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## Chapter 2 – Alternatives

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### Introduction

This chapter describes the alternatives and the Proposed RMP. The range of alternatives considered in this Proposed RMP/Final EIS builds on the alternatives considered in the Draft RMP/EIS. The BLM is carrying forward the No Action alternative and action alternatives and sub-alternatives as presented in the Draft RMP/EIS. The BLM has developed the Proposed RMP as a variation on Alternative B from the Draft RMP/EIS.

The Council on Environmental Quality regulations direct that an EIS shall “...rigorously explore and objectively evaluate all reasonable alternatives...” 40 CFR 1502.14. Guidance from the Council on Environmental Quality further explains, “When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS” (“Forty Most Asked Questions...” 46 FR 18027). The purpose and need for action dictates the range of alternatives that must be analyzed, because action alternatives are not reasonable if they do not respond to the purpose and need for the action (USDI BLM 2008, pp. 35–36, 49–50).

For an RMP, there are potentially endless variations in design features or combinations of different plan components. The BLM designed the range of alternatives in the Draft RMP/EIS to span the full spectrum of alternatives that would respond to the purpose and need for the action. The BLM developed those alternatives to represent a range of overall management approaches, rather than exemplify gradations in design features. The BLM has developed the Proposed RMP from the alternatives considered in the Draft RMP/EIS, and the Proposed RMP represents a management approach that is within the spectrum of the alternatives analyzed in detail in the Draft RMP/EIS.

This chapter describes the Proposed RMP, the No Action alternative, and the action alternatives that are analyzed in detail. This chapter also discusses alternatives that the BLM considered but did not analyze in detail. Finally, this chapter presents a comparison of the alternatives and the Proposed RMP, including a summary of the environmental effects of the alternatives and the Proposed RMP.

### Summary of Notable Changes from the Draft RMP/EIS

Chapter 2 of this Proposed RMP/Final EIS has added a description of the Proposed RMP. The Proposed RMP/Final EIS has corrected an error in the section-scale illustrations in **Map 2-3** and **Map 2-4** in the Draft RMP/EIS, which displayed incorrect widths for the Riparian Reserve on perennial streams and fish-bearing streams under Alternative B and Sub-alternative B. The Proposed RMP/Final EIS also has corrected an error in the description of the management approach for Visual Resources Management under all action alternatives, and an error in the description of the management approach for Recreation Management Areas under all action alternatives. Finally, the Proposed RMP/Final EIS has expanded the discussion of alternatives considered but not analyzed in detail.

### No Action Alternative

The BLM is carrying forward the No Action alternative as presented in the Draft RMP/EIS.

The Council on Environmental Quality NEPA regulations require that an EIS analyze a No Action alternative (40 CFR 1502.14(d)). The Council on Environmental Quality guidance explains that, for plans

such as this RMP revision, No Action means there is no change from current management direction or level of management intensity (CEQ 1981). The No Action alternative, as presented in the Draft RMP/EIS, is implementation of the 1995 RMPs as written (in contrast to the BLM's current implementation practices under the 1995 RMPs).<sup>10</sup> A section later in this chapter, titled Alternatives Considered but not Analyzed in Detail, includes further discussion of an alternative that would seek to continue the current practices. That section also includes discussion of an alternative that would seek to implement the 1995 RMPs at the sustained-yield timber harvest levels declared in the 1995 RMPs.

The land use allocations and management actions/direction in the 1995 RMPs for the Coos Bay, Eugene, Medford, Roseburg, and Salem Districts and the Klamath Falls Field Office of the Lakeview District, as amended and modified by court order, describe the No Action alternative (**Figure 2-1, Table 2-1, and Map 2-1**) and are incorporated here by reference. The No Action alternative, as analyzed in this Proposed RMP/Final EIS, includes Survey and Manage measures, consistent with—

