

# Molalla River-Table Rock Recreation Area Management Plan



*Molalla River near Pine Creek Bridge*

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United States Department of the Interior  
Bureau of Land Management, Salem District

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## Executive Summary

The Molalla River/Table Rock Special Recreation Management Area (SRMA) is located southeast of the city of Molalla, Oregon in the western Cascade Mountains and includes 27,405 acres administered by the Bureau of Land Management, Salem District. Incorporating scenic portions of the Molalla River as well as adjacent uplands and Table Rock Wilderness, the area provides diverse and popular recreation opportunities for northwest Oregon residents including swimming, picnicking, camping, fishing, hiking, mountain biking, horseback riding, whitewater boating and recreational shooting.

The most popular and accessible portion of the recreation area was acquired by the BLM in the early 1990's. In close proximity to a large proportion of the state's population, the SRMA has seen a steady growth in visitation since the acquisition. This use has resulted in impacts to natural resources and concerns over public safety that necessitates the establishment of an appropriate management strategy. This strategy will guide use and management of recreation resources for the next 15 years.

This Environmental Assessment (EA) has been prepared by the Salem District to present a range of potential management strategies for the Molalla River-Table Rock SRMA and analyze their possible effects on recreation use and the area's natural resources. Each alternative contains direction for overnight use, day use and river access, trails and visitor information.

**Alternative A (No Action)** proposes continuing current management practices. No large-scale site development would occur. Designated, dispersed camping sites would remain and be managed under current rules and regulations. Day use and river access would continue at their present locations. The trails within the area would be maintained without enhancement or expansion.

**Alternative B (Proposed Action) Primitive Camping Emphasis** proposes concentrating overnight and day use to locations that minimize natural resource impacts. Camping would be limited to three minimally developed campgrounds, each consisting of 6 to 10 sites. Two improved day use sites would be developed. An overhaul of the Shared Use Trail System would occur and several miles of new trails would be built.

**Alternative C Centralized Camping Emphasis** proposes concentrating overnight use in a single, developed campground with up to 32 sites. One improved day use site would be developed. Minor changes would be made to the Shared Use Trail System and no new trails would be constructed.

**Alternative D Day Use Emphasis** proposes prohibiting overnight camping within the recreation area outside of Table Rock Wilderness and making investments in day use recreation. Up to four developed sites would be constructed and a comprehensive interpretive plan would be developed. Portions of the Shared Use Trail System would be fixed and a new riverside trail would be built.

The release of this EA marks the beginning of a formal 30-day comment period. Stakeholders and members of the general public are encouraged to provide feedback regarding the proposed action and management alternatives during this period.

Taking these comments into account, the BLM will formulate and release a final Recreation Area Management Plan. It will be accompanied by a Decision Record that outlines the rationale for the decision, as well as an implementation schedule that identifies the timing of specific projects.

## Document Organization

This document contains five chapters and two appendices:

**Chapter 1: Introduction and Background** provides an introduction to the planning area and background on the Molalla River-Table Rock planning process. The chapter defines the purpose and need for management action, and describes the issues and concerns identified during public outreach efforts.

**Chapter 2: Alternatives** lays out the plan's broad goals and objectives. It describes in detail the four management plan alternatives that are evaluated in this Environmental Assessment.

**Chapter 3: Affected Environment** describes the planning area including current recreational and socioeconomic conditions as well as the biological and cultural resources within the planning area.

**Chapter 4: Environmental Effects** assesses the impacts of each alternative on the resources described in Chapter 3.

**Chapter 5: Conformance and Supplemental Authorities** identifies the planning documents that guide the development of this plan, as well as the supplemental authorities and regulations that guide BLM management actions.

**Finding of No Significant Impact (FONSI)** explains why the actions outlined in this document will not have a significant effect on the human environment and why, therefore, an Environmental Impact Statement is not required.

**Appendix A: Table Rock Wilderness Plan Update** revisits the recreation components of the Table Rock Wilderness Management Plan, completed in 1987. It describes management actions taken since plan completion as well as the current management situation. It establishes revised goals and objectives for wilderness management, and identifies specific management direction and actions for visitor use, trails and visitor information.

### **Appendix B: Public Outreach**

*Source material used in the preparation of this document can be found in the Bibliography.*

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# Chapter 1

## INTRODUCTION AND BACKGROUND



## Chapter 1: Introduction and Background

The 37,487-acre Molalla River/Table Rock Special Recreation Management Area (SRMA) is located southeast of the city of Molalla, Oregon in the western Cascade Mountains. It includes 27,405 acres of public land. The Salem District, Bureau of Land Management has undertaken a planning effort in order to establish an effective management strategy for recreation resources within the SRMA.

A March 1992 land exchange between the BLM and the Cavanham Forest Industries division of Hansen Industries brought 11 miles of Molalla River frontage totaling 5013 acres into public ownership. A considerable amount of recreational use and public use including dumping, vandalism and long-term occupancy on private land precipitated the exchange. In the transaction, the BLM exchanged six scattered parcels of timberland amounting to 858 acres. The exchange, combined with existing BLM holdings including the Table Rock Wilderness, made the BLM the primary recreational provider along the upper reaches of the Molalla River.

Recreation-related management actions since the exchange have included designation of dispersed campsites, regular administrative and law enforcement presence, trail and trailhead construction, installation of sanitary facilities and the provision of public information. However, these actions have been undertaken without a long-term and comprehensive plan in place.

**Table 1: Scope of this planning effort**

Within the scope of this plan:	Outside the scope of this plan:
Describe a proposed comprehensive recreation management strategy for the Molalla River Recreation Corridor and Table Rock Wilderness	Provide management direction for resources other than recreation such as timber, wildlife and fisheries
Outline plans for managing overnight use	Modify land use allocations that guide timber management activities
Recommend a Special Recreation Management Area boundary to be included in the next land use planning effort	Make adjustments to land tenure or initiate any realty actions
Propose a recreation “niche” for the SRMA	Establish new fees without a public process
Explain what changes will be made to the trail systems in the planning area	Establish new regulations without being posted in the Federal Register

This Environmental Assessment (EA) has been prepared by the Salem District to present and analyze a range of potential management strategies for BLM-administered lands within the Molalla River/Table Rock SRMA. An EA is a public document that provides a tool for decision making by describing reasonable alternatives and considering their possible effects.

This EA will outline four alternative strategies and document the potential impacts of trail construction and site development projects. These projects will require some level of additional environmental documentation under the National Environmental Policy Act (NEPA).

This document also contains, as an appendix, an update to the recreation components contained in the Table Rock Wilderness Management Plan that was completed in 1987.

The Recreation Area Management Plan will provide direction only for the management of recreation use and resources within the planning area. It will *not*: prioritize projects for resources other than recreation; establish new recreation-related fees; establish or modify land use allocations which guide timber management activities; make modifications to land tenure; or establish on its own any new regulations. Many of these management decisions are made through the land use planning process and outlined in a Resource Management Plan.

The release of this EA marks the beginning of a formal 30-day comment period. Stakeholders and members of the general public are encouraged to provide feedback regarding the management alternatives during this period. Taking these comments into account, the BLM will formulate and release a final Recreation Area Management Plan. It will be accompanied by a Decision Record that outlines the rationale for the decision, as well as an implementation schedule that identifies the proposed timing of specific projects.

## 1.1 Description and Map of Planning Area

The headwaters of the Molalla River begin nearly 4,900 feet above sea level on the western slopes of the Cascade Mountains near Table Rock. The river flows undammed roughly 49 miles west and north to join the Willamette River near Canby. The planning area includes 27,405 acres of BLM-administered land and 10,082 acres of private land within the Upper Molalla Watershed (see Figure 1). Situated between the Clackamas River to the north and the North Fork of the Santiam River to the south, the Upper Molalla watershed exhibits traits typical of the western Cascades including dense coniferous forests, heavy precipitation and volcanic-origin geology. Elevations range from 4881 feet at the top of Table Rock to 800 feet along the Molalla River.



The planning area was identified as a Special Recreation Management Area (SRMA) by the 1995 Salem District Resource Management Plan in recognition of area's value as a recreation resource. SRMA's are geographic areas where the BLM provides an increased level of management attention as compared with Extensive Recreation Management Areas. The designation is administrative only and is meant to identify areas where staff time should be spent and investments in recreation should be focused.

The proposed SRMA boundary identified in this document (Figure 1) is more extensive than that found in the 1995 RMP. It more accurately reflects the extent of where BLM expends its resources to manage recreation use. Delineation of the new SRMA boundary constitutes a recommendation that it be recognized in the next land use planning process.

The Molalla River-Table Rock Special Recreation Management Area (SRMA) offers a wide variety of recreation opportunities including dispersed camping, picnicking, swimming, angling, horseback riding, mountain biking, hunting, day-hiking, non-motorized boating and recreational shooting all within an hour's drive of the Portland and Salem metropolitan areas. Over 90% of visitors to the planning area come from these metropolitan centers or elsewhere in the Willamette Valley. Few rivers in the state offer such ease of access to varied recreation opportunities so close to major urban areas.

Much of the area is accessible via paved or improved gravel roads originating from the west. The area's main access route, the South Molalla Forest Road, accounts for a large majority of administrative and recreational visits. Roads within the recreation area are also heavily used for the transport of timber and other forest products.

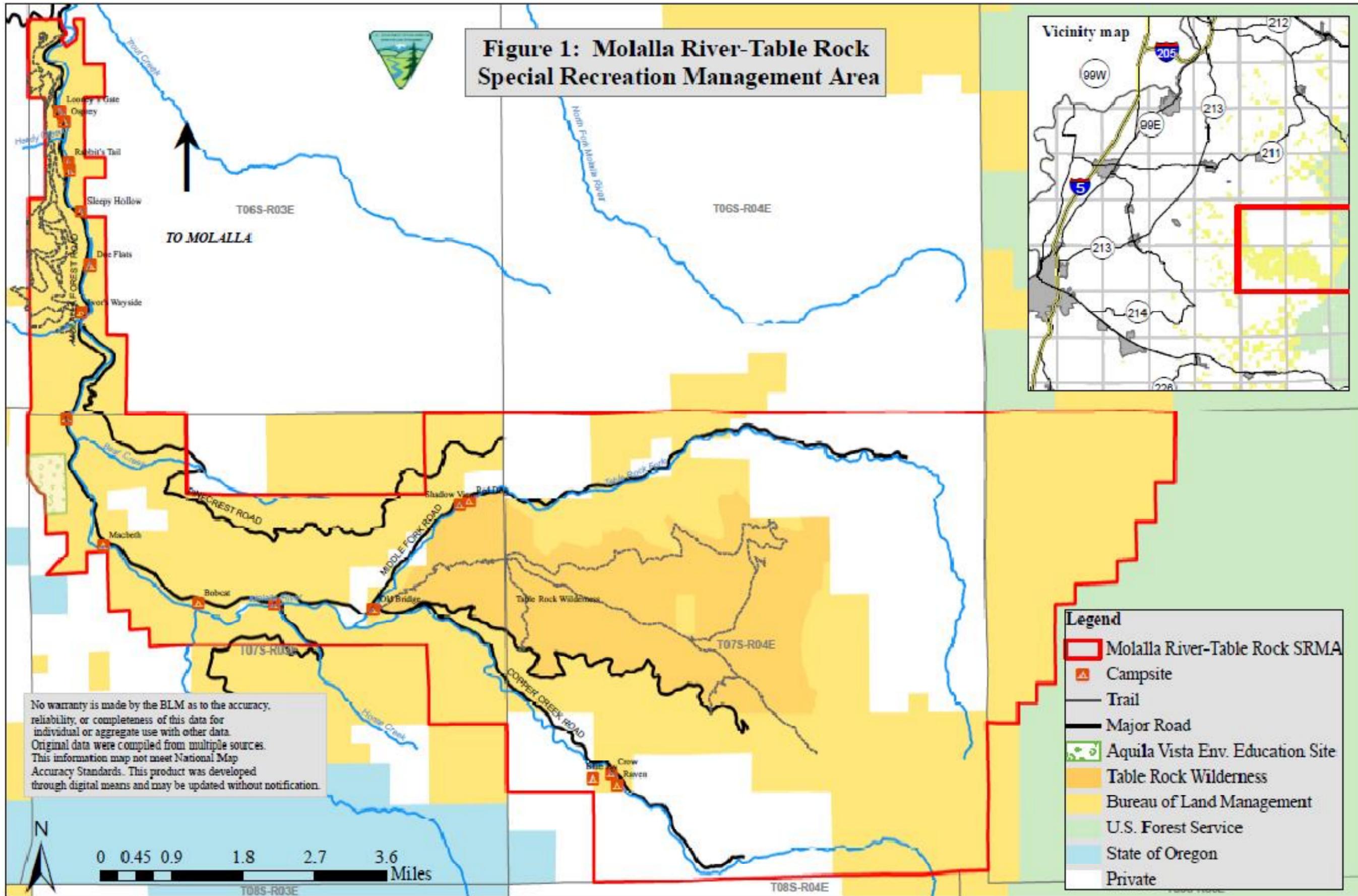
Current recreation use is primarily unstructured and dispersed in nature with limited facility development. Overnight camping is limited to 16 dispersed, designated campsites. These sites are minimally defined and provide few, if any, amenities. Day use is largely unregulated and spread over 50 informal pullouts located along major roads. These pullouts access swimming or fishing locations, picnic spots, recreational shooting sites or other dispersed recreation sites and have only minimal signage. Three vault restrooms are located along the most popular 10-mile stretch of the Molalla River (referred to as the Molalla River Recreation Corridor).

Trail-based recreation is provided for within the Molalla River and Table Rock Wilderness trail systems. The Molalla River Shared-Use system, accessible from 5 trailheads along the S. Molalla Forest Road, contains nearly 25 miles combining closed forest roads with singletrack trail and is open to hikers, mountain bikers and equestrians. The 20-mile wilderness trail system, accessible from 5 trailheads along secondary access routes, traverses the high ridges of Table Rock Wilderness. It is open to non-mechanized travel (hikers and equestrians only).

Aquila Vista Environmental Education Site is also located within the planning area. The site is utilized by classes from local school districts, youth conservation groups and other organizations. A small system of trails, bridges and boardwalks provides access to this unique wetland ecosystem.

In the 1995 Salem District Resource Management Plan (RMP), a 13.2 mile segment of the mainstem Molalla River was found 'suitable' by the BLM for inclusion into the National Wild and Scenic River System in recognition of its outstanding recreational, scenic and geologic values. In addition, a 13.4 mile section of the Table Rock Fork of the Molalla was found 'eligible' for inclusion to protect its cultural values. The BLM is required to provide interim protection for these river segments until they are designated or released from consideration.

**Figure 1: Molalla River-Table Rock Special Recreation Management Area**



## 1.2 Purpose and Need

The BLM-administered Molalla River-Table Rock Special Recreation Management Area provides important recreational opportunities for northwest Oregon residents. Readily accessible by a large proportion of the state's population, the area has seen a steady growth in visitation over the past two decades. This use has resulted in impacts to resources and concerns over public safety that necessitates establishing an appropriate management strategy.

Unregulated recreation use along the river and its riparian areas has resulted in impacts to the area's natural resources. This includes loss of ground cover and riparian vegetation, soil compaction and riverbank erosion. These impacts not only pose a threat to ecological resources but also degrade the setting needed for high quality recreation.

The nature of use within the planning area has also created conditions that pose a threat to public safety and undermine the quality of the visitor experience. Dumping, vandalism, reckless shooting, long-term occupancy, vehicular accidents and theft take place within the SRMA.

Current actions to address these issues are taking place without a long-term and comprehensive plan in place. The purpose of the proposed action is to establish a framework that will determine how recreation opportunities are provided for and managed within the Molalla River/Table Rock Special Recreation Management Area for the next 15 years. This includes BLM strategies to:

- Manage recreation use in a manner that prevents resource degradation and contributes to the long-term health of lands within the recreation area
- Manage public lands for recreation experience and improved quality of life under the Benefits Based Management framework
- Provide diverse, high quality recreation opportunities that contribute to meeting demand for recreation
- Resolve identified issues associated with public safety
- Establish an adaptive structure that will allow the BLM to adjust to new conditions and trends
- Comply with relevant agency goals and directives including those found in the 1995 Salem District Resource Management Plan
- Identify specific actions the BLM would take to implement these strategies
- Establish a recreation "niche" for the SRMA and effectively market this strategy to capitalize on local travel and tourism-related spending

## 1.3 Issues and Concerns

A planning issue is defined as a matter of controversy, dispute, or general concern over resource management activities, the environment, or land uses. Listed below are issues that were identified through the internal and external scoping process. The goal of this planning effort is to effectively address these issues through a comprehensive recreation management strategy.

**Issue: *Long-term Management and Rural/Wildland Interface***

*How will appropriate long term management of the recreation area be accomplished? How will rural/wildland interface issues be addressed? How will public safety be improved?*

Pressures from growing regional population centers continue to increase the potential for urban interface issues. These pressures translate into dumping of household or commercial garbage, vandalism and theft of personal and public property and occupancy beyond the legal 14-day overnight stay limit. Reckless driving has resulted in numerous vehicular accidents and several fatalities over the past decade. These activities have been noticeably reduced in the past three to four years in conjunction with a concerted effort to increase law enforcement presence by local, county and federal authorities but remain a matter of concern. Over time, these activities degrade the visitor experience and may prevent some members of the public from visiting the SRMA.

**Issue: *Community Contributions***

*What 'niche' should the Molalla River-Table Rock SRMA fill in the regional recreation market? How will management of the river enhance its role as a community resource? What possibilities exist for partnerships that can boost appropriate travel and tourism-related activity?*

The Molalla River-Table Rock SRMA plays two important roles in the regional recreation and travel market. First, it provides 'backyard' recreation opportunities for area residents and contributes to the local quality of life through easy access to natural settings and varied recreation activities. Second, it serves as a travel destination for visitors from elsewhere in northwest Oregon, particularly the Portland metropolitan area. The recreation opportunities within the SRMA hold potential economic benefits for local communities in the form of travel and tourism-related spending. Appropriate development, marketing and management of the SRMA have the potential to enhance its dual roles as community recreation resource and regional travel destination.

**Issue: *Overnight Camping***

*How will overnight recreational use of the area be managed? To what degree and in which locations is camping appropriate? Should a developed campground(s) be constructed within the planning area? How will recreation-related impacts to other resources be minimized?*

Overnight camping is a popular activity within the recreation area, engaged in by nearly half of all visitors. The Molalla River-Table Rock SRMA provides opportunities for free, dispersed, riverside camping that are uncommon in comparable recreation areas. While popular, this use has the potential to adversely impact river-related resources through soil compaction, riverbank erosion and the presence of human waste. The management of overnight camping has consistently been identified as one of the most pressing issues for this plan to address.



**Issue: River Access**

*How will river access be provided under this plan? What amenities or level of development will be provided?*

The Molalla River is the primary draw for visitors to the SRMA. A large majority of users report engaging in river-related recreation including swimming, angling, riverside camping or boating. Much of this use has been established based on ease of access rather than the attributes and durability of each location. These sites currently lack infrastructure such as defined parking areas, improved river access points, visitor information and restrooms. The potential exists to identify more appropriate access points and minimize undesirable impacts.

**Issue: Non-Motorized Trails**

*What actions will be taken to address demand for non-motorized trail use? How will unsustainable portions of the trail system be addressed? Will the Shared-Use or Wilderness trail systems be enhanced or expanded under this plan? How will potential user conflicts be addressed?*

The Molalla River Shared-Use Trail System was developed in the mid 1990's to address demand for new trail opportunities. The system, which included nearly 25 miles of closed forest roads and singletrack trails, has not been greatly altered or expanded since construction was completed. Many portions of the trail system were built unsustainably. Over time, there has been erosion of the trail surface, leading to long term maintenance challenges and shortened seasons of use. The Wilderness Trail System has undergone numerous changes and improvements since the 1987 Management Plan was completed. However, several weak links still exist that warrant management attention.

**1.4 Decision To Be Made**

The BLM will identify which strategies are most appropriate for managing recreation resources and human use within the Molalla River/Table Rock SRMA. This includes:

- What type of overnight activity will be allowed within the planning area
- If overnight use is allowed, what type of facilities will be provided to accommodate it
- What type of day use opportunities will be offered and at which locations
- What facilities will be developed for day use and river access
- To what extent the Shared Use Trail System will be modified or enhanced, including construction of new trails
- What types of visitor information or services will be provided and in what locations
- What interpretive materials will be developed
- What restrictions will be placed on certain recreation activities
- Whether a system of recreation fees will be pursued

## 1.5 Planning Process

This plan was produced through a collaborative process with a variety of stakeholders including local government entities, elected officials, non-profit organizations, user groups, interested members of the public and BLM personnel. Input has been received in a continuous and iterative manner with numerous opportunities for comment.

The planning process for the Molalla River-Table Rock plan has been ongoing since a scoping meeting was held October 7, 2008. Held at the Molalla Public Library, the meeting provided a three hour open house forum for members of the public to explain their interests and concerns regarding management of BLM lands in the Upper Molalla Watershed. This meeting contributed to setting the scope of the plan and identified issues and concerns to be addressed.

Following the initial scoping meeting, a BLM website ([http://www.blm.gov/or/districts/salem/plans/molalla\\_index.php](http://www.blm.gov/or/districts/salem/plans/molalla_index.php)) was established to disperse plan-related information and provide background for interested parties.

The planning process has also been included in the Salem District's quarterly Project Update publication since 2007. The publication provides information regarding BLM's current project work and provides contact information for public involvement.

Throughout 2009 BLM staff gathered additional resource information, completed a Pre-Plan Analysis and compiled preliminary management alternatives. BLM staff participated in a series of tours, meeting and focus groups to solicit stakeholder input:

- *March 2009*: Meeting of the Molalla River Alliance to present the Pre-Plan Analysis and provide an opportunity for comment
- *April 2009*: Tour of the Molalla River with members of Representative Kurt Schraeder's office
- *May 2009*: Tour with members of Molalla RiverWatch and Todos Juntos
- *June 2009*: Tour with members of various non-profit groups and local stakeholders
- *September 2009*: Tour in conjunction with a visit from Representative Kurt Schraeder
- *October 2009*: Presentation at Molalla River Alliance meeting of preliminary management alternatives
- *November 2009*: Focus group with local business and community leaders to discuss the recreation area's role in the regional travel and tourism sector
- *December 2009*: meeting with members of the Molalla RiverWatch to discuss management alternatives
- *April 2010*: Presentation to the Hamlet of Molalla Prairie to discuss potential management actions and opportunities for public comment

A BLM Interdisciplinary Team (see Interdisciplinary Team of Preparers on page 5) was convened during the planning process. Its role was to help refine goals and objectives, analyze the area's resource, predict the potential impacts of the management alternatives and produce planning documents.

## 1.6 Benefits-Based Management

In 2006, the Bureau of Land Management formally adopted a new approach for providing and managing recreation opportunities on public lands: Benefits-Based Management (BBM). This decision marked a shift in thinking away from simply providing recreation activities and the facilities that go along with them.

Instead, it requires public land managers to consider the broader picture of why people engage in recreation, what types of outcomes result from that participation and what recreation providers can do to help produce high quality experiences.

The central question posed under this framework is: Why should recreation opportunities and services be provided? Answering this question goes beyond stating that someone enjoys hiking in a natural setting or picnicking with their family. Under BBM, the question is answered by identifying the particular outcomes and benefits that result from participation in outdoor recreation. These include:

- Benefits to *individuals* such as improved mental well-being and an enhanced sense of personal freedom
- Benefits to *households and communities* such as improved group cooperation and an enhanced sense of place
- Benefits to the *economy* such as increased tax revenues from visitors and increased property values
- Benefits to the *environment* such as improved awareness and protection of natural process

Working under the BBM framework requires identifying which benefits are most suitable for the area and most valued by the stakeholders involved. All management actions, therefore, should be geared towards providing as many of these benefits as possible in the context of other public land resources.

BBM also requires taking a regional perspective and identifying how the Molalla River-Table Rock SRMA relates to other nearby recreation opportunities. This concept is referred to as a 'niche', the recognition of what role a given recreation area should play in the regional market and what benefits managers should try to provide within that area.

Principles associated with the BBM model play a large role in planning for and managing the Molalla River-Table Rock SRMA. The final plan will articulate the activities, experiences and benefits targeted within the recreation area. Some BBM terminology (i.e. niche, outcomes, etc) will be utilized in this document in attempt to illustrate the differences in alternatives.

## 1.7 Land Classification

This section describes the land classifications present within the planning area including land use allocations, potential additions to the National Wild and Scenic River System and a lease under the Recreation and Public Purposes Act.

The planning area is defined by the boundaries of the Molalla River-Table Rock Special Recreation Management Area (SRMA). An SRMA is an umbrella designation for a geographic area where additional resources (labor, funds, etc) are spent to manage recreational use. SRMA's overlay land use allocations and Congressional designations and provide direction for recreation management only.

All BLM public lands not contained within an SRMA are classified as an Extensive Recreation Management Area, or ERMA. An ERMA is an area where recreational use is likely to occur, but at lower levels that do not require specific, focused management attention.

### 1.7.1 BLM Land Use Allocations

Land use allocations are designations that determine what land management actions are appropriate in a given area. They are established during district-level land use planning processes such as the Salem District Resource Management Plan (RMP). Land use allocations guide all resource management actions including timber, wildlife and fisheries.

Under the 1995 Salem District RMP the BLM adheres to Northwest Forest Plan Land Use Allocations. Below is a table and description that summarizes the Management Objectives for the major land use allocations in the Salem District RMP. Classification that overlay land use allocations (Riparian Reserves, potential Wild and Scenic Rivers) are also described.

There are three land use allocations within the planning area boundary: General Forest Management Area (GFMA), Congressional Reserve (Table Rock Wilderness), and Late Successional Reserve (LSR). Of these three allocations, approximately 21% (5,702 acres) of the proposed planning area is within the wilderness with 32% in GFMA (8,895 acres) and 47% in the LSR (12,808 acres).

<b>Table 2: BLM Land Use Allocations</b>	
<i>Land Use Allocation</i>	<i>Acres</i>
Matrix	8,895
General Forest Management Area	8,895
Connectivity	0
Late Successional Reserve	12,808
Congressional Reserve (Table Rock Wilderness)	5,702
<b>TOTAL BLM OWNERSHIP</b>	<b>27,405</b>
Non-Federal Lands	10,082
<b>TOTAL ACREAGE</b>	<b>37,487</b>

**Matrix:** Matrix lands include both General Forest Management Area and Connectivity lands. Only General Forest Management Area lands are present in the planning area:

**General Forest Management Area (GFMA):** Management objectives for GFMA lands include producing a sustainable supply of timber and other forest commodities while providing habitat for a variety of organisms, providing important ecosystem functions, and providing early seral habitat (RMP p. 20). The BLM manages **8,895** acres of GFMA within the planning area.

**Late-Successional Reserve:** Late-Successional Reserves protect and enhance conditions of late-successional and old growth forest-related species.

### 1.7.2 Table Rock Wilderness

The entirety of 5,702-acre Table Rock Wilderness is contained within the planning area. Table Rock Wilderness was designated as a component of the National Wilderness Preservation System by the Oregon Wilderness Act of 1984 (PL 98-328). It remains the only BLM-managed Wilderness within the boundaries of the Salem District. Management direction for the Wilderness is found in the Table Rock Wilderness Management Plan, completed in 1987. This planning effort updates the recreation-related components of the plan in Appendix A, Table Rock Wilderness Management Plan Update.

### 1.7.3 Wild and Scenic Rivers

#### Wild and Scenic Rivers – Molalla River Segment B

A 13.2 mile section of the mainstem Molalla was found ‘suitable’ for inclusion into the National System. A ‘suitable’ finding is made only after a detailed assessment by the BLM and constitutes a recommendation that the river be designated under the 1968 Wild and Scenic Rivers Act.

The segment, referred to as Molalla River Segment B, extends from the confluence of the mainstem Molalla with the Table Rock Fork of the Molalla River downstream to Glen Avon Bridge. It includes 2,988 acres of BLM-administered lands with on both sides of the river, most of which were brought into public ownership through the exchange described previously.

Molalla River Segment B has been given a preliminary classification of **Recreational**. This indicates the river is readily accessible by road, has some shoreline development and may have undergone some impoundment or diversion. Outstandingly Remarkable Values were identified as **Scenery, Recreation and Geology**. A Resource Assessment for this segment was completed during the land use planning process and contained an analysis of the river’s suitability for WSR designation (it is available for review at the Salem District Office).

The following descriptions of the Outstandingly Remarkable Values are summarized from the 1992 Resource Assessment:

*Scenery:* Wide range of colors and textures. The river’s character ranges from deep clear pools to riffles and cascading whitewater. Many rock outcrops and cliffs descend directly into the river. Human influences detract slightly from the view in many areas, but the overall impact is not



significant.

*Recreation:* Opportunities include day hiking, fishing, dispersed camping and whitewater boating. The area attracts visitors originating from within and outside the area. Ease of access and diverse opportunities add to the value of this river corridor.

*Geology:* Geological value of this segment is considered unique and rare in the region. A series of horizontal columnar basalt rosettes occur near the middle of the segment. This feature is especially unusual because it has been exposed by erosion processes of the river itself.

### **Wild and Scenic Rivers- Table Rock Fork**

A 13.4 mile section of the Table Rock Fork of the Molalla River was found 'eligible' for inclusion into the National System. The segment extends from its headwaters downstream to its confluence with the mainstem Molalla River. It includes 1,385 acres of BLM administered land which are a mix of Public Domain and O&C lands. Some of this acreage already falls within the boundaries of the Table Rock Wilderness.

The Table Rock Fork was given a preliminary classification of **Recreational** during the eligibility determination process. Outstandingly Remarkable Values were identified as **Cultural**.

The following descriptions are summarized from the 1990 Eligibility Assessment:

*Cultural:* There is a high site density within this river corridor; five cultural sites are currently recorded. A National Register of Historic Places eligibility has not been completed.

Within the Salem District, only river segments with 40% public ownership or more within the preliminary river corridor were evaluated for suitability during the 1995 RMP effort. The Table Rock Fork fell below this threshold, and as a result, was not evaluated for suitability.

#### ***Interim Management of Suitable and Eligible Wild and Scenic Rivers***

Until such time as these river segments are designated under the National Wild and Scenic Rivers Act or released from consideration, the BLM is required to provide interim protection of the river's free flowing characteristics and potential Outstandingly Remarkable Values.

### **1.7.4 Other Land Classifications**

#### **Recreation and Public Purposes (R&PP) Lease**

Roughly 4,442 acres within the Molalla River-Table Rock SRMA are under a Recreation and Public Purposes lease to Clackamas County. The lease was entered into by the county and the BLM on January 6<sup>th</sup>, 1995 and is set to expire in January 2020. The Recreation and Public Purposes Act of 1956 authorizes the sale or lease of public lands for recreational or public

purposes to State and local governments and qualified non-profits. The lease was put in place to facilitate potential cooperative recreation development and management projects.

## **1.8 Conformance with Land Use Plan, Statutes, Regulations, and other Plans**

Management actions identified in this plan will be designed to conform to the following documents, which direct and provide the legal framework for management of BLM lands within the Salem District:

- *Salem District Record of Decision and Resource Management Plan*, May 1995 (RMP)
- *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, April 1994 (the Northwest Forest Plan, or NWFP).
- *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, January 2001.

### **1.8.1 Related Plans and Reports**

The following reports provided important background information for producing this draft plan:

- *Resource Assessment of the Molalla River* (1993) Analyzes the suitability of the mainstem Molalla River for inclusion into the National Wild and Scenic Rivers System.
- *Molalla River Watershed Analysis* (1999) Presents a watershed-level perspective on the physical, social and environmental conditions and trends within the watershed.

The above documents are available for review in the Salem District Office. For a full overview of plan conformance, consultation and supplemental authorities associated with this document, see Chapter 5.

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## **Chapter 2**

# **ALTERNATIVES**



## Chapter 2: Alternatives

Chapter 2 describes overall management goals and objectives and describes each of the four alternatives.

### 2.1 Management Goals and Objectives

The following goals and objectives are common to all four management alternatives.

**Table 3: Management Goals and Objectives**

<b>Management Goals</b>	
Manage the Molalla River-Table Rock SRMA for the use and enjoyment of present and future generations	
Manage recreation use in a manner that mitigates impacts on the ecological integrity of the planning area	
Administer the SRMA consistent with its identified ‘niche’ in order to maximize community and economic benefits	
Adaptively manage the SRMA to enhance the area’s recreational opportunities and unique characteristics while recognizing that increased future use will trigger the need for increased levels of management	
<b>Management Objectives</b>	
Ensure natural resource protection by providing complimentary public access and minimizing recreation-related impacts	Provide a broad range of recreation experiences and associated benefits within the Benefits-Based Management framework
Engage in collaborative land management by working in partnership with private and public entities including local governments, non-profit organizations and recreational user groups	Protect public safety by limiting the occurrence of vehicular accidents, theft and vandalism
Supply recreation opportunities in a manner that satisfies existing and expected demand	Protect the area’s value as a recreation setting by maintaining and enhancing its scenic values
Utilize public information to effectively communicate rules, regulations and relevant natural and human history	Develop a management strategy that is reasonable, cost-effective and implementable

## 2.2 Alternatives Summary

Four alternatives were developed in response to the purpose and need. These alternatives include the no action alternative (Alternative A) and three action alternatives (Alternatives B, C, D). Each alternative is described in this section and analyzed in Chapter 4.

Each of the alternatives represents a different strategy for addressing the issues outlined in section 1.3. Resources to implement this plan will be finite. The alternatives were developed to reflect that emphasis on one activity or theme (i.e. new trails) will result in fewer resources available for others (i.e. developed camping). The question is not what actions should be taken to fix the identified issues, but rather what actions can be taken given what is available.

Implementation of any of the alternatives is dependent on the availability of funds, staff time and other resources. Any facility, trail and amenity development will be completed in a manner that minimizes long-term operations and maintenance costs.

**Alternative A-Continuation of Existing Management (No Action Alternative)**, proposes continuing current management practices. No large-scale site development or alteration would occur. Designated, dispersed camping areas would remain and be managed under current rules and regulations. Day use and river access would continue at their present locations, with action taken only to address the most severe resource concerns. No new trails would be constructed and trailhead access would remain as is.

**Alternative B-Primitive Camping Emphasis (PROPOSED ACTION)** proposes concentrating overnight and day use to locations that minimize natural resource impacts. Camping would be limited to three minimally developed campgrounds, each consisting of 6 to 10 sites with no water or electrical facilities. Two existing campsites would be closed and enhanced for day use. Some day use sites would be closed but most would remain available. An overhaul of the Molalla Trails System would close or re-route unsustainable portions of the trail system and up to 5 miles of new trail would be constructed with a focus on providing user-specific opportunities. Visitor information development would include a small interpretive program and production of a water trail guide. A river restoration program would be implemented at closed campsites and day use locations, totaling up to 20 locations.

