

Sandy River Basin Integrated Management Plan  
Environmental Assessment and Finding of No Significant Impact

Environmental Assessment Number OR080-08-16

August 2008



*Sandy Wild and Scenic River*

United States Department of the Interior  
Bureau of Land Management, Salem District  
Multnomah and Clackamas Counties, Oregon

T1-3S., R. 4-7E.; W.M. within the Sandy River Basin

Responsible Agency: USDI - Bureau of Land Management

Responsible Official: Cindy Enstrom, Field Manager  
Cascades Resource Area  
1717 Fabry Road SE  
Salem, OR 97306  
(503) 315-5969

For further information, contact:

Zach Jarrett, Project Leader  
Cascades Resource Area  
1717 Fabry Road SE  
Salem, OR 97306  
(503) 375-5610

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

BLM/OR/WA/AE-08/089-1792

## Table of Contents

<b>Finding Of No Significant Impact.....</b>	<b>5</b>
<b>Chapter 1: Introduction and Background .....</b>	<b>12</b>
1.1 Description and Map of Planning Area .....	13
1.2 Purpose and Need for the Proposed Action.....	15
1.3 Planning Process .....	16
1.4 Conformance with Land Use Plan, Statutes, Regulations, and other Plans .....	17
1.5 Issues and Concerns .....	21
<b>Chapter 2: Alternative Development.....</b>	<b>23</b>
2.1 Alternatives.....	23
2.2 Description of Alternatives.....	24
2.3 Comparison of Management Alternatives.....	34
<b>Chapter 3: Affected Environment .....</b>	<b>50</b>
3.1 Setting and Description .....	50
3.2 Socioeconomics .....	50
3.3 Use and Ownership .....	52
3.4 Navigability and State Ownership of River Bed and Banks.....	54
3.5 Recreation.....	54
3.6 Visual Resources.....	57
3.7 Cultural Resources .....	57
3.8 Hydrology/Water Quality and Quantity/Soils: .....	59
3.9 Fisheries.....	61
3.10 Wildlife.....	64
3.11 Invasive Non-Native Plants and Botany.....	69
3.12 Vegetation.....	72
3.13 Fire /Rural Interface Areas .....	74
3.14 Other Elements of the Environment.....	76
<b>Chapter 4: Environmental Effects.....</b>	<b>77</b>
4.1 Introduction.....	77
4.2 General Assumptions .....	78
4.3 Socioeconomic .....	79
4.4 Recreation.....	80
4.5 Visual Resources.....	86
4.6 Cultural Resources .....	87
4.7 Hydrology/Water Quality and Quantity/Soils: .....	88
4.8 Fisheries.....	89
4.9 Wildlife.....	91
4.10 Invasive Non-Native Plants and Botany.....	93
4.11 Vegetation.....	96
4.12 Fire Hazard and Risk /Rural Interface.....	98
4.13 Compliance with the Aquatic Conservation Strategy .....	100
4.14 Comparison of Alternatives with regard to Decision Criteria/Factors.....	103
<b>Chapter 5: Proposed Recreation Plans.....</b>	<b>106</b>
5.1 Recreation Planning Process.....	106
5.2 Trail Design Alternatives.....	106
5.3 Marmot Dam Site Design Alternatives .....	111
5.4 Sandy-Salmon Confluence Site Design Alternatives.....	115
<b>References and Bibliography .....</b>	<b>120</b>

<b>Appendix A: Sandy River Basin Planning Area Map</b> .....	<b>123</b>
<b>Appendix B: Land Use Allocation Map</b> .....	<b>124</b>
<b>Appendix C: Special Status/Survey and Manage Wildlife Species, (T&amp;E, BS, BA and S&amp;M species)</b> .....	<b>125</b>
<b>Appendix D: Special Status Botanical Species</b> .....	<b>130</b>

### LIST OF MAPS OR PLANS

MAP 1: SANDY RIVER BASIN LOCATION MAP.....	14
MAP 2: PROPOSED TRAIL DEVELOPMENT: ALTERNATIVE B.....	108
MAP 3: PROPOSED TRAIL DEVELOPMENT: ALTERNATIVE C.....	109
MAP 4: PROPOSED TRAIL DEVELOPMENT: PREFERRED ALTERNATIVE.....	110
MAP 5: MARMOT DAM CONCEPTUAL PLAN: ALTERNATIVE B .....	112
MAP 6: MARMOT DAM CONCEPTUAL PLAN: ALTERNATIVE C .....	113
MAP 7: MARMOT DAM CONCEPTUAL PLAN: ALTERNATIVE D (PREFERRED ALTERNATIVE).....	114
MAP 8: SANDY/SALMON CONFLUENCE CONCEPTUAL PLAN: ALTERNATIVE B.....	117
MAP 9: SANDY/SALMON CONFLUENCE CONCEPTUAL PLAN: ALTERNATIVE C.....	118
MAP 10: SANDY/SALMON CONFLUENCE CONCEPTUAL PLAN: PREFERRED ALTERNATIVE .....	119

### LIST OF TABLES

TABLE 1: MAJOR BLM LAND ALLOCATIONS.....	18
TABLE 2: COMPARISON OF ALTERNATIVES.....	34
TABLE 3: LAND OWNERSHIP .....	53
TABLE 4: SPOTTED OWL HABITAT ON BLM LANDS.....	68
TABLE 5: SERAL STAGE DEFINITIONS.....	73
TABLE 6: SERAL STAGES IN THE RIVER PLANNING AREA .....	73
TABLE 7: SERAL STAGES IN THE UPLAND PLANNING AREA .....	74
TABLE 8: ELEMENTS OF THE ENVIRONMENT .....	77
TABLE 9 - COMPLIANCE WITH COMPONENTS OF THE AQUATIC CONSERVATION STRATEGY .....	100
TABLE 10 - COMPLIANCE WITH THE NINE ACS OBJECTIVES .....	100
TABLE 11 - COMPARISON OF ALTERNATIVE BY DECISION CRITERIA/FACTORS (EA SECTION 1.2.2) .....	105

## **Finding Of No Significant Impact**

### **Introduction**

The Bureau of Land Management (**BLM**) has conducted an environmental analysis (EA# OR080-08-16) for the Sandy River Basin Integrated Management Plan. Recent land acquisitions within the Sandy River Basin and projected population growth in northern Oregon, specifically the Portland Metropolitan area, led to a need to update the management strategies within the Sandy River Basin. In addition to traditional management actions that currently take place on BLM lands, this management plans addresses the need for the development of recreation and ecosystem restoration opportunities (EA Chapter 1). Recreational and restoration actions are described in the EA (EA section 2.3, Table 2 and Chapter 5).

The EA analyzes three alternatives outlining integrated management scenarios, and the no action alternative which describes current management actions. Predominant actions include developing recreation opportunities (e.g. facilities and trails), ecosystem enhancement and restoration (e.g. fish and wildlife habitat, soil rehabilitation), vegetation, fire, and realty management. The project is located on BLM lands within Townships 1S-3S South and Ranges 4-7 East, Willamette Meridian within the Sandy River Basin.

The Sandy River Basin Management Plan Environmental Assessment (**EA**) documents the environmental analysis of the proposed management plan. The EA is attached to and incorporated by reference in this Finding of No Significant Impact determination (**FONSI**). The analysis in this EA supplements analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (**RMP/FEIS**). This project has been designed to conform to the *Salem District Record of Decision and Resource Management Plan*, May 1995 (**RMP**) and related documents which direct and provide the legal framework for these projects (EA Section 1.4).

The EA and FONSI will be made available for public review August 27, 2008 to September 26, 2008. The notice for public comment will be published in the *Sandy Post* and *Oregonian* newspapers. Comments received by the Cascades Resource Area of the Salem District Office, 1717 Fabry Road SE, Salem, Oregon 97306, on or before September 26, 2008, will be considered in making the final decision for this management plan.

### **Finding of No Significant Impact**

Based upon review of the Sandy River Basin Integrated Management Plan EA and supporting documents, I have determined that the proposed projects 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.

There are no significant impacts not already adequately analyzed, or no significant impacts beyond those already analyzed, in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS) to which this environmental assessment is tiered.

Therefore, supplemental or additional information to the analysis in the RMP/FEIS in the form of a new environmental impact statement (**EIS**) is not needed. This finding is based on the following discussion:

**Context:** Potential effects resulting from the implementation of the proposed projects have been analyzed within the context of BLM ownership with the Sandy River Basin, which comprises approximately 5% of the basin. [40 CFR 1508.27(a)] (EA sections 3.3).

**Intensity:**

1. The proposed projects are unlikely to have significant adverse impacts on the affected elements of the environment (socio-economic, recreation, visual resources, cultural resources, Hydrology/water quality and quantity/soils, fisheries, wildlife, invasive non-native plants and botany, vegetation, fire hazard/risk/rural interface, transportation management) [40 CFR 1508.27(b) (1)] for the following reasons:
  - For all resources, the projects will be designed to follow RMP standards and guidelines and to be within the effects described in the RMP/EIS.
  - *Socioeconomic:* Proposed projects would be comparable to existing land uses and ecological management practices within the planning area and would be consistent with local and regional civic and economic initiatives. Effects to population distribution and social trends would be minimal on a local and regional scale. Effects to economic activity would also be minimal, and are likely to be beneficial in nature (EA sections 3.2, 4.3).
  - *Recreation:* No uses, activities or infrastructure unprecedented within the planning area are among the proposed projects. No existing recreational areas would be removed, closed or otherwise adversely impacted. Effects to recreation would be beneficial, resulting in the expansion and improvement of recreational opportunities (EA sections 3.5, 4.4).
  - *Visual Resources:* Trail construction would create spaces in the forest, smaller than natural openings as a result of natural tree mortality. There will be a beneficial effect from developing the Marmot site, which is currently a disturbed site. Vegetation management projects would change the density of the vegetation, resulting in more open conditions but within the range of the designated Visual Resource Management (VRM) categories would change as a result of the proposed projects (EA sections 3.6, 4.5).
  - *Cultural Resources:* Nearly all impacts to cultural sites would be reduced or eliminated under all alternatives through the practice of pre-disturbance site discovery and the use of avoidance or protection measures (EA sections 3.7, 4.6).
  - *Hydrology/Water Quality and Quantity/Soils:* Stream Protection Zones (SPZs) in the Riparian Reserve LUA (RR) would be maintained. Overall, these action alternatives would be unlikely to have any measurable effect on stream temperatures, pH, or dissolved oxygen. Sediment transport and turbidity in the affected watersheds is likely to increase over the short term as a direct result of trail construction. Sediment increases would not be visible beyond 800 meters downstream from trail/stream intersections and would not be expected to affect fish, aquatic species or habitat, or human uses. Over the long-term (beyond 3-5 years), current conditions and trends in turbidity and sediment yield would likely be maintained under the action alternatives (EA sections 3.8, 4.7).
  - *Fish species and essential habitat:* Proposed restoration strategies (see table 2, EA section 2.3) would increase the habitat complexity of rivers and streams within the planning area. Habitat quality is expected to improve through implementation of restoration strategies as outlined in this document, as is the condition of Critical habitat for ESA listed fish species.

Effects of ground disturbing projects on lands adjacent to streams are described in the Hydrology section (EA sections 3.9, 4.7, 4.8).

- *Wildlife*: Overall effects to wildlife would be low due to the type and duration of human use and disturbance. Restoration actions under all action alternatives on Congressional Reserve and District Designated Reserve land use allocations would be undertaken to encourage late-successional forest characteristics in an effort to improve habitat quality. Future individual projects proposed under the Sandy River Basin Integrated Management Plan would be subject to the Endangered Species Act including Section 7 consultation with U.S. Fish and Wildlife Service.
- *Invasives Non-native Plants and Botany*: A greater effort to inventory, control and eradicate invasive non-native species would occur. With this increased effort on early detection and eradication, enhancement of native habitat would also occur.
- Unique characteristics of the geographic area [40 CFR 1508.27(b)(3)] (EA section 3.14, Table 8):
  - Parklands (e.g. Wildwood Recreation Site): Proposed recreational opportunities throughout the basin will decrease visitor use pressure on recreation sites within the planning area (EA section 3.5).
  - Wild And Scenic Rivers (designated or eligible): Proposed projects would not have an adverse effect on the outstanding remarkable values associated with this Wild and Scenic River and would reduce predicted resource damage associated with unregulated recreational use.
  - Ecologically critical areas (Sandy River Gorge): Proposed projects would not have an adverse effect on the outstanding characteristics associated with this area, and would reduce predicted resource damage associated with unregulated recreational use.
- Districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places: Design features on site specific projects would protect these sites. EA sections) [40 CFR 1508.27(b) (8)] (EA sections 3.14, Table 8; 3.7, 4.6).