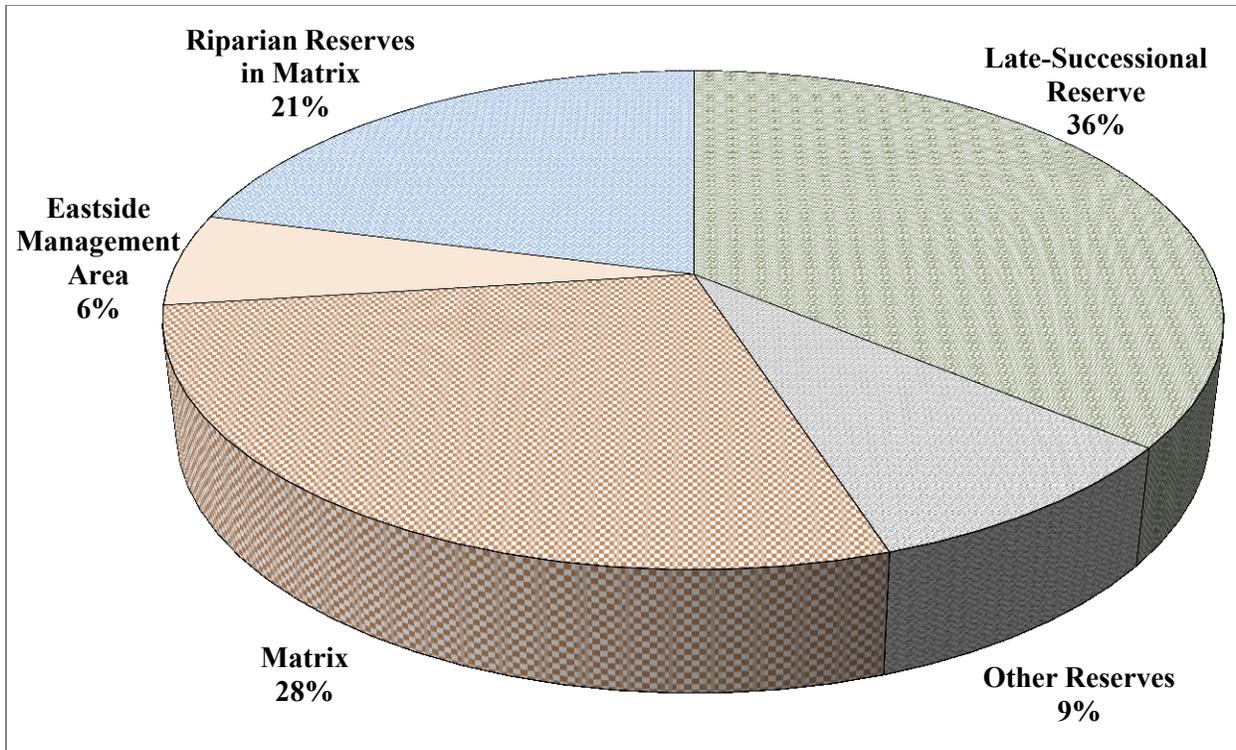
- The January 2001, Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl;
- The 2001, 2002, and 2003 Annual Species Review modifications to the Survey and Manage species list, except for the changes made for the red tree vole; and
- The Pechman exemptions.<sup>11</sup>

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<sup>10</sup> Implementation of the 1995 RMPs as written includes the incorporation of all amendments and plan maintenance of the 1995 RMPs. The BLM has documented all amendments and plan maintenance of the 1995 RMPs in the district annual program summaries and monitoring reports from 1996 through 2015.