**Alternative C-Centralized Camping Emphasis** proposes the construction of one developed campground that can accommodate 24 to 36 units. Camping would be prohibited outside this location. A day use-only area providing river access would be provided adjacent to the campground. One other location would be improved and open to day use only. A riverside trail would be developed adjacent to the campground. A major overhaul of the Shared Use Trail System would not be completed. Visitor information improvements would include a volunteer host stationed within the recreation area. A river restoration program would be implemented at up to 25 locations.

**Alternative D-Day Use Emphasis** proposes closing all existing campsites and prohibiting camping within the main recreational corridor to protect the river's natural resources. Three developed day use sites would be constructed, providing improved river access. One of these sites would function as a visitor portal, welcoming visitors to the recreation area. Two to three miles of new trail would be constructed along the river south of Turner Bridge.

A comprehensive interpretation and visitor information plan would be implemented to enhance the day use experience. An aggressive river restoration program would be implemented at up to 35 locations.

## 2.3 Description of Alternatives

Each alternative varies based what ‘recreation niche’ the planning area will serve-

**Recreation Niche Statement:** Describes the ‘recreation niche’ the Molalla River-Table Rock SRMA fills in the regional recreation market. Answers the question: what will the area be known for under the alternative?

**Intent:** Summarizes the reasoning behind the recreation niche and describes the priorities in managing the area. Describes which visitors are targeted and what activities are provided.

Each alternative also varies by four management themes-

- **Overnight Use:** Includes all components of overnight use within the SRMA such as rules and regulations, facilities, management strategies and appropriate locations.
- **Day Use and River Access:** Includes the rules, facilities and strategies that concern non-overnight activities including swimming, picnicking, recreational mining, boating and fishing.
- **Trail Access and Development:** Covers the 24.6 mile Shared-Use Trail System and associated trailheads as well as potential riverside trails. Identification of appropriate trailhead and trail locations.
- **Visitor Services and Information:** All the public information related to the SRMA including administrative presence, information kiosks, interpretative materials, wayfinding signage, brochures and websites.

Management direction related to travel and transportation, recreational mining, charging of fees, Aquila Vista Environmental Education Site, and permitting of commercial activities applies to all of the action alternatives (B, C and D) and can be found in section 2.5 *Common to All Action Alternatives*. This section also contains project design features.

### 2.3.1 Alternative A: Continuation of Existing Management

**Recreation Niche Statement:** The Molalla River-Table Rock recreation area provides a wide variety of dispersed, free and unstructured recreation opportunities along a forested river corridor. Easy river access and minimal facility development allow for a self-directed experience.

**Intent:** Provide for a ‘do-it-yourself’ recreation experience with management actions taken to address the most severe resource concerns. Provide little to no infrastructure development and minimize long term operations and maintenance costs. Prevent visitor use in undesirable or sensitive locations through gating or blocking vehicle access. Draw visitors from the population centers and outlying rural communities. Options for a wide range of activities include swimming, camping, recreational shooting, fishing, non-motorized trail use and boating.

**Overnight Use:** Overnight use limited to 16 dispersed, designated campsites located along S. Molalla Forest Road, Table Rock Road and Copper Creek Road. Camping is prohibited outside these locations. The majority are located in the main recreational corridor between Amanda's Trailhead and Turner Bridge. Campsites currently in use remain open and existing rules continue to apply. Depending on the location, each site has parking for 2 to 8 vehicles, with an average of 4.

Estimated total capacity (assuming 4 vehicles/site, 2.5 individuals/vehicle): *160 overnight users*

Each site provides a minimum level of amenities:

- Metal fire ring
- Posted signage outlining rules and regulations
- Minimally defined parking
- No restrooms or trash service

No fee is charged for use of these sites and no formal registration process is applied. No regulations specific to the SRMA are in place. Relevant existing regulations include the 14-day overnight stay limit and others related to public use and occupancy that apply to all public lands in Oregon and Washington.

Sites were chosen for designation from the numerous informal camping locations established prior to BLM's management of the area. The primary criterion for designation was each site's location between major roads and the river in order to prevent the potential spread of fire. Many of these sites are located at premium river access points, and their long term use by campers prevents access by other visitors.

The sites themselves are not defined, although vehicle access is restricted through the use of physical barriers. Users are asked to utilize vault restrooms in the vicinity or practice Leave No Trace principles including burying human waste and packing out all trash.

**Day Use and River Access:** Day use spread over 50+ informal sites, most of which are pullouts along major roadways. Most popular day use locations provide river access for swimming and angling, while others are utilized for picnicking or recreational shooting. Each access point is user-created, and trails to the river are characterized by poor alignment leading to soil erosion and loss of riparian vegetation.

Vehicle access to many of these sites is restricted with physical barriers. Additional management action is taken only to address the most severe resource concerns.

**Trails and Trailhead Access:** Continue regular maintenance on the existing 24.6 mile Shared-Use Trail System, accessed from 5 trailheads (Amanda's, Americorps, Sandquist, Hardy Creek, Yellow Gate). An additional trailhead, Quarry, is not presently maintained. Continue to combine paid youth crew labor with volunteer assistance to complete priority work. Regular annual maintenance including brushing, grubbing, removal of fallen trees and tread repair would continue as agency funding is available.

Use of the system would continue to be limited to non-motorized users including hikers, mountain bikers and equestrians. Trails are named, assigned a level of difficulty and open to all users.

While there is no formal zoning by use (i.e. equestrians confined to particular trails) the nature of the trails and trailhead access has the natural effect of segmenting users. Equestrian access is effectively limited to Hardy Creek and Yellow Gate trailheads due to constraints with trailer and vehicle size.

All singletrack trails remain closed to bikers and equestrians during the late fall, winter and early spring to prevent excessive trail damage. This period typically last from mid-October to mid-April; the closure is posted at each trailhead. During the closure, forest road trails (roughly half of the total mileage) remain open to all users.

**Visitor Services and Information:** Maintain and replace existing information and wayfinding signage. No interpretive materials are presented.

Signage includes:

- Rules/regulations signage at each designated campsite and most day use locations
- Large entrance sign on S. Molalla Forest Road at the beginning of BLM-administered lands (Amanda's TH)
- Large sign outlining major rules and regulations (Americorps TH)
- 3 metal information kiosks with maps, activity suggestions and rules/regulations (Americorps TH, Ivor's Wayside, Turner Bridge)
- Wooden single-panel kiosks at trailhead locations
- Large wooden 3-panel kiosk at Hardy Creek
- Road safety signage including speed limits and trail user crossings
- Oregon Department of Fish and Wildlife fishing regulations

During the high use season (typically late May to late September), each site is patrolled and cleaned by BLM staff based at Wildwood Recreation Site and volunteer hosts based at the BLM Molalla Maintenance Shop. Contact with campers is made where possible and trash is removed. Administrative presence is provided, on average, between 6 and 7 days per week during the high use season.

Law enforcement is provided through a cooperative effort between BLM, Clackamas County and the City of Molalla. Enforcement efforts target vehicle infractions, underage drinking and long-term occupancy.

Bi-annual clean-ups, special events, and trail work parties are held in partnership with local and state non-profit groups. BLM also participates in and provides funding for the Dumpstoppers program (operated by Clackamas County), aimed at preventing and prosecuting dumping on public lands.

### **2.3.2 Alternative B: Primitive Camping Emphasis (Proposed Action)**

***Recreation Niche Statement:*** The Molalla River-Table Rock recreation area provides diverse opportunities for river-based activities and minimally-developed camping along a forested river corridor. Rustic facilities and easy river access allow for a relatively primitive recreation experience close to rural communities and urban population centers.

***Intent:*** Provide for a high quality visitor experience while minimizing resource impacts.

Strategically place amenities to control visitor use and mitigate impacts to sensitive resources, focusing on previously impacted areas. Minimize infrastructure development and long term operations and maintenance costs while adequately managing for increased visitor use. Maintain one of the primary attractions to the area and preserve existing visitor base by providing opportunities for primitive, riverside camping. Provide a mix of trail opportunities that are catered to specific users. Options for a wide range of activities include swimming, camping, fishing, non-motorized trail use and boating.

**Overnight Use:** Camping restricted to three small developed campgrounds, each with 8 to 10 units totaling no less than 24 sites. Campsites provide walk-in sites for tent camping in a primitive, riverside setting. Campgrounds would be located at the current locations of Rabbits Tail and Sleepy Hollow campsites and the Pine Creek bridge gravel stockpile. Identify Macbeth campsite as a location for potential development.

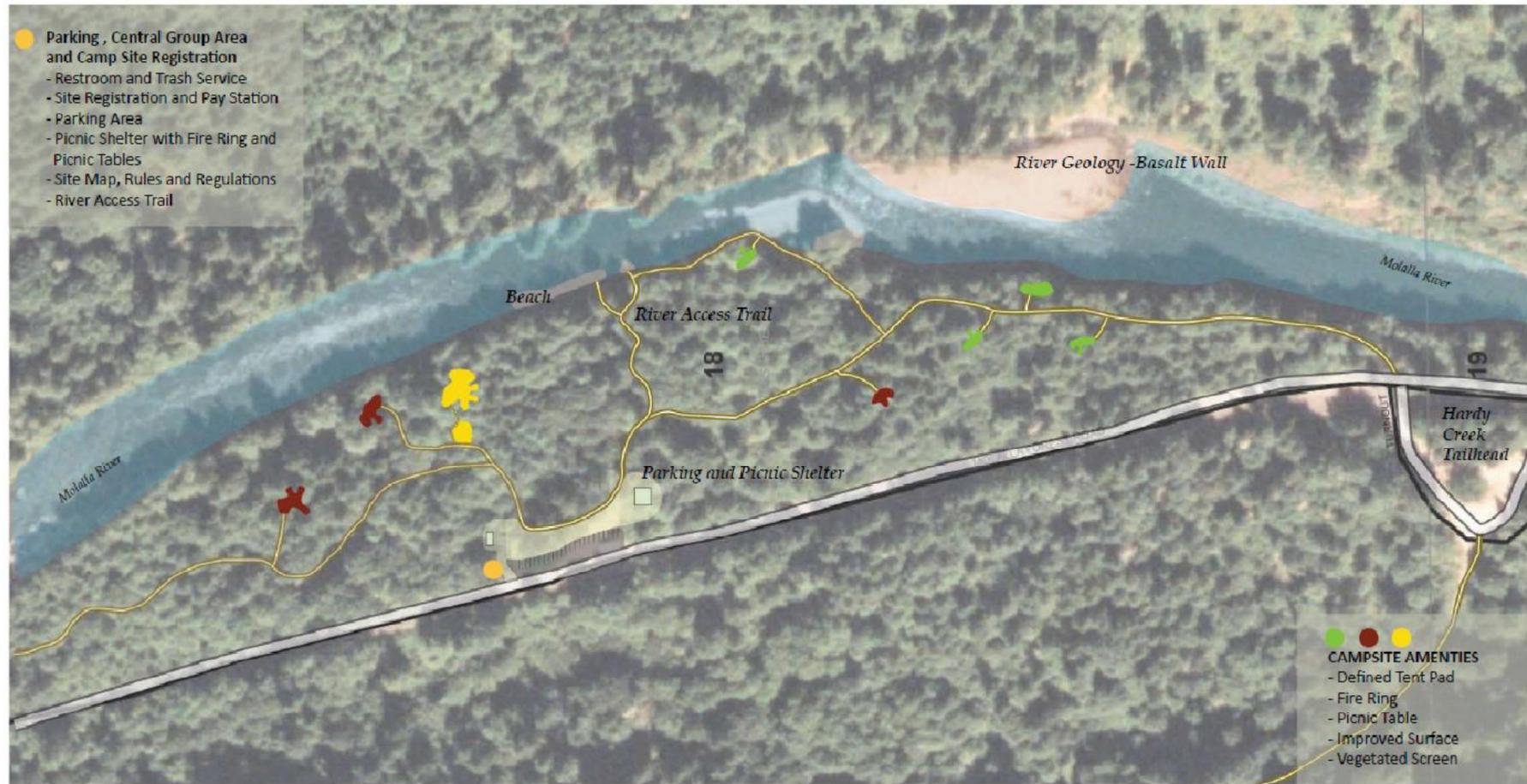
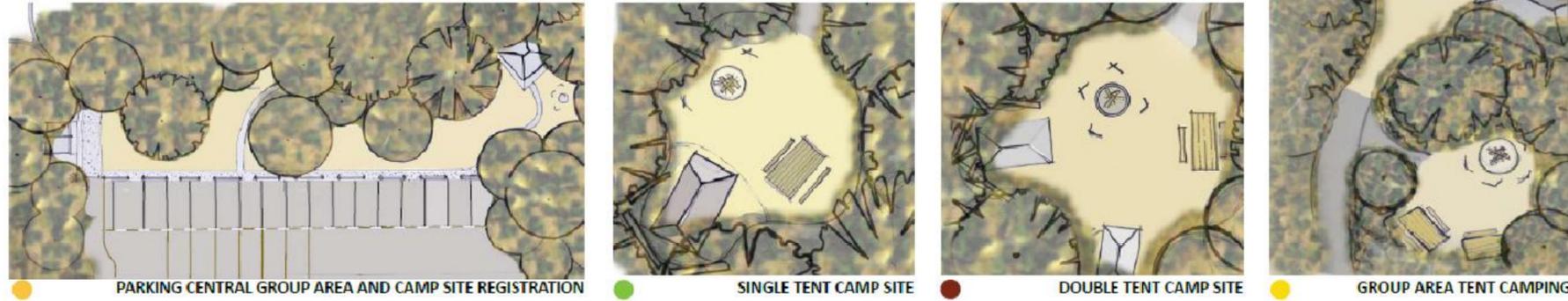
Estimated total capacity (assuming 2 vehicles per site, 2.5 individuals per vehicle): *up to 130 overnight users*

Amenities provided include:

- Metal fire ring
- Designated and defined parking for each site
- Overflow parking
- Varying campsite capacities to accommodate different group sizes
- Improved trails and river access
- Information and registration board
- Trash service
- Defined site with tent pad
- Vault restroom for each campground
- BBQ grills

<b>Table 4 Alternative B (Proposed Action) Campground Development</b>			
<b>Campground Name</b>	<b># of Sites</b>	<b>Opportunities Offered</b>	<b>Estimated Acreage</b>
<b>Rabbits Tail</b>	8; parking for 16 vehicles	Central parking area directly off of Molalla Forest Road - Walk in tent camping, with two larger group sites near parking area - connections to Hardy Creek Trailhead and riverside trail	7
<b>Sleepy Hollow</b>	8; parking for 14 vehicles	Walk-in tent camping with improved river access points; most sites (up to 6) are located in the cedar grove south of parking area	5
<b>Pine Creek Bridge</b>	Up to 10	Current location of gravel stockpile. Pull through site with back-in parking for tent camping and small RV's (less than 30')	6
<b>Macbeth (potential)</b>	6 to 8; pull-through parking for 12 vehicles	Identify as a potential development site during 15 year plan; gravel would be re-located and half the site restored; rest of site could accommodate small RV's	6

# Molalla River - Table Rock Recreation Area Management Plan "Alternative B -Proposed Walk-in Camping Development Concept"



MOLALLA RIVER

## CAMPING DEVELOPMENT

The proposed camping development concept allows visitors a natural, primitive camping experience while protecting the locations riparian resources. Walk-in access to defined riverside campsites is complimented by a central restroom and trash facilities.



CAMPSITE CONFIGURATION



POTENTIAL WALK -IN CAMPING LOCATION

Users are charged a moderate Expanded Amenity Fee (in the range of \$6 to \$10 per night). Users arrive, register, and orient themselves at the central information panel. Sites are filled on a first-come, first-served basis. As conditions dictate, reservation systems for individual campgrounds would be considered. Rules including length of stay, quiet hours and group size are developed and clearly communicated.

Levels of amenities, development and administrative presence vary between the three campgrounds, catering to a wide variety of preferences. At least one campground provides parking for small Recreational Vehicles (30' and under). Within each campground, sites would be widely distributed and accessible via a network of trails to provide a level of privacy and feeling of remoteness.

Sites patrolled and cleaned by BLM staff and volunteer hosts. Hosts would remain stationed at the Molalla Maintenance Shop.

As conditions and use levels dictate, evaluate potential development at Macbeth location. This decision would be made within an adaptable framework that establishes standards and indicators for visitor satisfaction, occupancy rates and other factors.

**Day Use and River Access:** Majority of dispersed day use locations remain open. Those with severe resource concerns (riparian area damage, vehicle trespass, etc) would be closed and rehabilitated. Developed day use locations created at Looney's Gate and Ivor Davies. Amenities at these locations include:

- Improved and defined parking
- Trash service
- Information kiosks
- Additional vault restrooms
- Improved and hardened trails for river access

Development at these locations focuses on concentrating use in most appropriate areas (i.e. those with low resource concerns) and providing infrastructure (fencing, trail improvements, etc) that facilitate low impact river access. Utilize physical barriers to minimize or prevent vehicle access to sensitive locations.

Enhance the current location of Old Bridge campsite to provide improved river access for whitewater boaters. Improvements include defined parking and visitor information.

**Trails and Trailhead Access:** Complete an overhaul of the Shared Use Trail System that fixes and/or re-routes unsustainable portions. Create equestrian and mountain bike emphasis areas in the South End and North End trails, respectively.

In the Loop Trail portion of the Shared Use Trail System, fix and/or re-route unsustainable trail segments. Harden up to 3 miles of singletrack trails for year-round use including Fern Creek Trail. Increase the capacity of Hardy Creek TH.

Close portions of the North End trail system and develop new mountain-bike specific trails including technical trail features, bermed corners and designed grade reversals. Improve Americorps trailhead and promote as primary access to North End trails.

Between current southern extent of the trail system and Aquila Vista, construct a shared-use singletrack connection of up to 3 miles that allows for longer loops utilizing Huckleberry Trail.

Use of the system limited to non-motorized users including hikers, mountain bikers and equestrians. Provide these recommendations within emphasis areas without a formal closure of trails to specific users unless conditions dictate.

All singletrack trails remain closed to bikers and equestrians during the late fall, winter and early spring to prevent excessive trail damage. As re-routes and new trail segments are completed, evaluate season of use with the potential for longer open season.

Continue to provide vehicle access to the Shared Use Trail System by keeping access roads in a serviceable condition.

**Visitor Services and Information:** Improve consistency and appearance of visitor information including signage and kiosks. Develop one interpretive station within the main recreation corridor.

Install and maintain new, consistent visitor information at developed campgrounds that clearly articulates rules and regulations. Develop and install appropriate wayfinding signage for campgrounds and improved sites. As sites are decommissioned, remove and update signage as appropriate.

Maintain patrols during high use season (typically late May to late September). Focus patrols on primitive campgrounds and concentrated day use locations. Place greater emphasis on regular contact with visitors by BLM staff and volunteer hosts.

Participate in cooperative law enforcement effort between BLM, Clackamas County and the City of Molalla Police Department. Enforcement efforts focus on overnight camping infractions, underage drinking and vehicle infractions.

Participate in special events, bi-annual river clean-ups and Dumpstoppers program (as funding allows).

Produce a water trail guide for the Molalla River that provides whitewater boating information such as put-in and take-out locations, river segment characterization, river flows and safety guidelines.

### **2.3.3 Alternative C: Centralized Camping Emphasis**

**Recreation Niche Statement:** The Molalla River-Table Rock recreation area provides a mix of developed camping and dispersed day use opportunities along a forested river corridor. Easy river access and improved camping draw residents from nearby urban centers.

**Intent:** Focus resources on providing a high quality overnight visitor experience while minimizing resource impacts. Cater to a demand for improved overnight camping and river-based day use. Centralize visitor use to prevent and mitigate impacts to sensitive riparian resources. Shift the make-up of visitors to those seeking more managed and developed settings and promote its use to new visitors.

Options for a wide range of activities including swimming, camping, fishing, non-motorized trail use and boating.

**Overnight Use:** Camping limited to single developed campground with 24 to 36 units. Locate adjacent to Pine Creek Bridge, on the west side of the river, in current location of gravel stockpile. The majority of units facilitate drive-in access for passenger cars and small RV's (30' and under) while others provide walk-in access to tent camping. This alternative seeks to address identified issues and concerns by broadly changing the type of overnight use within the SRMA.

Estimated total capacity (assuming 2.5 vehicles per site, 2.5 individuals per vehicle): *150 to 225 overnight users*

Amenities provided include:

- Volunteer host site
- Designated and defined parking for each site
- Overflow parking
- Potable water
- Metal fire ring
- Information and registration board
- Trash service
- Improved trails and river access
- Defined site with tent pad
- Vault restrooms
- Picnic tables
- BBQ grills

Volunteer camp host site acts as central information and registration location. Hosts have communication capability (via radio) and act as direct link to law enforcement and BLM staff in emergency situations.

Users are charged an Expanded Amenity Fee (in the range of \$10 to \$16 per night). Sites are filled on a first-come, first-served basis. As conditions dictate, a reservation system would be considered. Rules including length of stay, quiet hours and group size are developed and clearly communicated by camp hosts through signage and personal interactions with BLM staff and volunteers patrolling the site.

**Day Use and River Access:** Minor improvement to several existing popular day use sites. A developed river access point would be located adjacent to developed campground, but would not provide picnic facilities. Some river access sites would be improved or closed and rehabilitated as conditions dictate.

Looney's Gate minimally developed as a day use/river access location, including 8 to 10 developed picnic units. Amenities include:

- Improved and defined parking
- Trash service
- Information kiosks

- Vault restroom
- Picnic tables
- Improved and hardened trails for river access

**Trails and Trailhead Access:** Continue regular maintenance of 24.6 mile trail system utilizing youth crew and volunteer labor. No emphasis areas for different user groups are created.

Construct a 1 to 2 mile riverside trail adjacent to central campground.

Complete minor improvements at Hardy Creek Trailhead to improve trailer capacity and facilitate equestrian use. In conjunction with day use development at Looney's Gate, provide defined parking for small (non-trailer) vehicles. Identify Looney's Gate/Sandquist trailhead as the primary access point for non-equestrian trail users.

Armor and re-route short segments of the trail system to accommodate equestrian use. This may include tread modifications (gravelling, etc) and re-routing to decrease trail grade. No additional trails would be constructed in the Shared Use Trail System.

Close Amanda's trailhead due to inadequate capacity and low rates of use.

**Visitor Services and Information:** Maintain and replace existing information and wayfinding signage. Visitor information focuses on articulating rules and regulations and preventing resource degradation. No interpretive materials are presented.

In addition to signage outlined in alternative A, install and maintain new visitor information at developed campground that clearly articulates rules and regulations. Develop and install appropriate wayfinding signage for campground and improved sites.

As sites are decommissioned, remove and update signage as appropriate.

Maintain patrols during high use season (typically late May to late September). Focus patrols on developed campground and concentrated day use locations. Place greater emphasis on regular contact with visitors by BLM staff and volunteer hosts.

A volunteer host site would be developed at the Pine Creek Bridge campground ("Camp Host") and one would be maintained at Molalla Maintenance Shop ("Corridor Host").

Participate in cooperative law enforcement effort between BLM, Clackamas County and the City of Molalla Police Department. Enforcement efforts focus on overnight camping infractions, underage drinking and vehicle infractions.

Continued participation in special events, bi-annual river clean-ups and Dumpstoppers program (as funding allows).

### 2.3.4 Alternative D: Day Use Recreation Emphasis

**Recreation Niche Statement:** The Molalla River-Table Rock recreation area offers high quality opportunities for day use-only river access, non-motorized trail use and chances to learn about western Cascades natural history. Defined, developed day use points and targeted interpretive information provide a high quality day trip opportunity.

**Intent:** Provide for a quality visitor experience while restoring the area's ecological resources. Offer enhanced opportunities to view the scenery and improve one's understanding of the natural environment in a safe, structured setting. Eliminate overnight use to prevent impacts to sensitive riparian resources. Shift the make-up of visitors to those seeking developed locations and promote its use to new visitors. Options for activities include swimming, nature study, fishing, non-motorized trail use and boating.

**Overnight Use:** Camping prohibited outside of Table Rock Wilderness. Existing campsites would be fully closed or utilized for day use only. Sites not utilized for day use purposes would be aggressively blocked to public entry and rehabilitated. Overnight opportunities elsewhere in the region (including Feyrer Park, the Clackamas and Sandy Rivers, Santiam State Forest) provided by the BLM and other agencies would accommodate existing overnight users.

**Day Use and River Access:** Up to four developed day use areas constructed within the main recreational corridor at Looney's Gate, Ivor's Wayside, a large pullout south of the current Osprey Campsite and the east side of Pine Creek bridge. Visitor use and river access would be concentrated at these locations, while problematic sites would be aggressively rehabilitated. Each site would provide between 6 and 10 developed picnic sites. A Standard Amenity Fee would be charged at developed sites.

Looney's Gate and Ivor's Wayside would serve as the focal points for use of the SRMA. Amenities would include:

- Improved and defined parking
- Trash service
- Information kiosks (see below)
- Vault restrooms
- Picnic tables and defined picnic sites
- Improved and hardened trails for river access
- BBQ Grills
- Regular administrative presence

Day use areas beyond Turner Bridge would stay in an undeveloped state, designed to provide lower levels of visitor interaction.

Enhance the current location of Old Bridge campsite to provide improved river access for whitewater boaters. Improvements include defined parking and visitor information.

**Trails and Trailhead Access:** Continue regular maintenance of 24.6 mile trail system utilizing youth crew and volunteer labor. Correct unsustainable portions of the trail system through re-routing and closure of social trails. Complete gravelling of Fern Creek Trail to allow for year-round equestrian use.

Improve and adequately sign Quarry trailhead and develop a 2 to 3 mile riverside trail between Turner Bridge and Gawley Creek. Evaluate potential to open BLM gate and utilize former quarry located in T7S R3E, section 7 as a trailhead.

Close Amanda's and Americorps trailheads due to inadequate capacity and low rates of use. Enhance Looney's Gate Recreation Site as the primary trailhead for north end trails. Improve and expand capacity at Hardy Creek trailhead.

As campsites are closed, evaluate potential for riverside trail between Looney's Gate Recreation Site, developed day use location south of Osprey and Hardy Creek trailhead to provide access to the mainstem Molalla River. Trail should have improved tread and be available for all-weather use.

**Visitor Services and Information:** To aid visitors, a "Visitor portal" would be constructed at Looney's Gate Recreation Site. Signage would advertise this location as the primary location for all visitor information. The 'Visitor Portal' would offer:

- An introduction to the recreation area and its opportunities
- Posted maps of the river corridor and trail system
- Brochures for the river corridor and trail system
- An introduction to the area's natural and human history
- Activity recommendations and considerations
- Posting of relevant rules and regulations

Opportunities would be identified to work with local retailers and vendors to distribute information about the recreation area including brochures, maps and other handouts. Seek out local, county and regional authorities to adequately provide wayfinding signage to the recreation area from major roads and thoroughfares (Highways 211 and 213, etc). Develop and install appropriate wayfinding signage for developed recreation sites within the SRMA.

Interpretive materials including interpretive panels and brochures would be developed and installed throughout the SRMA highlighting locations of scenic or scientific interest. Materials would focus on the unique geological formations of the upper Molalla watershed, historic and pre-Columbian use of the watershed and western Cascades ecological systems.

Maintain patrols during high use season (typically late May to late September). Focus patrols on developed day use locations. Place emphasis on educating visitors about available activities and opportunities as well as Leave No Trace ethics.

Participate in cooperative law enforcement effort between BLM, Clackamas County and the City of Molalla Police Department. Enforcement efforts focus on overnight camping infractions, underage drinking and vehicle infractions.

Participate in special events, bi-annual river clean-ups and Dumpstoppers program (as funding allows).

Produce a water trail guide for the Molalla River that provides whitewater boating information such put-in and take-out locations, river segment characterization, river flows and safety guidelines.

## **2.4 Common to all Action Alternatives**

The following management direction applies to all action alternatives (B, C and D).

### ***Travel and Transportation Management***

Complete a seasonal closure (April 1 through September 30) of Pinecrest Road to prevent resource damage, wildlife disturbance, potential for fire start and threats to public safety

Enforce OHV vehicle designations and post where necessary

Close and rehabilitate unauthorized off-road trails

### ***Visual Resource Management***

Recommend during the next land use planning process that all public domain BLM-administered land in the Molalla River visual corridor in Township 6 South, Range 2 East and Township 7 South, Range 2 East, Section 31 Willamette Meridian be classified under VRM Class II.

### ***Recreational Mining***

Require all operators of certain recreational mining equipment to obtain and carry the appropriate permits from the Oregon Department of Environmental Quality and Department of State Lands

Clearly post mining-related information regarding in-stream work periods, needed permits and relevant rules and regulations consistent with the area's mineral entry withdrawal under R&PP lease

Discourage operation of suction dredges in close proximity to any developed or improved sites

Monitor mining use and evaluate need for regulatory prohibition of suction dredge operation near developed recreation sites as conditions dictate

### ***Fee Collection***

All fees would be collected under authorization from and in compliance with the Federal Lands Recreation Enhancement Act (FLREA) [PL 108-447]

Consistent with FLREA, provide the public and Recreation Resource Advisory Committee an opportunity to make recommendations and comments regarding proposed fees

Establishment of fee sites would be balanced by the provision of no-fee opportunities elsewhere in the planning area

### ***Permitting of Commercial Activities***

Require all commercial, competitive and vending operations to obtain a Special Recreation Permit

Issue Special Recreation Permits for a duration not to exceed 5 years

Limit permitted commercial and competitive events within the trail system to no more than 5 per year

Permit vending operations only in association with a one-time special event or for firewood distribution

### ***Aquila Vista Environmental Education Site***

Pursue no large-scale site development at Aquila Vista and continue maintenance of existing infrastructure including shelters, trails, bridges and boardwalks

Pursue opportunities to facilitate use of the site through partnerships with non-profit groups and local school districts

Emphasize the site as a natural classroom that allows for a variety of hand-on scientific and environmental curricula with minimal direct interpretation

Allow walk-in public access to the site from S. Molalla Forest Road or via the trail system without advertising it as a recreation destination

### ***Accessibility***

Where possible, make any new recreation site developments accessible to allow full participation by persons with disabilities

## **PROJECT DESIGN FEATURES**

The following project design features apply to all action alternatives (B, C and D).

### ***Trail Construction***

- *10 percent average trail grade guideline:* Average trail grade will not exceed 10%.
- *Half rule guideline:* Trail grade or steepness will not exceed half the grade or steepness of the hillside.
- *Design appropriately placed trail out slope and grade reversals:* The planning area includes appropriately designed grade reversals to minimize trail tread erosion. Trail out slope of 5% or greater will be implemented to facilitate proper drainage.
- *Minimum Vegetation Removal:* Trail design will minimize vegetation removal through route designation. No vegetation over 12 inches in diameter will be removed as part of the trail construction process.
- *Survey and Manage:* Any project planned in stands over 80 years of age will be surveyed for Survey and Manage Species to comply with the 2001 Record of Decision without Annual Species Reviews.
- *Wildlife protection:* Project implementation may be suspended or restricted at any time if plant or animal populations that need protection are found.

- *Coarse Woody Debris:* Protect and retain coarse woody debris on the ground wherever possible. If suitable woody debris must be moved, the section of log within the trail's path will be cut and removed instead of moving the entire log.
- *Snag Retention:* Any trees or snags which are felled or otherwise knocked down would be retained on site as coarse woody debris if possible. All old-growth trees would be left standing and larger snags (above 15" diameter breast height) of all decay classes would be left standing to the greatest extent possible. Avoid cutting snags during the nesting season (March 1 to July 31).

### ***Facility Development***

- *Facility locations:* Locate facilities, where possible in previously disturbed areas. Avoid stream channels, floodplains, fish spawning sites, and areas which require a high level of vegetation removal.
- *Season of construction:* Where possible, facility construction will take place during the dry season (May through September) to avoid excess erosion and sediment inputs.
- *Preventing loss of stream shading:* Removal of streamside vegetation that provides shading and stream temperature reduction will be minimized or eliminated.
- *Appropriate drainage:* Facility and parking area design will mitigate interference with hydrologic patterns.
- *Survey and Manage:* Any project planned in stands over 80 years of age will be surveyed for Survey and Manage Species to comply with the 2001 Record of Decision without Annual Species Reviews.
- *Snag Retention:* Any trees or snags which are felled or otherwise knocked down would be retained on site as coarse woody debris, as possible. All old-growth trees would be left standing and larger snags (above 15" dbh) of all decay classes would be left standing to the greatest extent possible. Avoid cutting snags during the nesting season (March 1 to July 31).

### ***Site Restoration***

- *Natural ground cover:* Restore natural ground cover to areas closed to public entry and impacted by previous public use, with a focus on riparian habitats and improving the scenic qualities of the recreation setting.
- *Public access:* As necessary, prohibit and block public access to areas undergoing restoration treatments.
- *Cultural resource protection:* In areas with potential cultural resources, determine whether restoration activities would increase or decrease the probability of site protection compared with no action.
- *Native species:* Utilize site-appropriate native species for all restoration activities.

### ***Cultural Resources***

- *Archeological pre-disturbance survey:* Prior to any ground disturbing activity (including trail construction, facility development and site restoration) a Class III archeological field survey will be conducted to locate any cultural resources within the project area. If cultural resources are discovered, apply best management practices by relocating proposed projects to avoid disturbing the site.

## 2.5 Alternatives Considered but Not Analyzed in Detail

Public comments received during scoping and throughout the planning process identified the desire for a developed overnight equestrian facility within the planning area. These comments expressed the belief that if constructed, such a facility would see high rates of use and complement the opportunities available within the Molalla River Trail System.

In evaluating potential sites, BLM staff used the following criteria for such a facility and examined potential locations. It was determined that such a facility should:

- a) remain consistent with purpose and need for the Molalla River-Table Rock Recreation Area Management Plan as well as the management goals and objectives
- b) remain, to a large extent, within the footprint of previously disturbed areas
- c) accommodate large vehicles and horse trailers
- d) provide direct connectivity to the Molalla River Trail System
- e) exhibit compatibility with nearby facility development and recreation activities
- f) ensure public safety for equestrians and vehicles on the surrounding transportation network, specifically S. Molalla Forest Road, a major recreational thoroughfare and timber haul route
- g) remain cost effective for development, management and long-term maintenance

After this examination, it was determined that the planning area does not offer an adequate location for an equestrian camping facility. Locations evaluated for suitability included Pine Creek bridge vicinity, Aquila Vista Environmental Education Site, Hardy Creek Trailhead and numerous segments of the S. Molalla Forest Rd between Looney's Gate and Macbeth campsites.