The BLM will analyze site specific effects of individual proposed projects (Table 2, EA section 2.3) in environmental assessments or categorical exclusions depending upon the type and scope of each project.

2. The proposed projects would not affect the following unique characteristics of the geographic area: Wilderness or prime farmlands (EA section 3.14, Table 8). There are no designated BLM Wilderness Areas or prime farmlands within the planning area [40 CFR 1508.27(b) (3)].
3. The proposed projects are not unique or unusual. The BLM has experience implementing recreation, restoration, and vegetation management projects without highly controversial effects [40 CFR 1508.27(b) (4)], highly uncertain, or unique or unknown risks [40 CFR 1508.27(b) (5)] (Chapters 3 and 4).
4. The proposed project does not set a precedent for future actions that may have significant effects, nor does it represent a decision in principle about a future consideration [40 CFR 1508.27(b)(6)]. No hazardous materials or solid waste would be created in the project area. There would be no reduction in the amount of late-successional forest habitat on federal forestlands (RMP p. 22) (EA section 3.0). The proposed project would not retard or prevent the attainment of the ACS objectives (EA section 4.13).

5. The interdisciplinary team evaluated the proposed projects in context of past, present and reasonably foreseeable actions [40 CFR 1508.27(b) (7)]. Cumulative effects, associated with the proposed projects would not exceed impacts beyond those already analyzed, in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS) to which this environmental assessment is tiered. Unregulated recreation use within the area may have an adverse effect on wildlife, fisheries, hydrology, riparian habitats, invasive species, and fire risk, however the proposed recreation and restoration projects will 1/ regulate recreation use, and 2/ reduce the effects of unregulated use on the above resources. Cumulative effects will be further analyzed in project specific environmental assessments (EA Chapters 3 and 4).
6. The proposed project is not expected to have significant effects to Endangered or Threatened Species or habitat under the Endangered Species Act (ESA) of 1973 [40 CFR 1508.27(b) (9)].
  - *Wildlife*: Overall effects to wildlife would be low due to the type and duration of human use and disturbance. Restoration actions under all action alternatives on Congressional Reserve and District Designated Reserve land use allocations would be undertaken to encourage late-successional forest characteristics in an effort to improve habitat quality. Future individual projects proposed under the Sandy River Basin Integrated Management Plan would be subject to the Endangered Species Act including Section 7 consultation with U.S. Fish and Wildlife Service.
  - *Fish*: Proposed restoration strategies (see table 2, EA section 2.3) would increase the habitat complexity of rivers and streams within the planning area. Habitat quality is expected to improve through implementation of restoration strategies as outlined in this document, as is the condition of Critical habitat for ESA listed fish species (EA sections 3.9, 4.8).
7. 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)]. The alternatives are consistent with other Federal agency and State of Oregon land use plans and with County land use plans and zoning ordinances. Any permit requirements associated with the implementation of this project would be obtained and complied with. Additionally, the proposed projects are consistent with applicable land management plans, policies, and programs (EA section 1.4).

Prepared by: Zach Jarrett  
 Zach Jarrett, Outdoor Recreation Planner  
 Cascades Resource Area

8/27/2008  
 Date

Approved by: Cindy Enstrom  
 Cindy Enstrom, Field Manager  
 Cascades Resource Area

8/27/2008  
 Date

# **Sandy River Basin Integrated Management Plan (SRBIMP) EA**

## **Interdisciplinary Team of Preparers:**

### **Bureau of Land Management, Salem District**

Project lead, Recreation Resources	Zach Jarrett
Recreation Resources	Adam Milnor
Botanical Resources	Terry Fennell
Fisheries	Darren Neff
GIS/Mapping/Soils	Bruce Ahrendt
Roads Engineer	Dan Nevin
Fuels/Non-Native Invasive	Barbara Raible
Silviculture	Alisa Tanner
Hydrologist	Patrick Hawe, Chester Novak
Wildlife Biologist	Jim England
Archeologist	Frances Philipek
NEPA coordinator	Carolyn Sands

### **Contributors:**

#### **Conceptual Site Design and Planning**

Secter Environmental Design	Jordan Secter
Lando and Associates	Pat Lando
American Whitewater	Thomas O' Keefe
Portland General Electric	Tim Keller
National Park Service Rivers Trails and Conservation Assistance (RTCA)	Dan Miller

#### **Conceptual Trail Design and Layout**

Bureau of Land Management	Zach Jarrett
International Mountain Bike Association (IMBA)	Jill Van Winkle
	Chris Bernhardt
	Joey Klein

## **Executive Summary**

The Sandy River Basin planning area is comprised of 14,850 of public lands located in Clackamas and Multnomah counties of western Oregon and administered by the Bureau of Land Management, Salem District Office. Public land ownership is characterized by a mixed patchwork of discontinuous parcels, especially in the Basin's western portion.

Land use within the Sandy River Basin ranges from designated Wilderness to rapidly growing urban development. Primary uses of the landscape include forest administration, agriculture and urban development. To address the need for conservation and public access, the 2001 Federal Budget included the first Land and Water Conservation Fund (LWCF) appropriation for acquisition of critical lands within the Basin. Critical lands were identified as part of the BLM's Conservation and Land Tenure Strategy for the Sandy River Watershed and Mt. Hood Corridor. The BLM's strategy has focused on securing LWCF monies for acquisition of key non-federal properties with high resource values particularly lands that contain or have the potential to restore river frontage, wetlands or side-streams, fisheries habitat, to provide recreation opportunities, and to provide protection of scenic values.

Congress has continuously supported this project with annual appropriations through FY 2007. During this process, Western Rivers Conservancy has partnered with the BLM to identify priority parcels for acquisition that would protect open space, scenic qualities, and natural resources, while providing complementary public access and recreational opportunities.

The primary goal of this Environmental Assessment (EA) is to present and analyze a range of alternatives that would provide guidance and direction for future management actions and decisions concerning BLM-administered lands within the planning area. Each alternative will describe a set of management actions including resource conservation, ecological restoration and recreation management. This document will then evaluate the possible impacts of these actions.

The visions and recommendations contained in this document represent input from many constituencies: concerned citizens, adjacent landowners, local governments, recreational user groups, and professional landscape architect and trail designers. This input was received through a series of public open houses, focus groups and design charrettes. This EA embraces the principle of community-based planning, bringing together multiple elements to resolve problems and achieve common goals through a collaborative process.

General management strategies reflected in this EA will be evaluated and ultimately an alternative will be selected. This selection will be accompanied by a Decision Record and a Basin-wide Management Plan that further defines resource-specific management goals, objectives and guidelines. The estimated duration of this plan is 15 years.

## **Document Organization**

This document contains the Finding of No Significant Impact, five chapters of the Environmental Assessment along with References and Bibliography section found in the appendix:

**Chapter 1: Introduction and Background** provides an introduction to the planning area and background on the SRBIMP planning process. The chapter identifies the purpose and need for management action, management goals and objectives and land use allocations within the planning area; and describes the public involvement process as well as issues and concerns derived from this process.

**Chapter 2: Alternative Development** describes in detail the four management plan alternatives that were developed and evaluated in this environmental assessment.

**Chapter 3: Affected Environment** analyzes the affected environment including current biological, recreational and socioeconomic conditions within the planning area.

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

**Chapter 5: Proposed Recreation Plans** describes proposed facility and trail design plans for recreation development within the planning area.

*References used to assist in the preparation of this document are provided in the References and Bibliography section.*

## **Chapter 1: Introduction and Background**

The Sandy River Basin is located along the west slopes of the Cascade mountain range of Northwestern Oregon, east of the Portland metropolitan area. The Bureau of Land Management is responsible for managing 14,850 acres within the Sandy River Basin.

In FY 2001 the Federal Budget included the first Land and Water Conservation Fund (LWCF) appropriation for acquisition of critical lands within the Sandy River Basin. Critical lands were identified as part of the BLM's Conservation and Land Tenure Strategy for the Sandy River Watershed and Mt. Hood Corridor. The BLM's strategy has focused on securing LWCF monies for acquisition of key non-federal properties with high resource values, particularly lands that contain or have the potential to restore river frontage, wetlands or side-streams, fisheries habitat, to provide recreational opportunities, and to provide protection of scenic values.

Congress has continuously supported this project with annual appropriations from FY 2002 through FY 2007. To date the total funds allocated for this project through appropriation and reprogramming amount to \$10.75 million. This acreage was acquired through the Land & Water conservation Fund from 2002 to the present, and has been classified as a District Designated Reserve until the Western Oregon Plan Revision (WOPR) is completed. Funds were allocated with the intent of preserving and enhancing natural resource values while providing complementary recreation opportunities.

These acquisitions are complemented by a land exchange completed in 1995 between the Bureau of Land Management and Longview Fiber. The exchange transferred 3,548 acres of private timberland valued at \$15.76 million to the BLM for management. Most of these lands have now received Congressional designation as the Mount Hood Scenic Corridor (see section 1.4.2)

The BLM is also directly responsible for the management of two designated National Landscape Conservation System (NLCS) units within the planning area: over 20 miles of the lower Sandy River and 8 miles of the lower Salmon River are components of the National Wild and Scenic Rivers System.

Several large scale rehabilitation projects have recently taken place within the planning area. Most notable is the decommissioning of Marmot Dam. In 1999 PGE announced it would decommission its Bull Run Hydroelectric Project after nearly 100 years of operation. There was a broad range of public and private support for this project with partners including the State of Oregon, Western Rivers Conservancy, American Whitewater, and the United States Forest Service.

The removal of Marmot Dam is an important step in this plan's aim to help improve fish habitat, protect the riparian environment along the river impacted by the project and expand recreational opportunities in the Sandy River Basin. The decommissioning of Marmot Dam remains ongoing and is expected to be complete by the fall of 2008.

The purpose of this Environmental Assessment (EA) is to present and analyze a range of alternatives that outline future management strategies for BLM-administered lands within the planning area. Each alternative provides an analysis for resource conservation, ecological restoration, recreation management, and the potential environmental impacts that are associated with these actions.

The outcome of this analysis will be a public document that will define general management strategies on BLM administered lands for the next 15 years. This document defines goals and objectives for the management of future uses, identifies recreation management strategies, outlines restoration and rehabilitation approaches including appropriate vegetation management actions, incorporates available new data, and attempts to resolve issues identified during public scoping.