<sup>11</sup> The District Court for the Western District of Washington issued a remedy order on February 18, 2014, in the case of *Conservation Northwest et al. v. Boonie et al.*, No. 08-1067-JCC (W.D. Wash.)/No. 11-35729 (9<sup>th</sup> Cir.) that vacated the 2007 Records of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines. Vacatur of the 2007 RODs has the effect of returning the BLM to the status quo in existence prior to the 2007 RODs, which was defined by three previous legal rulings, as follows:

- Judge Pechman reinstated the 2001 ROD, including any amendments or modifications to the 2001 ROD that were in effect as of March 21, 2004 (CV-04-00844-MJP, January 9, 2006), and this ruling incorporated the 2001, 2002, and 2003 Annual Species Reviews;
- The Ninth Circuit Court of Appeals in *Klamath-Siskiyou Wildlands Center v. Boody*, 468 F3d 549 (2006) vacated the 2001 Annual Species Review category change and 2003 Annual Species Review removal for the red tree vole in the mesic zone; and
- Judge Pechman ordered four categories of projects exempt from compliance with the Survey and Manage standards and guidelines (CV-04-00844-MJP, October 11, 2006, 'Pechman exemptions'): thinnings in forest stands younger than 80 years of age, culvert replacement/removal, riparian and stream improvement projects, and hazardous fuels treatments applying prescribed fire for noncommercial projects.



**Figure 2-1.** No Action alternative land use allocations

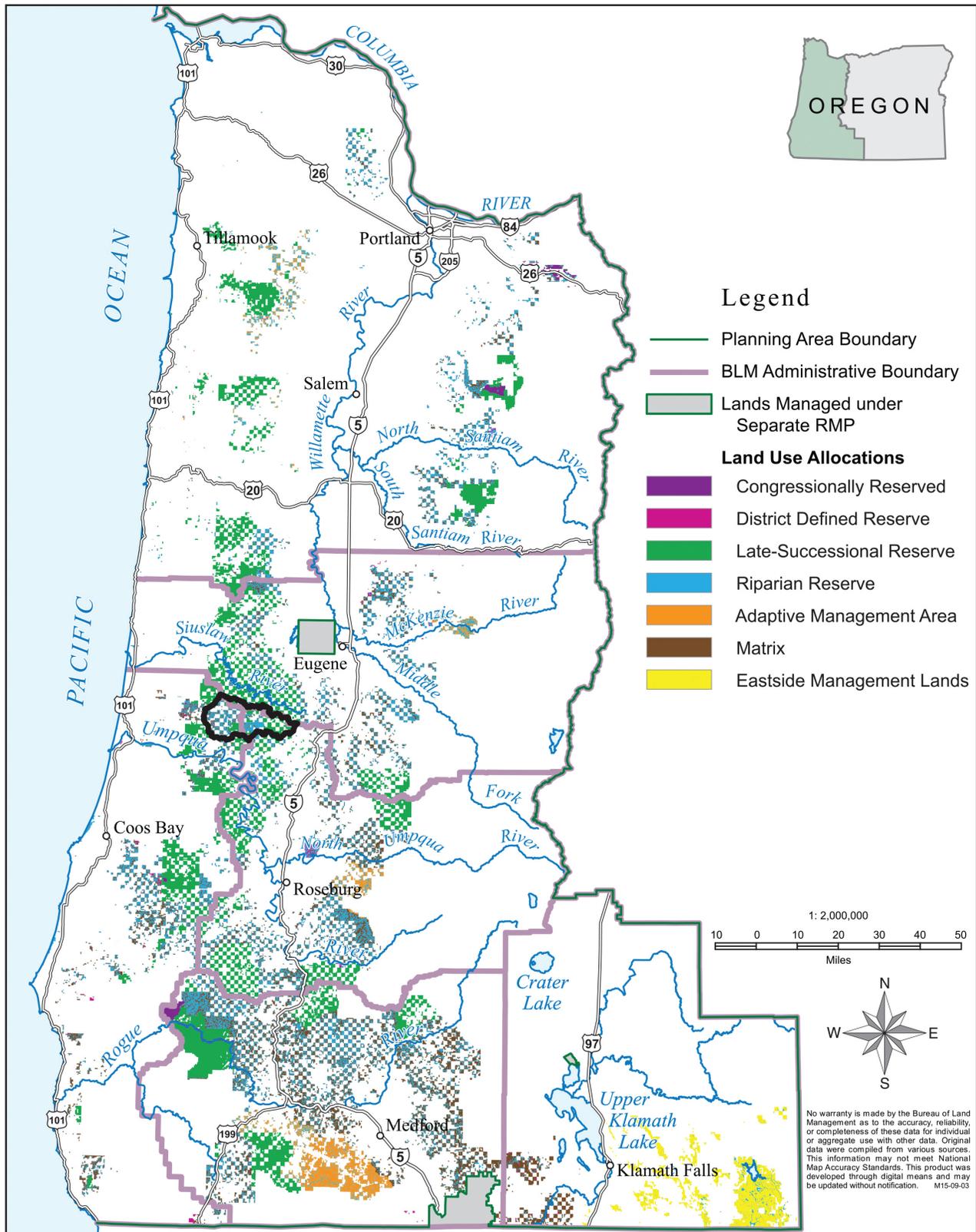
**Table 2-1.** No Action alternative land use allocations