None of the examined locations fit the identified criteria. In addition, excellent opportunities for equestrian camping exist elsewhere within the region. Due to these factors, an alternative analyzing a possible equestrian camp was not developed and analyzed in detail.

## 2.6 Comparison of Management Alternatives

**Table 5: Comparison of Alternatives**

Alternative	Goal and Intent
<b>Alternative A</b> <b>Continuation of Existing Management</b>	<p><b>Recreation Niche Statement:</b> The Molalla River-Table Rock recreation area provides a wide variety of dispersed, free and unstructured recreation opportunities along a forested river corridor. Easy river access and minimal facility development allow for a self-directed experience.</p> <p><b>Intent:</b> Provide for a ‘do-it-yourself’ recreation experience with management actions taken to address the most severe resource concerns. Provide little to no infrastructure development and minimize long term operations and maintenance costs. Draw visitors from the population centers and outlying rural communities.</p>
<b>Alternative B</b> <b>Primitive Camping Emphasis (Proposed Action)</b>	<p><b>Recreation Niche Statement:</b> The Molalla River-Table Rock recreation area provides diverse opportunities for river-based activities and minimally-developed camping along a forested river corridor. Rustic facilities and easy river access allow for a relatively primitive recreation experience close to rural communities and urban population centers.</p> <p><b>Intent:</b> Provide for a high quality visitor experience while minimizing resource impacts. Minimize infrastructure development and long term operations and maintenance costs. Strategically place amenities to control visitor use and mitigate impacts to sensitive resources. Maintain one of the primary attractions to the area and preserve existing visitor base by providing opportunities for primitive, riverside camping.</p>
<b>Alternative C</b> <b>Centralized Camping Emphasis</b>	<p><b>Recreation Niche Statement:</b> The Molalla River-Table Rock recreation area provides a mix of developed camping and dispersed day use opportunities along a forested river corridor. Easy river access and improved camping draw residents from nearby urban centers.</p> <p><b>Intent:</b> Focus resources on providing a high quality overnight visitor experience while minimizing resource impacts. Cater to a demand for improved overnight camping and river-based day use. Centralize visitor use to prevent and mitigate impacts to sensitive riparian resources. Shift the make-up of visitors to those seeking more managed and developed settings and promote its use to new visitors.</p>
<b>Alternative D</b> <b>Day Use Emphasis</b>	<p><b>Recreation Niche Statement:</b> The Molalla River-Table Rock recreation area offers high quality opportunities for safe and improved river access, non-motorized trail use and chances to learn about western Cascades natural history.</p> <p><b>Intent:</b> Provide for a high quality visitor experience while restoring the area’s ecological resources. Offer enhanced opportunities to view the scenery and improve one’s understanding of the natural environment in a safe, structured setting. Eliminate overnight use to prevent impacts to sensitive riparian resources. Shift the make-up of visitors to those seeking developed locations and promote its use to new visitors.</p>

Alternative	Theme: Overnight Use	Theme: Day Use and River Access
<b>Alternative A Continuation of Existing Management</b>	Camping limited to sixteen (16) dispersed, designated sites located between main access roads and river. Sites have minimally defined parking areas and little to no site definition. Posted rules and regulations. Fire rings provided. Sites regularly patrolled and cleaned by volunteer hosts and BLM staff. No fee charged for overnight use.	Dispersed day use at 50+ informal pullouts along major access roads. Minimally defined parking and no site definition. Some posted rules and regulations. Three vault restrooms spread throughout recreational corridor. Management action taken to address most serious resource concerns. No fee charged for day use recreation.
<b>Alternative B Primitive Camping Emphasis (Proposed Action)</b>	Camping limited to three (3) small, primarily walk-in campgrounds located within the main recreational corridor with 6 to 10 sites each. Each campground has defined parking, registration, vault restroom, trash service, and improved river access. A fee for overnight use would be charged.	Majority of dispersed day use locations remain open. Those with severe resource concerns (riparian area damage, vehicle trespass, etc) closed and rehabilitated. Looney's Gate and Ivor's Wayside minimally developed as a day use/river access location to facilitate day use including defined parking, restrooms and trash service. No fees would be charged.
<b>Alternative C Centralized Camping Emphasis</b>	Camping limited to one centralized campground located adjacent to Pine Creek Bridge with 24 to 36 sites. Sites for tents and small RV's. Campground has defined parking, on-site host, potable water, vault restroom, trash service, and improved river access. A fee for overnight use would be charged.	Majority of dispersed day use locations remain open. Those with severe resource concerns closed and rehabilitated. Developed day use site adjacent to central campground. Looney's Gate minimally developed as a day use/river access location. Moderate improvements to Looney's Gate and Ivor's Wayside to facilitate day use including defined parking, restrooms and trash service. No fees would be charged.
<b>Alternative D Day Use Emphasis</b>	Camping prohibited outside of Table Rock Wilderness. Existing campsites rehabilitated and/or open to day use only.	Day use concentrated at three to four highly developed day use sites within main recreational corridor with paved, pull-through parking, restrooms, trash service and picnic sites. Existing dispersed sites with resource concerns aggressively rehabilitated. A day use fee would be charged at developed sites.

<b>Alternative</b>	<b>Theme: Trails and Trailhead Access</b>	<b>Theme: Visitor Services and Information</b>
<b>Alternative A Continuation of Existing Management</b>	Ongoing maintenance of existing 24.6 mile shared use trail system, accessed from 6 trailheads. Continue to combine paid youth crew labor with volunteer assistance to complete priority maintenance work.	Continue current level of staffing, administrative presence and visitor information. No additional interpretive information or visitor services would be provided.
<b>Alternative B Primitive Camping Emphasis (Proposed Action)</b>	Complete an overhaul of the Shared Use Trails System that fixes unsustainable segments. Streamline trailhead access. Re-route some existing trails and construct up to 5 miles of new trails that focus on providing user-specific opportunities in equestrian and mountain bike emphasis areas. Develop riverside trail that connect primitive campgrounds.	Improve consistency and appearance of visitor information including signage and kiosks. Develop one interpretive station within the main recreation corridor. Install and maintain new, consistent visitor information at developed campgrounds that clearly articulates rules and regulations.
<b>Alternative C Centralized Camping Emphasis</b>	Complete regular maintenance of existing system. Construct 1 to 2 miles riverside trail adjacent to central campground. No new trails constructed within the Molalla River Trails System.	Improve consistency and appearance of visitor information including signage and kiosks. Develop a new host location at central campground. Host acts as clearinghouse for information and a communication link via radio.
<b>Alternative D Day Use Emphasis</b>	Correct unsustainable portions of the Shared Use Trails System through re-routing. Developed improved riverside trail connections between day use sites. Open gate at Quarry trailhead and construct a 2 to 3 mile riverside trail to Gawley Creek.	Invest in a consistent and comprehensive visitor information program. "Visitor portal" constructed in conjunction with a developed day use area that orients visitors and provides area information, rules and regulations, brochures and maps. Interpretive materials are developed and installed throughout SRMA highlighting locations of scenic or scientific interest.

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# Chapter 3

## AFFECTED ENVIRONMENT



## Chapter 3: Affected Environment

This chapter describes the character and resources of the BLM administered lands within the Molalla River-Table Rock planning area. It then provides an overview of the physical, biological, social, and recreation resources being analyzed. The chapter provides a basis from which to assess the environmental effects of the established management alternatives outlined in Chapter 2.

### 3.1 Setting and Description

The Molalla River-Table Rock SRMA lies in on the western slopes of the Cascades Mountains, southeast of the city of Molalla and entirely within Clackamas County, Oregon. The Molalla River originates nearly 4,900 feet above sea level near Table Rock and flows undammed roughly 49 miles west and north to join the Willamette River near Canby. The SRMA includes portions of its headwaters and high elevation tributaries.

Situated between the Clackamas River to the north and the North Fork of the Santiam River to the south, the Upper Molalla watershed exhibits traits typical of the western Cascades including volcanic-origin geology and dense coniferous forests. Elevations range from 4881 feet at the top of Table Rock to 800 feet near Trout Creek. Within the planning area, the river flows through coniferous forests of various age classes, composed mainly of Douglas Fir, western redcedar, western hemlock and various true fir species at higher elevations. Major tributaries include the Table Rock Fork of the Molalla River, Copper Creek, Horse Creek, Bear Creek and Trout Creek.



The temperate climate of the SRMA is typical of northwest Oregon with mild, wet winters and dry, moderately warm summers as well as narrow fluctuations in daily temperature. Higher elevations (particularly above 3000 ft) experience heavy winter snowfall and annual precipitation up to 100 inches, while lower elevations experience steady winter rain and between 40 to 60 inches of annual precipitation. The main recreational corridor is nearly always snow free and open to vehicle access year round.

Reaching the recreation area involves travelling southeast 7 miles from the city of Molalla through semi-forested and agricultural lands on Mathias, South Feyrer Park and South Dickey Prairie roads to the unincorporated community of Glen Avon. From there, the recreation area begins roughly 1.5 miles south of Glen Avon Bridge on the paved S. Molalla Forest Rd. Once

along this main access road, the field of view is mainly restricted to the river and the densely forested riparian areas, with occasional views of the high ridges and forested slopes upriver.

The recreation area is within close proximity to the Portland and Salem metropolitan areas, as well as a variety of smaller incorporated communities including Molalla, Woodburn, Canby and Estacada. A large number of smaller, unincorporated communities are within a short drive of the planning area including Mulino, Colton, and Scotts Mills.

### **3.2 Socioeconomics**

For the purposes of this document, two scales of analysis will be used:

- *Regional*- Clackamas County includes the entirety of the SRMA, captures the bulk of the visitors and provides an adequate description of regional social and economic conditions.
- *Local* - The City of Molalla is the closest municipality to the SRMA, is directly on the main access route to the planning area and has the most direct connection with the Molalla River and its recreation opportunities.

#### **Population**

Population growth has a direct influence on the administration of public lands within the planning area. This growth translates into increased demand for recreation opportunities and potential for crowding, greater possibility of dumping and other uses and augmented interest in river and recreation management. The planning area lies adjacent to communities in Northwest Oregon and the Willamette River Valley that have seen continual population growth since 1990. The region is the most densely populated in Oregon, with eight of the state's ten most populous cities.

Clackamas County has seen significant growth in the past two decades. From a population of 278,850 in 1990, the county has grown by roughly 36% and added 100,998 residents. This total makes it the third most populous county in the state. A disproportionate amount of this growth has been concentrated within the urban areas in the northwest portion of the county in the Portland metropolitan area. Portland's urban growth boundary expanded in 2002 to include the Clackamas County communities of Boring, Damascus, Oregon City and Wilsonville increasing their potential for future economic and population growth.

On a local level, rural incorporated communities near the planning area have also seen substantial growth. Molalla is one of the four fastest growing communities within the county. Since 1990 the city has added 3,893 residents and exhibited a 4.1% annual growth rate. Recent population estimates indicate the city has a population of 7,590. Much of this growth came in the form of new subdivisions and single family housing units in the northwestern portion of the city.

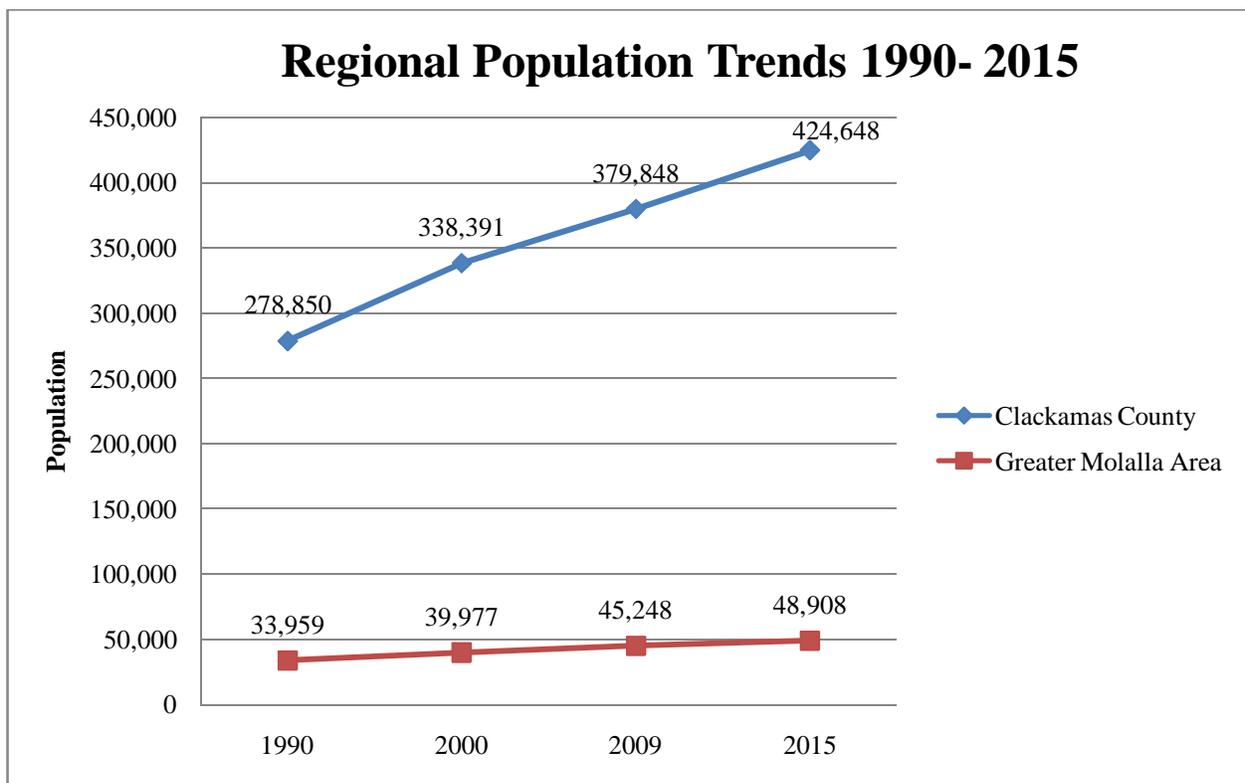
While roughly half of the county's residents live in unincorporated communities, these areas have seen a slower rate of growth. While the city of Molalla has more than doubled since the 1990 census, the greater Molalla area (within 10 miles of downtown Molalla and includes

several unincorporated communities) has grown a more moderate 17.2% overall. This is consistent with the region-wide concentration of population into urban areas as well as statewide direction provided under Oregon law.

In-migration makes up a large portion of population growth within the county. Natural increase (births minus deaths) has accounted for 35 percent of total population growth, whereas total migration (the number of residents migrating to the county vs. those leaving) accounts for the remaining 65 percent. Job availability in certain sectors, the region's temperate climate, and high quality of life have been identified as drivers of in-migration.

Despite a slowing of growth rates due to the 2007 to 2010 economic recession, the region's population is expected to increase in the coming decades. By 2040, Clackamas County's population is expected to reach 480,000. Within the city of Molalla, the recent citywide Comprehensive Plan identified a range of potential growth scenarios. Under a moderate growth scenario (2.9% annual growth) Molalla's population will reach 10,876 by 2025.

**Figure 3: Regional Population Trends**



### Population Demographics

Population make-up and demographics have a direct role in recreation activity preferences, nature and timing of recreation use and the values members of the public attach to the Molalla River-Table Rock SRMA. Demographic information gathered during the 2000 Census indicates

the populations of Clackamas County and Molalla are less racially diverse, wealthier and better educated than the nation as a whole.

The population of the analysis area is significantly less racially diverse than the rest of the nation. Within Clackamas County, 91% of residents self-identify as white; 88.6% of Molalla residents self-identify as white. These figures are well above the national figure of 75%. Independent of race, Molalla has a higher proportion of individuals self-identifying as Hispanic (10.6%) than the county a whole (4.9%).

Available data on household income indicates a disparity between Clackamas County and Molalla, but residents within both areas have incomes higher than the rest of the nation. Household income for Clackamas residents is substantially higher (\$60,791) than residents of Molalla (\$46,915). The national medium household income in 2000 was \$41,994.

Clackamas County residents and city of Molalla residents are more likely to have a high school degree than the average United States citizen. The county (89% of residents holding a high school degree or above) and Molalla (82%) are both higher than the national average (80%).

### **Economy and Employment**

Clackamas County as a whole exhibits a diversified economic base with over 12,600 total firms and total employment above 150,000. In terms of jobs, top industries, in order of total jobs provide are: Manufacturing (18,222), Retail (17,947) and Professional and Business Services (17,307). Historically, the county's economic base has heavily relied on agricultural and natural resource-related products. Since 1980, the county has benefited from close proximity to the Portland metropolitan area and an advantageous location for transport lending to activity in the manufacturing, wholesale and transportation industries.

Despite a recent slowdown of economic activity nation and state-wide, several sectors are expected to provide additional jobs within Clackamas County during the next 20 years. Primarily, these include healthcare and social assistance, professional and business services and retail.

Within the city of Molalla, primary sectors by employment include Agriculture and Mining (23%), Services (19.6%) and Manufacturing (14.6%). The area's largest employers include Brentwood Corporation, Molalla Communications Co, Northwest Polymers and RSG Forest Products. The local availability of highly productive timberlands has resulted in a dependence on the wood products industry by communities near the planning area including Molalla and Estacada.

City and county economic development strategies continue to stress agriculture and forest products industries as key economic components, but also emphasize the need to diversify their economies with development of such industries as environmental services, retail, high technology, metals fabrication, and tourism.

## **Economic Activity Related to the SRMA**

The planning area's contributions to the local socioeconomic conditions and health is associated with its ability to supply forest and wood products, provide a municipal water source and by offering a range of recreation opportunities that appeal to both local residents and visitors from elsewhere in the region.

Ongoing timber harvest on both private and public lands within the planning area provides direct contributions to the local economic conditions through commodity production, direct employment, and associated activity including equipment purchases. This plan does not make changes to timber management practices on public lands administered by the BLM.

An increasing level of interest has been expressed in the role the recreation area could play in diversifying the local economic base. Clackamas County has seen a steady increase in travel and tourism-related income since the early 1990's. In 2008, visitor spending totaled \$428.8 million. This represents a 45.5 % increase from 1992. Spending on transportation, retail and dining makes up the bulk of this total. Regional economic analysis predicts overall growth of this spending to continue.

Recreation plays a relatively minor role in local economic conditions. While little specific information is available on the role of the Molalla River-Table Rock SRMA plays in the Molalla and greater Clackamas County economic situation, the availability of high quality recreation opportunities has been shown to be connected to increases in local property values, overall attractiveness for business development and the in-migration of retirees, local company employees and commuters to jobs elsewhere in the region. In addition, travel and tourism-related activity associated with out-of-town visitors to the SRMA includes spending on supplies, gasoline and lodging.

### **3.3 Land Use and Ownership**

The history of public land ownership and acquisition affects land ownership patterns within and adjacent to the planning area. Public land distribution is characterized by a linear ownership pattern along the lower reaches of the Molalla River (arising from the 1992 land exchange) and a more contiguous pattern upstream along the river's tributaries and the high ridges that comprise Table Rock Wilderness (see Table 1). Planning area boundaries were drawn to closely mirror public land borders and include only a handful of small private inholdings in the main recreation corridor and portions of Weyerhaeuser ownership in the upper reaches of the watershed.

The March 1992 land exchange between the BLM and the Cavanham Forest Industries division of Hansen Industries (now Weyerhaeuser) brought 11 miles of Molalla River frontage totaling 5013 acres into public ownership, all of which are included in the planning area and form the basis for the most heavily-used portion of the SRMA.

Public land within the SRMA is in close proximity to surrounding private land, much of it owned by Weyerhaeuser, Inc and utilized for industrial timber production. These lands are located predominately to the north and east (particularly within the North Fork of the Molalla watershed) and directly to the south (along the Copper Creek Fork of the Molalla). These lands have a history of timber harvest dating back to the early 1900's with intensive periods of harvest following World War II. As a result, the land base is characterized by large blocks of young, even-aged forest and extensive transportation systems.

North and west of the planning area, land ownership is characterized by small non-industrial woodlot owners managing lands for timber and agricultural purposes, and small parcels that contain residential housing. Residential development is most widespread within the unincorporated communities of Dickey Prairie and Glen Avon to the north and northwest of the planning area.

Within the planning area, several small inholdings are present. These include several parcels owned by Weyerhaeuser along the Table Rock Fork and Cow Creek. The privately-owned Bee Ranch, located at the Table Rock Fork-mainstem Molalla confluence, is also entirely contained within the planning area. This parcel, located directly along the Molalla Forest Road, has been blocked to vehicle access and heavily signed to indicate its non-public status.

Many of the roads contained in or originating from the SRMA lead to lands under private ownership. Over the past 20 years, public access to these private lands has been increasingly restricted through the installation of gates and other traffic control measures. These closures not only block entry to private lands, but public lands accessed via private roads. Recent attempts by Weyerhaeuser, Inc to implement a permitted public access program were ended in early 2010 (see section 3.4 Recreation). Public access to the Upper Molalla watershed is now disproportionately concentrated on BLM-administered public lands, most of which are contained within the SRMA boundaries.

Outside of Table Rock Wilderness, BLM-administered lands within the SRMA have a long history of forest management either directly by the BLM or by industrial landowners prior to the 1992 exchange.

While Clackamas County has no direct jurisdiction over land use on federal lands, zoning of privately-owned adjacent areas points to a continuation of current land use patterns. The majority of privately-owned land to the north and northwest of the planning area, including those areas directly along major access routes, are zoned Exclusive Farm Use. This zoning is intended to maintain and encourage agricultural uses by placing limits on new parcel size and acceptable land uses.

### **3.4 Recreation**

The Molalla River-Table Rock SRMA is an important recreation resource for the residents of northwest Oregon, including the Salem and Portland metropolitan areas. Few rivers in the state offer such ease of access to varied recreation opportunities so close to major urban areas.

Most recreational use occurs in close proximity to the river between Glen Avon Bridge and the confluence of the Table Rock Fork of the Molalla, an area referred to as the Molalla River Recreation Corridor.

The majority of recreation use within the SRMA takes place between May and September, coinciding with higher temperatures and rain-free days, water temperatures conducive for swimming and full access to trail systems and high elevation roads. Holiday weekends and weekend days with above average temperatures draw large numbers of visitors to the recreation area. See figure 4 for an overview of use distribution during the high use season.

Current recreation use is primarily unstructured and dispersed in nature with limited facility development. The paved, BLM-controlled Molalla Forest Road parallels the river and provides access for river-based activities. Camping, engaged in by roughly half of all visitors, is limited to 16 dispersed, designated sites along this road and other major arterials (Horse Creek Rd, Copper Creek Road and Middle Fork Road). Day use is largely unregulated and spread over 50 informal pullouts. These pullouts access swimming or fishing locations, picnic spots, recreational shooting sites or other dispersed recreation locations.

Popular activities include swimming, picnicking, camping, trail hiking, fishing, driving for pleasure, target shooting, horseback riding, non-motorized boating and mountain biking. See Table 6 for an overview of recreation activity participation.

<b>Table 6 Recreation Area Activity Participation</b>		
<i>Activity</i>	<i>% respondents who said they participated during their visit...</i>	<i>% respondents who said it was their primary activity...</i>
Swimming	68.1%	22.5%
Picnicking	56.3%	3.0%
Camping	50.3%	31.4%
Trail Hiking	39.8%	2.5%
Fishing	38.2%	6.8%
Driving for Pleasure	37.5%	3%
Target Shooting	19.4%	7.2%
Horseback Riding	13.8%	10.2%

Facility development is limited to three vault restrooms scattered along the Molalla Forest Road (located at Hardy Creek Trailhead, Ivor’s Wayside and Turner Creek Bridge), informational signage at various locations and the shelters and footbridges within Aquila Vista Environmental Education Site. Current management direction does not include any significant facility development.

While the setting is mostly natural in appearance, much of the planning area has been modified by timber harvest, quarrying and other land management activities.

High road densities and accompanying gates, bridges and vehicle blockages also interrupt the natural setting. Outside of Table Rock Wilderness, visitors are nearly always within 1/2 mile of a road and within sight or sound of vehicle traffic.

In order to better understand the nature of visitation to the planning area, a Visitor Survey was completed in 2007 by the BLM and staff from the School of Community Resources and Development at Arizona State University under the direction of Dr. Dave White and Dr. Randy Virden. The Survey provides an overview of visitor behavior along the Molalla River, within the Shared-Use Trail System and in the adjacent Table Rock Wilderness.

Data for the study was collected on-site during the summer of 2006 by ASU and BLM personnel utilizing self-administered surveys. In total, 351 total questionnaires were successfully completed; surveyors achieved a 93% on-site response rate. The survey provides a comprehensive picture of visitor characteristics, preferences and satisfaction. In this section, data is specific to river visitors. Wilderness visitors are profiled in the Table Rock Wilderness Plan Update, found as an appendix to this document.

### Visitor Characteristics

Nearly all visitors to the Molalla River-Table Rock SRMA come from within the state, with a large majority (roughly 90%) from either the Portland metropolitan area or the rural areas of the northern Willamette Valley that are within an hour's drive.

<b>Table 7: Primary Residence of Visitors to the Molalla River</b>	
<i>Area of Origin</i>	<i>% of Total Visitors</i>
Portland metropolitan area (including Portland, Oregon City, Wilsonville, Gresham, West Linn, etc)	42.6%
Rural northern Willamette Valley (Molalla, Canby, Woodburn, Colton, Silverton, etc)	37.6%
Salem metropolitan area	6.4%
Elsewhere in Oregon	6.1%
Outside of Oregon	2.5%

Portland (19.1%), Molalla (14.6%), Oregon City (8.5%), Woodburn (5.6%) and Canby (5.1%) were the top five municipalities for visitor origin. The SRMA's close proximity to these urban areas plays a large part in its popularity; after the river's natural qualities and features (77%), users identified proximity to home (64%) as the top attraction of the area.

Despite a slight majority of respondents citing opportunities for solitude as an attraction to the Molalla River-Table Rock SRMA, the vast majority of visitors came in groups.

Ninety-three (93) percent of visitors were in groups of 2 or more, and 53% came in groups of 4 or more. A considerable number of these were family units; nearly 47% report travelling with one more individuals under age 16. Furthermore, roughly 81% reported that they do or would bring their children to the area.

Visitors to the Molalla River-Table Rock SRMA expressed strong feelings regarding their connection to the area and its importance to their quality of life. While responses indicate recreation opportunities at the Molalla River were available to some degree at other places (i.e. nearby rivers), over 60% strongly agreed and 24% agreed that that river ‘means a lot to them personally’. Nearly 78% agreed or strongly agreed they were ‘very attached’ to the area.

Recreationists identified numerous motives and benefits associated with their visit. Enjoyment of the natural setting, escape from everyday stresses and responsibilities and spending time with family and friends were all highly rated by survey respondents.

Demographic characteristics of recreation visitors are consistent with the rest of northwest Oregon. Race identification and level of education closely align with similar statistics from Clackamas County (See Table 8).

**Use Patterns**

The constricted transportation network in the SRMA, with the majority of access coming on a single road that provides little to no thoroughfare, makes accurate visitor and traffic monitoring possible. During the summer of 2009, a traffic counter was installed roughly 2 miles south of Glen Avon Bridge; it gathered data from May 29<sup>th</sup> through September 30<sup>th</sup>. The highest number of vehicles recorded during the summer of 2009 was 278 and came on Sunday, July 26 (the high temperature was 95 degrees F).

During the May to September period, entrances to the SRMA totaled 10,475 vehicles, for an average of 90 vehicles per day. Assuming 2.5 individuals per vehicle, the count calculates total visitation from July to September at 26,187. The proportion of this traffic made up of administrative visits (from BLM personnel and the private sector) is unknown but estimated at 8 to 10%. Previous BLM reports of overall visitation ranged from 55,000 to 65,000 annually, based on historic traffic counts and personal observation. Given this new data and acknowledging that other routes to access the SRMA exist, it’s estimated at this time that annual visitation to the planning area is roughly 50,000 visitors.

**Table 8:** Selected Visitor Characteristics

94.5% of visitors to the river have a high school degree or above

94.4% self-identify their race as white

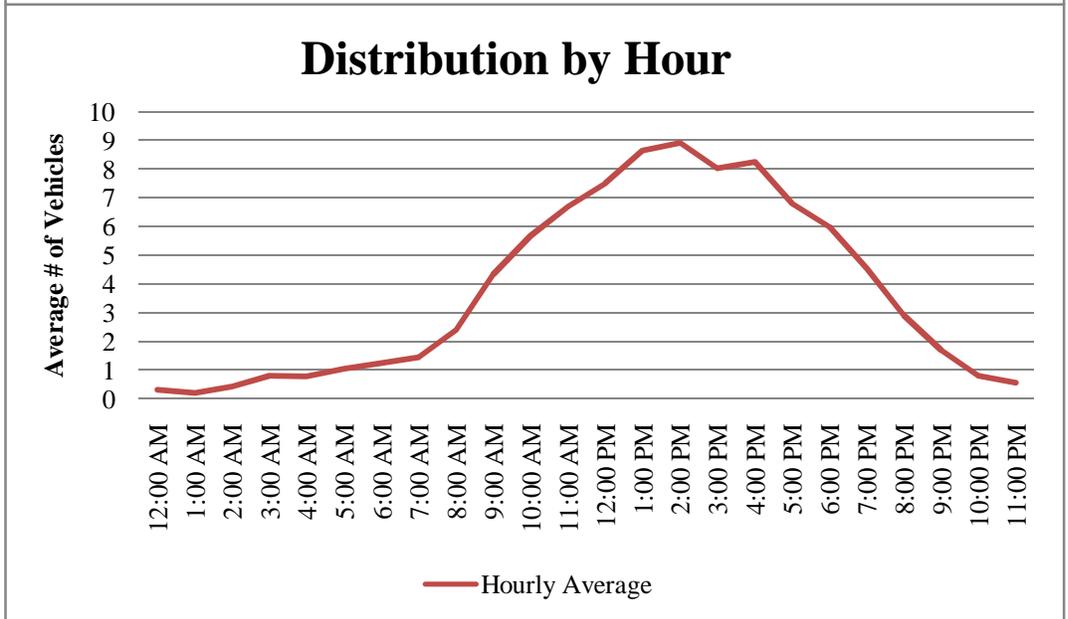
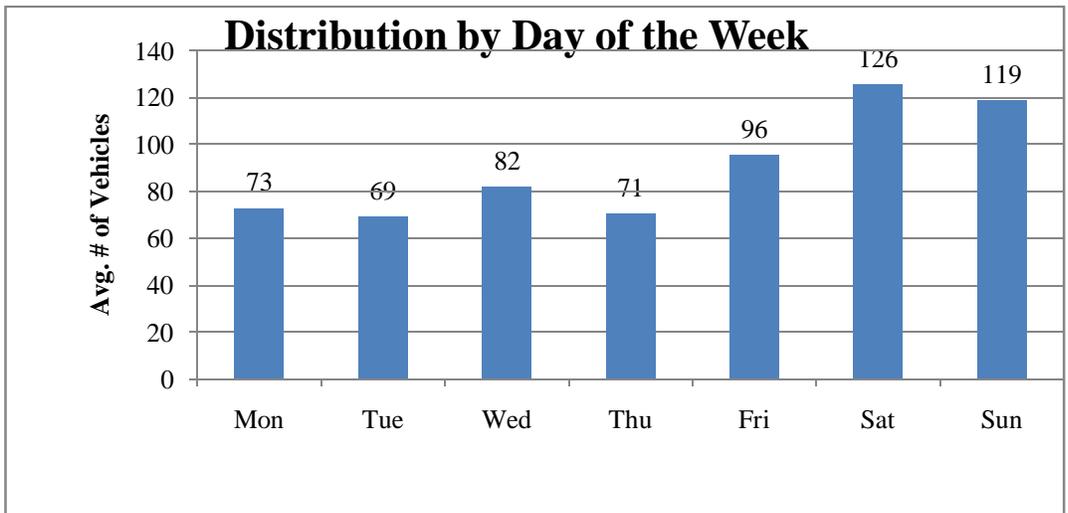
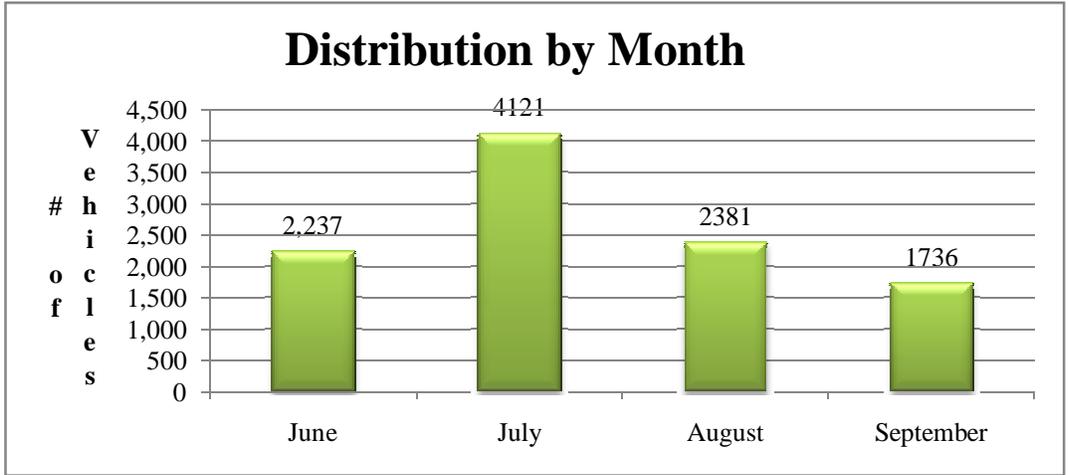
78.7% identify the river as their main destination

93% visit in groups of 2 or more

46.8% have one or more individuals under 16 years old in their group

77.4% report feeling ‘very attached’ to the recreation area

**Figure 4: Traffic Distribution within the planning area**



Traffic is sustained throughout the week and heaviest on the weekend. Nearly 40% of traffic is concentrated on Saturday and Sunday. By hour, traffic is highest in the early to mid afternoon from noon to 4 pm. Not surprisingly, the lowest levels of traffic come during the overnight hours from 11 PM to 7 AM.

### **Visitor Perception and Satisfaction**

The majority of visitors to the Molalla River Recreation Corridor report high satisfaction rates with the Molalla River-Table Rock SRMA. River visitors surveyed reported positive feelings, with 38% indicating they are ‘satisfied’ and 50% indicating they are ‘very satisfied’. Only 8% reported being ‘dissatisfied’ or ‘very dissatisfied’.