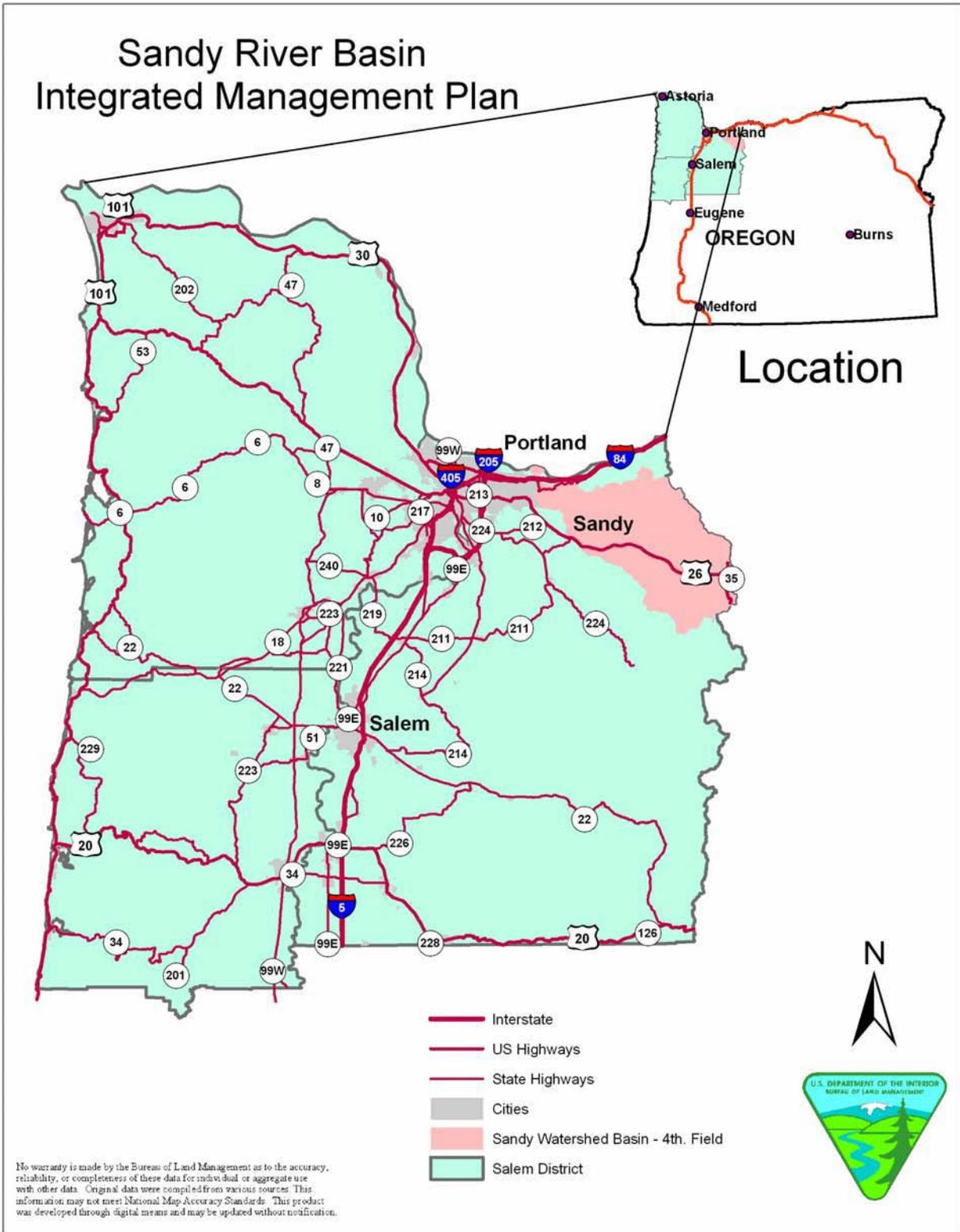
Once a management strategy is selected, a comprehensive plan will be developed to address resource enhancement opportunities through the implementation of the selected alternative. Through partnerships with local communities, recreational user groups, and various state, regional and local governments, these management strategies would be implemented to protect the outstanding natural and resource values of the Sandy River Basin and provide for sustainable recreational opportunities. Project specific proposals would be evaluated in a site specific Environmental Assessment.

## **1.1 Description and Map of Planning Area**

The Sandy River Basin encompasses six watersheds including the lower, middle and upper Sandy watersheds and the Bull Run, Zigzag and Salmon River watersheds. The Basin is a relatively small sub basin in the Lower Columbia portion of the much larger Columbia River Basin and drains an area of roughly 508 square miles (or 321,635 acres). The Sandy River flows about 56 miles in a northwesterly direction from the side of Mount Hood and joins the Columbia River near Troutdale at the Columbia River, Mile 120.5.

Land use and ownership varies widely in this complex planning area with over 900 private land owners. Land ownership patterns form a mixed patchwork of discontinuous parcels, especially in the Basin's western portion. Several political jurisdictions are located within the Basin, including portions of Multnomah and Clackamas counties; portions of the Cities of Gresham, Troutdale, and Sandy in the lower part of the Basin; and entire small, unincorporated communities.

The rural, predominantly forested Sandy River Basin is a popular place for a variety of recreational activities such as hiking, sightseeing, fishing, and kayaking. The Basin is home to historic Timberline Lodge; ski resorts; numerous federal, state, regional, and local forests and parks; and two designated Wild and Scenic Rivers. See Map 1 for the location of the planning area. For a more detailed planning area map, see Appendix A.



Map 1: Sandy River Basin Location map

## **1.2 Purpose and Need for the Proposed Action**

Recent property acquisitions and exchanges, increases in recreation use, population growth, and undesirable resource conditions have triggered the need to develop a management plan for BLM administered lands in the Sandy River Basin.

Acquiring non-federal properties through the program described in EA section 1.1 allows the BLM the opportunity to restore river frontage, wetlands or side-streams, fisheries habitat, to provide recreational opportunities, and to provide protection of scenic values. Currently, many of the recently acquired lands have infestations of invasive weeds and past removal of the forest (e.g. pastureland) on these parcels have led to decreases in shade along streams, which is a factor in maintaining optimum temperatures on adjacent streams.

Unregulated and unauthorized forms of recreational use (establishment of social trails, unmanaged overnight uses, etc.) have resulted in impacts to basin wide resources. To effectively meet predicted increases in recreation demand, developed recreation opportunities would need to be provided within the planning area to minimize potential impacts to the resources that these activities depend upon.

The purpose and need of the management actions described in this planning effort is to:

- Restore natural ecosystems on lands recently acquired by the BLM.
- Provide recreational opportunities in the form of facilities and trail development that would control unauthorized uses and reduce the risk of resource degradation.
- Reduce the fire hazard associated with current forest conditions.
- Reduce fire risk associated with increased recreational use and residential population growth in rural interface areas.
- Implement management strategies consistent with the Salem District Management Plan.
- Meets the management goals and objectives described in EA section 2.1.

### **1.2.1 Management Assumptions**

- RMP land use allocations will not change. They will remain the same as described in the Salem RMP
- The following are examples of management activities will continue in all alternatives:
  - Commercial timber harvest will occur in land use allocations as described in the Salem District Resource Management Plan.
  - Road Maintenance
  - Invasive weed treatments
  - Realty Actions

### **1.2.2 Decision Criteria/Factors**

The Cascades Resource Area Field Manager will select the alternative that best:

- Restores ecosystems on acquired lands.
- Addresses rural interface issues (private property trespass, dumping, vandalism, managing fire risk in the wildland urban interface).
- Provides a balance of meeting recreation needs while retaining the resource values recognized by special legislation and other planning efforts.
- Ensures balanced approach to resource management, resulting in the least conflict between uses.

- Meets the goals and objectives established through ongoing community partnerships and interagency planning efforts.
- Provides an appropriate mechanism for evaluating proposed lands and realty projects including communication towers, utility line and rights-of-way applications.
- Meets Aquatic Conservation Strategy Objectives.

### **1.3 Planning Process**

Management of BLM administered lands within the planning area has most recently been guided by the Salem District Resource Management Plan (1995). Additional guidance has been provided through several other activity-level management plans covering recreation, Wild and Scenic rivers, and watershed management.

The planning process for the SRBIMP began in June of 2007, with several public open houses soliciting input on river recreation and river access, trail recreation and trail access, and conservation issues and needs within the planning area. The BLM worked extensively with citizen-based focus groups in the form of additional focus group and public open houses. The planning program also included numerous field trips, presentation media spots, and the development of a project website ([http://www.blm.gov/or/districts/salem/plans/sandy\\_river\\_index.php](http://www.blm.gov/or/districts/salem/plans/sandy_river_index.php)). Issues and concerns received from the above scoping efforts are described in Section 1.5.

The Sandy River Basin Core Planning Team was developed as a precursor to the SRBIMP effort. The core planning team was assembled to develop a long range “vision” for the Sandy River Basin as a whole. This effort resulted in the Sandy River Basin Vision Document, completed in the fall of 2007 and available online ([http://www.blm.gov/or/districts/salem/plans/files/SRB\\_Vision\\_2008.pdf](http://www.blm.gov/or/districts/salem/plans/files/SRB_Vision_2008.pdf)).

The Vision Document describes the recreation resources within the planning area, identifies issues and concerns, and provides recommendations. Opportunities to provide additional trail and river related recreational experiences were identified as part of this effort. Members of the Core Planning Team include: Barlow Trail Association, Mount Hood National Forest, Sandy River Basin Partners, National Park Service, Oregon Department of State Lands, Oregon State Parks, and the Bureau of Land Management.

#### **1.3.1 Endangered Species Act (ESA) Section 7 Consultation**

Section 7 consultation will be conducted on individual projects according the procedures of the United States Fish and Wildlife Service and the Northern Oceanic and Atmospheric Administration.

#### **1.3.2 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.

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

Management actions identified in the SRBIMP 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 the SRBIMP 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).
- *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 to Remove the Survey and Manage Standards and Guidelines from Bureau of Land Management Resource Management Plans Within the Range of the Northern Spotted Owl*, July 2007. The Secretary of Interior removed the Survey & Manage (S&M) Mitigation Measure Standards and Guidelines from the Bureau of Land Management's (BLM) Resource Management Plans in the area of the Northwest Forest Plan on July 25, 2007.

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 Supplement to the 2004 Final Supplemental Environmental Impact Statement To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines- Forest Service National Forests in Regions 5 and 6 and Bureau of Land Management Districts in Washington, Oregon, and California Within the Range of the Northern Spotted Owl*, June 2007.

### 1.4.1 Related Plans and Reports

- Sandy Gorge ACEC Management Plan (1987)
- Sandy Wild and Scenic River and State Scenic Waterway Management Plan EA (July 1992)
- Sandy Wild and Scenic River and State Scenic Waterway Management Plan (September 1993)
- Salmon Wild and Scenic River Management Plan (1993)
- Salem District Resource Management Plan (1995)
- Sandy River Acquisitions EA (2002)
- Sandy River Navigability Study (2002)
- Sandy River Basin Characterization Report (2005)
- Sandy River Basin Watershed Analysis (2007)
- Sandy River Basin Vision Document (2007)

The above documents are available for review in the Salem District Office.

## 1.4.2 BLM Land Use Allocations

Land use allocations are designations that determine what 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). A wide and complex variety of land use allocations exist within the Sandy River Basin planning area. See Appendix B for a land use allocation map.

Under the Salem District RMP the BLM follows the Northwest Forest Plan Land Use Allocations and further defines Matrix into General Forest Management Areas and Connectivity. Below is a table and description that summarizes the Management Objectives for the major land use allocations in the Salem District RMP (See Map #6: BLM & FS Land Use Plan Allocations). Congressional designations and land use allocations like Riparian Reserves or Areas of Critical Environmental Concern that overlay major land use allocations are also described.

### 1.4.2.1 Major Land Allocations

Land Use Allocation	Acres
General Forest Management Area (GFMA)	7134
Connectivity (CONN)	319
District Designated Reserve (DDR)	2063
Congressional Reserve	5334
TOTAL	14850

*\*Within the major land use allocations there are approximately 100 acres of unmapped Late Successional reserve (LSR) which have been identified as northern spotted owl activity centers.*

**Table 1: Major BLM Land Allocations**

### BLM Land Allocations

**Areas of Critical Environmental Concern:** *Sandy River Gorge Area of Critical Environmental Concern (ACEC) and Outstanding Natural Area (ONA).* The Salem District RMP designated 400 acres of BLM-administered lands as the Sandy River Gorge ACEC/ONA in recognition of its diversity of endemic and relict populations of plants and the important habitat they provide for numerous animal species (Franklin and Dyrness 1973). Most of the ACEC/ONA is located within the Sandy National Wild and Scenic River Corridor Boundary. The river management plan provides the management guidance for the ACEC/ONA.

### **District Designated Reserve (Land and Water Conservation Fund-acquired lands):**

Since the Sandy River acquisition project began in 2001, the BLM has purchased 2,422 acres. The primary management direction for these acquired lands was the enhancement and restoration of their natural resource values, coupled with complementary uses such as outdoor recreation opportunities for the public.