Land Use Allocation	Acres	Total Acres (Percent)
Late-Successional Reserve*	879,031	36%
Riparian Reserve in Matrix	527,550	21%
Other Reserves <sup>†</sup>	233,410	9%
Matrix <sup>‡</sup>	691,998	28%
Eastside Management Area	146,867	6%

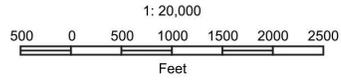
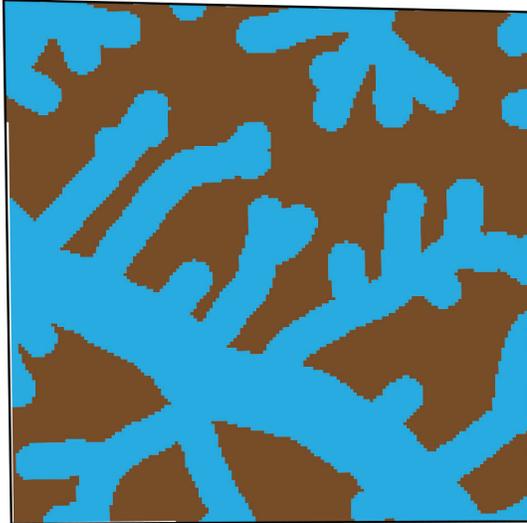
\* Late-Successional Reserve includes Adaptive Management Areas within the Late-Successional Reserve and predictions of the acreage of newly discovered marbled murrelet sites.

<sup>†</sup> Other Reserves in the No Action alternative include Congressionally Reserved lands, District-Designated Reserves, and lands reserved within the Matrix.

<sup>‡</sup> Matrix includes the General Forest Management Area, Connectivity/Diversity Blocks, and Adaptive Management Areas.



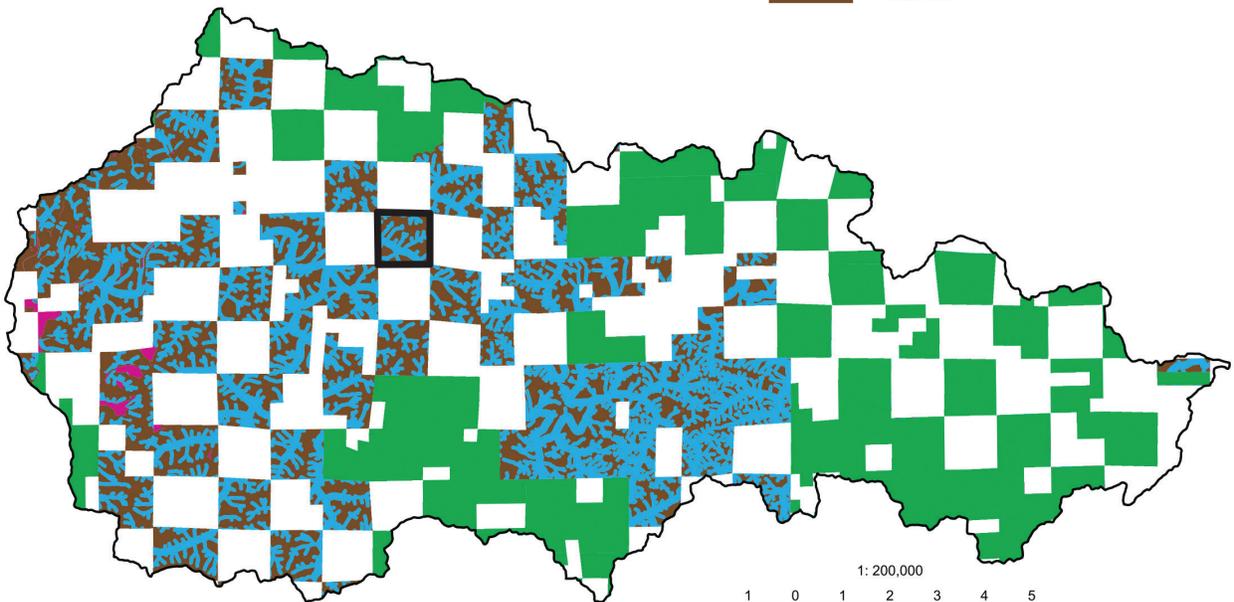
**Map 2-1: The No Action Alternative Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  District Defined Reserve
-  Late-Successional Reserve
-  Riparian Reserve
-  Matrix