The 2007 survey asked visitors to rate their satisfaction with particular programs, facilities and services offered within the recreation area. No particular item received clear dissatisfaction ratings, although visitors indicated neutral feelings on the cleanliness and availability of restrooms. A majority of visitors reported at least moderate satisfaction with the area’s trails, trailhead, day use areas, camping areas and levels of administrative presence.

Visitors were also asked to identify their perception of certain recreation-related impacts to the recreation area. Despite the identification of ecological damage (particularly in the riparian areas) and water quality issues as a primary issue by the public during scoping, many respondents indicated the current level of impacts was not a concern. For instance, only 11% of visitors identified stream bank disturbance as a serious or very serious problem; only slightly more (13%) reported trampling of vegetation as a serious or very serious problem.

Litter and dumping were rated as the items of most concern. Over 60% of visitors reported these were moderate, serious or very serious problems.

Crowding and user conflict were not identified by visitors as problems during their visit to the recreation area. Over 70% of respondents reported that conflict with other users was ‘not a problem’.

### **Recreation Activities**

#### ***Day Use Swimming and Picnicking:***

Picnicking, swimming and general river-related recreation make up a large portion of the recreation activity. During hot summer months, the river is the primary draw for visitors.



Nearly 70% of visitors engage in swimming or water play at some point during their visit with over 22% reporting swimming as their primary activity. The average length of stay for day use visitors is 5.3 hours.

These activities take place at dispersed, roadside pullouts that access the river or other locations of interest. All of these areas have been identified informally, with little to no infrastructure or amenities. Management at these locations is limited to signage that identifies the site is closed to overnight camping and that visitors should practice Leave No Trace ethics.

**Camping:** Camping is a popular use of the recreation area; 45 to 50% respondents indicate camping is part of their visit. These stays averaged 4.25 nights; however, this figure may be skewed based on a relatively small number of long-term occupants.

Current rules limit camping to 16 dispersed, designated campsites located along major access routes: 11 are located within the main recreation corridor from Glen Avon Bridge to Copper Creek Bridge, 2 are found along the Middle Fork Road and 3 are located along Copper Creek Road. Dispersed, designated sites were chosen from among the existing, informal locations due to their location between the river and adjacent roads, limiting the potential for the spread of fire. In order to further reduce this threat, each site includes a fire ring. During certain high use summer weekends, virtually all of these campsites are taken and capacity is reached.

Each site offers varying proximity to other camping or day use sites, access to the river and parking capacity offering users a wide selection of recreational settings and experiences. However, several campsites are in the proximity of high-value river access points. Occupancy by campers prevents access by other visitors for extended periods of time.

**Boating:** The Molalla River and Table Rock Fork offer excellent whitewater opportunities for intermediate to advanced boaters. The primary run on the mainstem Molalla extends from Copper Creek Bridge downstream to Glen Avon Bridge and travels through constricted gorges and canyons with Class III rapids. This segment is widely recognized as a convenient day trip from the Willamette Valley. Easy scouting and the ability to vary trip distances and difficulty levels make it a valuable resource for boaters from many different ability levels. The lower several miles of the Table Rock Fork of the Molalla are utilized by more experienced boaters. Use of both rivers is concentrated in the winter and spring (from November through April) to take advantage of appropriate river flows. The only gauge on the Molalla is located near Canby.

Commercial use of both rivers is limited; a single Special Recreation Permit is currently issued to Blue Sky Rafting. Currently, no improved river access points or boating-specific information is present within the SRMA. The potential exists to delineate and improve boat launches, information kiosks and other boating-related amenities.

**Target Shooting:** Recreational target shooting is an established use within the planning area. Of all area visitors, 19.4% report shooting during the visit; nearly 7% report it as their primary activity. Shooting is concentrated at various locations with desirable site distances, easy access and potential backstops including gravel stockpiles and former quarries.

Within the planning area, several areas experience heavy recreational shooting use: along Pinecrest Road (particularly a gravel stockpile in T6S R3E, Section 5) and at various turnoffs in the Horse Creek Road system. Due to the nature of the main recreation corridor, the use along Pinecrest Road can be heard both across the drainage and along the river. Annual clean-ups by staff, host volunteers and during special events are required to remove the substantial amount of trash that accumulates at these locations. Loss of numerous trees and some ground cover has also resulted from this activity.

**Fishing:** Fishing is a popular use of the Molalla River and its tributaries; 40% of survey respondents report fishing during their visit and 6.8% identify it as their primary activity. Changes in fisheries management policies, overseen by the Oregon Department of Fish and Wildlife (ODFW), have a direct influence on the type and distribution of fishing within the SRMA.

Winter Steelhead has historically been the primary recreational fishery along the Molalla River. During the 1980's, when the river system was stocked with hatchery fish, tags returned to ODFW for this species averaged 1163 annually. Current ODFW policy mandates catch and release of wild (non-clipped) Winter Steelhead. Rule changes in 2009 moved the fishing deadline downstream to Pine Creek Bridge to protect important spawning locations.

While the wild run of Spring Chinook has declined (see section 3.8 Fisheries), the Molalla River is currently stocked with nearly 100,000 South-Santiam stock annually. This serves as the basis for a moderately popular fishery; since 2000, tags returned to ODFW for this species have averaged 131 annually.

Public lands within the SRMA provide important access to fishable rivers and streams. The BLM works with ODFW to encourage public knowledge of relevant fishing rules and regulations through signage and other public information.

**Recreational Mining:** The SRMA provides opportunities for recreational mining, primarily gold panning. Operation of dredges, sluices and other mining-related equipment is permitted by the State of Oregon. The Recreation and Public Purposes Lease described in Chapter 1 has established a recreational mining area where establishment of new claims is prohibited and recreational mining activities can take place.

## **Trail Systems**

Trail-based recreation is provided for within the Molalla River Trail Systems (the 20-mile Table Rock trail system also provides additional opportunities, see Appendix A). The Molalla Shared-Use system, accessible from 5 trailheads along the Molalla Forest Rd, contains nearly 25 miles of closed forest roads and singletrack trail open to hikers, mountain bikers and equestrians. The Trail System is popular with equestrian users and to a lesser degree, mountain bikers. Hikers make up a small segment of users within the system.

To prevent trail damage and erosion, a seasonal closure of singletrack trails (typically from mid-October through mid-April) is in effect for mountain bikers and equestrians.

The Trail System was constructed in 1995 and 1996 with a combination of volunteer labor and youth crews employed by the BLM. It provides for a range of difficulties, with a variety of short and medium loop options. Due to the pattern of BLM ownership, trail densities are extremely high.

### ***Sustainability Assessment***

In order to evaluate the current condition and long-term potential of the trail system, BLM personnel worked with the International Mountain Biking Association's Trail Solutions team to complete a sustainability analysis.

The assessment looked at both social sustainability (patterns of user behavior and potential conflict) and environmental sustainability (the ability of the trail to handle current and expected use without intensive maintenance attention).

The assessment concluded that due to its location and existing use patterns, levels of direct user conflict are low. The overall expectation for users within the system is that other types of users will be encountered. This expectation, tied to the concept of "Shared Use" trails, has been built through public information and special events geared towards promoting the trail system for multiple user groups. In addition, trailhead facilities and desired trail experiences have led to use patterns that separate users, with equestrian users primarily in the southern half of the system and cyclists more often in the northern area. The tendency for regular horse trail riding to create trail conditions that are not desired by cyclists has at times pushed their use to the northern portion of the trail system.

Evaluating environmental sustainability of trails is based on several factors including:

- Prevailing slope to trail grade alignment ratio
- Absolute trail grade
- Canopy cover and adjacent vegetation
- Soil type and rock content
- Current tread condition (widening, muddiness, etc)
- Level of anticipated use

Applying these factors, the assessment found numerous segments unsustainable. Poor alignment and lack of proper drainage were found to be the primary drivers of undesirable trail conditions. The Trail Sustainability Assessment is available for review at the Salem District Office.

### **Administrative and Law Enforcement Presence**

The presence of administrative (BLM) personnel and law enforcement officers has a potentially considerable impact on the type and frequency of certain activities taking place within the SRMA. This presence also has a direct impact on visitor experience by altering the managerial setting and perception towards the safety and desirability of recreating within the Molalla-Table Rock area.

Concerns over public safety were consistently identified by the public during scoping efforts for this plan. The SRMA has a history of illegal and undesirable activities including dumping, vandalism, theft, drug production and long term occupancy which has negatively impacted the perception of the area by visitors and local residents. It should be acknowledged that these activities not only reduce the quality of the on-site visitor experience, but also prevent some individuals from visiting the recreation area entirely.

Administrative and law enforcement presence has seen a marked increase over the past several years. The BLM stations two volunteer host couples within a short drive of the recreation area at the Molalla Maintenance Shop. During the high use season (May through September), hosts conduct daily patrols and trash cleanups.

The area is also patrolled by paid BLM staff and seasonal volunteers originating from the Wildwood Recreation Site on Highway 26 and the Salem District Office. Visitors during this period are likely to see at least one BLM vehicle during their visit. During the off-season (October through April), BLM presence is reduced in conjunction with lower visitor numbers and averages one to two days per week.

Currently, law enforcement is provided cooperatively by three agencies: BLM law enforcement officers originating from Salem, the city of Molalla Police Department and Clackamas County Sheriff's Department. Through supplemental funding, Clackamas County and the Molalla PD have been able to extend their patrols to federal public lands. During June, July and August, these agencies provide consistent coverage; in 2009, Molalla PD officers patrolled the SRMA an average 60 hours per month, BLM provided coverage an average of one day per week and County deputies were present as available, and typically patrol on weekends during the May through September high use seasons.

During 2008 and 2009, Molalla PD officers issued 298 traffic citations, 4 MIP's (minor in possession of either alcohol or tobacco), 6 other miscellaneous crimes, 2 animal complains and 1 non-injury vehicular accident. Current levels of law enforcement presence should not be considered standard and may not continue based on available funding.

Personal observation and public comment indicate elevated levels of law enforcement and administrative presence have resulted in a considerable decrease of undesirable and illegal activity. This includes a decrease in the number of serious vehicular accidents, reduction in large-scale dumping and a decline in violation of the 14-day stay limit.

### **Regional Recreation Opportunities**

Northwest Oregon is blessed with a large supply of high-quality recreation opportunities. Federal, state and local governments as well as private suppliers offer a wide variety of locations, settings and activities for outdoor recreation. The Molalla River-Table Rock SRMA is managed within a regional context and offers opportunities that complement the offerings of other recreation providers.

***Clackamas County Parks:*** Clackamas County offers two parks in the vicinity of the planning area and several others within a half an hour drive. Feyrer Park is located southeast of the Molalla's city center and directly on the access route to the Molalla River-Table Rock SRMA. It provides complementary opportunities to those offered on BLM public lands, including sites for developed camping (electricity and potable water) and a boat ramp that allows for driftboat access to a popular segment of the mainstem Molalla River. Picnicking and swimming are also popular activities at Feyrer Park.

Wilhoit Springs County Park is located south of Molalla and provides day use opportunities for hiking and historical interpretation at the site of a former resort centered on a set of mineral springs. The Park is surrounded by a low elevation stand of old growth forest on BLM lands that is unique in the local area. Clackamas County operates several other parks within a short drive of the planning area, most notable McIver Park near Estacada.

***Nearby River Corridors:*** Several river corridors comparable to the Molalla in their location and setting are present in northwest Oregon. The Clackamas River, draining the watershed to the north of the Molalla, is managed by the Mount Hood National Forest and offers extensive camping, fishing, swimming, picnicking and hiking opportunities. Its similar distance to the Portland metropolitan area and rural Willamette Valley communities make it an important consideration in the context of managing the Molalla River-Table Rock SRMA.

Additional regional recreation areas that offer complementary opportunities include the BLM and Forest Service land along the Sandy and Salmon Rivers as well as Tillamook State Forest, managed by the Oregon Department of Forestry and located west of the Portland metropolitan area in the Oregon Coast Range.

***Weyerhaeuser Public Access Program:*** From 2008 to January 2010, Weyerhaeuser, Inc implemented a permitted public access program on their Molalla Tree Farm, directly adjacent to public lands within the planning area. For an annual fee, visitors were provided a permit that allowed them daytime access to the Weyerhaeuser's gated road system during a restricted time period (no overnight use). Public access originated on Dickey Prairie Rd, adjacent to Glen Avon Bridge and the entrance to the Molalla River Recreation Corridor. The program was discontinued by the company in January of 2010 due to decreased demand. This development has the potential to place additional pressure on adjacent public lands.

## **Anticipated Trends**

Overall demand for recreation opportunities within the SRMA is expected to increase at a rate comparable or slightly higher to population growth, consistent with several demographic trends.

The Oregon Statewide Comprehensive Outdoor Recreation Plan (referred to as SCORP) for 2008-2012, produced by the Oregon Parks and Recreation Department, identifies Oregon's aging population and increasing diversity as important trends in addressing the future needs and demands for outdoor recreation. Clackamas County is identified as a "high-priority" county for both of these trends. Increasing numbers of over 60 residents combined with increases in the minority population is likely to increase the demand for specific activities.

For instance, survey data shows the elderly population engages regularly in walking, picnicking and sightseeing. Locations that provide these opportunities are likely to see usage rise in relation to recreation areas that have limited options for this age group. Refer to the 2008-2012 SCORP for a detailed discussion of these trends and their possible impacts on recreation demand and management.

### 3.5 Visual Resources

The Molalla River-Table Rock SRMA exhibits a variety of scenic qualities ranging from large intact stands of Douglas-fir in the Table Rock Wilderness Area to scattered blocks of recently harvested mixed forest stands. The scenic qualities that exist within the Molalla River-Table Rock SRMA are managed through the assignment of Visual Resource Management Classifications.



All BLM managed lands within the SRMA been assigned a Visual Resource Management (VRM) class to set guidelines for projects that could change the appearance of the landscape or structures. This chapter will provide an overview of scenic qualities, provide background on the VRM classification system, and identify the VRM management classes assigned within the planning area.

#### Scenic Qualities

***Molalla River:*** Several significant scenic attributes distinguish the Molalla from other rivers in the area. The river's clear water and cascade and pool character add significantly to the overall visual experience. The numerous vertical and near vertical cliffs descending to the river, a constricted canyon near the middle of the segment, large moss-covered boulders, and diverse stream-side vegetation provide a variety of stream-side and foreground views. Accessibility from the Portland area also enhances the value of the overall scenic quality and potential of the SRMA. From the river, the scene is one of a large canyon with moderately steep walls covered by a blanket of primarily second-growth (60-90 year old) Douglas-fir. In some areas, stream-side vegetation or geologic features restrict the "seen" area to only a few hundred feet on either side of the river. In many other areas, the adjacent hillsides are clearly visible behind the narrow strip of riparian vegetation.

**Table Rock Wilderness:** The Table Rock Wilderness (TRW) area is the last large block of undeveloped forest within the planning area. The area is characterized by steep, rugged terrain, high relief features and notable vegetative variety. This combination of scenic qualities creates a unique natural setting in an otherwise heavily manipulated forest environment. Further adding to the areas diverse scenery are exposed bedrock, talus, slide scarps, sheer cliffs, basaltic rock outcrops and numerous crags. The presence of four distinct vegetation zones within a relatively short vertical sequence of geologic features accounts for TRW's great diversity of plant species. Within each zone (alpine, subalpine, montane and foothills), both biotic and topographical plant succession patterns occur, representing unique plan community life cycles and adding to the vegetative diversity that provides dramatic scenery for recreationists.

**Molalla Viewshed:** The viewshed surrounding the river and high use areas is an important resource to those visiting an area. Much of the viewshed in the Molalla SRMA has been modified by human use associated with timber management activities. While these modifications are evident, they often blend with the general characteristics of the landscape.

**Geologic Features:** Numerous geological features along the upper and middle portions of the Molalla River and Table Rock Wilderness add to the scenic value of the Special Recreation Management Area. The many vertical basalt cliffs and rock outcrops that descend to the river along with the narrow canyons add to the visual diversity of foreground views in several key segments within the SRMA. Constricted canyons near the model of the SRMA force the river into a deep, narrow chute that flows beneath some picturesque columnar basalt cliffs.

## **Visual Resource Management**

The BLM uses its Visual Resource Management (VRM) system to assign appropriate VRM classes to public land within the Molalla River-Table Rock SRMA (refer to Table 8 for a description of the BLM's VRM classes). The VRM system therefore, provides a means to identify visual (scenic) values, establish objectives through the Resource Management Planning process or on a case-by-case basis for managing these values, and provides timely input into proposed surface-disturbing projects to ensure the assigned objectives are met.

Table 9 identifies the acreages assigned to each Visual Resource Management Class within the Molalla River-Table Rock SRMA:

**Table 9: Visual Resource Management Classification within the Planning Area**

<b>Class I</b>	<b><i>6,139 acres</i></b>
	To preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
<b>Class II</b>	<b><i>3,969 acres</i></b>
	To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
<b>Class III</b>	<b><i>2,183 acres</i></b>
	To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
<b>Class IV</b>	<b><i>15,113 acres</i></b>
	To provide for management activities that requires major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance and repeating the basic landscape elements.

### **3.6 Cultural Resources**

The Molalla River-Table Rock SRMA contains a variety of prehistoric and historic cultural resources. Prehistoric sites within the planning area hold the potential for improving our understanding of regional prehistory, while the historic sites typify the historical themes present in the western Oregon Cascades.

In order to gain an idea of the extent of cultural resources in the area, class III archaeological survey and testing of previously selected high probability parcels were conducted along the mainstem Molalla River and Table Fork of the Molalla during the spring of 1992.

These sites have regional importance for interpreting prehistory. Molalla River prehistoric sites may have been inhabited by the Kalapuya people of the Willamette Valley and by the Molalla people of the western Cascades. Little is known about the origin, time depth, and culture of the Molalla people.

Additional survey and site testing in the corridor can help answer questions regarding the changes in occupation and uses over time, population density, contacts with other groups, prehistoric economy, settlement, subsistence patterns, and the use of the area by the historically known Molalla Indian people. Eligibility for the National Register of Historic Places has not been evaluated for these sites.

In addition, approximately 12 possible historic resources have been identified on historic documents or from previous field inventories, but many of them have been unable to be located on the contemporary landscape. These historic sites and features represent settlement, mining, logging, and federal activities in the corridor, but none are rare, unusual, or one-of-a-kind for the region. These types of cultural resources and historical themes are typical of most major drainages in the western Cascades. None of the sites are associated with a significant single event, although each site is representative of broader regional and national historic events and themes, such as homesteading and western settlement, development of the regional economy, depression-era federal efforts, and World War Two.

Before its removal, the historic Copper Creek Bridge was determined eligible for the National Register of Historic Places. The bridge was documented to the Historic American Engineering Record before its removal.

None of the other sites have been evaluated for eligibility for nomination to the National Register of Historic Places.

### **3.7 Hydrology/Water Quality**

The Molalla River is a tributary to the Willamette River, draining a northeast section of the Willamette River Basin in Clackamas County. The headwaters of the 49-mile Molalla River are on the forested lower west slopes of the Cascade Mountains at elevations up to 4900 feet. From its origin in Cascade volcanic deposits of andecite, basalt, and ash, the river flows northwest where it enters the Willamette River at an elevation of 70 feet (USDA-SCS 1985). The stream gradient is mild along the entire river, with the upper 28 miles of the Molalla averaging approximately 1.2 percent, decreasing to .25 percent on the lower 21 miles.

#### **Planning area stream flow**

Average annual precipitation in the sub-basin ranges from approximately 100 inches in the mountains to 40 inches on the valley floor, with the greatest precipitation occurring November through January and the least occurring June through September (Oregon State University 1998).

There is one U.S.G.S. gaging station

([http://waterdata.usgs.gov/or/nwis/uv/?site\\_no=14199704&PARAMeter\\_cd=00065.00060](http://waterdata.usgs.gov/or/nwis/uv/?site_no=14199704&PARAMeter_cd=00065.00060)) several miles downstream of the project area on the lower Molalla River near Canby City. None of the small, tributary channels in the project area have been gaged.

Stream-flow is typical of western Cascades streams where most runoff occurs during winter storm events. Base-flow or low-flow occurs during late summer and early fall when mean stream discharge drops below 20% of the mean winter flow. Many small headwater channels dry up completely during this period. Average total annual stream discharge past a USGS gauging station on the Molalla River near the Trout Creek bridge is 386,500 acre-feet, or 125 billion gallons. The lowest average monthly discharges normally occur June through October, averaging 53 to 293 cubic feet per second (cfs). The highest average discharges occur during December through February, averaging 917 to 1003 cfs. Snow pack plays a minor role in overwinter storage of precipitation in the Molalla River watershed. This is shown by the correlation of precipitation and discharge, where changes in discharge mirror changes in precipitation with little seasonal variation in the relationship.

Snow melt does play a role in the occurrence of peak flows in the Molalla watershed. Peak flows tend to occur following a rapid and substantial depletion of the snow-pack during prolonged rain-on-snow periods (ROS) in the transient snow zone (TSZ) estimated to lie between 1,500 feet and 3,000 feet elevation. The two largest peak flow events in the last century took place in 1964 and in February of 1996.

The '64 event was estimated at or above a 100 year flood return interval while the '96 was approximately a fifty year event; both were in response to substantial snow pack melt-off. The State of Oregon has estimated peak flows for most watersheds in Western Oregon, including project area watersheds. These estimates may be viewed at the following web site-  
[http://map.wrd.state.or.us/apps/wr/wr\\_mapping/](http://map.wrd.state.or.us/apps/wr/wr_mapping/)

No major dams or reservoirs exist in the watershed analysis area, and most of the summer flow is derived from groundwater.

### **Wetlands within the planning area**

There are a few wetlands in the project area identified on National Wetlands Inventory maps (see <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>), most notable the wetland in the Aquila Vista Environmental Education Site. These features are also identified as wetlands in the BLM GIS Lakes theme and the BLM GIS Timber Production Capability Classification (TPCC). The BLM GIS Lakes theme, for smaller wetlands, ponds and lakes, identified additional areas adjacent to local streams as wetlands. These sites mostly coincide with high water tables (symbol- FWNW, or fragile due to high water table, non-woodland) identified in the BLM GIS Timber Production Capability Classification (TPCC). All of these inventories are based on review of aerial photographs with variable field verification and thus small (<1 acre) areas with high water tables, ponds and/or wetlands are not always mapped, particularly when situated under forest canopy. Therefore, during field review of the project area, when additional locations with high water

tables, ponds and/or wetlands are identified, where appropriate, the TPCC, hydrology, and/or lakes GIS themes are updated to reflect these features.

## **Water Quality**

### ***Designated Beneficial Uses and Water Rights***

The State of Oregon designates the beneficial uses for which all waters of the state are utilized. Water quality standards are ultimately meant to protect these uses. Specific beneficial uses of streams within the project area include municipal drinking water for Molalla and Canby utilizing an intake below the planning area; irrigation and domestic residential drinking water; salmon rearing and spawning; and resident fish and aquatic life.

Both resident and anadromous fish are adjacent to the main Molalla channel and some of its tributaries in the project area (see Fisheries report for more information). Additional beneficial uses include: Industrial Water Supply, Wildlife & Hunting, Fishing, Boating, Anadromous Fish Passage, Water Contact Recreation, Aesthetic Quality. Designated beneficial uses for the Willamette (including the Molalla River) may be viewed on-line at:

<http://www.deq.state.or.us/wq/standards/uses.htm>.

Two municipal water providers withdraw water from the Molalla-Pudding to treat and provide city residents with drinking water.

The Canby Utility Board (PWS# 4100157) and the City of Molalla (PWS #4100534) take water from the Lower Molalla several miles downstream of the planning area. A Source Water Assessment for each provider is available on-line at: <http://www.deq.state.or.us/wq/dwp/swrpts.asp>. The Assessment identifies potential sources of contamination within the watershed. Forestry and recreational-related activities were listed as a potential source of concern. In addition to withdrawals for municipal water consumption, there are withdrawals downstream of the project area for domestic use, irrigation and livestock watering. Maps are available online at: <http://www.wrd.state.or.us/OWRD/WR/index.shtml>

### **Oregon Department of Environmental Quality (DEQ)**

The State of Oregon has established water quality standards “not to be exceeded” for all waters of the state. These standards are provided to protect the beneficial uses of the water. For the Willamette Basin these standards are published in the Oregon Administrative Rules, Chapter 340, Division 41, 442- of the Department of Environmental Quality (DEQ).

The DEQ’s 2004/06 303d List of Water Quality Limited Streams is a compilation of streams which do not meet the state’s water quality standards (<http://www.deq.state.or.us/WQ/assessment/rpt0406.htm>). The Molalla-Pudding is listed for exceeding water quality standards for summer stream temperatures and portions of both rivers for exceeding *E. coli* bacteria standards. In response, the DEQ completed a Total Maximum Daily Load (TMDL) for the Molalla-Pudding which was approved by the EPA on December 31, 2008.

All the streams in the planning area are subject to the conditions of the Molalla-Pudding TMDL (<http://www.deq.state.or.us/WQ/TMDLs/willamette.htm#mp>). The TMDL targets the recovery or maintenance of *effective shade* (as measured by a solar pathfinder or similar instrument) along all perennial streams as a surrogate measure for the achievement of heat loading goals for reductions in stream temperatures to meet state standards. *E. coli* bacteria levels are within standards for the planning area and thus no TMDL was assigned to the portion of the Molalla River considered under this plan.

According to the TMDL, effective shade is a surrogate measure for the heat load a stream receives when it is exposed to direct sunlight and thus, maintaining or recovering site potential levels of effective shade should result in reductions in stream temperatures to levels that achieve state standards. In the planning area, the site potential for effective shade is estimated by use of effective shade curves and varies from 80-95% depending on stream channel orientation with a “near stream disturbance zone” of 25-50 feet (see Figure 3.44. in the TMDL: Effective Shade Curve – Western Hemlock Potential Vegetation Zone).

Under the TMDL, the BLM as a designated management agency must submit a Water Quality Restoration Plan (WQRP) for the Molalla-Pudding Basin which details how the BLM will implement the TMDL on federal lands. The plan is currently being completed by the BLM Salem District.

### ***Water Quality- Bacteria Levels***

High density recreation use has the potential to adversely impact water quality and in particular, levels of total coliform bacteria at undeveloped sites without bathroom facilities (coliform bacteria belong to the enteric bacteria group, *Enterobacteriaceae*, and consist of various species found in the environment and in the intestinal tracts of warm blooded animals). Research on dispersed recreational use was conducted on the Greenwater River<sup>1</sup>, a forested stream system similar in size to the Molalla and with similar patterns of urban recreational use by Seattle residents on summer holiday weekends (e.g, vehicle traffic and day use in areas little to no sanitary facilities). The authors indicated that while dispersed recreational use of the river did result in increased bacterial contamination of the stream, it was concentrated immediately adjacent to the high use areas, did not exceed Washington State standards (same as State of Oregon standards) and the bacterial levels were not sustained. Nevertheless, the authors suggested that the levels of contamination during high use periods did constitute a risk for recreational users and/or drinking water (pg 103). From Varness, Pacha and Lapen:

Fecal coliform densities in the Greenwater River watershed never exceeded the 200-fecal coliform per 100 ml limit that has been recommended for primary contact recreational waters. Based on the State of Washington Department of Ecology criteria, using total coliform standards, the Greenwater drainage meets the requirements established for general recreational use of natural waters. However, the rapid and dramatic increases in bacterial densities associated with recreational use, compounded by the isolation of salmonellae from the relatively clean waters of the drainage over holiday use periods, suggest that there were potential public health hazards associated with the surface waters

of the drainage, particularly if the water was used for drinking. Thus, the present standards for recreational waters may be inappropriate.

In addition, the authors pointed out the hazards associated with the improper disposal of human waste in soils adjacent to aquatic systems. In spite of the absence of site specific data, it is reasonable to assume (based on similar patterns of use) that similar patterns of contamination are likely on-going in the main recreation corridor of the planning area. From Varness, Pacha and Lapen:

Recreational impact was also observed in the soil of the latrine areas of the watershed. High numbers of fecal coliforms in the soil of these areas indicate that they are potential reservoirs of pathogenic enterobacteria. Records (3, 15) show that disease outbreaks have been caused by the contamination of surface waters by surface runoff. Considering the proximity of many latrine areas to the surface waters, it is likely that waterborne disease outbreaks could occur.

The BLM has collected coliform bacteria data on the Molalla River at river miles 27, 31, and 39. River mile 27 is near the lower end of the BLM ownership, river mile 31 upstream near the Pine Creek Bridge (adjacent to Ivor's Wayside), and river mile 38 is near the Horse Creek Bridge. The physical and biologic water quality data were collected from 1993 through 1996. The combined data on the Molalla showed statistically noticeable increase in total coliforms in a downstream direction. This was also true in the summer/fall grouped data but not in the spring/summer data, suggesting that winter storms and stream-flows effectively "cleanse" the system between warmer weather, high use seasons.

All samples from the Molalla River were within ODEQ's standard for contact recreation of less than 200 fecal coliform per 100 milliliter (OAR 340-41-445 (2)(e)). However, samples were not focused on high use recreational sites nor were they collected to evaluate conditions at these sites during summer high use periods. The summer/fall data at river mile 39 were statistically higher than at river mile 31 but signify a small difference. Enterococci bacteria are fecal bacteria which are short lived outside warm-blooded animals so are indicators of recent fecal contamination. During the spring/summer period, enterococci increases in a downstream direction. No additional bacterial sampling data has been completed since this time.

In conclusion, although the available information indicates that current bacteria levels do not exceed statewide standards set by ODEQ, heightened levels of coliform bacteria at certain localized locations on the river (i.e. Ivor Davies Wayside) during periods of high swimming use could present some level of public health hazard including the outbreak of waterborne disease.

#### ***Water Quality - turbidity and fine sediment***

Turbidities were measured on the Molalla River in the vicinity of the project area and major tributaries during or after five storms in 1996 to look for potential sources of turbidity. Grab samples were collected and turbidities measured in the office. Samples were compared with turbidities in other tributaries and the main-stem of the Molalla downstream of the watershed analysis boundary to attempt to identify the streams providing the greatest input.

Due to time and logistic constraints, many but not all major Molalla tributaries were sampled. The tributaries that exhibited the greatest number of high turbidity readings during storms compared with the main-stem Molalla River were Pine Creek, Mining Creek, Trout Creek, and Table Rock Fork Molalla.

No data was located to indicate if recreational use of streamside areas was contributing to fine sediment pollution of the main-stem Molalla River. Most of the recreational sites reviewed for this proposal are along the main Molalla river channel in a section of the river that is constrained in resistant basalt bedrock which is not highly susceptible to surface erosion. Cascades Resource Area personnel (hydrologist, fisheries biologist and recreational specialists) conducted field reviews of streamside recreation sites and concluded, based on visual evidence, that despite disturbance by recreational users accessing the river, the banks and gravel bars immediately adjacent to the Molalla are stable and surface erosion is minimal. Soil compaction and disturbance of vegetation is focused primarily on flat surfaces (mostly terraces and benches) adjacent to the Molalla River that are not accessed by flood waters. In conclusion, recreational use of these sites is not resulting in sufficient surface erosion to have a detectable effect on turbidity, sediment supply or water quality of the river.

Trail systems on the hill-slopes adjacent to the Molalla are a separate issue. Field reviews of conditions on trails within the Shared Use Trail System (many of which are unmaintained, logging roads) on the west side of the Molalla River have been conducted by Cascades Resource Area recreational personnel and the area hydrologist. Portions of these trails are not properly maintained or drained and the trail tread at some locations is muddy and unstable. The area hydrologist found several locations where trails were moderately to severely eroded and contributing fine sediment to tributary streams. In addition, blocked and/or poorly functioning culverts along these roads have resulted in fill erosion and diversion of stream channels at several locations.

### **3.8 Fisheries**

#### **Fish Populations**

The Molalla River supports native populations of winter steelhead trout (*Oncorhynchus mykiss*), coastal cutthroat trout (*O. clarki clarki*; Behnke 1992), mountain whitefish (*Prosopium williamsoni*), largescale suckers (*Catostomus macrocheilus*), longnose dace (*Rhinichthys cataractae*), reidside shiner (*Richardsonius balteatus*), and northern pikeminnow (*Ptychocheilus oregonensis*; USBLM 1999). Spring chinook salmon (*O. tshawytscha*) are native to the Molalla Basin. Introduced fish found in the Molalla River include resident rainbow trout and summer steelhead trout (primarily fish straying from adjacent rivers with hatchery runs of summer steelhead). Hatchery-reared summer and winter steelhead trout were released into the Molalla River in the past, but stocking of hatchery-reared steelhead ceased in 1997.

## Listed Fish Species

Upper Willamette River (UWR) winter steelhead trout and UWR spring Chinook salmon are listed as 'threatened' under the Endangered Species Act of 1973 (ESA). Steelhead are found in approximately 78 miles of streams in the watershed, primarily using accessible tributaries for spawning and rearing, and the mainstem Molalla River for rearing and migration. The Molalla River is a key area for UWR winter steelhead production, with about 20% of the Willamette Basin winter steelhead produced in the Molalla watershed. Numbers of winter steelhead spawning in the watershed ranged from 1,000 to 4,500 during the 1980s, and declined to 200 to 500 spawners/year in the 1990s. More recently winter steelhead numbers have rebounded, with the mean of 1000 winter steelhead spawning in the Molalla basin. Hatchery-reared winter steelhead were released in the river system from 1969 to 1997, using a variety of hatchery stocks from Big Creek, Eagle Creek, North Santiam River, and Alsea River. Hatchery releases of winter and summer steelhead in the Molalla River Basin were stopped due to concerns about possible competition with the native winter steelhead run.

UWR spring Chinook salmon are found in the mainstem Molalla River, the North Fork Molalla, and in the Table Rock Fork, using approximately 39 miles of stream within the watershed.

In 1941, about 1000 spring Chinook spawned in the Molalla River basin. Mattson (1948) estimated the run size to be 500 in 1947. Spring Chinook salmon numbers have declined since the 1940's. Most spring Chinook salmon (>95%) now returning to the Molalla River are of hatchery origin. The hatchery fish are derived primarily from native stocks from other portions of the Willamette Basin. Hatchery-reared spring Chinook fry and smolts have been released in the Molalla River by ODFW since 1981 to reestablish the Molalla river run of spring Chinook.

## Fisheries and Aquatic Habitats

Most fisheries and riparian habitats on federal lands on the Molalla River are in fair to good condition. Large areas of riparian forest stands adjacent to the Molalla River are vegetated with young forest stands with low potential to supply large wood (LW) to aquatic habitats. Within sub-watersheds of the Molalla River, 7 to 40% of riparian stands have high potential to contribute LW to aquatic habitats. The Molalla River in the Upper Molalla, Bear Creek, and Horse Creek sub-watersheds was rated as having good pool frequencies, but LW numbers were low in these sub-watersheds.