Since the mid 1990's, an additional 3,548 acres within the Sandy River Basin have been acquired in three different exchanges, and an additional 48 acres of Scenic easement was acquired in a fourth exchange. Acquired lands were recommended for designation as a part of the existing Sandy River ACEC based on the Relevance and Importance of the historical, cultural, and scenic values, and the fish and wildlife resources. Until the next Resource Management Plan is completed, these lands are being managed as a District Designated Reserve.

## **Congressionally Reserved Lands**

### **Mount Hood Corridor:**

The Mt. Hood Corridor was designated under Title IV of the Oregon Forest Resource Conservation (OFRC) Act of 1996, Public Law 104-208. The legislation required that all BLM-administered lands located in Townships 2 and 3 South, Ranges 6 and 7 East, Willamette Meridian that can be seen from U.S. Highway 26 be managed "*primarily for the protection or enhancement of scenic qualities. Management prescriptions for other resource values associated with these lands shall be planned and conducted for purposes other than timber harvest, so as not to impair the scenic qualities of the area.*" The act further specifies; "*Timber cutting may be conducted following a catastrophic event. Such cutting may only be conducted to achieve the following resource management objectives, in compliance with current land use plans to maintain safe conditions for the visiting public; to control spread of forest fire; for activities related to the administration of Mt. Hood Corridor Lands and for removal of hazard trees along trails and roadways.*"

**Sandy Wild and Scenic River and State Scenic Waterway:** The lower portion of the Sandy River from Dodge Park to Dabney State Park was added to the National Wild and Scenic River System under the 1988 Oregon Omnibus National Wild and Scenic River Act. The upper 3.8 miles of the designated segment are managed under a *scenic* classification and the lower 8.7 miles are managed under a *recreational* classification. The outstandingly remarkable values (ORV's) identified for the designated river segment are scenic, fisheries, recreation, geology, wildlife, water quality, botanical and ecological.

**Sandy River Eligible Wild and Scenic River Segments:** During the Salem District RMP process completed in 1995, two additional segments of the Sandy River totaling 26.8 miles were determined 'eligible' for inclusion into the National Wild and Scenic River System (WSR). An eligibility determination is the first step of the Wild and Scenic River study process; it identifies free-flowing river segments that contain one or more ORV's. The segments cover the entire Sandy from the Mt. Hood National Forest boundary downstream to the beginning of the currently designated segment (see above). During the RMP process, this section was divided into two segments due to the impediment of Marmot Dam. Given the current free-flowing nature of the Sandy, these two segments are likely to be merged; the potential classification for both segments is recreational with ORV's of fisheries, wildlife, historical and recreation.

The Salem District RMP requires that BLM lands within eligible WSR corridors (1/4 mile on either side of the river as measured from the high water mark) be managed such that designated ORV's are not impacted, development of leasable and salable minerals is moderately restricted, and the segment's free flowing values and identified outstandingly remarkable values are protected.

**Salmon River Wild and Scenic River Segment:** The Salmon River was designated a Wild and Scenic River in the Omnibus Oregon Wild and Scenic Rivers Act of 1988. All 33.5 miles of the river were designated with the upper 25.5 miles to be managed and administered by the U.S. Forest Service and the lower 8.0 miles to be managed and administered by the Bureau of Land Management.

Management direction for the Salmon WSR can be found in the Salmon River Wild and Scenic Management Plan (1993) completed by the USFS and Salem District BLM.

**Bull Run Watershed Management Unit:** The Little Sandy Protection Act (ORCA) of 2001, Public Law 107-30, designated all BLM administered lands located in the Bull Run Watershed as part of the Bull Run Management Unit. Timber harvest is prohibited on these lands, subject to provisions provided by the Bull Run Act of 1977 as amended by ORCA, related to the protection of water quality and quantity, and the operation of municipal water supply facilities.

**Riparian Reserves:** Riparian reserves are portions of watersheds where riparian-dependent resources receive primary emphasis and where special management guidelines apply. Management direction in the riparian reserves prohibits actions that would prevent attainment of Aquatic Conservation Strategy objectives. The Salem RMP directs that a riparian reserve allocation prevents discretionary timber harvest with exception of catastrophic events, removal of salvage trees and silvicultural stand management.

**Matrix:** Matrix lands include both general forest management area, and connectivity lands:

**General Forest Management Area (GFMA):** Management objectives for GFMA lands include producing a sustainable supply of timber and other forest commodities while emphasizing ecosystem management. The BLM manages 7,134 acres of GFMA in the Sandy River Basin.

**Connectivity (CONN):** Management objectives for CONN lands include producing some timber products, while helping to provide connectivity between late successional Reserves. Intensive management practices are permitted on a 150-year rotation while maintaining 25 to 30 percent of each block in older forest conditions at any one point in time. The BLM manages 319 acres of CONN within the Sandy River Basin.

### 1.4.3 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)]. This includes the authorities listed below (BLM Handbook H-1790-1: p. 137).

The proposed projects would follow Salem District Resource Management Plan (RMP) standard and guidelines for the protection of the following elements:

- Air Quality - The Clean Air Act as amended (42 USC 7401 et seq.)
- Cultural Resources - National Historic Preservation Act, as amended (16 USC 470)
- Floodplains - E.O. 11988, as amended, Floodplain Management, 5/24/77

- Hazardous or Solid Wastes - Resource Conservation and Recovery Act of 1976 (43 USC 6901 et seq.) Comprehensive Environmental Response Compensation, and Liability Act of 1980, as amended (43 USC 9615)
- Native American Religious Concerns - American Indian Religious Freedom Act of 1978 (42 USC 1996): Consultation with Tribes is required for all projects.
- Threatened or Endangered Species - Endangered Species Act of 1983, as amended (16 USC 1531): The proposed projects would follow ESA consultation requirements with US Fish and Wildlife and NOAA Fisheries, and follow the terms and conditions from these regulatory agencies.
- Water Quality -Drinking-Ground - Safe Drinking Water Act, as amended (43 USC 300f et seq.) Clean Water Act of 1977 (33 USC 1251 et seq.)
- Wetlands-Riparian Zones - E.O. 11990 Protection of Wetlands 5/24/77
- Wild and Scenic Rivers - Wild and Scenic Rivers Act, as amended (16 USC 1271)
- Wilderness - Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.); Wilderness Act of 1964 (16 USC 1131 et seq.)

The following authorities were put into place since the completion of the RMP. The projects follow supplemental agency direction concerning the following authorities:

- Environmental Justice - E.O. 12898, "Environmental Justice" February 11, 1994
- Essential Fish Habitat - Magnuson-Stevens Act Provision: Essential Fish Habitat (EFH): Final Rule (50 CFR Part 600; 67 FR 2376, January 17, 2002).
- Healthy Forests Restoration Act - Healthy Forests Restoration Act of 2003 (P.L. 108-148): This act is a driver for some the vegetation management actions proposed in this plan.

The elements affected by the proposed projects are described in Table 8. (EA section 3.14).

## 1.5 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 scoping process and addressed within the EA.

The BLM initially determined eight issues that formulated the scope for this analysis. As a result of the scoping process, the BLM received over 150 comments specific to the identified issues. These issues were derived from public open houses, focus groups, mail outs, and media coverage. Comments were received from recreational groups, landowners along the river corridor, conservation groups, state and other federal agencies, and the general public. Issues were categorized and evaluated, serving as a base line towards the development of management goals and objectives.

Where possible, the chapter and/or section where these issues have been described and addressed specifically are included.

### 1.5.1 Recreation demand (Chapter 2, 3, 4, 5)

BLM needs to look at present and future recreation demands throughout the planning area.

- Increasing population adjacent to and within planning area (sections 3.2, 4.4)
- High dependence on public lands for recreation opportunities (sections, 3.5, 4.4)
- Important role that recreation plays in regional socioeconomic conditions (section 3.3.)

- Possibility of resource degradation resulting from recreational use (Chapter 4)
- Identifiable recreational experiences and associated benefits (Chapter 5, Sections 3.5, 4.4.4)

### **1.5.2 Protection of Fish, Wildlife, Botanical, Visual, Cultural and Watershed Resources** (Chapters 2, 3, 4)

BLM needs to maintain, enhance, and restore fish, wildlife and botanical resources:

- Threats to visual and scenic qualities (Sections 3.6, 4.5)
- Protect watershed from accelerated erosion and increased sediment input (Section 2.3, 4.7, 4.14)

### **1.5.3 Non-native and invasive weed species** (Chapter 2, 3, 4)

BLM needs to deal with the eradication and future management of non-native invasive species:

- Presence of noxious weeds and other exotic plant species on BLM lands (Chapters 2, 3, 4)
- Education of the public on reducing the spread of noxious weeds (Section 4.10)
- Identification of noxious weed locations (Section 3.11.1)

### **1.5.4 Vegetation Management** (Chapter 2, 3, 4)

Conflicts between timber management prescriptions and visual resource values:

- Maintenance of visual quality objectives when planning timber management activities (Sections 3.6, 4.5 )
- Identification of restoration projects through timber program (Chapters 2, 3, 4)
- Appropriate management of matrix lands, in accordance with Salem District RMP.

### **1.5.5 Complexity of multiple jurisdictions within planning area** (Chapter 3, 4)

BLM needs to work with adjacent landowners, county, state and other federal agencies to establish consistent planning guidance:

- Current lack of consistent signage across administrative boundaries (section 4.4.3)
- Need for law enforcement to uniformly enforce regulations across administrative boundaries
- Cohesion of inter-agency river and trail access opportunities (4.4.2)

### **1.5.6 Land Ownership** (Chapter 3, 4)

Need for BLM to identify boundaries between BLM managed lands and other ownerships within the basin:

- Unclear private/public property boundaries (Section 3.5)
- Impacts of unauthorized uses on federal lands (Section 3.5, Section 4.4)
- Dynamic nature of land ownership patterns due to acquisitions and exchanges (Section 3.3, Chapter 4)

### **1.5.7 Rural Urban Interface Issues**

Plan for future growth and enforce existing laws and regulations:

- Trash dumping, vandalism, and private property trespass (Section 3.5, Chapter 4)
- Addressing fire danger (Sections 2.3, 3.13, 4.11, 4.12)

## **Chapter 2: Alternative Development**

The alternatives analyzed in this document were developed with input from the public and the interdisciplinary planning team. Desired conditions, management options and actions which could be used to resolve the issues were identified. Alternatives A through D vary in their approach and emphasis as to the future management of lands within the planning area.

### **2.1 Alternatives**

Four alternatives were developed as a result of the identified issues and needs. These alternatives consist of three action alternatives and the no action alternative. The alternatives represent four general management strategies that could be taken and remain consistent with the management objectives identified through the scoping process and refined during plan development. Each alternative is summarized below and incorporates a different set of objectives and management actions.

Alternative A (No Action, Continuation of Existing Management)

Alternative B

Alternative C

Alternative D (Preferred Alternative; Integration of Alternatives A, B, C)

It is important to note that management actions specific to restoration activities will be analyzed by alternative according to land use allocation. See section 1.4.2 for an explanation of land use allocations within the Sandy River Basin. See Appendix B for a geographic overview of these land use allocations. Restoration activities would be broad based in nature and would include actions that could potentially affect multiple resources.

Resource specific analysis for proposed actions outside of identified restoration activities will continue to focus on the Basin-wide planning area and will not center primarily on land use allocations.

### **Management Goals and Objectives**

The following SRBIMP management goals and objectives were developed from public open houses, river and trail related focus groups, and interdisciplinary team input. Goals and objectives were developed to help focus the management plan and ensure that recommended actions will ultimately result in the intended outcome.

General goals and objectives for the SRBIMP are common to all management alternatives.

### **Management Goals**

Develop a management strategy that is reasonable, cost-effective, implementable and achieves protection of resource values for the Sandy River and that provides balanced protection and enhancement of all values such as recreation, wildlife, vegetation, water quality, scenery, commodity production, the anadromous fishery and the functioning ecology of the Sandy River Basin.

Preserve and protect the regionally significant area for the enjoyment of present and future generations.

