencies whose actions may affect the status of invasive species to identify those actions and within budgetary limits, "(i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species… (iii) monitor invasive species populations… (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded;…(vi) promote public education on invasive species… and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species… unless, pursuant to guidelines that it has prescribed, the agency had determined and made public… that the benefits of such actions clearly

outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions."

The action alternatives implement the direction from the Willamette Forest Plan and the Integrated Weeds Management EA. The action alternatives include mitigating measures (see Chapter 2 – Mitigation Common to All Alternatives, section 2.3.) which would limit the spread of invasive weeds. Mitigating measures include the cleaning of off road equipment between infested work sites, pre-treating roads before road maintenance and reconstruction, re-vegetating all disturbed areas with weed-free mulch and native seed, and monitoring weed infestations following treatments..

### Energy Requirement and Conservation Potential

There are no unusual energy requirements for implementing any of the alternatives

### State Laws

Oregon State Best Management Practices (BMPs) - State BMPs are employed to maintain water quality and are certified by the Environmental Protection Agency for meeting the Clean Water Act.

The Oregon Smoke Management Plan - The Oregon State Implementation Plan and the Oregon State Smoke Management Plan are not applicable because the project would not dispose of waste or wood slash by burning.

## Appendix B – Middle Fork District Road Analysis

Middle Fork Ranger District completed a roads analysis that recommended which roads to retain, which roads to close and the appropriate level of maintenance.

The objective was to balance funding levels available for road maintenance with needs for access in a manner that minimized road related effects to resources.

Each road segment was evaluated for its potential affects to the primary interests. When the ranking to close the road was equal to the ranking to keep it open the automated system highlighted the need for an interdisciplinary discussion. This discussion and a landscape look at the individual road segment resulted in a consensus recommendation for the road.

Once all recommendations were finalized, a visual landscape assessment of the road system was made to ensure that road recommendations were viable and complied with pertinent policy and direction.

Road use on the Middle Fork Ranger District can be considered from four primary interests; Public Use, Administrative Use, Aquatic Values and Terrestrial Values. These interests can be evaluated by answering the following questions. To further refine the analysis numerous subcomponent questions must also be answered.

**Public Uses:**

Which roads are important to recreational uses?

Which roads are important for permitted uses?

Which roads are important for mineral uses?

Which roads are important to heritage uses?

**Administrative Uses:**

Which roads are important to access silvicultural treatments?

Which roads are important to access for fire suppression?

Which roads are important to access for management of the timber sale program?

Which roads are important for access to road maintenance developments?

Which roads are important to access other ongoing administrative needs?

**Terrestrial Values:**

Is this road undesirable to big game resources?

Is this road undesirable for threatened, endangered or sensitive species?

Is this road undesirable for survey and manage species as listed in the Northwest Forest Plan?

Is this road undesirable to botanical resources?

**Aquatic Values:**

Is this road undesirable to nearby fish stock?

Which roads have undesirable stream crossings and surface types for aquatic resources?

Which roads have a high failure risk that would impact the aquatic resource?

The Roads Analysis process considered that a decrease in maintenance funding over the past several years has allowed the National Forest road system to rapidly degrade and close itself through lack of maintenance. There is a need to complete an environmentally sensitive and comprehensive plan to systematically reduce the risk of continued and increasing damage to the associated resources. This approach was completed in an interdisciplinary manner analyzing road uses and needs of the land. The process was thorough enough to ensure that the revised transportation system is sufficient to address the long-term needs of the District as well as those of the neighboring Districts, forest users, and owners of adjacent lands. Implementing the analysis recommendations would allow the remaining road maintenance funds to be concentrated on providing a safer, more environmentally sensitive transportation system that protects natural resource values.