Low numbers of in-channel LW results in less habitat complexity, cover, and availability of spawning gravels. Recommended management to improve fisheries habitat in the Molalla River included riparian stand management to promote and accelerate older-aged forest characteristics, reducing the number of roads in the Molalla River basin, adding LW to increase aquatic habitat complexity, and restoring flows to secondary channels by reconnecting floodplains. Additionally, mitigation of recreation impacts by hardening or limiting recreation access to streambanks, and designating camping areas was recommended.

### 3.9 Wildlife

This section describes the affected environment for wildlife on BLM lands in the Molalla River/Table Rock Special Recreation Management Area (SRMA). The information for this narrative comes from the Molalla River Watershed Analysis (1999), BLM Wildlife Observation Databases, recent Stand Exam and Forest Inventory information, and a review of the existing literature. The Molalla River/Table Rock SRMA is located in the Upper Molalla River Sub Basin of the greater Molalla River Watershed.

The Molalla River/Table Rock SRMA offers rich wildlife resources and habitat in the region. Notable mammals known to occur include elk, black-tailed deer, black bear, coyote, cougar, bobcat, river otter and beaver. Some notable breeding birds include golden eagles, Northern spotted owls, harlequin ducks, and a variety of Neotropical migratory birds.

#### Wildlife Special Status Species

Table 10 lists Special Status Species which are documented or suspected to occur on BLM lands in the Molalla River/Table Rock SRMA. The narrative that follows describes the species of most concern in the SRMA.

**Harlequin ducks** are known to occur in the Upper Molalla River tributaries. They are thought to be mostly migratory on the main stem of the Molalla, moving between their wintering grounds on the coast to breeding habitat further upstream. Extensive surveys were conducted during the 1990s, but none have been conducted in recent years.

There are no known **bald eagle** nest sites located in the upper Molalla River Watershed. There are two nest sites further downstream in the Lower Molalla. Bald eagles have been observed on rare occasions during the winter months as far upstream as the Turner Bridge.

**Golden eagles** have been known to nest in the Molalla River/Table Rock SRMA. There was a pair in the Bear Creek area during the 1980s and 1990s. Dispersed campsites and the Bear Creek road were closed later in the early 2000s, but no nesting pairs have been observed here since the 1990s. In recent years, there have been sightings further away from the river corridor, including a pair and single birds observed in High Camp and the Pine Rock areas.

The **peregrine falcon** is a Bureau Sensitive species. It is likely to occur as a rare migrant and could possibly occur during the breeding season. It has been documented in adjacent watersheds to the north and east. There are suitable nesting cliffs available in the Table Rock, High Camp, and Pine Rock areas that have not been surveyed for falcons.

The **northern goshawk** is a rare summer resident and breeder in the Western Oregon Cascades that prefers mature or old-growth forests with dense canopy cover at higher elevations. There are no known nest sites in the Molalla River/Table Rock SRMA, but they have been observed during the nesting season at Lost Creek, and Pine Rock and likely breed in the SRMA.

The **Northern spotted owl** is the only threatened or endangered terrestrial wildlife species known to occur in the Molalla River/Table Rock SRMA. As part of the Molalla River/Table Rock SRMA analysis, overall habitat conditions for northern spotted owls on BLM lands were classified as either suitable for nesting and foraging, dispersal or non-suitable habitat. Non-suitable habitat was further classified as either capable of becoming suitable habitat, or non-forest habitat not capable of becoming suitable over time. The results are shown in Table 10.

<b>Table 10: Spotted Owl Habitat</b>	
<b>Habitat Type</b>	<b>Acres within Planning Area (percent)</b>
<i>Non-Habitat</i>	1,059 (4%)
<i>Capable</i>	6,345 (23%)
<i>Dispersal</i>	5,810 (21%)
<i>Suitable</i>	14,191 (52%)
<b>TOTAL</b>	<b>27,405 (100%)</b>

Based on the habitat data above, and the spatial distribution of habitat, the majority of the Molalla River/Table Rock SRMA is viable for nesting and dispersing spotted owls. The one exception is the lower portion of the Molalla River Corridor north of about Bear Creek, which is not viable for nesting or dispersal due to the lack of suitable habitat and its proximity to the Willamette Valley.

There are currently 9 known spotted owl sites located on BLM lands in the Molalla River/Table Rock SRMA. The number of barred owl sightings in the Molalla River Corridor has increased in recent years. Barred owls compete directly with spotted owls for territory and to a lesser extent prey. They are more aggressive than spotted owls and broader in their habitat requirements.

There are a number of **Neotropical Migratory birds** known to occur in the Molalla River/Table Rock SRMA. Neotropical Migratory birds are those birds that breed in northern latitudes and migrate to the neotropics for the winter. They face a number of unique threats due to their migratory habits that stretch from their breeding grounds, across international boundaries as they migrate to and from their wintering grounds in the tropics. Some of these threats include loss of quality breeding and wintering habitat, pesticides and hazards presented by man made structures such as buildings, windows, towers and wind turbines.

The focal bird species for the coniferous forests of Western Oregon and Washington include band-tailed pigeon, rufous hummingbird, olive-sided flycatcher, Wilson’s warbler, and orange-crowned warbler, all of which are migratory and appear to be declining Other species known or suspected to occur in the Molalla River/Table Rock SRMA that appear to be declining include the ruffed grouse, Cooper’s hawk, red-breasted sapsucker, western wood pewee, willow flycatcher, Cassin’s vireo, golden-crowned kinglet, Western bluebird, Swainson’s thrush, Hermit thrush, Cedar waxwing, yellow warbler, MacGillivray’s warbler, red crossbill.

There are a variety of amphibian species that are known to occur in the Molalla River/Table Rock SRMA, including the **Oregon slender salamander**. The Oregon slender salamander, a Bureau Sensitive species, is found exclusively in the northern Oregon Cascades up to elevations of 4,500 feet. Its distribution appears to be limited by dry conditions at low elevations along the Willamette Valley floor, and by cold conditions at higher elevations (Dowlan, unpublished

2006). Habitat is generally described as conifer stands dominated by Douglas-fir with large amounts of down logs and woody material in more advanced stages of decay. Optimal habitat is generally described as late-successional forest conditions. However, the Oregon slender salamander has been found in stands across the full range of seral stages where suitable down logs and woody material exists.

## **Wildlife Habitats**

Terrestrial habitats within the Molalla River/Table Rock SRMA include mixed conifer-hardwood forests and coniferous forests in all stages of succession; dry meadows, cliffs, outcrops and talus slopes. Aquatic resources include the Molalla River, major tributary streams such as Gawley, Horse, Camp and Lost Creeks; springs, wet meadows, and wetland habitats with their associated riparian vegetation.

Of the lands acquired by BLM in 1992 land exchange, the highest quality wildlife habitats are the riverine and streamside riparian habitat along the Molalla River itself.

Lands acquired from Private Industrial landowners in the uplands have been managed for timber and lack stand structure and diversity characteristics such as snags, coarse woody debris (CWD), species composition and spacing.

There are a good number of high value wet meadows and wetlands in the Molalla River/Table Rock SRMA including the Molalla Oak meadows, Lost Creek meadows, Horse Creek wetland and Aquila Vista wetland. These special habitats are critical for a large number of wildlife species which are dependent on them to meet some or all of their life history requirements. Species which are dependent on these habitats include the evening fieldslug (*Derocerus hesperium*), great blue heron, red-legged frog and various waterfowl species.

Standing dead and down CWD provide essential habitat, structure and function across Molalla River/Table Rock SRMA. CWD is an important pool of energy, carbon, and nutrients in ecosystems and has an impact on site productivity. Many vertebrate and invertebrate wildlife species find their primary habitat in standing dead snags, culls, down logs and CWD. Inventory and stand exam data for the BLM lands in the Molalla River/Table Rock SRMA show that there are very few snags in stands in the early, open or closed canopy seral stages. Standing dead snags and decadent live trees are scarce resources on in the Molalla River/Table Rock SRMA, and are most numerous and characteristic in older forest stands, which are found mostly at higher elevations of the upper reaches of the SRMA.

In general, disturbance factors in the Molalla River/Table Rock SRMA are concentrated in the Molalla River Corridor below the Table Rock/Copper Fork confluence; in some of the upland areas in Pine Rock area; and in the vicinity of the Molalla Oak Meadows potential ACEC. Some of these areas are within home ranges of spotted owls and golden eagles, and the potential ACEC contains valuable special habitats that are in need of protection. Currently, disturbance factors from human use are high in these areas. In the vast majority of the watershed, disturbance factors are fairly low, including areas with gated road systems and steep inaccessible reaches which receive little human use.

**Table 11: Species of Concern and Special Status Wildlife**

<b>Occurrence</b>	<b>Species &amp; Status</b>	<b>Habitat Description</b>
<b>Invertebrates</b>		
S	CALLOPHRYS JOHNSONI <b>BS</b> Johnson's Hairstreak	Cool, moist, old-growth conifer forests of the Pacific Northwest, primarily west of the Cascade Mountains. In Oregon, records are from elevations over 2,000 feet. Feeds on dwarf mistletoe associated with Western hemlock. Could occur in forests that contain dwarf mistletoe, however, dwarf mistletoe is not common or widespread in the Molalla River Corridor.
D	DEROCERUS HESPERIUM <b>BS</b> Evening fieldslug	Occurs in wet meadows in forested situations in a variety of low vegetation, litter, debris and rocks. Known to occur in the Molalla River Watershed.
D	GLIABATES OREGONIUS <b>BS</b> Salamander slug	Type locality is in leaf litter under bushes in mature conifer forest at elevation of 600' in east side of the Oregon Coast Range. Specimens found in Mt. Hood and Willamette N.F. and Salem BLM that fit this description were referred to as "axe-tail" slugs. Known to occur in the Molalla River Corridor.
S	GONIDEA ANGULATA <b>BS</b> Western ridged mussel	Substrates of lakes, streams, and rivers that range in size from gravel to firm mud with the presence of at least some fine material (e.g. sand, silt or clay). Preferred sites generally have constant flow, rather shallow water (typically < 3 m in depth), and well-oxygenated substrates, especially when occurring in finer sediments. Could occur in the Molalla River and some of its tributaries.
D	HEMPHILLIA MALONEI <b>SM</b> Malone's Jumping Slug	Common in moist forested habitats over 50 years of age and 50%+ canopy cover below 4000 feet with dense sword fern, conifer coarse woody debris, exfoliated bark and large decaying stumps. It has also been found in marshy open sites with skunk cabbage, fallen logs and low vegetative cover.
D	MEGOMPHIX HEMPHILLI <b>SM</b> Oregon Megomphix	Common in moist conifer/hardwood forests of all ages below 3000 feet. Usually in hardwood leaf litter and under bigleaf maple. The species may be present in the absence of bigleaf maple, in moist sites with deciduous shrubs, coarse woody debris, rotten logs, stumps and sword ferns.
<b>Herpetofauna</b>		
D	BATRACHOSEPS WRIGHTORUM <b>BS/SOC/SU</b> Oregon slender salamander	West slope of Cascades. Prefers down logs and woody material in more advanced stages of decay. Most common in mature and old-growth conifer forests. Known to occur in the Molalla River Corridor.
<b>Birds</b>		
D	ACCIPITER GENTILIS <b>SOC/SC</b> Northern goshawk	Rare Summer resident in Cascades. Prefers mature or old-growth forests with dense canopy cover at higher elevations. Winters at lower elevations.

**Table 11: Species of Concern and Special Status Wildlife**

<b>Occurrence</b>	<b>Species &amp; Status</b>	<b>Habitat Description</b>
D	AQUILA CHRYSÆTOS Golden Eagle	Typically found east of the Cascades in open areas. Very rare resident west of the Cascades. Forages in recent clearcuts, and nests on cliffs or large trees. Known to nest in the Molalla River/Table Rock SRMA.
D	CONTOPUS COOPERI <b>SOC/SV</b> Olive-sided flycatcher	Remnant large trees/snags in forest openings/edges and open forests, high contrast old/young edges. Migratory, arrive late May, leave late August.
D	EMPIDONAX TRAILLII BRESTERI <b>SOC/SV</b> Little willow flycatcher	Dense shrub and early seral stages, prefers the wet sites/riparian zones. Migratory, arriving in mid May 15, most leave early September.
S	FALCO PEREGRINUS ANATUM <b>BS/SE</b> American peregrine falcon	Rare during the nesting season. Usually occurs as a transient/migrant and winter visitor. Found in a variety of open habitats near cliffs or mountains. Prefers areas near larger bodies of water and rivers. Peregrine falcons have not been observed in the Upper Molalla River Watershed but there are suitable cliff habitats present that has not been surveyed.
D	HALIAEETUS LEUCOCEPHALUS <b>BS</b> Bald eagle	Rare summer resident and winter visitor in Cascades. For nesting and perching, prefers large old-growth trees near major bodies of water and rivers. There are no known nest sites in the Molalla River Corridor, but they have been observed during the winter.
D	HISTRIONICUS HISTRIONICUS <b>BS/SOC/SU</b> Harlequin duck	An uncommon summer resident found in whitewater mountain rivers and streams during nesting season. Winters on rocky coasts. Known to occur during migration on the main stem and known to nest upstream on the major tributaries of the Molalla.
D	MELANERPES LEWIS <b>BS/SOC/SC</b> Lewis' woodpecker (Willamette Valley)	Formerly a common summer resident and uncommon winter visitor in Willamette Valley. Oak woodlands and hardwood forests. Transient on Salem District in fall along high divides.
D	PATAGIOENAS FASCIATA <b>SOC</b> Band-tailed pigeon	Nests in closed-canopy forest; forages in open-canopy forest. Keys in on mineral sites and berry producing plants. Migratory, most arrive in March, leave in October.
D	STRIX OCCIDENTALIS CAURINA <b>LT/ST</b> Northern spotted owl	Permanent resident. Prefers mature and old-growth conifer forests with large down logs, standing snags in various stages of decay, high canopy closure and a high degree of vertical stand structure. There are 9 known spotted owl sites on BLM lands in the planning area.

**Table 11: Species of Concern and Special Status Wildlife**

Occurrence	Species & Status	Habitat Description
<b>Mammals</b>		
D	ARBORIMUS LONGICAUDUS <b>SOC/SM</b> Oregon red tree vole	An arboreal canopy species thought to be associated with late seral/old-growth Douglas-fir stands to about 3,500 feet elevation. Has been found in mid seral stages in the Molalla River/Table Rock SRMA.
S	CORYNORHINUS TOWNSENDII <b>BS/SOC/SC</b> Townsend's big-eared bat	Feeds on flying insects in a variety of habitats in forested areas. Primary habitat is caves, rock outcrops, buildings and abandoned mines. Suspected to occur in the Molalla River Corridor.
S	LASIONYCTERIS NOCTIVAGANS <b>SOC</b> Silver-haired bat	Associated with snags, loose bark and cliff/cave habitat. Forages in a variety of forest habitats and riparian areas. Suspected to occur in the Molalla River/Table Rock SRMA.
S	MYOTIS EVOTIS <b>SOC/SU</b> Long-eared myotis	Associated with snags, loose bark, buildings and cave habitat. Prefers older forests. Forages over water and riparian areas. Suspected to occur in the Molalla River/Table Rock SRMA.
S	MYOTIS VOLANS <b>SOC/SU</b> Long-legged myotis	Associated with snags, loose bark and cliff/cave habitat. Prefers older forests. Forages over water and riparian areas. Suspected to occur in the Molalla River/Table Rock SRMA.
S	MYOTIS YUMANENSIS <b>SOC</b> Yuma myotis	Associated with snags, buildings and cliff/cave habitat. More closely associated with riparian areas than the other myotis. Prefers older forests. Forages over water and riparian areas. Suspected to occur in the Molalla River/Table Rock SRMA.

**KEY**

**Occurrence:**

S = Suspected (highly likely to occur)  
D = Documented to occur

SE = State Endangered

ST = State Threatened

SC = State Critical

SV = State Vulnerable

SU = State Uncertain

**Status:**

LT = Federal Threatened  
SOC = Species of Concern  
BS = Bureau Sensitive

**3.10 Invasive Non-Native Plants and Botany**

**3.10.1 Invasive Non-Native Plants**

The Molalla River/Table Rock Special Recreation Management Area (SRMA) is very similar in its composition, abundance and distribution of invasive non-native species to other watersheds along the west slopes of the Cascades Range in northwest Oregon. With the exception of a few species within the SRMA, all identified invasive species are regionally abundant and ubiquitous in their distribution. Common invasive species are most often found within road corridors, along

trails and in areas with ground disturbance. All of the identified invasive species within the SRMA are highly dependent on high light levels and are poor competitors with native vegetation. To date the impact these species have had on the native plant community has been light and this pattern is expected to remain the same.

Distribution and spread of these species occurs by three means. These include, human, animals and environmental. The environmental (i.e. wind, natural seed dispersal) spread of invasive species is anticipated to remain at the same level regardless of the level of recreational use. Animal, when including domesticated animals, as well as the human contribution to the rate of spread is anticipated to increase as the level of recreational use increases. This spread is likely to be the greatest within the road corridors and trail systems.

Species not currently known from within the SRMA will likely be introduced from seed brought in on animal (i.e. dog, horse) fur, in horse dung, and through off-road-vehicle (i.e. mountain bikes, ATV's) use.

### **3.10.2 Other Botanical Resources**

Diverse botanical habitats that host unique and varied botanical communities are found scattered throughout the SRMA. These habitats range from basalt rock formations that host hardy drought tolerant species to moist conifer forest and riparian areas with shade loving species, to high elevation rocky ridge tops that experience extreme weather conditions. The habitats adjacent to the Molalla River range from conifer forest and riparian areas to the moss covered basalt rock formations of the Molalla Oak Meadows.

No Threatened or Endangered species have been located or documented to date. Species with special status within the SMRA are either Survey and Manage (S&M) or Special Status Species (SSS). These species are known to exist from the lowest elevations near the Molalla River to the highest elevations atop Table Rock, in the Table Rock Wilderness and are from the vascular plant, fungi and lichen groups. Due to the diverse habitats that exist within the SMRA, many additional S&M and SSS are likely to occur throughout the area. Although some S&M and SSS sites are located close to travel corridors along trails and roads, these sites have not been negatively impacted by recreational users and this trend is anticipated to remain the same.

### **Molalla Oak Meadows/Potential Area of Critical Environmental Concern (ACEC)**

The Molalla Oak Meadows consist of a series of intact remnant oak woodlands with thin rocky soils that supports a unique native prairie flora as well as scattered Oregon white oaks. Together the meadows and surrounding forest within the Potential ACEC total approximately 205 acres. The ecological and botanical features within these meadow areas are found scattered along the south facing slopes of the Molalla River.

These meadows represent a unique ecotype with natural systems and geologic features seldom seen in the Salem District. Many similar areas that once contained plant communities and features like those within the meadows have succumbed to successions with the removal of fire from natural process and with forestry related habitat modification and ecotype conversion from oak woodlands to conifer forest.

The Molalla Oak Meadows are a representative sample of the transition from Willamette Valley oak woodlands to the west slope Cascade Range conifer forest habitats.

### 3.11 Silviculture

Age class distribution and Seral Stage is an important component in describing the overall structure of the vegetation and patterns across an area. Age classes in the proposed Molalla/Table Rock SRMA in BLM ownership have been categorized into age class bands corresponding to vegetative seral stage development and size class of trees based on Diameter at Breast Height (DBH).

Information on vegetative conditions was derived from BLM Forest Operations Inventory (FOI) records updated in 2010 on BLM lands. According to FOI data, BLM forest types in the Molalla SMRA consist primarily of Douglas-fir (*Pseudotsuga menziesii*) dominated stands, with components of big-leaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), western red-cedar (*Thuja plicata*), and western hemlock (*Tsuga heterophylla*), with noble fir (*Abies procera*) and Pacific silver fir (*Abies amabilis*) in the higher elevations.

<b>Table 12: Seral Stages on BLM-administered Lands</b>		
<i>Seral Stage</i>	<i>Acres</i>	<i>Percent of SRMA</i>
<b>Barren/Water/ Rock</b> Age Class: 0 Size Class (Diameter Breast Height) n/a	1,000	4%
<b>Grass/Forb</b> Age Class: <10 years Size Class (DBH): n/a	186	1%
<b>Open Sapling/Brush</b> Age Class: 10 to 39 years Size Class (DBH): less than 10"	5,205	19%
<b>Closed Sapling</b> Age Class: 40 to 79 years Size Class (DBH): 11 to 20"	6,751	25%
<b>Mature</b> Age Class: 80 to 199 years Size Class (DBH): 21 to 31"	12,266	45%
<b>Old Growth</b> Age Class: 200+ years Size Class (DBH): >30"	1,996	7%
<b>TOTAL</b>	27,405	100%

Most of the Upper Molalla watershed is in the western hemlock zone. This is characterized by forests with western hemlock in the overstory during the climax seral stage and Douglas-fir as the sub climax overstory species. Upper elevations are in the Pacific silver fir zone characterized by forest with Pacific silver fir dominated during the climax seral stage.

According to current FOI data, approximately 95 percent of the proposed Molalla/Table Rock SRMA is in conifer types; approximately 1 percent is in hardwood types, with 4 percent in non-forest types such as roads, rock quarries, rock outcrops, meadows, water, or other natural openings.

Most of the seral stage present throughout the project area on BLM ownership is divided between the Open Sapling/Brush, Closed Sapling and Mature forests. Only 5% of the project area is listed as being non-forest/grass, and only 7% was listed as being in the Old Growth forest type.

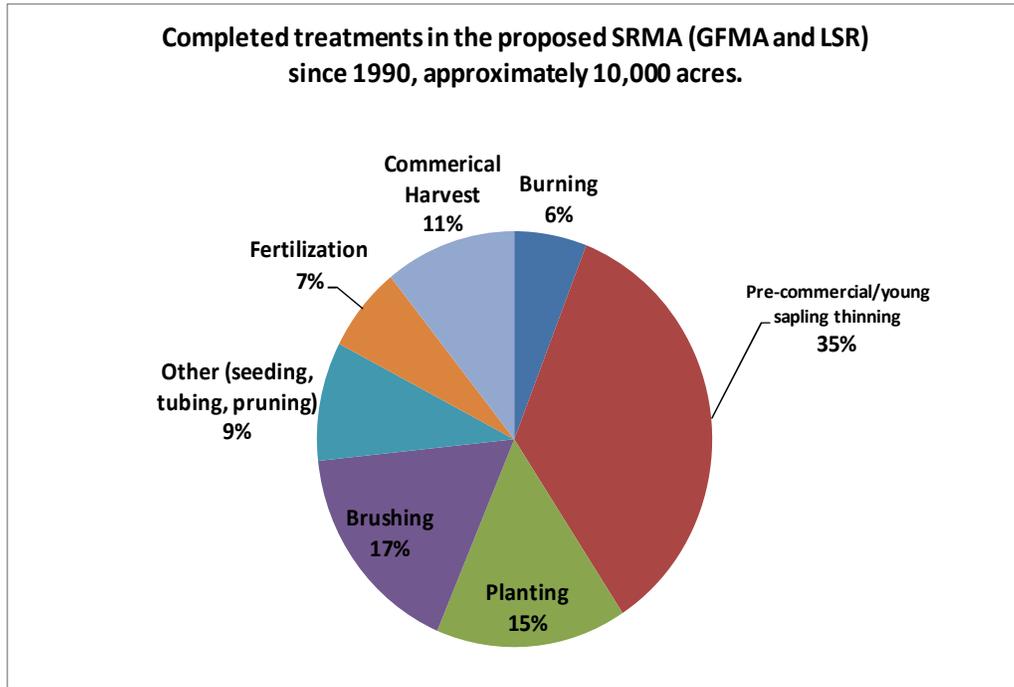
### **Past and Ongoing Timber Management Actions in the Planning Area**

Since 1990, approximately 10,000 acres have been treated through various means throughout the GFMA and LSR land use allocations, with additional acres proposed for future treatments. Treatments include but are not limited to: commercial harvest, pre-commercial or young sapling thinning, manual brushing, girdling and tree planting. In several areas, multiple treatments have occurred: i.e. planting with tubing, manual brushing with pre-commercial thinning etc.

**Table 13: Completed Silvicultural Treatments 1990 to Present (GFMA & LSR only)**

<b>Treatment Type</b>	<b>Acres</b>	<b>%</b>
Burning (pile burn, broadcast)	689	6%
Pre-commercial/young sapling thinning	3482	35%
Tree planting	1556	16%
Manual brushing	1690	17%
Fertilization	665	7%
Commercial Harvest	1074	11%
Other (seeding, pruning, trapping)	925	9%
<b>Total</b>	<b>9981</b>	<b>100%</b>

**Figure 5: Completed Silvicultural Treatments 1990-2010**



***Timber Harvest within the Planning Area***

Silvicultural treatments and timber harvest have occurred and will continue in the GFMA and LSR land use throughout the planning area in accordance with the Salem District RMP (see section 1.7.1 BLM land Use Allocations). The abundance of Open sapling and Closed sapling seral stages within the GFMA and LSR land use allocations indicate the likelihood of proposed commercial thinning or density management projects in the next several years on BLM ownership. The presence of even-aged conifer stands within the proposed project area illustrates the level of timber harvest that once occurred between 20 to 80 years ago in these areas.

The "Annie's Cabin Commercial Thinning" sale is currently proposed in the planning area. This timber sale involves 570 acres of second-growth thinning, with several units to be thinned with trees removed by helicopter. This timber sale was sold in 2007, and is scheduled for harvest within approximately the next 1-5 years. Some of the proposed haul routes are old logging roads to be renovated and currently used as recreation trails.

## **3.12 Fire /Rural Interface Areas**

### **Disturbance Regimes and Ecological Effects**

Many disturbance factors continue to operate within the Upper Molalla watershed including wind, fire, floods, insects, disease and human influence. Second only to human influence, fire remains the most influential disturbance factor over the landscape and causes the greatest ecological effects over space and time.

Common forest types found in the planning area include Western Hemlock and Pacific Silver fir. These types generally lack the fine fuel loadings found in other forest types and are characterized by deep duff and heavy loading of large logs. The resulting fire hazard is usually low to moderate, depending on weather conditions in a given year. Most years the associations in this group retain moisture well and are slow to dry. Once the duff dries, however, it will carry fire. Prolonged smoldering in deep duff and punky logs is common. In these stands, high severity stand replacing fire will dominate during large fires.

In and adjacent to wet riparian areas, major stand replacement fires occur in 300 to 800 year intervals. In drier mid and upper slope areas, stand replacement fires are interspersed with mixed severity fires. Mixed severity fires occur at 50 to 150 year frequencies, while stand replacement fires occur at 250 to 500 year frequencies. This pattern is largely responsible for the dominance of Douglas Fir in these landscapes.

From a historical perspective, the watershed was more complex and resilient prior to large-scale forest management than it is now. Disturbance did not have an adverse effect but added or maintained complexity and diversity. Timber harvest has changed the forest to a less complex system. Fire has been virtually eliminated from the ecosystem. Older forests are now young to early mid-age (50-100 years) and structural complexity has been reduced.

### **Fire Behavior**

The physical setting for the Cascades has major west-east lying mountain drainages. This allows for the creation of strong up-canyon winds in the afternoon during the late spring, summer and early fall. The west to east oriented drainages also provide funneling to strong, dry east winds that can occur unpredictably. During the summer and fall seasons, these dry, warm winds reach velocities of 30 to 40 miles per hour, with stronger gusts over the higher ridges and down east-to-west oriented drainages. East winds are important because they often occur when fuel moistures are at critically low levels. Large wildland fires igniting on the lower and middle thirds of slopes may spread to ridgelines before safe suppression action can be taken.

In temperate ecosystems like the Pacific Northwest, biomass accumulates faster than it decomposes. New studies have linked occurrence of wildfire with global weather changes such as El Niño/La Niña and global warming. Virtually all climate-model projections indicate that warmer springs and summers would occur over the region in coming decades.

The trends would reinforce the tendency toward early spring snowmelt and longer fire seasons which would have the potential to accentuate conditions favorable to the occurrence of large wildfires.

## **Fire History**

Cadastral surveys of the townships within the upper Molalla Watershed completed during the nineteenth and early twentieth centuries provide information on historical forest conditions and the role of fire in the watershed. Records and forest inventory data indicate the occurrence of large, stand replacement fires in the second half of the nineteenth century. The general description of T.7 S., R.3 E by Jesse Moreland, written in December of 1868 states:

This Township is for the most part over rugged mountainous land; the Southern part being too much cut up with deep rocky canyons to be surveyed. A great part of the timber had been destroyed by fire.

William Bushey in 1882 surveying T. 7 S., R. 3 E., Sec 12 and 13, writes:

Land mountainous and hilly-Soil 3rd rate. Dense forest of fir, pine, and cedar. Timber all dead. Scattering of hazel and maple brush.

These are but a few examples of fire effects on the landscape with many more examples of fire effects throughout the cadastral notes. These descriptions can be correlated to the forest stand ages that range from 100 to 150 with few stands of old growth.

## **Recent Fire History**

Human caused fires are responsible for the majority of fires in Clackamas County. The North Cascade District of the Oregon Department of Forestry provides fire protection and first response services for BLM-administered lands in the Salem District. In order to provide a picture of fire risk on lands it services throughout the county, ODF provides information regarding fire causes over the past decade through its Clackamas County Wildlife Protection Plan. According to ODF, debris burning has been the number one cause of fires on forest lands in Clackamas County. Over 166 fires in the past ten years have been caused by debris burns.

The second leading cause of fires in the North Cascade District is recreation. Campers and other visitors to the forest have been responsible for 85 fires in the last ten years. Recreation presents an inherent fire risk in the form of unattended campfires, lit cigarettes and other fire sources. Regular patrols by ODF staff focused in high use recreation areas like the Molalla River-Table Rock area and fire season use restrictions have been put in place to mitigate this risk.

## **Fire Hazard Rating/ Fire Risk and Values At Risk**

Fire hazard ratings provide an index of resistance to control a wildfire and are based on vegetation, fuel arrangement and volume, condition and location. All are determinants of the potential for spread of a fire and difficulty of suppression.

Fire risk reflects the probability of ignition in a given area. Fire risk is higher than in other watersheds in the Cascade Resource Area because of the amount of dispersed recreation that occurs. An added potential for fire starts within the planning area due to heavy recreation use has resulted in a series of fuel treatment between 2007 and 2009. These treatments include pruning, cutting brush, chipping, piling and burning, and machine treatments within 50 feet of the South Molalla Forest Road.

Values at risk provide an index of resource and human values that could be affected by wildfire. The lower end of the watershed would be given the highest value because of the proximity to private residences. The upper portion of the watershed has timber values but no structures.

### **Wildland/Urban Interface**

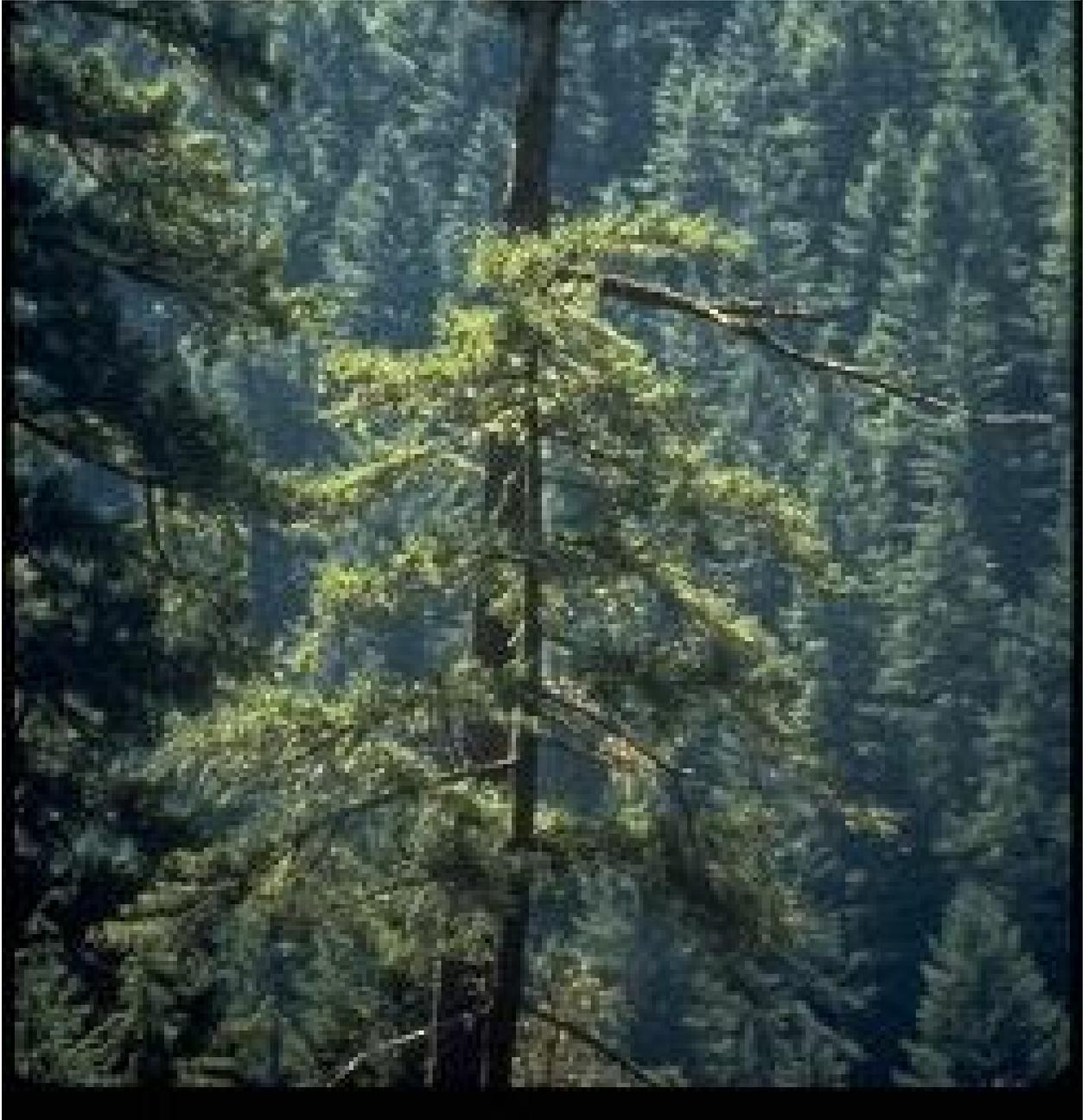
Wildland / Urban Interface (WUI) is a term used to describe the area where developed lands meet undeveloped lands. The developed lands can be homes, businesses or agricultural lands. Under the Healthy Forest Restoration Act of 2003 the term “at risk community” means either the interface community or a group of homes and other structures with basic infrastructure and service (such as utilities and collectively maintained transportation routes). Molalla and Glen Avon would be considered such communities.