Develop collaborative land use management through coordination with public and private planning authorities. Work in partnership with private, local, state and federal entities to ensure provision of public use in a consistent, safe, and efficient manner.

## **Management Objectives**

Enhance multiple use non-motorized recreational activities (i.e. hiking, equestrian use, mountain biking, and boating).

Identify, plan and implement priority aquatic, vegetative, and wildlife restoration projects in the SRBIMP planning area.

Maintain and manage vegetation within planning area including the identification of priority rehabilitation and restoration actions.

Monitor for watershed health and visitors' beneficial experience to determine when increased levels of management are required.

## **2.2 Description of Alternatives**

### **2.2.1 Alternative A: Continuation of Existing Management:**

**Goal:** This "No Action Alternative" would maintain the current management of the area as guided by the Salem District Resource Management Plan (1995), the Sandy Wild and Scenic River and State Scenic Waterway Management Plan Environmental Assessment (1992), and the Sandy Wild and Scenic River and State Scenic Waterway Management Plan (1993). All actions associated with this alternative remain consistent with requirements outlined within the above policy and guidance documents.

**Intent:** Management of resources will continue as it has in the past under a variety of jurisdictions and administrations. Current rules, regulation, management and enforcement efforts would be maintained. No change to BLM administered lands would take place. No new BLM land uses, activities, or management actions would be implemented under this alternative. This would be the NEPA no action alternative from which environmental and socio-economical effects will be analyzed.

**Restoration Opportunities:** Restoration activities would continue as they have since land acquisition. All currently proposed treatments or previous management practices in all land use allocations would continue, including management activities directed under the Salem District RMP for GFMA, CON, Riparian Reserve and LSR land use allocations. A comprehensive restoration plan would not be developed.

**Recreation opportunities:** No change in the level or type of recreational services or facilities. No additional new signing or visitor information would be provided in addition to any existing designated recreation areas or parks. No new monitoring for visitors beneficial experiences would take place.

**Recreation Experience Zones:** The establishment of experience zones and associated benefits would not occur.

**Proposed Trail Development:** No new trail and/or river access areas would be enhanced or developed.

**Proposed Facility Development:** No new facility development would occur.

**Visual Resources and Land Use:** Current State and County regulations and current enforcement levels would continue.

**Cultural Resources:** Cultural resource inventories would be completed prior to implementation of actions or projects that would result in ground disturbance. Cultural resource sites would be evaluated to determine their eligibility for listing on the National Register of Historic Places (NRHP). The significant values of cultural resource sites, determined eligible for the NRHP, will be protected and monitored.

**Hydrology/Water Quality and Quantity/Soils:** No increased water flow and quality monitoring would occur beyond efforts currently taking place. No instream flow studies would be conducted to determine flow needs for recreation, fish or other resources. Best management practices (BMP's) would be adhered to during project planning and implementation of proposed restoration actions.

**Fisheries:** Restoration activities would continue at their current level. The BLM would continue to participate in fisheries restoration projects consistent with the goals and objectives guiding current management, and as outlined in the existing Salem District RMP.

**Wildlife:** Old growth conifer forest, riparian areas, and wetlands would be managed under current Salem District Resource Management Plan, State and local regulations, and the Northwest Forest Plan. No new requirements would be recommended. Federally protected and special status species will be managed under the terms of the Endangered Species Act, Salem District Resource Management Plan, and Bureau of Land Management policy. Consultation would continue with the United States Fish and Wildlife Service concerning Threatened and Endangered species as required by law. This would precede any management action potentially effecting habitat or populations. Occurrence of federally protected special status species will continue to be investigated on federal lands. Surveys and visits would be occasional and incidental to other Bureau of Land Management wildlife monitoring or project development.

**Botany:** No new inventory and monitoring would take place other than those initiated under the BLM ACEC management plan, ongoing studies, or inventories and monitoring that occurs as a result of proposed projects on public lands. All habitat disturbing actions initiated by the BLM would comply with policies and regulations of BLM Special Status Species Manual 6840, BLM manual 9015 - integrated weed management, and the RMP. Ongoing efforts with partners to inventory and treat invasive species and public outreach and education would continue.

**Non-Native Invasive Species:** Invasive species will continue to be actively managed throughout the planning area.

**Vegetation Management:** Wood products would continue to be provided consistent with the Salem District RMP. Future timber sales would be analyzed under project specific environmental assessments. Matrix lands would continue to provide a sustainable supply of timber and other commodity forest products. Connectivity would be provided between LSR and habitat for important ecological functions in riparian and connectivity land use allocations. District Designated Reserve lands will continue to be managed under existing Salem District RMP including: pre-commercial silviculture treatments and surveys. Sapling thinning, brushing and other silvicultural treatments and surveys would continue to occur within the Congressional Reserve land use allocations.

**Fire Management:** Fires would be suppressed aggressively in the wildland urban interface within all land use allocations, and fuel hazard reduction projects would be implemented near residences and along roadways.

**Transportation Management:** Existing and interim OHV designation would not change under this alternative. Road improvement would occur based on proposed activities within the planning area.

**Realty Actions:** Rights-of-Way (ROW), utility line, and communication tower proposals would be reviewed and approved on a case-by-case basis and would be subject to constraints to protect sensitive resource values, and address issues identified in the current Resource Management Plan.

### **2.2.2 Alternative B:**

**Goal:** Maximize the conservation of natural resources while still providing undeveloped recreational opportunities under existing laws and regulations.

**Intent:** Improve ecosystem health in identified areas while preserving the natural character of specified areas. Expand education and interpretation opportunities. Identify conservation and habitat enhancement projects throughout planning area. Provide undeveloped recreational use that does not interfere with conservation objectives.

**Restoration Opportunities:** Restoration treatments would focus on activities such as fuels reduction, weed management, and young sapling thinning for forest health, water quality and wildlife and fish habitat. This alternative would maximize the conservation of natural resources, while improving land health and identify conservation or habitat enhancement projects with as little impact to the land as possible. Restoration activities would be focused within the DDR, and connectivity land use allocations.

**Recreation opportunities:** Undeveloped recreational opportunities would be provided at identified sites. Restrictions, monitoring and management of recreation use would take place. A limited amount of signage and visitor information would be provided in addition to information presented at established recreation access areas.

**Recreation Experience Zones:** Recreation zones, and associated goals and objectives would be established to further refine opportunities and experiences associated with trail and facility development.

Three discrete visitor experience zones would be established within the planning area. Zones established for Alternative B are designed to provide more primitive, less developed recreation opportunities. Each zone would have goals and objectives for resource and open space protection and provide for a distinctive suite of visitor experiences and recreational opportunities that reduce conflict between differing experiential goals. Established zones will also help guide long term management decisions as the SRBIMP actions are implemented.

**Zone 1: Developed Recreation:** Establishment of Developed Recreation Zone 1 represents an area where high levels of visitor interactions would occur (parking areas, visitor information centers etc.). This designation would reflect those areas that require a higher level of development and management than Zones 2 and 3. These areas could include; trailhead facilities, restrooms and picnic and parking areas, with access to both land and water-based trails. Trails designed for high use beginner and interpretive experiences are appropriate in this zone. These areas require a high level of management and regular facility, trail, and signage maintenance to meet the diverse experience goals of picnickers, novice and beginner trail users, hikers, and water-based recreationists.

**Zone 2: Front Country Recreation:** Front Country Recreation areas, under this alternative, would offer recreationists with intermediate skill level single track trail opportunities. Areas designated Zone 2 are designed for moderate to heavy use by a variety of users. Trails in this area are geared primarily for intermediate level hikers and bicyclists.

**Zone 3: Primitive Recreation:** Areas designated Zone 3 would have trails and facilities designed for intermediate to advanced users seeking a more primitive recreational experience. Trails in this zone would be narrower, steeper, and more remote than in Zone 2. Trails in the primitive recreation zone, under this alternative, would have more technical trail features and offer recreationists with a more challenging opportunity. Facilities would be minimal with kiosks and way finding information. To maintain a more primitive feel, Zone 3 areas are not adjacent to private property, but are “nested” within contiguous blocks of BLM managed lands.

**Proposed Trail Development:** Approximately 15 to 18 miles of trail are being proposed for the Front County Zone 2 and Backcountry Zone 3. Trail segments range from 4 to 6 miles in length and would include varying levels of difficulty depending on experience zone location.

Under this alternative, trails would be designed to facilitate primarily beginner and intermediate skill levels.

**Proposed Facility Development:** Facility design would focus on maintaining a natural, largely undeveloped feel. Designs focus on providing day use visitation only with no overnight facilities proposed. Site amenities would be located and designed in a manner to preserve the natural feel of identified sites. Design elements that enhance the natural characteristics of identified sites while supporting visitor experience would be chosen (see Chapter 5 for a full discussion of proposed trail and facility developments).

**Visual Resources and Land Use:** Same as Alternative A. with appropriate mitigation to be developed and incorporated into project design in accordance with assigned VRM objectives. Facilities or structures such as power lines and storage buildings will be screened, buried, and otherwise designed to blend with the surrounding landscape.

**Cultural Resources:** In addition to the actions proposed in Alternative A, a regional oral history of the area would be compiled. Cultural resource inventories would be conducted on newly acquired BLM lands, or on those lands that are required in the future and in need of inventory. Both on-site and off-site interpretive information would be developed that emphasized cultural resource protection.

**Hydrology/Water Quality and Quantity/Soils:** This alternative emphasis would likely result in the continuation of current conditions and trends in the Sandy watershed as described in Chapter 3 of this Environmental Assessment. The development of primitive trailheads and recreation facilities would have no effect on water quality or quantity.

**Fisheries:** This alternative emphasis would likely result in the continuation of current conditions and trends in the Sandy watershed. Restoration activities would continue as described in the recently completed “Sandy River Basin Aquatic Habitat Restoration Strategy”. BLM managed areas along streams with listed fish species and habitat would be focused primarily on maximizing recovery identified species and associated habitat.

**Wildlife:** Special emphasis would be placed on habitat protection and restoration projects such as non-native vegetation treatment, snag creation, and thinning of dense forest stands. Dispersed campsites and recreational use would be evaluated for adverse impacts to wildlife. The need to restrict recreational use to reduce disturbance to wildlife during critical seasons would be considered. Areas found to have unacceptable impacts would be closed and rehabilitated. Work with landowners to limit motorized vehicle access to certain areas to protect winter range and decrease disturbance. Management presence and law enforcement would be increased to reduce activities which adversely impact wildlife.

**Botany and Non-Native Invasive Species:** Increased emphasis and effort would be placed on a systematic inventory of special habitat within the Sandy River Basin. Special habitats would be inventoried in an effort to identify additional Special Status Species populations. Monitoring of existing sites would continue and an emphasis would be placed on finding new monitoring opportunities. Special efforts would be made to work with partners on weed inventories and weed treatments. Additional public outreach to educate the public on Special Status Species and the impact of invasive non-native species would occur at recreation sites and trailheads.

**Vegetation Management:** In general, vegetation management on matrix and congressional reserve lands would be the same as Alternative A. District designated reserve lands would be managed to promote the development of multi-layered stand characteristics, reduce stocking and increase understory species development. Some treatments other than sapling silvicultural treatments would occur in the congressional reserve, including girdling, and weed control and removal.

**Fire Management:** Same as Alternative A with additional vegetative treatments to address developed recreation sites and non-motorized trail systems.

**Transportation Management:** The inventory of existing roads in the planning area would occur and priority rehabilitation projects would be identified as necessary. Project priority would be placed on rehabilitation and closure of routes that are negatively impacting resources within the planning area. Under this alternative a total of 3,660 acres would be closed to off highway vehicle use within the planning area.

The following interim designations for Off-Highway Vehicle use would shift to a closed designation.