Upper Smith River Watershed

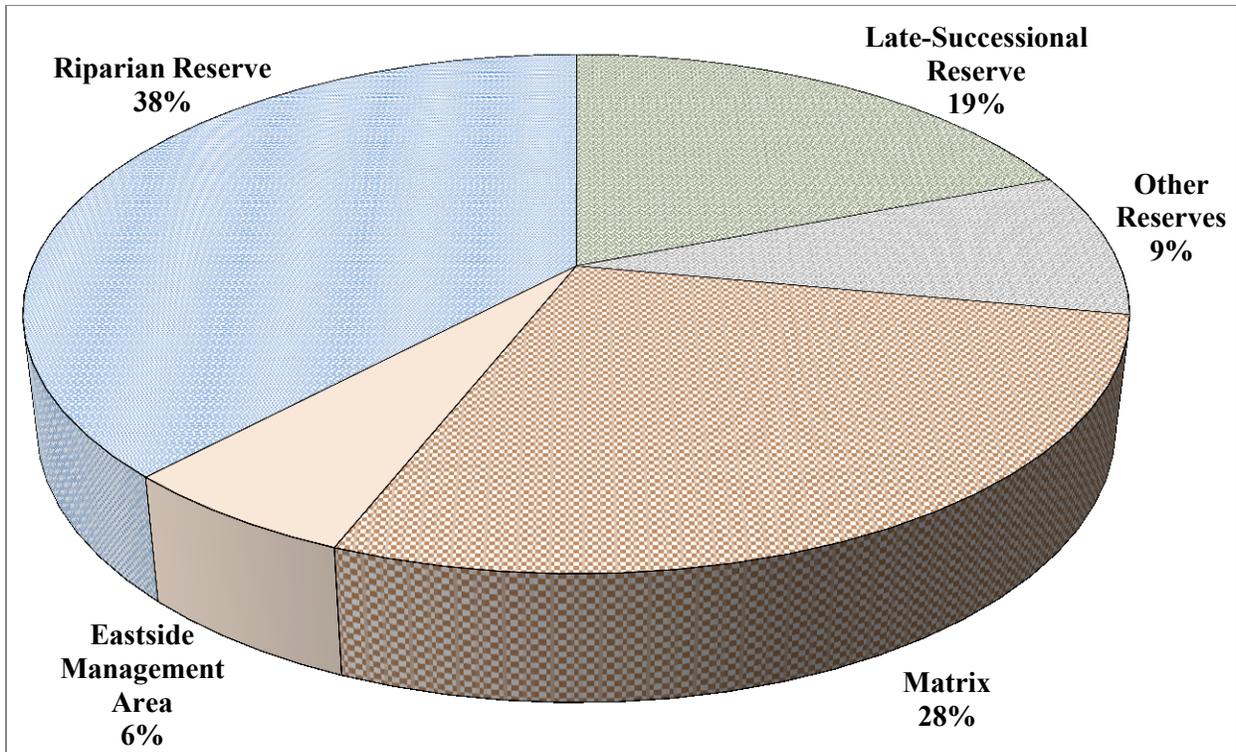
For comparing the acreage by land use allocation for the No Action alternative to the action alternatives and the Proposed RMP, the Matrix land use allocation in the No Action alternative is comparable to the Harvest Land Base land use allocation in the action alternatives and the Proposed RMP.