From the viewpoint of fire management the WUI creates many problems because of the people and property which may be in jeopardy during wildfire events. Access to these areas is typically limited and the attitudes, values and capabilities of the people living there vary tremendously. Together these elements present firefighting personnel with a very complicated situation, often requiring more firefighters and equipment to insure the safety of both the residents and the firefighters.

The constricted pattern of access, with much of ingress and egress coming on a single arterial road, presents additional challenges for management of a wildfire within the planning area. In the case of a large-scale fire during the high use season, substantial pressure would be placed on the S. Molalla Forest Rd and Horse Creek Rd systems.

## **Chapter 4**

# **ENVIRONMENTAL EFFECTS**



## Chapter 4: Environmental Effects

### 4.1 Introduction

Chapter 4, “Environmental Effects,” describes the environmental effects that would occur under the implementation of each alternative. Site specific effects will be described in the environmental documentation for future projects. This section describes the effects of the alternatives described in Section 2.2.

This chapter is organized by the same resource categories used to describe the Affected Environment in Chapter 3.

### 4.2 Socioeconomic

The location and quality of recreational opportunities and the amount and type of recreation use within the Molalla River-Table Rock SRMA have moderate effects on local socioeconomic conditions. These effects are primarily focused on the residents and communities closest to the SRMA including Molalla and surrounding unincorporated communities. The effects fall into two major categories: a) the direct economic activity that results from travel and tourism-related activity such as retail purchases b) changes to property values and the desirability of living close to the Molalla River-Table Rock area.

Regardless of alternative, timber management practices on matrix lands and their associated socioeconomic impacts are unaffected and therefore are not analyzed.

**Alternative A:** Under the No Action Alternative, the Molalla River-Table Rock area would continue to provide a moderate level of tourism and travel-related revenue to the City of Molalla, primarily in the form of purchases of gasoline, food, supplies and services. Visitor use levels and associated consumer would continue on their current trajectory. The recreation area would continue to provide minimal and unknown increases in nearby property values.

#### *Impacts Common to All Action Alternatives*

Improved marketing, additional investment in trail and facility development and consistent signage are likely to improve the overall perception of the Molalla River-Table Rock area among local residents as well as out-of-town visitors. None of the action alternatives are likely to influence to a noticeable degree the types of supplies or equipment purchased for use within the planning area. Purchases for supplies including fuel, food and other goods will continue to closely mirror overall visitor use. Increasing overall management presence, regardless of alternative, is likely to make the main recreational corridor less attractive for a variety of illegal uses including dumping, drug production, underage drinking and long-term occupancy.

Property values adjacent to the planning area would continue to be positively impacted by the presence of the recreation area. Changes in management of the planning area may result in small differences, but these are considered to be minor.

No management actions taken within the SRMA are likely to have any impact on population demographics, per capita income, employment or overall economic activity on a community scale.

**Impacts Specific to Alternative D:** The lack of camping opportunities in this alternative may also lead to a moderate increase in business opportunities for lodging and accommodations near the planning area including RV parks, hotels, motels and other outlets. These opportunities would result from a displacement of overnight users and an increase in the attractiveness of the SRMA for day use recreation.

**Cumulative Impacts:** No past, present or reasonably foreseeable actions are likely to result in a measurable cumulative effect once combined with any of the action alternatives. Foreseeable actions include population increases within the socioeconomic analysis area and a continuation of current growth patterns. These developments, like overall socioeconomic conditions will not be affected to a measurable degree by management actions taken within the planning area.

### 4.3 Recreation

Recreation use is defined by the type of opportunities offered as well as the physical, social and administrative settings in which recreation activity takes place. The degree to which a particular alternative would benefit or adversely affect a visitor's outdoor recreation experience depends on the management actions involved.

In order to analyze the effects each alternative might have on these recreation uses and the recreation setting, all available statistical and objective information including traffic patterns, visitor use data and survey results were combined with field observation. Other relevant information includes consensus regarding regional recreation trends as outlined in documents such as the Statewide Comprehensive Outdoor Recreation Plan.

Using these information sources, analysis of the potential effects on recreation is based on professional judgment. How effectively each action is implemented, the timing and order of these actions and several other factors including shifting activity preferences have a direct influence on recreation trends within the planning area.

Impacts to the recreation area are described below in terms of the recreation setting. The recreation setting is made up of three primary components:

- The **Physical Setting** describes the type and location of facilities and transportation routes (roads, trails and pullouts) available to the visitor, as well as the visibility of recreation-related impacts.
- The **Social Setting** is defined by the number and type of other visitors that are likely to be encountered during a visit to the SRMA, their proximity to one another and the potential for competing or complimentary recreation.

- The *Administrative Setting* within the Molalla River-Table Rock is determined by the presence of agency personnel, the number of rules in place for visitors and the amount and type of regulatory signage.

## **General Assumptions**

Overall recreation demand is likely to increase at a rate similar to population growth. The overall timing of use (heavy weekend traffic and busy summer weekends) will continue. BLM's management capacity including fiscal resources and personnel is expected to remain at a level similar to the current situation. General land use patterns near and adjacent to planning will continue. As changes are implemented, the public will become gradually aware of new or different recreation opportunities within the SRMA.

### *Alternative A (No Action)*

#### *Impacts to the Recreation Setting*

The No Action alternative will result in a continuation of current trends regarding the recreation setting as described section 3.4.

The *physical setting* will be characterized primarily by paved S. Molalla Forest Rd, graveled pullouts, vehicle barriers utilizing boulders, and a low level of visible recreation infrastructure. Recreation-related impacts will continue to grow and remain highly visible at dispersed, designated campsites and popular river access points. These impacts will continue to increase in size and visibility as sites experience increased and sustained use. Capacity at day use and campsite locations will continue to be determined by the size of pre-existing roadside pullouts rather than the quantity or quality of recreation opportunities available at that site. As signs of recreation-related impacts become apparent at individual locations, the sites will be evaluated for closure and rehabilitation without a long-term plan.

The *social setting* will continue to feature large group sizes and visitors from similar socioeconomic backgrounds. Roughly half of visitor groups will include individuals under 16. Recreation use will be concentrated on weekends during the May through September high use period. The largest crowds will be encountered during these periods. Perceptions of crowding and user conflict will remain relatively low.

The *administrative setting* will be characterized by the regular presence of BLM personnel and volunteers during the high use recreation season, as described in section 3.4. Law enforcement presence will continue, but at an undetermined level based on available funding and resources. Managerial controls will come mostly in the form of signage at individual sites outlining prohibited activities.

### ***Impacts to Visitor Use and Behavior***

Visitor use and behavior trends will continue, as outlined in EA section 3.4. Visitor characteristics, preferences and activity choices will continue on their current trajectory.

Patterns of use within the Molalla River Trail System will continue. Equestrians will remain the dominant trail user group, with moderate rates of mountain biking use and very low rates of hiking use. Trail conditions will continue to be unreliable resulting in the potential for subpar visitor experience.

### ***Impacts to Overnight Use***

Use of dispersed, designated campsites will continue and remain one of the most popular recreation activities within the planning area. During several high use weekends each year, demand for camping will exceed available sites. Current conditions on group size and length of stay will continue.

## **IMPACTS COMMON TO ALL ACTION ALTERNATIVES**

### ***Impacts to the Recreation Setting***

All aspects of the recreation setting (including physical, social and administrative) will be altered to some degree under each alternative. Primary changes will include modified parking areas, facilities and trails; increased management controls and the visibility of regulations; greater proximity to other users especially for overnight use and developed day use.

These setting changes affect the type and distribution of recreation opportunities available within the planning area, the levels and patterns of visitor use and the quality recreational experiences desired by the visiting public. Management actions which improve opportunities for visitors seeking one form of recreation (i.e. dispersed camping) may diminish opportunities for visitors seeking other forms (i.e. developed, facility-dependent camping). Similarly, finite management resources spent enhancing one opportunity will not be available to enhance another.

The ***physical setting*** within the planning area will be altered on a site-specific level as individual campsites, day use locations and trailheads are closed, developed or modified to some other degree. In general, the physical setting will become more managed and defined for the visitor. The overall experience of travelling along the river will shift towards the feeling of moving from one defined location to the next.

The majority of sites within the busiest portion of the recreation area (from Glen Avon Bridge to Turner Bridge) will see some degree of alteration regardless of alternative. This will include an increase in the amount of road surface that is paved and an increase in the number of physical barriers to foot and vehicle traffic. Changes to the physical setting will also result in changes to the carrying capacity for varying uses (day use, overnight use, etc). In developing individual sites for these uses, the action alternatives will set physical capacity by provided defined parking.

The physical setting will also be affected as wayfinding signage throughout the SRMA will change and become more consistent and visible. Proposed riverside restoration under each alternative will increase the amount of native vegetation visible from roadways and day use sites and decrease the number of user-created trails that will be encountered.

The *social setting* within the planning area is dictated by overall rate and type of use. Group size and the timing of use (i.e. weekdays vs. weekends) has a large influence on social setting characteristics including crowding and conflict between users. Proximity to other users at certain locations will increase as they are developed for overnight or day use. The overall distribution of visitors is likely to become more concentrated as access is restricted and visitors are steered towards developed locations.

Dumping, audible shooting and vandalism affect the physical and social aspects of the recreation setting. Under all action alternatives, these activities are expected to decrease. Closing individual sites and the seasonal closure of the Pinecrest Rd system will result in fewer locations for these activities to occur.

All action alternatives will change the nature of the *administrative setting* through the potential for fees as well as establishing additional rules and protocol for visitors. None of the alternatives is expected to change the level of law enforcement presence, but may change where and when these officers and regular agency personnel are encountered.



#### *Impacts to Visitor Use and Behavior*

All management actions within the planning area will result in some change to overall use levels and patterns of visitor use. This will include some displacement of current visitors as certain opportunities are altered or become unavailable. For instance, an opportunity for free overnight camping is the primary draw for a certain segment of visitors. The potential fee for overnight use or the unavailability of camping opportunities will likely cause those visitors to seek opportunities outside the SRMA. This sort of displacement is most likely to occur with overnight camping, and to a lesser extent with recreational shooting.

Changes to the management of day use will impact the distribution of visitors within the SRMA, but is not expected to result in large-scale displacement elsewhere in the region but may result in changes to locations and types of use. Visitors who are seeking less developed settings will likely begin to travel farther up the watershed to find locations where there is less evidence of management and fewer facilities.

A displacement effect to recreational shooters is likely to result from the seasonal closure of the Pinecrest Road system. The displacement is likely to occur both within the SRMA (i.e. recreational shooters may seek out other road systems) and to other viable shooting areas on public and private in the region. A small increase in the use of formal shooting ranges (such as Molalla Rifle Club) may occur. Within the recreation area, the Horse Creek Road system is likely to see increased recreational shooting due to its relative ease of access and the availability of remote landings. Shooting areas on other road systems with similar access requirements may develop.

A displacement effect to other uses of public lands including dumping and long-term occupancy may occur. These visitors will likely disperse to less developed and managed settings within the SRMA, as well as private and public lands elsewhere in the region, particularly within rural Clackamas and Marion Counties.

Potential regulatory limitations on recreational mining near developed sites, if established, may affect the location of this use, but not its overall availability within the planning area.

While some displacement is likely to occur, the overall effect of additional investments in facility and trail development is also likely to draw new visitors or increase the rate of visitation for those who already use the recreation area. Quantifying changes is speculative and dependent on the end product of plan implementation. The changes are likely to be characterized by an influx of visitors that are not attracted to the current mix of opportunities offered and/or the recreation setting, but prefer the opportunities that would be made available under this alternative. As a result of this unpredictability, predicting overall visitation levels by alternative is unlikely to be accurate.

Table 14 provides a broad comparison of the effects of each alternative on recreation within the planning area. It summarizes the key impacts to the recreation setting and visitor use by alternative.

**Table 14: Summary of Recreation Impacts by Alternative**

*Summarizes the key impacts to the recreation setting and visitor use by alternative.*

<b>CATEGORY</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<i>Site Development</i>	Development at few sites, recreation area characterized by primitive, widely dispersed opportunities	Development at the most number of individual sites, but lowest overall change to the character of the recreation area	Development at the fewest number of sites, with moderate overall change to the character of the recreation area	Development at moderate number of sites, but high overall change to the character of the recreation area
<i>River Access</i>	Few access restrictions to riverside areas	Moderate level of access restriction within main recreation corridor	Moderate to high level of access restriction within main recreation corridor	Highest level of access restriction within main recreation corridor
<i>Visitor Displacement</i>	No levels of visitor displacement, continuation of visitor use trends	Least expected visitor displacement, up to 15% of visitor base	Moderate expected visitor displacement, up to 25% of visitor base	Highest expected visitor displacement, up to 50% of visitor base
<i>New Visitors</i>	No potential for visitors drawn to new opportunities	Potential for new visitors drawn to relatively primitive but managed overnight settings	Potential for new visitors drawn to highly developed and managed overnight settings	Potential for new visitors drawn to highly developed day use and increased levels of management
<i>Number of Overnight Sites and Overnight Vehicle Capacity</i>	Limited number of overnight sites that are capable of supporting many vehicles	Increased camping sites available, but slightly lower overall vehicle capacity with opportunities to expand	Increased camping sites available and higher overall vehicle capacity	No overnight sites or overnight visitor capacity
<i>Proximity to Other Overnight Users</i>	Low proximity to other overnight users	Moderate proximity to other overnight users	High proximity to other overnight users	No overnight users within the planning area
<i>Site Restoration</i>	No large-scale restoration, implemented on a case-by-case basis	Restoration implemented at 20 locations	Restoration implemented at 25 locations	Restoration implemented at 35 locations

**Table 14: Summary of Recreation Impacts by Alternative**

*Summarizes the key impacts to the recreation setting and visitor use by alternative.*

<b>CATEGORY</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<i>Trail System</i>	Continued maintenance of Shared Use Trail system with no opportunities for riverside trail use	Highest change to trail use as emphasis areas are created, unsustainable segments are re-routed and additions to the trail system are constructed	Lowest change to trail use as regular maintenance continues and a short trail is constructed adjacent to central campground	Low to moderate change to trail use as unsustainable trail segments are re-routed and new riverside trails are constructed outside of existing trail system

***Alternative B (Proposed Action):*** Of the action alternatives, the proposed action is likely to result in the fewest changes to the overall character of the recreation area, but will include development at the most number of sites. While the management changes and development contained in this alternative are likely to shift the visitor base somewhat, it will do so to a lesser degree than Alternatives C and D. This alternative is likely to have the greatest impact on trail use due to the establishment of emphasis areas and new trail construction.

### ***Impacts to the Recreation Setting (Alternative B)***

Of the action alternatives, this alternative provides the most instances of notable site-specific changes to the *physical setting* including three new campground locations, changes to trailhead access and development of day use locations. These changes will result in an increase in the overall presence of infrastructure throughout the recreation area. The physical setting for overnight use will be changed by additional development at the three identified locations, resulting in less noticeable recreation-related impacts and more noticeable facilities, barriers and signage. The location of restrooms and trash facilities will create control points for visitors as they travel through the recreation area. Closure and rehabilitation of up to 20 sites will result in more visible native vegetation, but at a level lower than Alternatives C and D. These sites will include closed campsites, rocked roadways and day use locations experiencing resource impacts.

The *social setting* will be altered somewhat by day use development, but to a greater extent by the changes to overnight recreation. Proposed overnight developments are intended to preserve some measure of solitude and privacy that is valued by current overnight users. However, centralized parking and the location of campsites will result in more frequent interactions between campers and greater potential for user conflict, but at a level lower than Alternative C. The social setting within the Trail System will be altered as emphasis areas are established and interactions between user types become less frequent.

Primary changes to the *administrative setting* will include the potential for overnight fees, the presence of coordinated signage and rules and an increase in trash and restroom facilities. Levels of managerial presence are likely to remain similar to the current level, but the presence of controls such as signage and physical barriers will increase at a level similar to Alternative C but lower than Alternative D. Visitors to developed campgrounds and developed day use areas will be more likely to encounter BLM agency personnel as recreation use becomes more concentrated. No BLM personnel or volunteer host will be stationed within the recreation area under this alternative.

### ***Impacts to Visitor Use and Behavior (Alternative B)***

Of the action alternatives, the proposed action is likely to result in the fewest changes to the current make-up of the visitor base. Given that opportunities provided under this alternative most closely resemble those available now in type and character, it is anticipated that more of the current visitor base would continue using the recreation area than under Alternatives C or D. However, charging fees for overnight use and changing the recreation setting described above will result in some level of user displacement. It is anticipated that up to 15% of the current visitors, especially those seeking free, dispersed camping opportunities, may seek these opportunities elsewhere in the region.

Proposed changes to day use recreation are not expected to result in visitor displacement to areas outside the SRMA under this alternative. Developed day use sites will be primitive in character and resemble current day use opportunities.

Changes to the trail system under this alternative will likely result in higher overall trail system use and greater separation of users as the emphasis areas are put in place. Increased off-season use for equestrians due to more year-round opportunities and increased mountain biking use as bike-specific trails are developed are also likely to occur. Encounters between different user types will become less frequent, as different trailheads are utilized. Equestrians are expected to remain the dominant user group by overall participation.

Re-routes to unsustainable segments and other changes will likely improve the overall experience as trail conditions improve and open the possibility for shorter seasonal closures. Trail conditions will become more predictable as muddy and problematic portions of the system are re-routed. Development of emphasis areas and user-specific trails for equestrians and mountain bikers will result in a greater separation of these user groups.

Opportunities for whitewater boaters will see a moderate improvement under this alternative as a river access point at Old Bridge is identified and river-related visitor information is distributed. These improvements may result in a moderate increase in whitewater boating use, especially among users currently unfamiliar with the opportunities available within the SRMA. Since this site is currently a campsite, its designation would result in a higher degree of reliability for access and improved likelihood of boaters beginning their trip at that location.

#### ***Impacts to Overnight Use (Alternative B)***



Developing the types of overnight facilities described under this alternative is likely to reduce group size and shorten average length of stay. Under the current situation, these two attributes are heavily influenced by the availability of isolated camping locations with large turnouts capable of supporting up to 8 vehicles. Campgrounds under Alternative B will provide between 2 and 3 parking spaces for each site, leading to a direct reduction in average group size. Average length of stay is expected to decrease from its current level of 4.25 nights due to the reduced likelihood of stays approaching the 14-day stay limit.

The overnight recreation experience will become more structured with the implementation of camping rules and regulations. Stricter requirements will be established for site occupancy and timing of registration, potential fee payment, and higher interaction with other visitors.

Capacity for overnight use will decrease in terms of overall number of visitors, but will increase for the number of sites available.

Fifty (50) percent more sites will be provided under this alternative, but overall capacity defined by available vehicle spaces will decrease by 18%. Construction of the identified potential campground at Macbeth would result in a 100% increase in sites available from current levels and a small increase in overall vehicle capacity.

Fewer sites capable of supporting RV use and more high quality tent sites will be available under this alternative, resulting in some level of visitor displacement. Sites for large RV's (those above 30') will be unavailable. The availability of RV's under 24' will be reduced from 16 to approximately 8. These trends in site availability will likely result in additional tent camping by users currently utilizing RV's, new users being attracted to the planning area because of the tent camping opportunities, and the displacement of some RV-based camping to locations elsewhere in the region.

The potential to charge a fee at proposed campsites, combined with the presence of nearby campers, is likely to have a direct effect on overnight visitor behavior. Developing appropriate site amenities and improved trail infrastructure and river access will likely result in beneficial site conditions. These effects include a reduction in campsite impacts from vegetation trampling and tree damage, and an increase the use of restroom and trash facilities.

**Alternative C:** Of the action alternatives, this alternative is likely to result in a moderate level of change to the overall recreation setting, primarily in regards to overnight use. This alternative will likely change the visitor base more than Alternative B but to a lower degree than Alternative D. Trail use and the mix of recreation activities provided will remain similar to the current situation.

#### ***Impacts to the Recreation Setting (Alternative C)***

Of the action alternatives, this alternative provides the lowest level of change to the physical setting, but higher level of changes to the social and administrative settings, especially for overnight recreation.

The *physical setting* for overnight use will be changed by closures of existing campsites and day use locations, as well as new development at a single developed day use area. This will result in less noticeable recreation-related impacts and more noticeable facilities, barriers and signage. Closure and rehabilitation of up to 25 sites will result in more visible native vegetation and fewer disturbed sites, at a level higher than Alternative B but lower than Alternative D.

*Social setting* characteristics will remain similar for day use opportunities, but will see large changes for overnight use. Much greater proximity to other users and the concentrated mix of different overnight user types (RV's, tent camping, etc) will likely result in higher instances of user conflict. Perceptions of crowding are likely to see a moderate and measurable increase.

Key changes to the *administrative setting* will include the potential for overnight fees and the presence of coordinated signage and rules. Levels of managerial presence will increase notably through the presence of a volunteer host stationed within the recreation corridor at the central campground facility, creating a focal point for visitor contact. Outside of the campground, the presence of controls such as signage and physical barriers will increase at a level similar to Alternative B but lower than Alternative D.

### ***Impacts to Visitor Use and Behavior (Alternative C)***

Large-scale changes to overnight opportunities will likely result in a noticeable level of user displacement among overnight users. The mix of increased proximity to other campers, potential for overnight fees and the increased atmosphere of regulation and oversight may not meet desired experience characteristics for many current overnight users of the recreation area. It is anticipated that up to 25% of the current visitors, especially those seeking primitive, dispersed camping, may seek opportunities elsewhere in the region.

Proposed changes to day use recreation are not expected to result in visitor displacement to areas outside the SRMA under this alternative. Developed day use sites will be primitive in character and resemble current day use opportunities. Many of the existing dispersed sites will remain open.

Minimal changes to the trail system and trailhead access under this alternative will result in few if any measurable changes to trail-based recreation. Current rates of use and make-up of users will likely continue within the Shared Use System. Trail conditions will continue to be unreliable and singletrack closure periods may have to be adjusted over time. Development of a trail adjacent to the central campground will introduce a trail hiking component to overnight use that is not currently provided.

### ***Impacts to Overnight Use (Alternative C)***

Alternative C will result in a high level of change to the overnight opportunities and associated experiences that are offered within the SRMA. Visitors seeking an undeveloped overnight experience will be displaced to a larger extent when compared to Alternative B. As with Alternative B, average group size and length of stay are likely to go down as parking capacity for each site is reduced. Fewer visitors are likely to approach the 14 day stay limit as camping is limited to single centralized facility.

Capacity for overnight use will increase in terms of individual sites available and remain roughly similar in overall vehicle capacity. Total available campsites will increase by roughly 100% as the the central campground is constructed.

A similar number of sites supporting RV use will be available as compared to the No Action Alternative, although the availability for large RV's (over 30') will be limited. These trends in site availability will likely result in additional tent camping by users currently utilizing RV's, new users being attracted to the planning area's new tent camping opportunities, and the displacement of some RV-based camping to locations elsewhere in the region.

The overnight recreation experience will become much more structured under this alternative. Stricter requirements will be established for site occupancy and timing of registration and a fee payment system is likely to be implemented. Direct interaction will occur with BLM volunteers.

The more structured and regulated overnight setting will likely result in improved site conditions. Tree removal, trampling of vegetation and litter are likely to become less frequent.

**Alternative D:** Of the action alternatives, this alternative is likely to result in the highest of change to the overall recreation setting as overnight use is prohibited and investments in day use are made. This alternative will likely change the visitor base more than all other action alternatives.

### ***Impacts to the Recreation Setting (Alternative D)***

The *physical setting* will be most restricted under this alternative and will be changed by closures of existing campsites and day use locations, as well as new development at developed day use area. More sites will be closed and rehabilitated than under Alternatives B and C, resulting in an increase in native vegetation and less noticeable recreation impacts. Within the main recreation corridor from Glen Avon to Turner Bridge, much fewer sites will be available for vehicle access and the sites available for day use will be the substantially developed. Interpretive information will be visible throughout the recreation area from roadways and trails. Closure and rehabilitation of up to 35 sites will result in more visible native vegetation and fewer disturbed sites, at a level higher than all other alternatives. The general visual characteristics within sites will move towards a built environment, while the visual characteristics outside of developed sites will become more natural.

The *social setting* will be substantially changed by the lack of overnight opportunities. Virtually all user interactions will take place during a shorter period during daytime hours. The potential for user conflict at certain locations may increase as use becomes more concentrated and interactions per visit increase.

The *administrative setting* under this alternative would be drastically altered. The constricted window in which the recreation area would be open to use would result in an increased likelihood to encounter law enforcement and agency personnel. Restrictions on overnight use would result in a higher sense of agency management and potential for enforcement action.

### ***Impacts to Visitor Use and Behavior (Alternative D)***

Of the action alternative, Alternative D will result in the highest level of change to the current visitor base. Elimination of opportunities for overnight use will displace up to 50% of the visitor base and cause these users to seek out opportunities elsewhere in the region.

As developed day use areas are constructed and use within the main recreation corridor becomes more restricted, it's likely a segment of the current visitor base will seek opportunities elsewhere in the region or by travelling farther within the SRMA to locations with desired setting characteristics and levels of visitor use.

The popularity of certain river-based activities (such as recreational mining or fishing) may increase as sites previously unavailable due to campers become available for access on a reliable basis.

Changes to the trail system including construction and maintenance of a new trail south of Turner Bridge are likely to result in moderate changes to trail use. Armoring portions of the South End trails, like Alternative B, will result in slightly higher off-season use. Re-routing of unsustainable trail segments will improve the overall trail experience, and increase the predictability of trail conditions. The new trail proposed under this alternative from the Quarry Trailhead to Gawley Creek will likely draw new visitors or cause current visitors not utilizing the trails to engage in trail hiking.

### ***Impacts to Overnight Use (D)***

The closure of existing campsites and prohibition of overnight use outside Table Rock Wilderness will result in near complete displacement of overnight users. Some level of unauthorized camping may continue in remote locations. Current overnight visitors will be displaced to other recreation areas within the region, including but not limited to county parks included Feyrer Park, the Clackamas and Sandy Rivers, the Mount Hood region and lands managed by the BLM and USFS in the northern Oregon Cascades.

### ***Cumulative Impacts to Recreation (All Action Alternatives)***

The region of influence for recreation management actions within the SRMA is Clackamas County. Large-scale changes to other recreation opportunities within this region, combined with the proposed management actions could result in incremental changes to visitor use and behavior. However, these changes are not reasonably foreseeable and predicting their effects in combination with the proposed management actions is not possible at this time.

The combination of past, present and future recreation management actions within the planning area is likely to result in increased recognition of the Molalla River-Table Rock SRMA as destination for a wide range of recreation activities and opportunities. The investment at certain campgrounds, day use areas and certain trail segments is likely to result future maintenance and development action on the part of the BLM, and a greater expectation of management by the public.

**Table 15: Impacts to Selected Recreation Opportunities by Alternative**

*Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.*

<b>Recreation Opportunity</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
	<p>50+ dispersed, undeveloped river access points with few if any amenities</p> <p>No enhancements for picnicking or river access</p> <p>Dispersed day use sites closed as severe resource concerns develop</p> <p>No interpretive information is presented</p> <p>No fees for day use recreation</p>	<p><b>MODERATE</b></p> <p>Balanced mix of developed day use opportunities and dispersed river access</p> <p>Two sites moderately developed for day use recreation</p> <p>Dispersed day use sites without resource concerns or public safety concerns remain open</p> <p>Small-scale interpretation developed</p> <p>No fees for day use recreation</p> <p><i>16 developed picnic sites</i></p>	<p><b>LOW</b></p> <p>Mostly dispersed day use and river access with minimal opportunities for developed day use</p> <p>One site moderately developed for day use recreation</p> <p>Most dispersed sites remain available</p> <p>No new interpretive information</p> <p>No fees for day use recreation</p> <p><i>8 developed picnic sites</i></p>	<p><b>HIGH</b></p> <p>Focus on providing high quality developed day use recreation at selected sites</p> <p>Up to four sites highly developed for day use recreation</p> <p>Most day use sites within main corridor closed and rehabilitated</p> <p>Comprehensive interpretation program and improved visitor information</p> <p>Potential fees at developed day use sites</p> <p><i>32 developed picnic sites</i></p>

**Table 15: Impacts to Selected Recreation Opportunities by Alternative**

*Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.*

Recreation Opportunity	Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
<b>Overnight Camping</b>	16 dispersed, designated campsites located at large pullouts	<b>MODERATE</b> Three small, primarily walk-in campgrounds with low site amenities	<b>HIGH</b> One central campground with higher site amenities and on-site host	<b>HIGH</b> No overnight opportunities outside of Table Rock Wilderness
	Few number of sites, but large overall capacity due to excessive vehicle spaces	Reduced overall vehicle capacity, but increased number of sites with potential for adaptive expansion	Similar overall vehicle capacity, and increased number of sites	No overnight capacity
	4 to 8 vehicle spaces available per site	2 to 3 vehicle spaces available per site	2 to 3 vehicle spaces available per site	No overnight parking spaces
	Continued opportunities for current mix of visitors	Large decrease in sites available for medium and large Recreational Vehicles (RV's)	Small decrease in sites available for medium and large RV's	No sites available for RV camping
	No physical setting restrictions for overnight use	Restricted physical setting for overnight use combining walk-in sites and back-in sites	Restricted, vehicle-based physical setting for overnight use	Access restrictions to camping areas and heavy enforcement
		Decrease in group size and length of stay  Potential for displacement of roughly 30% of current campers based on setting preferences, or 15% of entire visitor base	Decrease in group size and length of stay  Potential for displacement of up 50% of current campers based on setting preferences, or 25% of entire visitor base	No overnight group size  All overnight visitors displaced to elsewhere in the region, or up to 50% of current visitor base

**Table 15: Impacts to Selected Recreation Opportunities by Alternative**

*Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.*

<b>Recreation Opportunity</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<b>Overnight Capacity</b>	<i>16 total campsites 160 total users</i>	<i>24 total campsites 130 Total users</i>	<i>32 total campsites 200 overnight users</i>	<i>0 total campsites 0 overnight users</i>
<b>Trail Hiking</b>	<p>Minimal high-quality hiking opportunities outside Table Rock Wilderness.</p> <p>Riverside hiking limited by presence of campsites</p> <p><i>0 miles available for riverside hiking</i></p>	<p><b>MODERATE</b></p> <p>Construction of riverside trail between Looney’s Gate, developed campgrounds and Hardy Creek TH</p> <p><i>Up to 1.5 miles available for riverside hiking</i></p>	<p><b>MODERATE</b></p> <p>Riverside trail constructed south of developed campground</p> <p><i>Up to 2 miles available for riverside hiking</i></p>	<p><b>HIGH</b></p> <p>Riverside trail connecting developed day use sites</p> <p>Construction of Turner Bridge-Gawley Creek riverside trail</p> <p><i>Up to 4 miles available for riverside hiking</i></p>

**Table 15: Impacts to Selected Recreation Opportunities by Alternative**

*Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.*

<b>Recreation Opportunity</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<b>Horseback Riding</b>	Shared Use Trail System with no emphasis areas	<b>HIGH</b> Proposal for equestrian emphasis area within South End of existing trail system	<b>LOW</b> No trail user emphasis areas would be created	<b>MODERATE</b> No trail user emphasis areas would be created
	Large segment of trails in unsustainable condition	Unsustainable trail segments are addressed through re-routing	Unsustainable trail segments are not addressed	Unsustainable trail segments are addressed through re-routing
	Frequent interactions between equestrians and mountain bikers	Greater segmentation of equestrians from other users	Frequent interactions between equestrians and mountain bikers	Frequent interactions between equestrians and mountain bikers
	Occasional crowding and inadequate capacity at Hardy Creek Trailhead	Slight increase to Hardy Creek Trailhead capacity	Slight Increase to Hardy Creek Trailhead capacity	Slight increase to Hardy Creek Trailhead capacity
	Year-round use limited to converted forest roads	Expanded off-season trail use as armored trails are made available	Expanded off-season trail use as armored trails are made available	No changes to off-season use
	<i>25 miles within total Shared Use Trail System</i>	<i>Up to 17 miles available within South End Trails/Equestrian Emphasis Area</i>	<i>0 miles within emphasis areas</i>	<i>0 miles within emphasis areas</i>
	<i>0 miles new trail</i>	<i>3 new miles of trail developed within trail system</i>	<i>0 new trails miles constructed within trail system</i>	<i>2 to 3 mile Turner Bridge-Gawley Creek connector</i>
	<i>0 miles armored for year round use</i>	<i>Up to 3 miles armored for year round use</i>	<i>Up to 1.5 miles of trails armored for year round</i>	<i>Up to 1.5 miles of trail armored for year round use</i>

**Table 15: Impacts to Selected Recreation Opportunities by Alternative**

*Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.*

<b>Recreation Opportunity</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<b>Mountain Biking</b>	<p>Shared Use Trail System with no emphasis areas</p> <p>Frequent interactions between mountain bikers and equestrians</p> <p>Undesirable trail conditions for mountain bikers in some areas</p> <p><i>25 miles within total Shared Use Trail System</i></p>	<p><b>HIGH</b></p> <p>Proposal for mountain biking emphasis area within North End of existing trail system</p> <p>Greater segmentation of mountain bikers from other users</p> <p>More reliable trail conditions and experiences</p> <p>Americorps Trailhead developed as improved access point</p> <p>Increased recognition of the Molalla River area for mountain biking availability</p> <p><i>Up to 8 miles of trails and converted road within North End/Mountain Biking Emphasis Area</i></p>	<p><b>LOW</b></p> <p>No trail user emphasis areas would be created</p> <p>Frequent interactions between equestrians and mountain bikers</p> <p>Unreliable trail conditions</p> <p>No additional trailhead improvement</p> <p><i>0 miles of new trails or within emphasis areas</i></p>	<p><b>MODERATE</b></p> <p>No trail user emphasis areas would be created</p> <p>Frequent interactions between equestrians and mountain bikers</p> <p>More reliable trail conditions and experiences</p> <p>No additional trailhead improvement</p> <p><i>2 to 3 mile Turner Bridge-Gawley Creek connector</i></p>

**Table 15: Impacts to Selected Recreation Opportunities by Alternative**

*Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.*

<b>Recreation Opportunity</b>	<b>Alternative A (No Action) - Baseline Conditions</b>	<b>Alternative B (Proposed Action)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<b>Recreational Shooting</b>	No formal shooting closures, informal shooting prevalent within Pinecrest Road system	<b>HIGH</b> Seasonal closure of Pinecrest Road System and displacement to elsewhere in the region or within planning area	<b>HIGH</b> Seasonal closure of Pinecrest Road System and displacement to elsewhere in the region or within planning area	<b>HIGH</b> Seasonal closure of Pinecrest Road System and displacement to elsewhere in the region or within planning area
<b>Whitewater Boating</b>	No designated river put-in locations and little to no visitor information	<b>MODERATE</b> Designated river put-in location at current Old Bridge campsite  Development of guide for Molalla River boating	<b>LOW</b> No designated river put-in location or improved visitor information	<b>MODERATE</b> Designated river put-in location at current Old Bridge campsite  Development of guide for Molalla River boating
<b>Fishing</b>	Unimproved access with few facilities via roadside pullouts  Up to 10 river segments blocked due to the presence of campsites	<b>MODERATE</b> Improved river access and facilities at 2 developed day use sites  Improved walk-in access to river segments around existing campsites	<b>LOW</b> Improved river access and facilities at 1 developed day use sites  Improved walk-in access to river segments around existing campsites	<b>MODERATE</b> Improved river access and facilities at 4 developed day use sites  Improved walk-in access to river segments around existing campsites

## 4.4 Visual Resources

- Changes to the landscape character are expected to be low and would comply with Visual Resource Management guidelines. Some disturbance to vegetation would be observable after recreation and trail enhancement projects are completed; change would be unnoticeable within five years.
- Changes to the visual character of the planning area proposed under all action alternatives will be in the foreground and middle ground only, and not influence the larger viewshed.
- Beneficial changes to the immediate landscape character are expected to be high with the implementation of restoration activities within the SRMA.
- Activities on private lands, including timber harvest, could potentially impact the viewshed within the Molalla River-Table Rock SRMA.