- Limited to designated roads (2,079 acres)
- Designated roads/Designated trails (321 acres)
- Closed to Off Highway Vehicles (3,660 acres)

**Realty Actions:** Same as Alternative A with the following exceptions to minimize impacts to Visual Resources. To the extent possible:

- Utility line proposals would be located along the utility corridors or within road rights-of-way.
- Additions or modifications to utility/communication proposals would be approved by the BLM.
- Power line construction should conform to standards identified by the Avian Power Line Interaction Committee (APLIC, 2006) to minimize Bald Eagle and other raptor collisions and electrocutions.
- Utility lines or communication towers proposed in VRM 1 or 2 classifications may require additional project design features to minimize visual impacts.

### 2.2.3 Alternative C:

**Goal:** Emphasizes maximizing multiple-uses and developed recreational opportunities, while protecting natural resources to the maximum extent possible. Under this alternative, recreation opportunities would be encouraged and enhanced. Recreation facilities would be developed, information and education programs improved, river access and trails improved and developed, and viewshed protection would be increased to the fullest extent possible.

**Intent:** Maximize multiple uses regarding forest restoration and management. Expand and improve developed recreation opportunities and infrastructure. Increase river and trail access points.

**Restoration Opportunities:** All potential restoration treatments would be considered under this alternative, across all land use allocations (see section 1.4.2). A higher level of commercial thinning projects, when compared to alternatives A, B, and D on GFMA and CONN lands would occur. Density management thinning treatments on LSR, DDR, Riparian Reserve and Congressional Reserve lands would be implemented to achieve identified restoration needs. Improving scenic qualities, water quality and wildlife habitat across land use allocations would be the primary focus of proposed treatments.

**Recreation Opportunities:** Recreational facility development, public access and interpretation would be emphasized. Coordination with other agencies on providing recreation opportunities to the public would be high. A sign plan to educate the public on needed river information, maps and safety including navigable rivers segments would be created. Additional restrictions, monitoring and management of recreation use would take place.

**Recreation Experience Zones:** Recreation zones and associated goals and objectives would be established to further refine opportunities associated with visitor experiences.

The zones established for Alternative C are designed to provide more developed recreation opportunities. Three discrete visitor experience zones would be established within the planning area land base.

**Zone 1: Developed Recreation:** Areas designated as Zone 1 are lands relatively small in total area, but would require a higher level of development and management. This zone encompasses areas where a substantial amount of facility development and recreation infrastructure would be provided. The central tenant of this zone would be to provide visitors with high quality developed opportunities to access river and upland resources. Conceptual site design plans for this alternative would provide opportunities for overnight use, provide a higher level of carrying capacity, and would be characterized by more developed site amenities (See Chapter 5).

Trail design in this zone would be developed with the beginning trail user in mind. Easy grades, minimal technical trail features, and handicap accessible opportunities would be emphasized. No overnight camping opportunities would be provided in this zone as part of this alternative.

**Zone 2: Front Country Recreation:** The Front country zone, under this alternative, will be similar to the visitor use and recreation opportunities characterizing this zone in Alternative B. Total trail miles under this alternative are greater than those identified in alternatives A, B, and D. Under this alternative, the front country recreation zone will experience higher levels of use as visitors utilize adjacent, developed recreation areas. There would be a higher potential for impacts to adjacent private lands, and higher anticipated maintenance costs on trail resources.

**Zone 3: Primitive Recreation:** This zone has two distinct areas under Alternative C (Homestead Rd. and Wildcat Creek trail systems). This alternative still provides primitive opportunities to the south of the Bull Run Management Unit Boundary as described in alternative B. An additional primitive zone has been added to this alternative and is located to the south of the Salmon Huckleberry Wilderness area, adjacent to Wildcat creek and managed by the United States Forest Service.

Under this alternative, zone 3 designation will continue to provide undeveloped public lands where planned recreation would consist of dispersed low impact activities like trail riding and hiking. There would be higher anticipated maintenance costs on trail resources within this zone, when compared to alternatives A, B, and D.

**Proposed Trail Development:** Approximately 50 miles of trail are proposed for development across the experience zones 1, 2 and 3. The development of a multiple use non-motorized trail system would take place adjacent to the Marmot dam site, and in the uplands near the Sandy and Salmon River confluence, and to the south of the Salmon Huckleberry Wilderness Area would take place (see Chapter 5). Trails would vary in their difficulty level, providing opportunities for beginner, intermediate and advanced users.

**Proposed Facility Development:** Facility design would focus on providing higher carrying capacities in a developed setting. Designs focus on providing opportunities for day use and overnight visitation. Site amenities would be located and designed in a manner to facilitate recreational use. Facilities (established overnight camping areas, improved trail systems), designed to enhance visitor experiences and choice while protecting resource values would be chosen.

**Visual Resources and Land Use:** Same as Alternative B.

**Cultural Resources:** In addition to the actions proposed under Alternative A, a determination of NRHP eligibility will be made for all identified sites as an increase in recreational facilities and trails are planned. Some sites would be selected for the purpose of visitation and interpretation.

**Hydrology/Water Quality and Quantity/Soils:** See Section 2.3

**Fisheries:** Restoration efforts in the basin would continue as described in the Sandy River Basin Aquatic Habitat Restoration Strategy within areas not identified as having recreation opportunities. No recommended changes to current management of fish populations would be pursued. The primary focus in areas that have been identified for public access and recreation development would be to increase public education and limit public access to areas that have been identified with sensitive habitat.

**Wildlife:** Same as actions proposed in Alternative B except as human uses increase, the need for additional monitoring of recreation use and impacts to wildlife species and habitat, management presence and law enforcement would increase.

**Botany and Non-native invasive species:** As funding and opportunities allow, additional inventory and monitoring would take place in areas most heavily impacted by public use. Monitoring initiated under the BLM Area of Critical Environmental Concern management plan, ongoing studies, and inventories resulting from proposed projects on BLM lands would continue. Ongoing efforts with partners to inventory and treat invasive species and additional public outreach to educate the public the impact of invasive nonnative species would occur at recreation sites and trailheads.

In addition to the actions proposed under Alternative A., agreements would be established with willing landowners to inventory and monitor sites on private lands. Increased volunteer assistance would be recruited to implement on the ground project work.

**Vegetation management:** In general, vegetation management on Matrix and Congressional Reserve land use allocations would be the same as Alternative A. District Designated Reserve lands would be managed to promote the development of multi-layered stand characteristics, reduce stocking and increase understory species development. Some treatments other than sapling silvicultural treatments would occur in the Congressional Reserve including girdling, weed control and removal.

**Fire Management:** Additional fuel hazard reduction treatments would occur across the landscape in conjunction with higher recreation development and vegetation management areas. The need for a shaded fuel break along the southern edge of the Little Sandy Watershed would be evaluated.

**Transportation Management:** Compared to Alternative B, roads management would be less restrictive when prioritizing road closing and rehabilitation projects.

The following interim designations would shift from limited to designated roads and designated roads/designated trails to limited to existing roads and designated trails for OHV use:

- Limited to designated roads (2,079 acres)

- Designated roads/Designated trails (321 acres)
- Under this alternative a total of 1,260 acres would be closed to OHV use.

**Realty Actions:** Same as Alternative B.

#### **2.2.4 Alternative D: Preferred Alternative**

**Goal:** Preserve and protect the ecological integrity of the region through the enhancement and restoration of natural resource values while providing complementary recreation opportunities. Manage for selected activities and experiences while not degrading the natural resources on which they depend. Alternative D is a combination of management actions from options presented in alternatives A through C.

**Intent:** The preferred alternative would allow for the enhancement of ecosystem health and the development of additional multiple use recreational opportunities, enhancing the level of experience and enjoyment of the areas' characteristics, while recognizing that increased future use would trigger the need for increased levels of management. Monitoring for visitors' experiences and land health would determine when management actions would be required.

**Restoration Opportunities:** Potential restoration treatments would be considered with the intent of improving scenic qualities, water quality and wildlife habitat in all LUA's. Restoration treatments would focus on activities such as fuels reduction, non-native invasive species removal, and young sapling and density management thinning.

**Recreation Opportunities:** Developed recreation would be balanced with dispersed recreation. Experience zones would facilitate a balance between recreation opportunities provided. Recreation development, public access improvements and interpretation would still occur, but at a lower level than identified in alternative C. Recreation opportunities would be provided based on the identification of specific experience and benefit outcomes.

**Recreation Experience Zones:** Recreation zones for Alternative D are designed to provide a balance between developed and primitive recreation opportunities through the establishment of three distinct zones. This alternative is the same as actions proposed under Alternative B with two areas highlighted for potential future development based on recreational demand within the project area.

**Proposed Trail Development:** Approximately 30 miles of non-motorized trails could be developed across experience zones 1, 2, and 3 with opportunities for expansion based on user demand. Proposed trail development would occur at the Marmot dam site, and in the Uplands near the Salmon and Sandy confluence site.

**Proposed Facility Development:** Facility development would reflect an integration of the design features found within alternatives B and C. Under this alternative only day use opportunities are proposed.

**Visual Resources and Land Use:** Same as Alternative B.

**Cultural Resources:** Same as actions proposed under Alternative C with the following changes: Increase in need for cultural inventories consistent with proposed recreation facility and trail development plans. Manage identified cultural sites for scientific and conservation purposes as well as interpretation.

**Hydrology/Water Quality and Quantity/Soils:** See table 2.3.

**Fisheries:** Restoration actions identified in the Sandy River Basin Aquatic Habitat Restoration Strategy would continue. Recreation management and public access would be balanced with efforts made to improve fish habitat along the Sandy River in identified areas.

**Wildlife:** Same as alternative B with the following additions: Increased monitoring would occur as recreation facilities, trails, and visitor use increases.

**Botany, Non-native invasive species:** Same as actions proposed under Alternative C, with increased opportunities for restoration efforts and volunteer participation in conjunction with an increase in trail and facility development.

**Vegetation management:** In general, vegetation management on Matrix lands would be the same as Alternative A. District Designated Reserve (DDR) lands will continue to be managed under existing Salem District RMP including; pre-commercial silviculture treatments and surveys. On DDR lands, potential commercial and restoration thinning opportunities would be pursued. No regeneration harvests would be proposed on DDR lands. Restoration activities would be considered in overstocked, young conifer dominated stands for benefits to fisheries, water quality, and wildlife resources.

Sapling thinning, brushing and other silvicultural treatments and surveys would continue to occur within the Congressional Reserve land use allocation. On Congressional Reserve lands, potential habitat restoration and fuels reduction opportunities would be pursued.

**Fire Management:** In general, fire management actions would be the same as Alternative B, with a decrease in Fuel hazard reduction treatments consistent with the level of proposed recreation development.

**Transportation Management:** Under this alternative, road management would be the same as Alternative B. OHV management would be the same as Alternative A.

**Realty Actions:** Same as Alternative B.

## 2.3 Comparison of Management Alternatives

**Table 2: Comparison of Alternatives**

Sandy River Basin Integrated Management Plan Alternatives					
	Resource or Resource Use	Alternative A - Continuation of Existing Management (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
	<b>General Goal</b>	<b>Goal:</b> Continue with present management direction and manage under existing laws and authorities.	<b>Goal:</b> Maximize the conservation of natural resources while still providing undeveloped recreational opportunities.	<b>Goal:</b> Maximize multiple uses and developed recreational opportunities, while protecting natural resources.	<b>Goal:</b> Preserve and enhance ecological integrity and provide complementary recreation opportunities. Combination of Alternatives B and C.
	<b>Intent</b>	<b>Intent:</b> Management of resources will continue as it has in the past under a variety of jurisdictions. Current rules, regulations, management and enforcement efforts would be maintained. No change to BLM administered lands would take place. No new BLM land uses, activities, or management actions would be implemented under this alternative. The No Action alternative serves as the baseline against which other alternatives will be compared.	<b>Intent:</b> Improve ecosystem health through restoration opportunities. Preserve character of specified areas. Expand education in interpretation opportunities. Identify conservation and habitat enhancement projects throughout planning area.	<b>Intent:</b> Improve ecosystem health through restoration opportunities. Expand and improve developed recreation opportunities and infrastructure. Identify appropriate river and trail access opportunities. Identify and prioritize areas for commodity resource production.	<b>Intent:</b> Improve ecosystem health as well as development of multiple-use recreation opportunities. Enhance visitor experience and enjoyment of the area's characteristics. In response to monitoring, provide appropriate management actions to preserve ecological health as well as visitor experience.