**Figure A-1: Summary of Rating from District Road Analysis – Echo Staley Portion**

| Road Analysis Ratings | | | | | | |
|---|---|---|---|---|---|---|
| **Road Number** | **Miles** | **ADMINI-STRATIVE** | **PUBLIC** | **AQUATIC** | **TERREST-RIAL** | **Road Analysis Prescription** |
| 2120463 | 0.87 | H | L | L | H | Close |
| 2134150 | 0.10 | L | L | M | M | Close |
| 2134237 | 0.14 | L | L | H | H | Close |
| 2134243 | 1.73 | M | L | H | H | Close |
| 2134254 | 0.32 | H | L | M | L | Close |
| No number | 0.20 | N/A | N/A | N/A | N/A | N/A |
| 2134255 | 0.63 | M | L | M | H | Close |
| 2134258 | 0.91 | M | L | M | H | Close |
| 2134259 | 0.87 | M | L | M | H | Close |
| 2134260 | 0.18 | L | L | M | H | Close |
| 2134261 | 0.23 | H | L | M | H | Close |
| 2134262 | 0.23 | M | L | M | H | Close |
| 2135294 | 0.54 | L | H | M | H | Close |

| Road Analysis Ratings | | | | | | |
|---|---|---|---|---|---|---|
| **Road Number** | **Miles** | **ADMINI-STRATIVE** | **PUBLIC** | **AQUATIC** | **TERREST-RIAL** | **Road Analysis Prescription** |
| | | | | | | FS/Verify Pvt |
| 2135295 | 1.33 | L | H | L | M | Close<br>FS/Verify Pvt |
| 2135296 | 0.37 | H | L | L | M | Close |
| 2135297 | 0.52 | L | L | M | H | Close |
| 2135304 | 0.14 | H | L | L | L | Close |
| 2136274 | 0.50 | M | L | M | H | Close |
| 2136277 | 0.78 | M | L | M | H | Close |
| 2136279 | 1.08 | M | L | M | M | Close |
| 2136280 | 1.26 | L | L | M | H | Close |
| 2136283 | 0.29 | M | L | M | H | Close |
| 2136285 | 0.49 | M | L | M | H | Close |
| 2136289 | 0.14 | L | L | M | M | Close |
| 2137039 | 0.19 | L | L | H | L | Close |
| 2137274 | 0.63 | L | L | M | M | Close |
| 2137276 | 0.08 | L | L | M | H | Close |
| 2143204 | 0.09 | H | L | M | L | Close |
| 2143205 | 0.21 | M | L | H | L | Close |
| 2143210 | 0.07 | M | L | M | L | Close |
| 2143315 | 1.06 | H | L | M | M | Close |
| 2143319 | 0.88 | M | L | H | L | Close |
| 2143322 | 0.95 | M | L | H | L | Close |
| 2143324 | 0.83 | M | L | M | M | Close |
| 2143327 | 0.47 | M | L | H | L | Close |
| 2143329 | 0.95 | L | L | M | L | Close |
| 2144335 | 3.03 | H | L | H | H | Close |
| TOTAL | **23.29** | | | | | |