**Alternative A:** The visual quality of BLM managed lands in the planning area will not change dramatically under existing regulations and established visual resource management guidelines. However, incremental impacts to the visual resource, primarily from unregulated recreational use would be expected to continue.

**Alternative B (Proposed Action):** Alternative B includes several proposed activities to control visitor use by providing developed facilities and establishing dedicated trails. The visual quality of BLM managed lands would be improved under this alternative. Increased recreation management in the form of facility development and more regulated management of overnight use would reduce litter and resource damage, thereby improving visual quality. The overall setting of the river corridor would not be dramatically altered under this alternative.

**Alternative C:** Similar to Alternative B, would result in a moderate improvement to the visual quality of BLM managed lands would be improved under this alternative. Increased recreation management in the form of facility development and more regulated management of overnight use would reduce litter and resource damage, thereby improving visual quality. The overall setting of the river corridor would not be dramatically altered under this alternative.

**Alternative D:** This alternative would provide for the greatest level of protection and long term enhancement of visual resources within the SRMA. Rehabilitation of approximately 15 of the dispersed overnight sites would lead to a long term benefit to visual quality. The elimination of overnight use within the SRMA would lead to a reduction in impacts to riparian areas surrounding the Molalla River. This change would lead to a less developed setting in between the Molalla River and the Molalla Forest Road

## 4.5 Cultural Resources

Adverse impacts to cultural resources occur when sites are disrupted due to ground disturbing activities. Cultural resource sites are comprised of layered deposits of cultural materials, much of their value lays in the intact depositional context. When site materials become mixed, damaged, broken or removed the integrity of the cultural site is compromised or destroyed. Cultural resources can be adversely affected by both natural and human activities that impact the soil.

***Alternative A, Continuation of Existing Management (No Action Alternative):*** The No Action Alternative would result in the continuation of existing management practices in the Molalla River-Table Rock planning area. Effects to the cultural resources would likely remain similar to current impacts due to human recreation activity resulting in soil disturbance, erosion and possible artifact collection. Lack of regulated and designated recreation and camping areas allows a larger area for human impact therefore causing a greater chance of cultural resource disturbances.

### ***Impacts Common to All Action Alternatives:***

The effects to cultural resources vary little by each alternative. All alternatives include some site and trail development and maintenance as well as restoration activities. The effects to cultural resources will be reduced or eliminated under all alternatives by requiring pre-disturbance cultural resource inventories at each project location and planning the development of facilities or trails to avoid cultural sites or implement other protection measures. Complete avoidance of all cultural resources may not be possible, resulting in some incidental disturbance or loss. Pre-disturbance survey may not account for all cultural resources in the project areas and the ground disturbing activities may unearth previously unidentified cultural resources. Design features for individual projects would have a stipulation to stop work should resources be discovered until a proper evaluation could take place.

All action alternatives would provide beneficial effects to cultural resources by localizing human recreation impacts to areas previously surveyed for cultural resources. Areas with cultural resources would be avoided or protected and other current dispersed recreation sites would be rehabilitated to prevent further impacts. By actively managing specific areas where users can recreate inadvertent cultural resource loss can be avoided.

Site restoration activities projected for currently used sites to be decommissioned can have both adverse and positive effects for cultural resources. Site restoration activities should be evaluated site by site in order to avoid unnecessary disturbance of known cultural sites. Tilling and replanting previously compacted soil can disturb cultural site contexts, thereby reducing their value. Conversely, site restoration activities will provide future protection to cultural resource sites by making them unsuitable for recreation activities and discouraging continued human disturbance.

### ***Cumulative Effects of Action Alternatives:***

Cumulative Effects to cultural resources by the proposed recreation development and site restoration activities would be minimal. Planned projects will be composed of one time ground disturbance (i.e. installation of vault restroom) and will ideally avoid known cultural sites. Site restoration activities have the potential to immediately affect the uppermost layers of a cultural site, but would provide long term protection from continued human disturbance. After the development of the facilities and trails, additional effects from maintenance would be minimal.

## 4.6 Hydrology/Water Quality and Quantity/Soils:

**General Assumptions common to All Action Alternatives:** Molalla-Pudding Total Maximum Daily Load (TMDL), <http://www.deq.state.or.us/WQ/TMDLs/willamette.htm#mp>, approved by the EPA in 2008, would be implemented on all public lands within the watershed.

**Alternative A Continuation of Existing Management (No Action Alternative):** No action would result in the continuation of current conditions and trends in the Molalla watershed as described in the Description of the Affected Resource section of this EA.

**Impacts common to All Action Alternatives:** All action alternatives would likely result in slight reductions in the risk of soil and water bacterial contamination that may be occurring due to the improper disposal of human waste. All action alternatives would provide additional toilet facilities and would restrict some areas that are currently being used as dispersed recreation sites but lack facilities.

Under all alternatives turbidity and sedimentation would be reduced over the long term by the relocation and improved construction of trails. In addition, bank stability along streams would be improved in under all alternatives by improved infrastructure for accessing recreation sites along channels. Over the short term (<1 year) some additional turbidity may result at construction sites



which intersect stream channels and running water. Turbidity is not likely to be visible more than 800 meters downstream from proposed trail, facility, or restoration activities. Project design features included in this EA would reduce the risk of effects to water quality and would be implemented through project specific National Environmental Policy Act (NEPA) planning.

Under all action alternatives light, discontinuous compaction of the surface horizon of the mineral soil would be unlikely to result in any reduction in soil productivity or

disturb normal soil processes. Soil bulk density and processes would likely recover to pre-disturbance condition within one year following restoration projects.

**Impacts Specific to Alternative B (Proposed Action):** Measurable effects to stream flow, channel morphology, water quality, and wetland condition as a result of this proposed action are unlikely. This action is unlikely to alter the current condition of the aquatic system either by affecting its physical integrity, water quality, sediment regime, or in-stream flows.

**Ground Disturbing Activities:** This alternative is unlikely to alter stream flow or peak flow events because it would not alter the interception or routing of precipitation. Ground disturbing activities (e.g. trail construction, ground based operations associated with vegetation management, road and trail decommissioning) would not occur on steep, unstable slopes where the potential for mass wasting adjacent to stream reaches is high. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result. This would prevent any detectable alteration in sediment supply and transport in the affected streams. There could be short term (minutes) localized (no more than 800 meter downstream) increase in stream turbidity during the installation of trail-related stream crossings and use of the crossing after construction.

Increases in turbidity are expected to be small given the type of use that would occur, the size of the stream, the flat approaches, and the rock armoring being installed to reduce the potential for erosion. These increases are expected to be minor due to short-term and localized nature of the increases as described above and would be non-detectable on the watershed scale.

In addition, potential impacts resulting from ground disturbing activities and use would be mitigated with the implementation of Best Management Practices and Project Design Features, are unlikely to contribute measurable amounts of sediment to streams.

The riparian canopy would be retained thereby maintaining riparian microclimate conditions and protecting streams from increases in temperature. The implementation of project design features would protect the condition of wetlands and streams.

In conclusion, none of the alternatives, including the proposed action, is likely to impede and/or prevent attainment of the stream flow and basin hydrology, channel function, or water quality objectives of the ACS. Due to the small scope of any possible actions, no effects to water resources, beneficial uses, or water quantity or municipal/domestic uses are expected.

### ***Cumulative Effects to Water Quality***

Cumulative effects of proposed ground disturbing activities would be low due to the nature of these projects, which involve only slight modification of streams and riparian areas. The overall hydrologic patterns in the basin would be unaltered. The increase in turbidity associated with stream crossings would be local in nature and short term and therefore unlikely to contribute cumulatively to turbidity in the Molalla River. Improved disposal of human waste would likely reduce the potential for water quality degradation and human health risks thus improving water quality on a cumulative level.

## **4.7 Fisheries**

**Alternative A - Continuation of Existing Management (No Action Alternative):** No action would result in the continuation of current conditions and trends in the Molalla watershed as described in the Affected Environment section of this EA. Current impacts to fish habitat from disturbance of banks and channels from recreation use are low, but would likely slowly increase over time under this alternative.

**Impacts Common to All Action Alternatives:** Under all alternatives, turbidity and sedimentation and resulting potential negative impacts to spawning and rearing fish would be reduced over the long term by limiting access to river channels to designated areas via designed, well-constructed and surfaced

trails. In addition, restoration of closed sites, roads, and trails and the relocation of and improved construction of the trail system in the Molalla River-Table Rock Recreation Area would reduce sediment delivery to fish habitat over the long term. In the short term (<1 year) construction of trails and other recreation infrastructure across or adjacent to intermittent tributaries may result in slightly elevated turbidity levels and sediment delivery to fish habitat in the Molalla River. Turbidity is not likely to be visible more than 800 meters downstream from a proposed trail, facility, or restoration activities (see Water Quality section; Foltz and Yanosek 2005). Project design features would be implemented in each project area to reduce the risk of sedimentation delivery from construction activities.

***Impacts Specific to Alternative B (Proposed Action):*** Little salmon or steelhead spawning habitat is located adjacent to the proposed developed campgrounds. Riffles and pool tailouts immediately adjacent to the Rabbits Tail and Sleepy Hollow sites are largely comprised of cobble substrates. Thus, development of these sites would not concentrate recreation use in spawning areas. The side channel adjacent to the potential Macbeth Campground has high potential for restoration as rearing habitat for juvenile steelhead and salmon, particularly for refuge during high flows in winter and spring. Limiting access to the side channel via designed or surfaced trails would result in lower sediment impacts to fish habitats adjacent to the Macbeth site compared to that of the No Action alternative. Limiting recreation use of the Looney's Gate site to day use would likely prevent increased sediment delivery to fish habitat from recreationist impacts to stream banks over the long term. The pool tailout at the Looney's Gate site has gravel substrates suitable for steelhead spawning, but no steelhead redds were observed at this site in spring 2010.

This alternative would not change canopy cover of forest stands adjacent to the river. Thus, shade levels and consequently stream temperatures of fish habitats would not be impacted (Johnson 2000).

***Cumulative Effects:*** Implementation of recreation site development and access restrictions and restoration of closed sites, trails, and roads in conjunction with planned and projected fish restoration activities in the Molalla River basin would likely cumulatively improve fisheries habitat in the Molalla River. Regulation of recreation impacts and development of designed infrastructure would limit or reduce sedimentation from ground-disturbing activities associated with recreation uses. Reducing recreation impacts to fisheries habitats by closing sites, trails, and roads would cumulatively add to projected fisheries habitat restoration actions.

## **4.8 Wildlife**

Effects to wildlife species and their habitats include two major kinds of impacts, human disturbance effects and habitat modification. The types of adverse habitat modification that would occur include clearing of vegetation and ground cover and a limited amount of tree/snag felling to build trails, parking areas, camp sites and other facilities. Potential beneficial effects of the action alternatives include rehabilitation and restoration of damaged or altered habitats by re-establishing native vegetation.

Adverse effects due to human disturbance in the Molalla River/Table Rock SRMA are anticipated to be greater than habitat modification effects. Disturbance effects include elevated noise levels over and above ambient conditions due to traffic, shooting, human presence and other activities. Human disturbance causes direct effects to wildlife, such as road kill due to traffic, changes in behaviors and use of habitat. These effects can result in wildlife harassment, wildlife displacement and nest/breeding failures.

### ***Alternative A (No Action)***

Under the No Action Alternative, little or no planned habitat modification would occur. This includes adverse habitat modification for recreational development as well as beneficial habitat rehabilitation/restoration. In the short term, human intrusion and related disturbance factors would continue near current levels. However, in the long term, human intrusion is expected to increase. The lack of designated trails, facilities (including toilets), and the increase of recreational uses could result in increased adverse impacts to wildlife due to the unregulated use.

Unauthorized and poorly located user-created trails increase disturbance to wildlife. Dispersed, unregulated day use and camping distribute the human presence throughout the Molalla River Corridor. In the long term, an increase unregulated recreational use may result in greater adverse impacts to wildlife species and habitat than the action alternatives.

The Pinecrest Road would remain open year round. This would result in indefinite human intrusion and disturbance to wildlife species and habitat, including a known spotted owl site, and habitat for goshawks, peregrine falcons and golden eagles; and special habitats in the Molalla Oak Meadows area.

### ***Impacts common to All Action Alternatives (B, C and D):***

All of the action alternatives are designed to reduce the amount of human disturbance due to unregulated use, limit impacts on vegetation to existing sites, and restore damaged and altered habitats.

Adverse effects of the action alternatives due to habitat modification are anticipated to be minimal and of small scale. It is anticipated that few trees would need to be felled for human safety. These trees are expected to be under 15" in diameter, and impacts to wildlife species and habitat would be minimal. Vegetation clearing for trails parking areas, camp sites, and facilities would be minimal. Some CWD on the ground would be moved or disturbed due to the construction of trails, parking areas, and facilities. Day use areas, overnight sites and user created trails no longer needed would be rehabilitated and restored, and native vegetation would be re-established.

The action alternatives would have beneficial effects on spotted owls by closing 18 miles of the Pinecrest Road during the greater breeding season. This would reduce human disturbance to one known spotted owl site. The road closure would also have positive effects of reducing human disturbance to golden eagles, peregrine falcons, goshawks, deer, elk, and a host of species in the Molalla Oak Meadows area. The seasonal closure of Pinecrest Road (April 1 to September 30) is the single greatest beneficial effect to wildlife of the Action Alternatives.

The effects of the various alternatives to migratory birds would be minimal due to the minimal amount of habitat modification such as vegetation clearing and minor amounts of tree falling. There would be positive effects to habitat due to rehabilitation and eventual restoration of closed sites and areas. Disturbance effects to neotropical migratory birds would be similar or less than those that would occur under the No Action Alternative. Effects would be less across the Molalla River Corridor due to the closure of some existing dispersed sites, and more concentrated in the newly developed areas. Disturbance effects would be less overall due to the closure of the Pine Crest Road system.

Each of the action alternatives vary in the relative amount of habitat modification effects, both adverse and beneficial, and disturbance effects. Thus the effects to wildlife and habitat vary by alternative.

The amount of ground disturbance, restoration, human activity, and disturbance of the action alternatives were compared and a description by alternative follows.

### ***Alternative B (Proposed Action)***

Under this alternative, the least relative amount of roads, rocked areas, trails and other cleared areas would be restored of the action alternatives, but considerably more than would be restored than under the No Action Alternative. This alternative would focus more human disturbance to just three overnight areas and three day use areas. It would result in the least amount of habitat modification because even though more overall acres could be impacted, very little additional clearing or trail construction would be required. Impacted acres would still have forest vegetation, and forest floor habitat would be altered but not destroyed.

### ***Alternative C***

Under this alternative, more roads, rocked areas, trails and other cleared areas would be restored than under Alternative B, but slightly less than would be restored under Alternative D.

This alternative would concentrate most of the human disturbance to one overnight area, and two day use areas. It would result in fewer overall acres modified than the other alternatives, but they would be highly developed, with pavement and facilities, thus having higher impacts to habitat per acre. In addition, 1 to 2 miles of new trail would be constructed.

### ***Alternative D***

Under this alternative, the most relative amount of roads, rocked areas, trails and other cleared areas would be restored than would occur under the other action alternatives. There would be no overnight camping under this alternative, which would reduce human disturbance to wildlife by reducing human presence at night. Human use would be focused on four day use areas. Most of the development under this alternative would occur at the Central Visitor Portal at Looney's Gate, where parking areas and facilities are estimated to be 8 acres. The parking area on the west side of the road would be constructed which would modify riparian habitat. There are a few large trees which could become hazard trees in the future due to the presence of the new parking area. These trees present no hazard at this time. In addition, 2 to 3 miles of new trail would be constructed. Impacts to lower mobility, ground dwelling species such as amphibians and mollusks would be higher under this alternative.

### ***Cumulative Effects***

The cumulative effects of habitat modification planned under the action alternatives is minor and offset by proposed habitat restoration in the SRMA that would result in net benefits to wildlife habitat. The action alternatives are designed to regulate recreation use and are expected to reduce the amount of human disturbance to the Molalla River/Table Rock SRMA, especially the seasonal closure of Pinecrest Road.

## 4.9 Invasive Non-Native Plants and Botany

### General Assumptions

Impacts to native botanical species are likely to include habitat degradation and species displacement resulting from recreational use and the spread of non-native invasive species. These impacts will likely increase accordingly with greater human use even with the absence of any agency-directed management activities.

Under all alternatives it is assumed that an increase in human use and recreational activities within the Molalla River/Table Rock SRMA will increase the probability of new invasive plants being introduced and the spread of existing populations.

Due to the area's steep topography and lack of public access, little to no recreation-related impacts to botanical resources within the potential Molalla Meadows ACEC will occur.

The BLM will continue its work on weed inventories, weed treatments, and public outreach and education and invasive species will continue to be managed and controlled under the authority and direction of BLM manual 9015 - Integrated Weed Management. All action alternatives would result in an integrated invasive species management approach that would be used to identify high priority treatment areas, the likely results of management activities and the most appropriate treatment methods for existing populations.

***Impacts common to All Action Alternatives (B, C, D)*** Restoration strategies and proposed recreational development within the planning area are expected to restore native vegetation in areas impacted by past human use. The seeding of native grasses and planting of native species would be used at restoration sites to improve and restore natural conditions and to reduce the introduction and establishment of non-native invasive plant species.

Proposed recreational development and restoration activities would have no effect on any Threatened or Endangered Species because none have been discovered within the planning area, nor would it contribute to the need to list any Special Status/ Sensitive Species known or suspected to occur in the vicinity of any project area. If any previously undiscovered Special Status/Sensitive Species are discovered within the SMRA appropriate protection would be applied.

### Non-Native Invasive Species

To date, impacts to native plant communities from non-native invasive species have been limited to areas of ground disturbance with high light conditions. Within the SMRA, the greatest concentrations of non-native invasive species are found along road rights of way. Recreational activities have not contributed noticeably to the introduction or spread of these species. With continued and increasing levels of recreational activities, it is likely that the introduction of species not currently known from within the SMRA, as well as population spread will occur. Depending on the invasive species, competition from native species and the habitat associated with an infestation, impacts could range from minor to severe. Native plant communities found in natural meadows are likely to be most heavily impacted of all habitat types if new infestations were to occur in these areas.

Regardless of which alternative is chosen, the potential for new invasive non-native species introduction is anticipated to remain the same as recreational use within the SMRA increases. Although each alternative has a different array of impacts, there is no evidence to indicate that unregulated use has contributed significantly to the current abundance of invasive non-native species or their distribution within the SMRA and this trend is anticipated to remain the same under each alternative. Although each alternative may create new suitable habitat for invasive non-native species, these conditions are not anticipated to persist in a favorable condition for extended periods as native vegetation reoccupies areas of ground disturbance.

## **Botanical Resources**

Impacts to botanical resources associated with recreational activities within the SMRA have been limited and concentrated in areas that are heavily visited and used for extended stays. These impacts are typically associated with recreational use along the Molalla River in areas of unregulated camping. Although this impact is minimal on the landscape level, it is very apparent at and near each camp site. Outside of those areas, recreation activity has had fewer negative effects and is less noticeable. Due to the topography associated with the SMRA, any future increase in recreational activity is unlikely to cause measureable impacts to any botanical resource not associated with concentrated human use. When viewed on the landscape level, the impact to native vegetation resulting from unregulated recreational use is estimated at less than 1% of the total native vegetation within the SMRA.

***Impacts to Special Status Species (SSS):*** To date, recreational use has had no impact on the Special Status Species known to exist within the SRMA due to the locations of the SSS sites and this trend would be expected to continue even with an anticipated future increased level of recreational activities. Newly identified SSS sites would be managed when needed to protect the species and associated habitat from human impacts.

***Alternative A (No Action):*** This alternative would result in the continuation of current conditions and trends within the SMRA. Current impacts to botanical species and habitat from disturbance associated with recreational use are low at this time and mostly confined to campsites along the Molalla River. It is anticipated that these impacts would slowly increase over time as campsites expand due to unregulated use resulting from the lack of management actions. If unregulated use continues and increases, and excluding human caused wildfires, it is anticipated that negative impacts to native vegetation will also increase, although the total impact is likely to remain at less than 2% of the total native vegetation within the SMRA.

***Impacts Common to Action Alternatives B and C:*** Areas identified under alternatives B and C for campsite or day use development are currently impacted from past unregulated human use. Impacts associated with the development and use of the regulated campsites and the closing of other unregulated campsites at the identified locations would have a positive influence on the vegetation that currently exist at each site due to focused regulated use and the prohibition on camping outside of designated campsite areas. These prohibited camping areas that have been impacted by past use would be rehabilitated with the planting of native species and through natural processes. As a result, areas currently impacted would return to a more natural condition as native vegetation is protected from unregulated and unauthorized campsite development.

### ***Impacts Specific to Alternative D***

This alternative would have the greatest positive effect to the existing vegetation along the Molalla River by allowing it to recover and by preventing future vandalism and degradation associated with long term unregulated camping and campsite expansion. This alternative would also allow for the rehabilitation of the sites with native vegetation which would prevent the establishment of invasive non-native species allowing each site to return to more natural conditions.

## **4.10 Silviculture**

### ***Alternative A (no Action)***

Overall stand conditions at current day use and overnight sites are affected moderately by human use and camping, but only in small areas (less than 1 acre per site). Since many of the camp sites are limited in size, damage to any of the vegetation is limited to where people camp, park, or walk to the river. Most camp and day use sites have a few standing live trees with significant damage due to vandalism, including chopping and shooting the boles of the trees. Many of these trees (those still standing) will die over time and create a hazard to visitors in the area. Some trees have been cut (poached) and removed from day use/camp areas. Vegetation disturbance/removal and soil compaction from public use is evident in every site. No action would result in the continuation of these patterns in all day-use and camp sites.

***Impacts common to All Action Alternatives:*** All action alternatives are designed to reduce the amount of disturbance of the vegetation in all day use and camp sites. Any vegetation disturbance would be reduced over the long term by improving existing sites, and rehabilitating and improving trails, camping and day use areas.

Future management of timber resources will not be impacted with regard to road access; there will be no change in management direction regarding GFMA or LSR land uses. Road access to the "Annie's Cabin Commercial Thinning" will remain intact. Access restrictions to Pincecrest Road should not prevent any future haul or access to public land by those that acquire permission or own lands above the gate, but will limit general public access.

### ***Impacts Specific to Alternative B (Proposed Action)***

Under the proposed action, several current day use sites would be closed to the public and rehabilitated, with the potential of reducing vandalism and vegetation disturbance. In each established day use site under the proposed action ground disturbance and any removal of trees would be limited. Affects to the forested areas would be minimal, and reduced in some areas with rehabilitation and redirection of trails, camping areas and parking.

Designated camp sites, including Rabbits tale, Sleepy Hollow, Macbeth and the Pine Creek Bridge site would increase in size, with vegetation disturbance minimized and no planned reduction in canopy cover. It is anticipated less than 10 trees would require removal under this alternative.

### ***Cumulative Effects***

Cumulative effects of proposed rehabilitation and construction of new camp sites and day use sites would be minimal. The overall impacts to the forested areas where these sites would be added, expanded, rehabilitated, or removed is slight, and would not affect the overall health of the stands.

## 4.11 Fire Hazard and Risk /Rural Interface

Human activity within the planning area has the potential to affect fire hazard, primarily through the possibility of ignition. Recreation presents an inherent fire risk in the form of unattended campfires, lit cigarettes and other fire sources. Managing these potential ignition sources is an important component of recreation management within the planning area. The primary impact of each alternative on the possibility of wildfire relates to fire risk, and the type and location of potential ignition sources.

None of the alternatives will result in changes to fuel loading, fire hazard or likely fire behavior on a planning area scale, but may be affected on a localized basis as sites are modified or developed. Patrols by Oregon Department of Forestry personnel and the implementation of seasonal fire restrictions would remain the same regardless of alternative.

**Alternative A (No Action):** The No Action alternative will result in the most locations open for campfires (16) and as a result, the highest risk of fire through incidental start. The location of these sites between main roads and the river provides a fire break for potential spread. Risk of accidental start due to public use of side roads including Pinecrest, Horse Creek and Copper Creek Road will continue.

**Alternative B (Proposed Action):** The proposed action would result in an overall decrease in fire risk by limiting open fires to three developed campsite locations. Prohibiting unattended fires and restricting fires to metal rings in clearly defined sites will reduce the potential for accidental spread of fire beyond developed campsites. All campgrounds will be located between S. Molalla Forest Road and the river, further minimizing the threat for accidental spread. Developed picnic areas (with designated BBQ grills) would also be sited in this way to prevent accidental spread. Fuel loading, risk of a fire start and the resistance to control a fire, would all increase at the sites as a result of the proposed action.

**Alternative C:** Similar to Alternative B, this alternative would result in an overall decrease in fire risk associated with recreation activity. Fires would be limited to designated fire rings within the central overnight campground and developed day use areas with BBQ grills. This represents a sizable reduction in the number and location of potential starts, resulting in a reduced potential for accidental fire. This reduction would be greater than Alternative B, but lower than Alternative D.

**Alternative D:** Alternative D would result in the largest overall decrease in fire risk. Fires would be limited to BBQ grills within developed day use sites, resulting in a considerable decrease in the overall number and location of potential starts.

**Cumulative Effects:** The combination of past, present and future recreation management actions within the planning area is likely to result in decreased risk of accidental fire within the Molalla River-Table Rock SRMA. The incremental restriction of fire to particular areas and increased management presence is likely to decrease careless fire-related behavior and reduce the probability of accidental starts.

## Chapter 5: Conformance and Supplemental Authorities

### 5.1 Conformance with Land Use Plan, Statutes, Regulations, and other Plans

Management actions identified in this plan will be designed to conform to the following documents, which direct and provide the legal framework for management of BLM lands within the Salem District:

- *Salem District Record of Decision and Resource Management Plan*, May 1995 (RMP): The RMP has been reviewed, and it has been determined that the management actions described in this Recreation Area Management Plan will be designed to conform to the land use plan terms and conditions (e.g. complies with management goals, objectives, direction, standards and guidelines) as required by 43 CFR 1610.5 (BLM Handbook H1790-1). In particular, this plan conforms the RMP's direction to:
  - To manage scenic, natural and cultural resources to enhance visitor recreation experiences and satisfy public land users" pg 41
  - Support locally sponsored tourism initiatives and community economic strategies" pg 41
- *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, April 1994 (the Northwest Forest Plan, or NWFP).
- *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, January 2001.

The analysis in this EA supplements analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS). The RMP/FEIS includes the analysis from the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, February 1994 (NWFP/FSEIS). The RMP/FEIS is amended by the *Final Supplemental Environmental Impact Statement for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, November 2000.

#### 5.1.1 Supplemental Authorities Considered

The proposed project does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment [40 CFR 1508.27(b) (10)]. Table 16 reviews how the proposed project affect the elements of the environment described in 40 CFR 1508.27(b) and the project's compliance with additional authorities described in BLM Handbook H-1790-1: p. 137.

**Table 16: Effects on Elements of the Environment and Compliance with Relevant Authorities**

<b>Element of the Environment /Authority</b>	<b>Compliance with Authority / Effects</b>
<b>Aquatic Conservation Strategy</b>	In compliance with PCFFA IV (Civ. No. 04-1299RSM), the proposed action complies with the Aquatic Conservation Strategy described in the Northwest Forest Plan and RMP. This project also complies with the PCFFA II (265 F.3d 1028 (9th Cir. 2001)) by analyzing the site scale effects on the Aquatic Conservation Strategy. EA sections 3.7, 3.8, 3.11 and 4.7, 4.8 and 4.11 show how the proposed recreation management actions meet the Aquatic Conservation Strategy in the context of the PCFFA cases.
<b>Air Quality (Clean Air Act as amended (42 USC 7401 et seq.))</b>	The proposed action is in compliance with this direction because the proposed action has no detectable influence on local or regional air quality.
<b>Cultural Resources (National Historic Preservation Act, as amended (16 USC 470) [40 CFR 1508.27(b)(3)], [40 CFR 1508.27(b)(8)]</b>	The proposed action is in compliance with this direction and the project would have no effect on this element because cultural resource inventories of the affected area would precede management actions that include any ground disturbing activities that could potentially damage cultural resources.
<b>Ecologically critical areas [40 CFR 1508.27(b)(3)]</b>	The proposed action would not result in adverse impacts to the potential Molalla Meadows ACEC, the only ecologically critical area within the planning area.
<b>Energy Policy (Executive Order 13212)</b>	The proposed action is in compliance with this direction because this project would not interfere with the Energy Policy articulated in Executive Order 13212.
<b>Environmental Justice (E.O. 12898, "Environmental Justice" February 11, 1994)</b>	The Proposed Action is not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.
<b>Fish Habitat, Essential (Magnuson-Stevens Act Provision: Essential Fish Habitat (EFH): Final Rule (50 CFR Part 600; 67 FR 2376, January 17, 2002)</b>	The proposed action is in compliance with this direction because recreation management actions would have no adverse effect on essential fish habitat as defined by the authority (EA section 3.8, 4.8)
<b>Farm Lands, Prime [40 CFR 1508.27(b)(3)]</b>	The proposed action would have no effect on this element because no prime farm lands are present on BLM land within the Cascades Resource Area.
<b>Floodplains (E.O. 11988, as amended, Floodplain Management, 5/24/77)</b>	The proposed action is in compliance with this direction because the proposed treatments would not change or affect floodplain function.

**Table 16: Effects on Elements of the Environment and Compliance with Relevant Authorities**

<b>Hazardous or Solid Wastes (Resource Conservation and Recovery Act of 1976 (43 USC 6901 et seq.) Comprehensive Environmental Repose Compensation, and Liability Act of 1980, as amended (43 USC 9615)</b>	The proposed action would have no effect on this element because no Hazardous or Solid Waste would be stored or disposed of on BLM lands as a result of the proposed action.
<b>Healthy Forests Restoration Act (Healthy Forests Restoration Act of 2003 (P.L. 108-148)</b>	The proposed action is in compliance with this direction no silvicultural actions are included that could affect forest condition and proposed recreation management actions will reduce overall fire risk (EA Section 3.11, 3.12, 4.11, 4.12)
<b>Migratory Birds (Migratory Bird Act of 1918, as amended (16 USC 703 et seq)</b>	The proposed action is in compliance with this direction because treatments would have no adverse impact on migratory bird habitat (EA section 4.9)
<b>Native American Religious Concerns (American Indian Religious Freedom Act of 1978 (42 USC 1996)</b>	The proposed action is in compliance with this direction because no Native American religious concerns were identified during the scoping period (EA section 1.5).
<b>Wild and Scenic River (Wild and Scenic Rivers Act, as amended (16 USC 1271)</b>	There are no designated wild and scenic river segments within the planning area. The Salem RMP identifies interim protection measures for suitable and eligible WSR segments.
<b>Wilderness (Federal Land Policy and Management Act of 1976 [43 USC 1701 et seq.]; Wilderness Act of 1964 [16 USC 1131 et seq.)</b>	The proposed action is in compliance with this direction by outlining a strategy to protect wilderness character.

**5.1.2 Endangered Species Act (ESA) Section 7 Consultation**

Section 7 consultation will be conducted on individual projects according to the procedures of the United States Fish and Wildlife Service and the National Marine Fisheries Service.

**5.1.3 Cultural Resources - Section 106 Consultation with State Historical Preservation Office:**

Consultation with the Oregon State Historic Preservation Office will be conducted on individual projects according to the procedures in the *Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon*.

## Finding of No Significant Impact (FONSI)

Based upon review of the Molalla River-Table Rock Recreation Management Plan EA and supporting documents, I have determined that the proposed recreation management actions are not major federal actions and would not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, supplemental or additional information to the analysis in the RMP/FEIS in the form of a new environmental impact statement is not needed. This finding is based on the following discussion:

**Context** [40 CFR 1508.27(a)]: Potential effects resulting from the implementation of the proposed recreation management actions have been analyzed within the context of the planning area boundaries and the upper Molalla River, a 5<sup>th</sup> field watershed. Management actions identified under the proposed management plan would directly affect less than 0.5% of this 129,299 acre watershed.

**Intensity** refers to severity of impact [40 CFR 1508.27(b)]. The following text shows how that the proposed project would not have significant impacts with regard to ten considerations for evaluating intensity, as described in 40 CFR 1508.27(b).