**Sandy River Basin Integrated Management Plan Alternatives**

	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives across all Land Use Allocations</b>	<b>Land Acquisition/Conservation Easements</b>	Pursue land acquisitions and easements within planning area when funding is available and there are willing land owners. Continue to work with non-profit partners and look for opportunities to work with other federal and state agencies.	Same as Alternative A.	Same as Alternative A, plus pursue public access of recreation activities on acquisition and easements.	Same as Alternative A.
	<b>Rights-Of-Way (ROW)</b>	ROW proposals would be reviewed and approved on a case by case basis and would be subject to additional mitigation measures to reduce visual impacts.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
	<b>Recreation: Experience and Opportunity Summary</b>	No change in the level or type of recreational services, facilities or management would occur. No expansion of existing facilities and no new trails would be constructed. Current management for recreation use and levels of agency patrols would continue.	Limited, undeveloped recreational opportunities would be created within the planning area. Increased management efforts to reduce impacts to vegetation, fish, and wildlife. The development of recreational opportunities would be consistent with the goals and objectives for recreation experience zones 2 and 3.	Extensive, developed recreational opportunities would be created within the planning area. Recreation opportunities would be enhanced through the improvement of existing access, and the development of new facilities and trails. The development of recreational opportunities would be consistent with the goals and objectives for recreation experience zones 1, 2, and 3.	A balance of development and dispersed recreation, employing experience zones to realize specific outcomes would be provided. Recreation opportunities would be enhanced through improvement of public access including a moderate level of new facilities and trails development. Three recreation experience zones would facilitate a developed/dispersed balance. As with Alt. B, two sites would be highlighted for developed recreation.

**Sandy River Basin Integrated Management Plan Alternatives**

	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives across all Land Use Allocations</b>	<b>Recreation: Public Access and Facility Development</b>	No expansion of existing facilities would occur. Current management for recreation use and levels of agency patrols would continue.	Public access would be improved, but with a focus on limiting recreational use to protect cultural resources and reduce effects on wildlife during critical seasons. Conceptual Site Plan B would be selected and implemented for Developed Recreation experience zones. No designated overnight camping would be provided.	Recreational development, public access to river and upland planning zones would be emphasized. Conceptual Site Plan C would be selected and implemented for Developed Recreation experience zones. Designated overnight camping opportunities would be provided at the Marmot Dam site. Water trail plan would be developed for the Sandy River, with a focus on identifying river access points that facilitate use.	Improved public access to river and upland areas would be complemented by management efforts to reduce or avoid resource impacts. Conceptual Site Plan D would be selected and implemented for both the Marmot and Sandy/Salmon sites, reflecting an integration of design features in Alternative B and C. No designated overnight camping would be provided. Water trail plan would be developed to improve public access with a focus on limiting adverse effects to other resources.
	<b>Recreation: Trail Development</b>	No trails would be established in planning area. Activities on existing trails would be limited to general maintenance.	8 to 10 miles of non-motorized multiple use trails would be developed as outlined in Trail Development Plan B.	45 to 50 miles of non-motorized multiple use trails would be developed as identified in proposed Trail Development Plan C. Establish Adopt-a-Trail agreements with local user groups to assist with trail construction and maintenance.	25 to 35 miles of non-motorized multiple use trails would be developed as outlined in Trail Development Plan D, with opportunities to expand based on user demand. As with Alternative C, establish Adopt-a-Trail agreements.

Sandy River Basin Integrated Management Plan Alternatives					
	Resource or Resource Use	Alternative A - Continuation of Existing Management (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
Alternatives across all Land Use Allocations	Recreation: <i>Experience Zones</i>	No Experience zones would be established in planning area	Three experience zones would be established in the planning area: Developed Zone 1, Front country Zone 2, and Primitive Zone 3.	Three experience zones would be established in the planning area: Developed Zone 1, Front country Zone 2, and Primitive Zone 3.	Three recreation experience zones would be developed similar to Alternative C (Developed, Front Country, and Primitive). The scope of these experience zones would be more limited than those found in Alternative C, and more comprehensive than those found in Alternative B.
	Recreation: <i>Management and Monitoring</i>	No increase in recreation management (patrols, signing, information, or presence) would occur in cooperation with county, state, or other federal agencies. No additional recreation monitoring would take place. River patrols would continue at the current level. No designated overnight camping opportunities would be provided on BLM administered lands. Special recreation permits would adhere to BLM policy	Increased monitoring of effects of recreation use on wildlife, fish and vegetation populations and species. Evaluate need to implement area closures or restrictions on recreation use to protect habitat. Standards and guidelines for issuing Special Recreation Permits would be developed with a focus on protecting resource values.	A comprehensive recreation monitoring program and visitor use survey would be developed. Coordinate and implement a comprehensive public outreach program including: (National Public Lands Day, National Trails Day, Fall and Spring River Cleanup) events. Increased levels of river-based patrols would occur during high use periods. Standards and guidelines for issuing Special Recreation Permits would be developed with a focus on accommodating recreational use.	A comprehensive management and visitor information strategy to address resource protection, visitor experience, and user conflict would be developed. As with Alternative C, a comprehensive public outreach program would be implemented. Increased levels of management and agency patrols would be implemented for river and upland areas based on use. Standards and guidelines for issuing Special Recreation Permits would be developed to facilitate a balance, subject to monitoring, between resource values and recreational use.

Sandy River Basin Integrated Management Plan Alternatives					
	Resource or Resource Use	Alternative A - Continuation of Existing Management (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
Alternatives across all Land Use Allocations	Recreation: <i>Interpretive Facilities, Services and Public Information</i>	No new informational materials or signing would be created. No new environmental education opportunities would occur beyond that which is currently in place at Wildwood and Larch Mountain.	Develop a comprehensive interagency interpretation/public information and education plan for the Sandy River Basin to coordinate efforts of key agencies and organizations (signing, interpretation, interpretive trails, brochures, etc.) Limited signage would be used to direct recreationists to public access and recreation sites, and inform visitors about private lands, resource protection and fishing.	A comprehensive interagency interpretation/public information and education plan for the Sandy River Basin to coordinate efforts of key agencies and organizations (signing, interpretation, interpretive trails, brochures, etc.) would be developed. Provide and post information signs marking public lands in high use areas, and designated private land boundaries near areas used by recreationists. Develop and publish interagency Basin-wide recreation brochures with park, access and use ethic information.	A comprehensive interagency interpretation/public information and education plan would be completed to coordinate efforts of key agencies and organizations (signing, interpretation, interpretive trails, brochures etc). Less developed interpretation program within the developed recreation zones than under Alternative C. Visitor information materials and efforts would be the same as those identified in Alternative B. Work with other agencies within the Basin to coordinate public information and direct visitor access where possible.
	Soils	Minimize loss of site productivity and prevent entry of sediment and bacteria into waterways. Apply best management practices (BMPs) to all surface disturbing activities. Maintenance of existing recreation trails and facilities will avoid unmitigated erosion and delivery of sediment or bacteria to channels.	Same as Alternative A except: design and implement placement of proposed trails and facilities to avoid unmitigated erosion and delivery of sediment and bacteria to channels.	Same as Alternative B except increased BMP implementation monitoring necessary as level of trail and human use increases.	Same as alternative C except increased BMP monitoring following the current RMP.

**Sandy River Basin Integrated Management Plan Alternatives**

	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<p><b>Alternatives across all Land Use Allocations</b></p>	<p><b>Botany/ Non-Native Invasive Plants</b></p>	<p>No new inventory and monitoring would take place other than those initiated under the BLM ACEC management plan, ongoing studies, or inventories and monitoring that occurs as a result of a proposed project on public lands. Invasive species are being managed actively in this watershed through contracts, volunteers and partnerships. Work with the Sandy Basin Invasive Species Control group to coordinate and prioritize efforts. Continue active management of non-native invasives through contracts, volunteers and partnerships. Work with the Sandy Basin Invasive Species Control group to coordinate and prioritize efforts</p>	<p>Increased emphasis on special habitat inventory. Monitoring of existing sites would continue with an emphasis placed on finding new monitoring opportunities.</p>	<p>Additional inventory and monitoring would take place in areas most heavily impacted by public use. Inventory areas identified under ACEC management plans, ongoing studies, and where proposed projects would occur. Habitat disturbing actions initiated by the BLM would comply with policies and regulations of BLM Special Status Species, integrated weed management, and the Salem District RMP. Work with colleges and universities to conduct habitat and population monitoring studies. Work with partners and willing landowners to inventory and treat non-native invasive species. Develop a comprehensive public outreach plan to educate recreationists on the impact of invasive non-native species.</p>	<p>Same as Alternative C, with increased opportunities for restoration efforts and volunteer participation. Establish re-vegetation plans consistent with proposed recreation facility design plans. Continue to work with Sandy River Basin Invasive Species Control Group.</p>

**Sandy River Basin Integrated Management Plan Alternatives**

	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives across all Land Use Allocations</b>	<b>Wildlife</b>	Old-growth conifer forest, riparian areas, and wetlands would be managed under current Salem District RMP, State and local regulations. No new requirements would be recommended. Continue to cooperate with USFWS concerning T&E species as required by law. This would precede any management action potentially effecting habitat or populations. Occurrence of federally protected special status species will continue to be investigated on federal lands. Surveys and visits would be occasional and incidental to other BLM wildlife monitoring.	Same as Alternative A except special emphasis would be placed on habitat protection and restoration projects such as non-native vegetation treatment, snag creation, and thinning of dense forest stands. The need to restrict recreational use to reduce disturbance to wildlife during critical seasons would be considered. Work with landowners to limit motorized vehicle access to certain areas to decrease disturbance. Federally protected and special status species will be managed under the terms of the Endangered Species Act, Salem District RMP, and BLM policy.	Same as Alternative B except as human uses increase, the need for additional monitoring of recreation use and impacts to wildlife species and habitat, management presence and law enforcement would increase.	Same as Alternative B with increased levels of monitoring as visitor use of recreation facilities and trails increases.
	<b>Fire</b>	Suppress fire aggressively in the wildland urban interface. Fuel hazard reduction implementation near residences and along roadways.	Same as Alternative A with additional treatments to address developed recreation sites and non-motorized trail systems.	Fuel hazard reduction treatments would occur across the landscape in conjunction with higher recreation development. Increased treatments in conjunction with increased vegetation management areas. Evaluate the need for a shaded fuel break along the south edge of the Little Sandy Watershed, providing a fuel break for fire movement in or out of the Bull Run Management Unit.	Same as Alternative C, with fuel hazard reduction treatments occurring at a lower level consistent with proposed recreation development