**Figure A-2: Summary of Rating from District Road Analysis – Trash Site Portion**

| Road Analysis Ratings | | | | | | |
|---|---|---|---|---|---|---|
| **Road Number** | **Miles** | **ADMINI-STRATIVE** | **PUBLIC** | **AQUATIC** | **TERREST-RIAL** | **Road Analysis Prescription** |
| 1910698 | 2.09 | H | L | H | M | Close |
| Dispersed site off Rd. 1910 | 0.01 | N/A | N/A | N/A | N/A | N/A |
| 2400011 | 0.01 | H | H | H | L | Close |
| 2400019 | 0.31 | H | H | H | M | Open |
| 2404000 | 4.54 | H | H | M | L | Open |
| 2404074 | 0.56 | H | L | M | L | Close |
| 2404101 | 0.04 | H | L | M | L | Close |
| 2404102 | 0.33 | H | H | M | L | Close |
| 2404103 | 0.14 | M | L | M | L | Close |
| 2404190 | 0.50 | Not analyzed | Not analyzed | Not analyzed | Not analyzed | Not analyzed |
| 2404191 | 0.14 | Not analyzed | Not analyzed | Not analyzed | Not analyzed | Not analyzed |
| 2404210 | 0.41 | M | L | M | L | Close |
| 2404211 | 0.23 | M(H) | L | M | L | Close |
| 2404212 | 1.64 | H | L | H | M | Close |
| 2404213 | 0.09 | H | L | M | L | Close |
| 5828000 | 6.72 | M | H | M | L | Open |
| 5828017 | 0.10 | M | L | M | L | Close |
| 5828101 | 0.06 | L | H | M | L | Open |
| 5828390 | 0.37 | H | L | M | L | Close |
| 5828391 | 0.88 | M | L | M | M | Close |
| 5828520 | 0.08 | M | L | H | H | Close |
| 5828560 | 0.50 | M | L | H | H | Close |
| 5828580 | 0.30 | M | H | M | H | Close |
| 5828585 | 1.05 | M | L | M | M | Close/Open |
| 5828586 | 0.25 | M | L | M | L | Close |
| 5828685 | 0.09 | L | L | L | L | Close |
| 5828686 | 0.58 | M | L | M | L | Close |
| 5828687 | 3.05 | M | L | H | M | Prohibit Seasonally (Jan 15-July31) |

| Road Analysis Ratings | | | | | | |
|---|---|---|---|---|---|---|
| **Road Number** | **Miles** | **ADMINI-STRATIVE** | **PUBLIC** | **AQUATIC** | **TERREST-RIAL** | **Road Analysis Prescription** |
| 5828689 | 0.60 | H | L | H | L | Prohibit Seasonally (Jan 15-July31) |
| 5828692 | 1.20 | M | L | H | H | Close |
| no number | 0.17 | N/A | N/A | N/A | N/A | N/A |
| 5835509 | 0.31 | H | L | M | L | Close |
| 5835510 | 0.65 | H | H | M | M | Close |
| 5835511 | 0.09 | M | L | M | M | Close |
| 5835515 | 3.57 | M | L | H | H | Close |
| 5835520 | 1.04 | M | L | H | M | Close |
| 5835522 | 0.64 | M | L | M | L/H | Close |
| 5835530 | 0.08 | M | L | M | L | Close |
| **Total** | **33.42** | | | | | |

H = High effects

M = Moderate effects

L= Low effects

N/A = Not applicable

# Corrections to the Echo Staley Road Storage and Illegal Household Trash Site Management Project Environmental Assessment

June 28, 2007

**1)** The EA on page 61 and in Figure 3-8 on page 62 incorrectly states that there are three spotted owl activity centers located within 0.25 mile of three of the project treatment sites (Roads 2135297, 2135294, and 2143319). The correct number of spotted owl activity centers within 0.25 mile of treatment sites is two. The treatment sites within 0.25 mile of the two spotted owl activity centers are still the three roads listed above, as was stated in the EA. The corrected Figure 3-8 is shown below.

**Figure 3-8: Spotted Owl Activity Centers**

| | Alt. 1 No Action | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---|---|---|---|
| **Number of spotted owl activity centers within 0.25 mile of noise generating activities** | 0 | 2 | 2 | 2 |

This change does not change the effects of the alternatives nor the decision to implement Alternative 2, since the number of treatment sites that will require seasonal restrictions (three) was stated correctly in the EA. Seasonal restrictions will still be applied to the three treatment sites, as stated under Mitigation Measures on page 45 of the EA.

**2)** On page 66 of the EA, in the third paragraph under Section 3.5.2 Existing Condition, *Lathyrus holochlorus* was unintentionally left off a list of survey and manage and sensitive species with documented sites in the affected watersheds but not within proposed project areas. On page 69 of the EA, *Lathyrus holochlorus* was unintentionally left off the list of sensitive plants in Figure 3-11. As with all the other species listed in Figure 3-11, the environmental effect to this species would be No Impact (NI) for Alternative 1 and May Impact Individuals or Habitat(MIIH), But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Viability for the Population or Species for Alternatives 2, 3, and 4 because existence of populations at project sites where there is potential habitat is unknown.