1. [40 CFR 1508.27(b) (1)] – *Impacts that may be both beneficial and adverse*: The effects of proposed recreation management actions are unlikely to have significant (beneficial and adverse) impacts (*EA Chapter 4*) for the following reasons:
  - Project design features described in EA section 2.4 would reduce the risk of effects to affected resources to be within RMP standards and guidelines and to be within the effects described in the RMP/EIS.
  - *Socioeconomic (EA section 3.2, 4.2)*: The proposed recreation management actions are compatible with existing land uses and comply with existing local and regional civic and economic initiatives. The overall effect of these actions on economic activity is minor and likely to be beneficial in nature.
  - *Recreation (EA section 3.4, 4.3)*: Recreation activities and facilities provided under the proposed recreation management actions are similar to those offered elsewhere in the region, including those on BLM-administered land. These actions are unlikely to result in a large-scale displacement of visitors across a variety of activities. Beneficial impacts to the recreation setting and visitor experience are likely to occur.
  - *Visual Resources (EA section 3.5, 4.4)*: Beneficial effects to visual resources include the closure of disturbed sites and revegetation with natural species.
  - *Cultural Resources (EA Section 3.6, 4.5)*: Nearly all impacts to cultural resources would be reduced or eliminated through the practice of pre-disturbance surveys and use of avoidance and protection measures.
  - *Hydrology/Water Quality (EA Section 3.7, 4.6)*: Projects are unlikely to have a measurable impact on overall water quality including bacteria levels, temperature and turbidity. The actions are likely to have any overall beneficial impact on water quality by increasing facilities for sanitation and minimizing riverbank erosion.
  - *Fisheries (EA Section 3.8, 4.7)* The proposed recreation management actions will have little to no impact on spawning and rearing habitat for fisheries within the planning area. Decreased sediment delivery and mitigation of riverbank impacts would result through enhancements to river access points.

- *Wildlife (EA Section 3.9, 4.8)*: Little to no habitat modification will occur as a result of the proposed recreation management actions. Impacts due to wildlife disturbance will be reduced as sensitive areas are closed to public access.
  - *Invasive Species-Botanical Resources (EA section 3.10, 4.9)* No substantial additional spread or introduction of non-native invasive species is expected. Impacts to native botanical species will be limited and overall beneficial in nature as sites are rehabilitated and native vegetation is re-established.
  - *Silviculture (EA Section 3.11, 4.10)* No overall stand conditions or types will be altered as a result of the proposed recreation management actions. Fewer than 10 trees across 15 acres are likely to be removed.
  - *Fire Hazard and Risk/Rural Interface (EA Section 3.12, 4.11)* Beneficial impacts to fire risk will result from a reduction in the number and location of potential accidental starts from recreation activity. Fire hazard including fuel loading and fuel type will be unaffected.
2. *[40 CFR 1508.27(b) (2)] - The degree to which the proposed recreation management actions affect public health or safety*: The proposed recreation management actions would not adversely affect public health or safety because these actions are expected to reduce illegal activity and reduce the occurrence of theft, vandalism and vehicular accidents. Site development, access restrictions and provision of facilities will likely improve overall public safety. Levels of law enforcement and administrative personnel will remain unchanged. (EA section 4.3).
  3. *[40 CFR 1508.27(b) (3)] - Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas*: The proposed project would not affect historical or cultural resources because project design features require pre-disturbance surveys would be completed prior to project implementation (EA Section 4.5). The Proposed project would not affect parklands, prime farmlands, wild and scenic rivers or ecologically critical areas because these resources are not located within the project area (EA Chapter 3).
  4. *[40 CFR 1508.27(b) (4)] - The degree to which the effects on the quality of the human environment are likely to be highly controversial*: The proposed recreation management actions include strategies and actions that are similar to actions BLM implements in similar areas without highly controversial effects. These actions are unlikely to be highly controversial based on extensive public scoping, outreach and stakeholder involvement in the planning process.
  5. *[40 CFR 1508.27(b) (5)] - The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks*: The possible effects of the proposed recreation management actions have been analyzed based on reliable data and professional judgment. These effects are reasonably foreseeable and comparable to effects of recreation management actions elsewhere on BLM-administered land (EA Chapter 4).
  6. *[40 CFR 1508.27(b) (6)] - The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration*: The proposed recreation management actions would not establish a precedent for future actions nor would it represent a decision in principle about a further consideration for the following reasons: 1/ The project is in the scope of proposed activities document in the RMP EIS. 2/ the BLM has experience implementing similar actions in similar areas without setting a precedent for future actions or representing a decision about a further consideration. See # 4, 5, above.

7. [40 CFR 1508.27(b) (7)] - *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:* The Interdisciplinary Team (IDT) evaluated the project area in context of past, present and reasonably foreseeable actions on each affected resource and determined that the cumulative impact of these actions does not reach the threshold for significance
  - EA Sections 4.3, 4.4, 4.5, 4.6.,4.7,4.8, 4.9, 4.10, 4.11
  
8. [40 CFR 1508.27(b) (8)] - *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:* The project would not affect these resources because no sites listed within the National Register of Historic Places are present within the planning area and projects near sites eligible for the National Register would require a pre-disturbance survey and appropriate mitigation or protection measures (EA section 3.6, 4.5)
  
9. [40 CFR 1508.27(b) (9)] - *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973:* The proposed project is not expected to adversely affect ESA listed species or critical habitat for the following reasons:
  - *ESA Wildlife - Northern spotted owl (EA Section 4.8):* Effects to the species are not significant because proposed recreation management actions do not have a measurable impact on habitat conditions or wildlife behavior patterns. ESA Consultation is described in EA section 5.1.2.
  - *ESA Fish – UWR Spring Chinook salmon, UWR steelhead trout, (EA Sections 3.8, 4.7):* Effects to ESA fish are not significant because the proposed recreation management actions will have little to no impact on spawning and rearing habitat within the planning area. ESA Consultation is described in EA section 5.1.2.
  
10. [40 CFR 1508.27(b) (10)] - *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment:* The proposed recreation management actions have been designed to follow Federal, State, and local laws (EA Chapter 1, EA section 5.1.1).

Approved by: Cindy Enstrom

Cindy Enstrom, Cascades Resource Area Field Manager

6/16/2010

Date

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**DRAFT**  
**Table Rock Wilderness**  
**Plan Update**



**June 2010**

**United States Department of the Interior**  
**Bureau of Land Management, Salem District**

T6S-R3E, T7S-R3E, T7S-R4E, T7S R5E, Willamette Meridian  
Clackamas County, Oregon



## Plan Update Organization

**Part I: Introduction** provides a brief introduction to the Table Rock Wilderness and background on this planning effort. It describes the purpose and scope of the Table Rock Wilderness Management Plan, completed in 1987, as well as the purpose and scope of this Plan Update.

**Part II: Current Management Situation** describes the current recreation management situation within Table Rock Wilderness. It reviews the management actions outlined in the 1987 plan, revisits its assumptions and summarizes any developments that have taken place since its completion. Part II lays out the available information regarding recreation use within the Wilderness and the characteristics of visitors to the area.

**Part III: Management Goals and Objectives** contains revised goals and objectives for management of Table Rock Wilderness, consistent with new developments and agency policy.

**Part IV: Wilderness Management Program** describes the proposed management policies and actions for the Table Rock Wilderness including trails, trailheads, signage, use authorizations and visitor services. It identifies prioritized projects, consistent with wilderness management goals and objectives.

# **Part I: Introduction**

## **Background**

Located in the western foothills of the Cascade Mountains and southeast of Molalla, Oregon, the Table Rock Wilderness contains 5,706 acres of rugged, heavily timbered ridges punctuated by several distinct basalt rock outcrops. Table Rock, the area's highest point, sits at 4886 feet. The lowest point in the wilderness lies just a few miles to the west at 1275 feet.

Table Rock Wilderness was designated as a component of the National Wilderness Preservation System by the Oregon Wilderness Act of 1984 (PL 98-328). It was the only BLM-administered land included in the 1984 Act and remains the only BLM-managed Wilderness within the boundaries of the Salem District.

## **Table Rock Wilderness Management Plan**

Subsequent to its designation, a planning effort was begun to set direction for the management of Table Rock Wilderness (TRW). The Table Rock Wilderness Management Plan was completed and signed in February of 1987. The Plan took an interdisciplinary approach and provided management direction for the full range of resources contained within TRW: soil, water, vegetation, fisheries, wildlife, cultural resources and recreation.

The Plan was completed to serve three primary purposes: provide interdisciplinary management direction by establishing clear management objectives and prescribing management actions; establish a general sequence for completing these management actions; fulfill BLM policy directing the completion of a management plan for designated wilderness areas. The intended duration of the plan was 10 years.

## **Plan Update**

The entirety of Table Rock Wilderness has been included within the recommended boundaries of the proposed Molalla River-Table Rock Special Recreation Management Area in recognition of its recreation opportunities, need for special management attention and close association with the adjacent Molalla River Recreation Corridor.

A Plan Update was initiated as part of the larger Molalla-River Table Rock planning process in order to determine how management direction should be adjusted given current use patterns, visitor expectations and resource conditions. This update is not intended to review or supplant management direction found within the 1987 Wilderness Management Plan for resources other than recreation.

The primary purposes of this document include: a) review the recreation management actions taken since the 1987 Plan and their effectiveness b) describe the current management situation including newly available data c) update the recreation management goals, objectives and policies for TRW and d) outline management actions that will be taken.

The Plan Update will be released with the Environmental Assessment for the Molalla River-Table Rock Recreation Area Management Plan. The public is encouraged to provide feedback on the proposed wilderness policies and actions during the 45-day comment period for the Environmental Assessment.

## **Part II: Current Management Situation**

### **LOCATION AND SETTING**

Table Rock Wilderness (TRW) is located in the western Cascades Mountains approximately 20 miles southeast of the community of Molalla, Oregon (population 7,800) and entirely within Clackamas County. TRW is reached by travelling south and east of the Molalla city center on a series of county roads, then along the BLM-controlled South Molalla Forest Rd. This road travels through the Molalla River Recreation Area and connects to the lowest and western-most portion of the wilderness near the confluence of the Molalla River and the Table Rock Fork of the Molalla River. From there, trailheads into TRW are accessed by travelling on high-standard gravel roads that define the wilderness area's northern and southern boundaries.

TRW is the last contiguous block of undeveloped forest in the Molalla River drainage. The wilderness is characterized by steep and heavily forested ridges, high gradient streams and prominent rock outcrops. Due to the steep topography (nearly 3,600 feet of vertical relief), four distinct vegetation zones including alpine, subalpine, montane and foothills are present within the wilderness. Typical of the western Cascades, TRW receives considerable precipitation in the form of rain and snow that may total up to 80 inches annually at higher elevations. This heavy snowfall typically prevents vehicle access to many areas above 2,500 feet during the winter and spring.

The wilderness offers opportunities for hiking, backpacking, horseback riding, photography and nature study. Use is concentrated in the summer and fall when winter snows have melted and trails around Rooster Rock and Table Rock are accessible. The rugged terrain limits most recreational use to the 20-mile developed trail system. The top of Table Rock, the most popular destination for wilderness users, offers excellent views of the high peaks of the Cascade Range stretching north into Washington and south into central and southern Oregon.

Oregon's largest cities, Portland and Salem, and other population centers in the Willamette Valley are located to the east and within a two hour drive of TRW. Since the completion of the 1987 Wilderness Management Plan these areas have seen significant population growth.

Several other wilderness areas in the western Cascade Range offer points of similarity and comparison to TRW. These include the Bull of the Woods, Middle Santiam, Menagerie, Mount Hood, Mount Jefferson and Salmon-Huckleberry areas designated alongside TRW in the 1984 legislation; Opal Creek, designated in 1996; and numerous small wilderness areas within the Mount Hood National Forest designated in 2009. All are within close proximity to the Willamette Valley region and protect remnant pieces of unmanaged forest that once covered the entire western Cascade Range.

## REVIEW OF COMPLETED ACTIONS AND NEW CONDITIONS

Several developments resulting from direct management action as well as natural occurrence have influenced TRW and have a bearing on its management. This section also identifies several prominent actions identified in the 1987 that were not completed.

- 1) ***Acquisition of the Molalla River Recreation Corridor:*** A 1992 land acquisition between the BLM and Cavenham Industries brought 5,083 acres of land adjacent to Table Rock Wilderness into public ownership. The acquired lands lie along the mainstem of the Molalla River and the S. Molalla Forest Rd. Visitors to TRW now travel through this area, referred to as the Molalla River Recreation Area, prior to entering the wilderness. The main recreational corridor is heavily used for camping, swimming, picnicking, trail use, fishing and other activities. The exchange has resulted in increased administrative presence near TRW and changed the role of the wilderness from an isolated federal holding to part of a larger, integrated recreation area.
- 2) ***Changes to the Trail System:*** The trail system has seen two major changes since the 1987 plan, while another action item from the plan was not completed. The current extent of the trail system is shown in Figure 1.

- a. ***Bull Creek and Image Creek Trails*** - A road, constructed in 1970 prior to wilderness designation, has been converted to full trail status and incorporated into the TRW's trail system per direction outlined in the 1987 Wilderness Management Plan. The trail, broken into two segments (the Bull Creek trail [formally the Old Jeep Trail] and the Image Creek Trail), traverses the area's main ridge and runs roughly 7 miles from Rooster Rock Rd north and east to its intersection with Summit Trail. After 30 years without vehicular use, the road has deteriorated and taken on a more trail-like appearance.

In 2004, a trailhead was developed at its south terminus at a wide section of Rooster Rock Rd. Signage was installed and parking was constructed, including a turnaround for horse trailers. The impacts of these actions were analyzed in Environmental Assessment OR-080-01-13.

- b. ***Rooster Rock Trail and Trailhead*** - Subsequent to completion of the 1987 plan, a new trailhead was developed on Rooster Rock Rd that provided trail users access to an old motorcycle trail that climbed TRW's south facing slopes and connected to the High Ridge Trail. The road's excessive grades necessitated construction of a more appropriate trail which was completed in 2006. This project was also covered under EA OR-080-01-13.

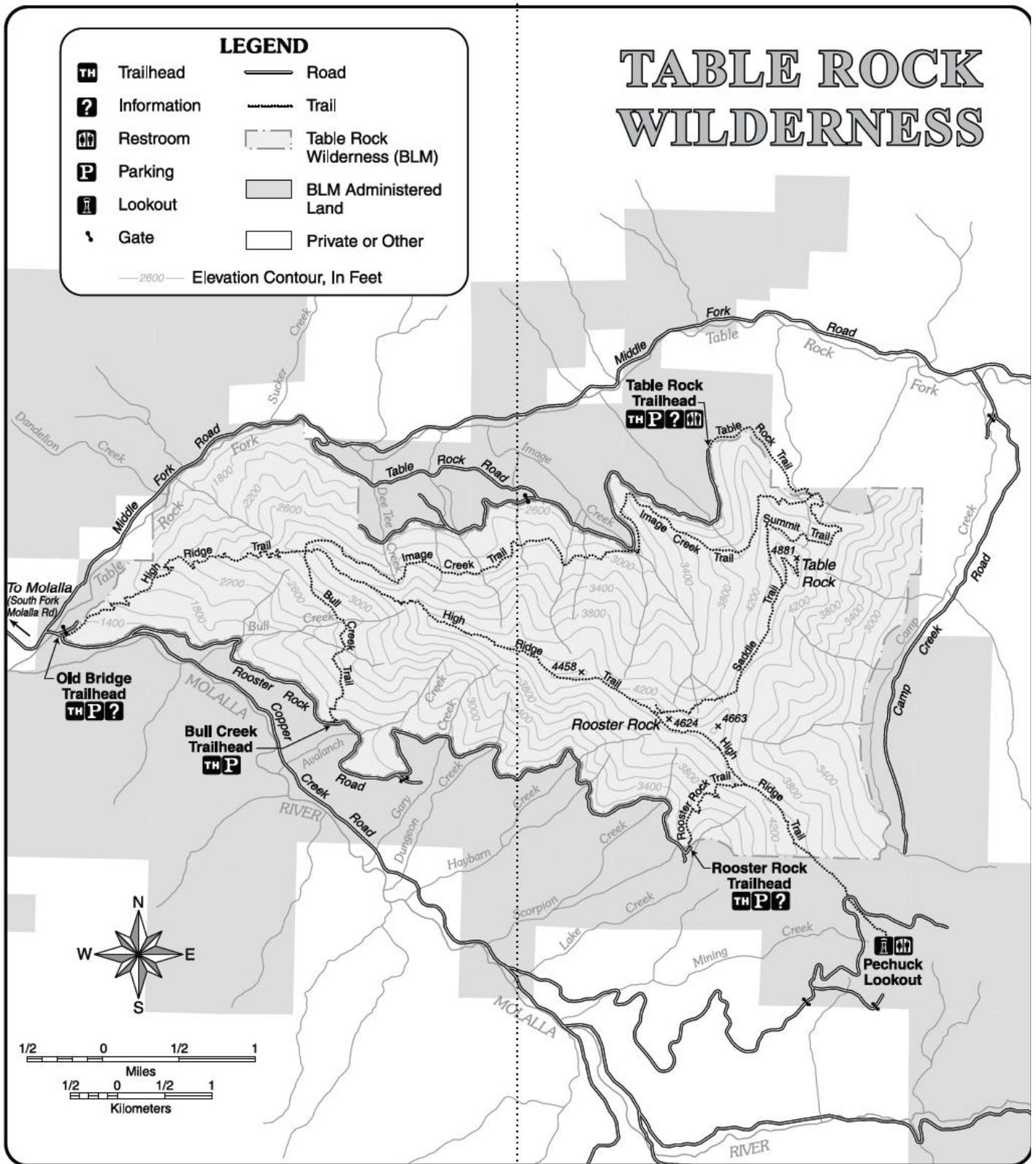
- c. *Saddle and High Ridge Trail Re-Routes*- The 1987 plan identified 3 miles of trail in substandard condition that required new trail construction (re-routing) to address. The trails, primarily the western-most portion of the High Ridge Trail and the segment of the Saddle Trail descending the north side of Rooster Rock, exhibit excessive grades and eroding trail tread. These re-routes were never completed.
- d. *Summit Trail and access to Table Rock* - See below.

**3) *Changes to Transportation Network:*** The forest roads surrounding TRW have seen several changes since 1987.

- a. *Table Rock Rd* – A major rain on snow event in 1996 caused a landslide and related road damage that required the closure of a road segment on Table Rock Rd (BLM Rd 7-4E-1). This road provided vehicle access to the Table Rock Trailhead. The road segment affected by the landslide was evaluated and found to be too unstable for long-term repairs. The landslide removed the much of the road surface approximately 5 miles east of the road’s intersection with the Middle Fork Rd. To provide continued access to the trails associated with Table Rock TH (Image Creek and Summit Trails), the BLM established a new trailhead at a wide point in the roadway just west of the landslide. A trail was constructed that skirts the landslide to the south. Trail users must now use this detour in combination with the intact roadway on either side of the landslide before reaching the former location of Table Rock TH. This adds roughly 1 mile to the hike each way.
- b. *Access Restrictions* – Public access BLM forest roads surrounding TRW has been progressively reduced since the 1987 Plan. In addition to the flood damage described above, gates have been installed in several other locations in the road system to reduce unwanted impacts and threats to wilderness character. These include:
  - i. Quarry Rd (BLM Rd 7-4E-8) was gated at Table Rock Rd
  - ii. Camp Creek Rd (BLM Rd 7-4E-2), which lies just east of TRW’s boundary, was gated on private property
  - iii. A dead end spur road off of Copper Creek adjacent to Old Bridge Trailhead was gated to prevent dumping and motorized entrance into the wilderness.

- 4) ***Pechuck Lookout***- The historic Pechuck Lookout is located southeast of TRW and serves as a trailhead providing access to the High Ridge Trail. The lookout is a wood and stone cupola-style structure constructed in 1932 by the Clackamas/Marion Fire Protection Association. It was added to the National Historic Lookout Register in 1990. The lookout was restored by volunteers in 1997 and is now open to overnight visitors on a first-come first-served basis. Its location is listed on TRW maps, but its recreational opportunities are not prominently advertised to the public at present. Current access is through privately-owned industrial timberland.
  
- 5) ***Inholding Acquisition and Potential Wilderness Additions***- The 1987 identified an 80-acre inholding owned by Brazier Forest Products (located in T7S- R4E, Section 16) for acquisition. The parcel was acquired in 1988. Despite being surrounded by TRW, the parcel can only be designated as wilderness by Congressional action. The Salem District BLM has made a recommendation to designate this parcel as wilderness.

Figure 1: Table Rock Trail Map



## CURRENT MANAGEMENT SITUATION: VISITOR USE

### *Available Information Sources*

In addition to field observation, two primary data sources are available that provide information on recreation use within Table Rock Wilderness.

A visitor survey completed in 2007 by Arizona State University for the Molalla River-Table Rock area provides useful information visitor characteristics, preferences and behavior. The survey was conducted during the summer of 2006 by providing visitors a self-administered survey questionnaire. The survey achieved a 93% on-site response rate and was completed by 51 wilderness visitors.

During the summer of 2009, traffic data was collected using vehicle counters deployed on Table Rock Rd, the access route to TRW's most popular trailhead. The counter collects data on an hourly basis that can be aggregated and analyzed in daily, weekly or monthly intervals. Data for October through May is unavailable at this time. Information needs have been identified for this period, as well as other main access routes adjacent to TRW.

### *Visitor Use Summary*

Table Rock Wilderness offers opportunities for hiking, camping, horseback riding, nature study and photography. Due to the heavy winter snowfall at higher elevations, recreation activity within TRW is mostly confined to the snow-free months from May through October. The highest period of use is mid-June through late September when all wilderness trailheads and trails are accessible, wildflowers are in bloom and Cascade peaks are visible.

Field observation, available visitor survey information and traffic counter data make it clear that day-use activities are preferred over those requiring an overnight stay. Roughly 93% of visitors report non-overnight use. This is likely due to the wilderness area's small size and lack of suitable water sources. The average length of stay is 4.6 hours.

#### **Selected Visitor Characteristics**

---

100% have a high-school degree or above

---

60.5% have a Bachelor's degree or above

---

100% self-identify their race as white

---

88% report TRW as their main destination

---

75% visitor in groups of 2 or more

---

93% have no more individuals under 16 years old in their group

---

74% agree or strongly agree they are 'very attached' to the wilderness

---

The most popular activities engaged in by wilderness visitors are trail hiking, photography, picnicking and nature study. The table below identifies participation rates for the most popular activities.

Equestrian use within the wilderness is limited. Only 7.8% of visitors to TRW reported horseback riding during their visit. Limitations on equestrian use include the scree field found along Summit Trail and steep grades that prevent beginner equestrian users.

<b>Activities Engaged in by TRW Visitors</b>	
<i>Activity</i>	<i>% reporting participation</i>
Trail Hiking	86.3 %
Taking Photographs	60.8%
Picnicking	47.1%
Studying Nature	41.2%
Wildlife Viewing/Birding	33.3%
Driving For Pleasure/Sightseeing	27.5%

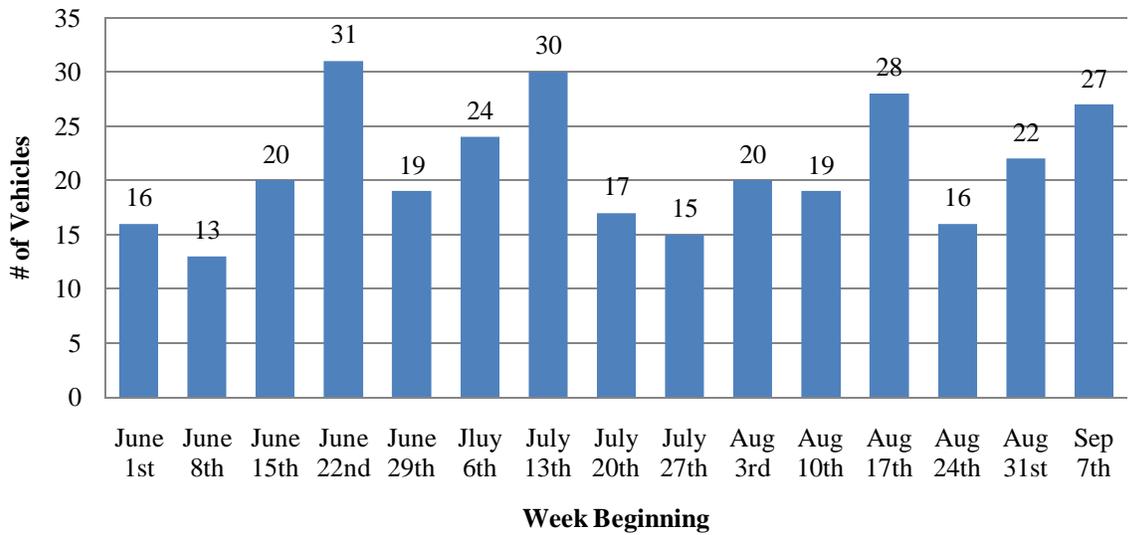
***Total Wilderness Visitation***

The 1987 TRW Management Plan estimated visitation to be 500 annually. The Plan anticipated increases in this figure as TRW’s attributes became more widely known. Relying on available data for the June through September period and personal observation for the remaining months of the year, total visitation to Table Rock Wilderness is estimated to be 1650 annually. This is based on three primary assumptions:

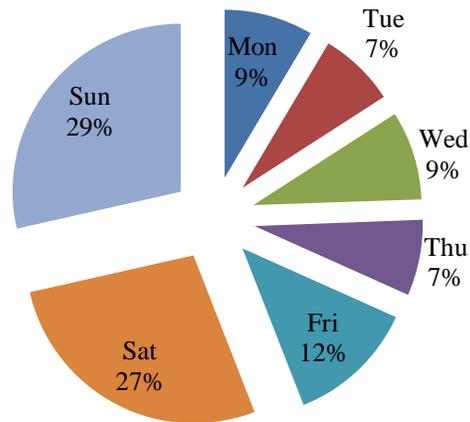
- a) visitors along Table Rock Rd account for 75% visitors to the wilderness
- b) administrative visits by BLM personnel make up 5% of recorded traffic totals
- c) each vehicle contains an average of 2.5 visitors

This visitation total represents a three-fold increase from the figures estimated during completion of the 1987 Plan, indicating that usage of TRW has increased as a rate slightly higher than overall population growth. The figures below illustrate wilderness usage trends.

### Table Rock Trailhead, Traffic Totals by Week June-September 2009



### Table Rock Trailhead, Visitor Use by Day



## **Part III: Wilderness Management Goals**

BLM Policy, as outlined in Manual 8561, identifies four primary goals for the management of designated wilderness areas. The objectives, policy and specific management actions identified in this Plan Update have been crafted with these goals in mind.

### **GOALS**

To provide for the long-term protection and preservation of the area's wilderness character under a principle of non-degradation. The area's natural conditions, opportunities for solitude, opportunities for primitive and unconfined recreation, and any ecological, geological or other features of scientific, educational, scenic or historical value present will be managed so that they will remain unimpaired.

To manage the wilderness area for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.

To manage the area using the minimum tool, equipment or structure necessary to successfully, safely and economically accomplish the objective. The chosen tool, equipment or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve the spontaneity of use and as much freedom from regulation as possible.

To manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character.

### **OBJECTIVES**

Recognize recreation as a legitimate use of Table Rock Wilderness and provide opportunities for visitors to experience solitude and participate in primitive and unconfined recreation.

Provide a developed trail system which allows visitors an opportunity to test wilderness skills and view the unique attributes of TRW.

Preserve the primitive and spontaneous nature of recreation in the wilderness by limiting regulation, visitor information and administrative presence within wilderness boundaries.

Reduce the effect of human activity and recreational use on the biotic communities within the wilderness and allow for natural ecosystems processes to take place.

Reduce or eliminate the effect of human activity and recreational use on the cultural resources within the wilderness.

Direct uses and recreational activities not dependent on wilderness to other areas.

Limit provision of regulatory and information signs to trailheads and locations where their placement is necessary to protect specific resource values or public safety.

Adequately monitor the use of TRW and the condition of resources within its boundaries to determine when management action is required.

Prohibit the use of mechanized equipment or construction of permanent or semi-permanent structures within wilderness boundaries.

## **Part IV: Wilderness Recreation Management Program**

For each component (General, Trail System and Trailhead Access, Visitor Information and Signage) outline:

- Management Assumptions - (what we think the next 15 years will bring, Ex “Availability of maps and brochures will reduce the need for signage within TRW” )
- Management Direction (ex. “Directional signage will be limited to trailheads only and will not be utilized at junctions unless substantial creation of social trails is occurring”)
- Management Action (ex. “Install routed wooden signage to indicate the wilderness boundary along each of the 5 trails that access TRW).

### **General Recreation Management**

#### **Management Assumptions**

Visitation to Table Rock Wilderness will increase at a rate similar to overall population growth. Visitors will continue to access TRW by travelling along the BLM-controlled S. Molalla Forest Rd. Access to roads surrounding TRW will remain blocked with gates and other barriers to vehicle access. A regulatory or permit system limiting the number of visitors will not be needed within the next 15 year period. Proposals for research or scientific studies within Table Rock Wilderness will be infrequent. Responsibility for wilderness search and rescue operations will reside with county law enforcement personnel.

The current make-up of visitors (including place of origin and demographics) will continue. Visitor preferences and satisfaction will continue similar to their current levels. Winter recreation will remain an extremely small portion of overall wilderness recreation. Overnight use will remain an extremely small portion of overall wilderness recreation and the establishment of hardened camp areas will be limited in number and extent. The summit of Table Rock and its southern saddle will continue to experience the highest levels of overnight use.

#### **Management Direction**

- Gather sufficient traffic and visitor data to monitor use trends within and adjacent to TRW.
- Prefer the use of data collection methods (i.e. trail counters) that do not require direct visitor engagement.
- Establish a group size limitation to protect trail conditions and visitor experience
- Voluntary, on-site visitor registration will be utilized only to collect specific user data and implemented for short, set periods.
- If visitor use is having adverse impacts on wilderness resources, regulations limiting the number of visitors to TRW will be put into effect only after all other direct and indirect control measures have been unsuccessful.

- Facilities and improvements should be provided to protect wilderness resources and public safety, rather than for user comfort and convenience.
- Permit use of the wilderness for monitoring, research and scientific study so long as planned activities are compatible with overall wilderness goals and objectives.
- Monitoring, research and scientific studies will be conducted without the use of mechanized equipment or construction of permanent structures.
- Minimize the establishment of new hardened camp areas within sight of the developed trail system.
- Established camp areas will be monitored for rate of spread and loss of native vegetation.
- Encourage visitors wishing to camp on Table Rock summit to utilize established sites west of the developed trail system.

### **Management Actions**

1. Establish and post a 12-person group size limit for all activities within TRW *FY 2011*
2. Implement a three-year traffic monitoring program on Table Rock and Rooster Rock Roads and evaluate need for longer term study. *FY 2011-2014.*
3. Annually monitor wilderness boundaries for vehicle incursion and threats to wilderness character. *FY 2011 ongoing*
4. Annually monitor the type, location and size of established campsites with TRW to determine need for management action. *FY 2011 ongoing*

### **Trail System and Trailhead Access**

#### **Management Assumptions**

Use of the developed trail system will continue to be dominated by day use trail hiking. The area's rugged terrain and steep slopes will limited the vast majority of wilderness use to the developed trail system. Trail use will continue to focus on the high elevation trails that access Table Rock and Rooster Rock available from early summer through mid-fall. Other portions of the trail system will experience low rates of use. Wilderness visitors will continue to rely on the developed trail system and prefer its use over cross country travel. Equestrian use will continue to be limited within wilderness boundaries. No new trailheads will be required, unless access is restricted to existing trailheads.

#### **Management Direction**

- Develop and maintain trails in a manner consistent with TRW's wilderness character.
- Regularly patrol and maintain TRW's 5 wilderness trailheads.

- To prevent the expansion or spread of unauthorized trails, rely on direct control methods such as visual screening and blockages rather than on-site signage or visitor information.
- Maintenance should focus on minimizing resource impacts and assuring public safety rather than user comfort or convenience.
- Primary maintenance tasks will include downed tree removal and brushing, with lower emphasis on tread maintenance.
- Solicit assistance from volunteer group and individual volunteers in the prioritization and completion of trail maintenance.
- In completing trail construction and maintenance projects, utilize minimum tool as a guiding principle.
- Trail construction will not be undertaken without an approved trail project plan.
- Trail design standards in line with wilderness character will serve as the basis for project design.
- Available resources for trail maintenance should be focused, in priority order, on the following trails:
  - Table Rock and Summit Trails
  - Rooster Rock Trail and High Ride Trail from Rooster Rock to Pechuck Lookout
  - Saddle Trail
  - High Ridge Trail from Old Bridge Trailhead to Rooster Rock
  - Image Creek Trail
  - Bull Creek Trail

### **Management Actions**

1. Construct a new trail segment (up to 3500') that would connect the existing Table Rock Trailhead to Image Creek Trail, bypassing the need for wilderness visitors to hike on the abandoned Table Rock Rd. *FY 2012-2013*
2. Evaluate need to construct re-route of Saddle Trail to address ongoing erosion and visitor experience concerns and complete as necessary *FY 2011- 2015*
3. Complete enhancements to Old Bridge Trailhead including defined parking and visitor information, consistent with its status as TRW's most accessible trailhead *FY 2012-2014*
4. Complete a bi-annual review of trail conditions in order to identify and prioritize needed maintenance. *FY 2011 (ongoing)*
5. Establish volunteer agreements with wilderness user groups and/or individuals to complete priority trail maintenance and wilderness monitoring tasks. Regularly renew and update these agreements as they are established. *FY 2011 (ongoing)*

## **Visitor Information and Signage**

### **Management Assumptions**

Maps, brochures, guidebooks and online information will reduce the need for posting some signs within TRW. Signage elsewhere in the Molalla River-Table Rock SRMA will guide visitors towards recreation opportunities within Table Rock Wilderness. Sign vandalism, particularly at high visibility trailheads such as Old Bridge, will continue. The need for regulatory and directional signage within the wilderness will remain minimal.

### **Management Direction**

- Preserve the spontaneity of recreation by purposefully limited type and extent of information dispersal
- Make information about TRW available without advertising its use
- Directional signage should be limited to wilderness trailheads and their immediate vicinities and will not be utilized at trail junctions other than Summit Trail
- No interpretive information will be placed within TRW's developed trail system
- Trailhead information should focus on providing wilderness etiquette information and maps, rather than interpretive information
- Information interpreting TRW's resources and character should be limited to brochures and developed settings within the Molalla River-Table Rock SRMA
- Transportation signage program to the wilderness should guide visitors equally to the northern and southern portions of the wilderness

### **Management Actions**

1. Install routed wooden wilderness boundary signs at each TRW trailhead *FY 2011*
2. Streamline trailhead visitor information, with a focus on providing wilderness etiquette information and trail maps *FY 2011-2012*
3. Create a basic website for Table Rock Wilderness that provides a brief description of the area's attributes, an electronic map and directions. *FY 2011*
4. Continue brochure re-production and make available at Salem District Office and regional outlets without providing on-site at wilderness trailheads. *FY 2011 ongoing*
5. Update visitor information including brochures, website and on-site signage as information or conditions change. *FY 2011 ongoing*