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives across all Land Use Allocations</b>	<b>Cultural Resources</b>	Complete cultural resource inventories only as required for proposed action or projects that will result in ground disturbance. Evaluate cultural resource sites that may be affected by project activities to determine their eligibility for listing on the National Register of Historic Places (NRHP). Monitor cultural resource sites that are eligible for the NRHP or are unevaluated.	Same as Alternative A with: Conduct cultural inventories over newly acquired BLM lands. Compile a regional oral history of the area. Manage identified NRHP sites for scientific and conservation purposes only. Develop interpretation information that emphasizes cultural resource protection. Evaluate and determine NRHP eligibility of sites.	Sites would be selected to manage for public visitation and interpretation. Determine NRHP eligibility for all identified sites. Develop cultural resource interpretive efforts in conjunction with a Basin-wide interpretation plan.	Same as Alternative C, except a cultural inventory consistent with proposed trail and facility development would be conducted. Manage identified cultural sites for scientific and conservation purposes as well as interpretation.
	<b>Visual Resource Management</b>	Maintain or improve scenic values throughout the planning area, while allowing for modification and changes to occur to meet other resource objectives.	Same as Alternative A. with: Appropriate mitigation would be developed and incorporated into project design in accordance with assigned VRM objectives. Facility design plans would minimize impacts to VRM goals and objectives on identified sites	Same as Alternative A.	Same as Alternative B.
	<b>Road and Travel Management</b>	Road improvement would occur based on proposed activities in planning area.	Existing roads in planning area would be inventoried and rehabilitation projects would be prioritized as necessary.	Same as Alternative A.	Same as Alternative B.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives Specific to Matrix LUA</b>	<b>Vegetation Management-pre-commercial treatments</b>	Pre-commercial silvicultural treatments would continue. These can include but are not limited to: pre-commercial thinning, brushing, girdling, weed control and removal.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
	<b>Vegetation Management-Commercial and density management treatments</b>	Manage vegetation according to the direction given in the Salem District RMP in order to improve forest health, maintain a supply of timber on General Forest Management Lands, and maintain or improve scenic qualities and habitat function. Commercial thinning and regeneration harvest treatments may occur where appropriate. Density management treatments for habitat improvement may occur.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives Specific to Matrix LUA</b>	<b>Water Quality - Fish habitat - Water temperature</b>	Provide stand conditions in the Riparian Areas which promote proper functioning condition for water quality and aquatic habitat. Adhere to Total Maximum Daily Load Shade Targets for maintenance or improvement of water temperature through application of Riparian Reserves along perennial stream channels (Following the BLM / USFS water temperature sufficiency strategy).	Same as Alternative A except young sapling silvicultural treatments would occur in the secondary shade zone for the purpose of long term wood recruitment and site potential shade conditions. (see CR and DDR restoration)	Same as Alternative A except silvicultural treatments including density management would be conducted in the secondary shade zone with a the primary goal of riparian and aquatic health with a secondary commercial benefit.	Same as Alt C, as per RMP, with consideration for treatment priority given to those streams with fish that do not meet TMDL shade targets.
	<b>Water Quality - WQRP</b>	A Water Quality Restoration Plan that identifies and prioritizes stream reaches that would benefit from active riparian and channel restoration would be completed for all BLM land use allocations in the Basin. Identification of potential restoration opportunities would be included.	A Water Quality Management Plan would be completed that identifies potential restoration opportunities and prioritizes restoration on DDR lands that have the potential for thermal loading and sediment sources.	Same as Alternative A, except prioritization would occur across all LUA's. A higher level of implementation monitoring anticipated as an increase in completed projects occurs.	A Water Quality Restoration Plan would be completed. Identification and prioritization of potential restoration opportunities would consider existing efforts such as Aquatic Habitat Restoration Strategy.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives Specific to Matrix LUA</b>	<b>Water Quality - Fish Habitat</b>	Provide long-term large wood for proper functioning condition of riparian and aquatic habitat. Apply best management practices (BMPs) to all surface disturbing activities to reduce potential for sedimentation and degradation of fish habitat. (As per current RMP). Avoid surface disturbance in landslide areas.	Same as Alt A except consider management to encourage large wood loading in wood source areas. Apply bio-engineering methods to stabilize landslide areas and reduce surface erosion where roads impinge on stream banks.	Same as Alternative B except plan for silvicultural treatments including density management where dense stands occur in "wood source areas" to promote long term large wood recruitment for downstream channels.	Same as Alternative C with priority treatments provided in implementation plan in order to provide long-term large wood for proper functioning condition of riparian and aquatic habitat.
	<b>Hydro - Water Quality - Bacteria</b>	Water Quality Restoration Plan would address BMPs controlling bacteria sources.	Same as Alternative A.	Same as Alternative A.	As part of Water Quality Restoration Plan, address both bacteria and temperature for the BLM lands in the Basin, with identification of potential sources and BMPs controlling bacteria sources.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives specific to the Congressional Reserve LUA's</b>	<b>Vegetation Restoration and Habitat improvement treatments</b>	Improve stand health, scenic qualities, and terrestrial and riparian habitat through vegetation management. Young sapling silvicultural treatments would continue. These could include, but are not limited to: sapling thinning (pre-commercial thinning), and brushing.	Same as Alternative A except treatments could also include girdling, weed control, and brush removal while retaining scenic qualities.	Same as Alternative A. Restoration and Density Management thinning projects could be considered in overstocked young and mid-seral forested stands for purposes other than timber production. These treatments would likely include the removal of trees or brush from the project area.	Same as Alternative A. Restoration activities would be considered in overstocked, conifer dominated stands for purposes other than timber production. These activities can include, but are not limited to: Stewardship or service contracts which may or may not include the removal of trees or brush from the project area. Girdling, weed removal, and fuels reduction projects would be considered where visual resources will not be impaired.
	<b>Water Quality - Fish Habitat - Water Temperature</b>	Provide stand conditions in the Riparian Area which promote proper functioning for water quality and aquatic habitat. Adhere to Total Maximum Daily Load Shade Targets for maintenance or improvement of water temperature through application of Riparian Reserves along perennial stream channels (Following the BLM / USFS water temperature sufficiency strategy).	Same as Alternative A. Young sapling silvicultural management of conifer in the secondary shade zone of perennial stream riparian areas would be considered where TMDL targets are not being attained and channels are lacking large wood. Design of treatments would not detract from visual resource quality.	Same as Alternative B in addition Restoration thinning projects could be considered in overstocked young and mid-seral forested stands occupying the secondary shade zone of perennial streams and in wood source areas where the associated channels are lacking large wood for fish habitat and channel processes.	Same as Alternative C, as per RMP, with consideration for treatment priority given to those streams with existing or potential fish presence that do not meet TMDL shade targets.

Sandy River Basin Integrated Management Plan Alternatives					
	Resource or Resource Use	Alternative A - Continuation of Existing Management (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
Alternatives specific to the Congressional Reserve LUA's	Channel and Floodplain Function - Fish Habitat	In-channel restoration could occur.	In-channel habitat and function restoration practices such as large wood placement would be planned where priority and benefit exist to ESA listed species only.	In-channel habitat and function restoration practices such as large wood placement would be considered on perennial streams which lack large wood and are functioning at risk.	Identification of potential restoration opportunities and prioritization would consider existing efforts such as Aquatic Habitat Restoration Strategy (SRP,2007) and the need for visual resource protection in order to provide in-channel conditions that provide proper channel and floodplain function and promote aquatic habitat.
	Water Quality - Fish Habitat/Soils	Road decommissioning, undesignated trail decommissioning and planting could occur when visual resources are not impaired.	Road decommissioning, undesignated trail decommissioning and planting would be considered on those roads which are in or impinge on the riparian management area and visual resources would not be impaired.	Road decommissioning, undesignated trail decommissioning and storm proofing would be considered for all roads and trails that are not in a RROWA and are no longer needed for access.	Road decommissioning and undesignated trail decommissioning would be prioritized based on risk of road failure, impacts to water quality, impacts to ESA habitat and visual enhancement.
	Water Quality - Fish Habitat	Culvert replacement would occur as needed to maintain the present road system using BMPs for re-vegetation and erosion control. Culvert sized for 100 year event and fish passage.	Culvert replacement would occur as needed to maintain the present road system using BMPs for re-vegetation and erosion control. Culvert sized for 100 year event, fish passage and bankfull width.	Same as Alternative B,	Same as Alternative A, except culvert width sized for bank full flows plus would be considered, where retention of streamside corridor is priority.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives Specific to the District Designated Reserve LUA</b>	<b>Vegetation - Young sapling silvicultural treatments and habitat improvement</b>	Pre-commercial silvicultural treatments would continue in order to improve forest stand health as well as terrestrial and riparian habitat and function. These can include but are not limited to: pre-commercial thinning, brushing, girdling, and weed control and removal.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
	<b>Vegetation - Commercial Thinning, Density Management treatments and habitat improvement</b>	No commercial thinning or density management projects for habitat improvement would take place.	Density Management treatments including the thinning of mid-seral forested stands would occur.	Potential commercial and restoration thinning opportunities would be considered. Density management and commercial thinning treatments would include thinning mid-seral and mature stands.	Same as Alternative C.
	<b>Water Quality - Fish Habitat - Young sapling silvicultural treatments and habitat improvement</b>	Adhere to Total Maximum Daily Load Shade Targets in applying vegetation management along perennial stream channels (Following the BLM / USFS water temperature sufficiency strategy). Apply intermittent stream protection BMPs as per the RMP.	Same as Alternative A. Treatments in the secondary shade zone of perennial stream riparian areas will be priority where TMDL targets are not being attained and channels are lacking large wood.	Same as Alternative B in addition thinning projects would be considered in potential wood source areas where the associated channels are lacking large wood for fish habitat and channel processes.	Same as Alternative C, per Salem RMP, with consideration for treatment priority given to those streams with existing or potential fish presence that do not meet TMDL shade targets. Active management in the secondary shade zone and wood source areas in order to promote proper functioning condition and to improve water quality and aquatic habitat.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives Specific to the District Designated Reserve LUA</b>	<b>Water Quality - Fish Habitat - Commercial Thinning and habitat improvement</b>	No commercial thinning or density management projects for water quality or habitat improvement would take place.	Commercial thinning treatments in the secondary shade zone of perennial stream riparian areas would occur where effective shade can be retained and long term large wood can be enhanced.	Same as Alternative B except commercial thinning would also be considered in wood source areas for long term large wood recruitment.	Same as Alternative C, consideration for priority would be in secondary shade zones along fish-bearing streams which are lacking target levels of large wood or in wood source areas which are tributary to channel and floodplain systems lacking large wood.
	<b>Channel, Floodplain and Riparian Function - Fish Habitat</b>	In-channel restoration would be considered where habitat needs, channel function and water quality needs can be addressed. When Marmot Dam site comes under BLM management assess needs for further restoration.	In-channel habitat and function restoration practices such as large wood placement would be planned where priority and benefit exist to ESA listed species only.	In-channel habitat and function restoration practices such as large wood placement would be considered on perennial streams which lack large wood and are functioning at risk.	Identification of potential restoration opportunities and prioritization will consider existing efforts such as Aquatic Habitat Restoration Strategy (SRP, 2007) and the need for water quality restoration.
	<b>Water Quality - Fish Habitat/Soils</b>	Road decommissioning, undesignated trail decommissioning and planting is considered on DDR lands where water quality does not meet state water quality standards (TMDL targets), fisheries habitat is degraded and roads are not expected to be needed for future management.	Same as Alternative A except decommissioning would target roads which impinge on the riparian management area.	Same as Alternative A except road decommissioning and undesignated trail decommissioning would be considered for all roads and trails on DDR lands unless needed for recreation access.	A long-term restoration plan for road decommissioning on acquired lands would be developed. Prioritization should include risk of failure (water quality impacts), impact to fish habitat (including ESA species) and recreational needs.

<b>Sandy River Basin Integrated Management Plan Alternatives</b>					
	<b>Resource or Resource Use</b>	<b>Alternative A - Continuation of Existing Management (No Action)</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D (Preferred)</b>
<b>Alternatives Specific to the District Designated Reserve LUA</b>	<b>Water Quality - Fish Habitat</b>	Culvert replacement occurs as needed to avoid loss of acquired road system using BMPs for re-vegetation and erosion control. Culvert sized for 100 year event and fish passage where appropriate.	Same as Alt A, except culvert replacement would be prioritized to avoid impending failure.	Same as Alt A, culvert replacement would occur as needed to maintain the present road system for management access. Temporary culvert and removal would be considered in the absence of long-term plan (storm proofing).	A long term restoration plan for culverts on acquired lands would be developed. Prioritize replacement and removal considering long-term access needs for recreation and vegetation management along with channel and floodplain function and long term maintenance costs.
	<b>Hydro - Quantity - Water Rights</b>	As BLM acquires land with water rights, certify that the existing right is valid.	As acquired lands provide certified valid water rights, convert water rights to in-stream rights for the benefit of water quality and fisheries on BLM lands.	As acquired lands provide certified valid water rights, consider conversion of water rights for BLM recreation sites first. Where not needed, consider conversion to in-stream rights on BLM.	As acquired lands provide certified valid water rights, work with Oregon Water Resource Department in considering the need for in-stream water rights in the Basin compared to BLM's need for facility development and in-stream rights on BLM lands.