The Eastside Management Area in the No Action alternative comprises those BLM-administered lands in the Klamath Falls Field Office outside the range of the northern spotted owl. In the action alternatives and the Proposed RMP, the Eastside Management Area comprises those BLM-administered lands in the Klamath Falls Field Office east of Highway 97. Because of these different boundaries, the acreage for the Eastside Management Area is slightly higher in the No Action alternative than in the action alternatives and the Proposed RMP.

The No Action alternative defined interim Riparian Reserve widths that could be modified after watershed analysis. For this analysis, the BLM assumed that the Riparian Reserve under the No Action alternative would remain at the interim widths.

The Riparian Reserve acreage for the No Action alternative in **Figure 2-1** and **Table 2-1**, presents only the Riparian Reserve within the Matrix, which is how the 1995 RMPs presented the hierarchy of land use allocations. The Late-Successional Reserve acreage for the No Action alternative does not account for the Riparian Reserve within the Late-Successional Reserve. In the No Action alternative, the Riparian Reserve would overlay the Late-Successional Reserve, and implementation in those overlapping areas would apply the management objectives and management direction for both land use allocations (USDA FS and USDI BLM 1994, pp. A-5 – A-6). As a result, the 1995 RMPs only accounted for the Riparian Reserve acreage in the Late-Successional Reserve as Late-Successional Reserve; the only Riparian Reserve acreage calculated were those in the Matrix. Thus, the acreage of Riparian Reserve and Late-Successional Reserve presented in the 1995 RMPs cannot be directly compared to the acreages presented in this analysis for the action alternatives and the Proposed RMP.

To facilitate more direct comparison of these acreages by land use allocation for the No Action alternative to the action alternatives and the Proposed RMP, **Figure 2-2** and **Table 2-2**, present a modified hierarchy of land use allocations in the No Action alternative to display the Riparian Reserve acreage regardless of the underlying land use allocation (**Figure 2-1** and **Table 2-1**). The results are a reduction in acreage identified as Late-Successional Reserve and a corresponding increase in acreage identified as Riparian Reserve that allows for direct comparative analysis in this Proposed RMP/Final EIS.



**Figure 2-2.** No Action alternative land use allocations with modified hierarchy

**Table 2-2.** No Action alternative land use allocations with modified hierarchy

Land Use Allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	478,860	19%
Riparian Reserve	927,721	38%
Other Reserves*	233,410	9%
Matrix	691,998	28%
Eastside Management Area	146,867	6%

\* Other Reserves in the No Action alternative include Congressionally Reserved lands, District-Designated Reserves, and lands reserved within the Matrix.

## **The Action Alternatives and the Proposed RMP**

The BLM is carrying forward the action alternatives and sub-alternatives as presented in the Draft RMP/EIS. The Proposed RMP and four action alternatives with two sub-alternatives comprise a range of management strategies that the BLM designed in the Draft RMP/EIS to meet the purpose and need discussed in Chapter 1. In addition, the BLM developed the action alternatives and the Proposed RMP to be consistent with the guidance for the formulation of alternatives discussed in Chapter 1. The action alternatives and the Proposed RMP examine potential management strategies through land use allocations, management objectives, and management direction. Some land use allocations, management objectives, and management direction are common to all action alternatives and the Proposed RMP, and some vary by action alternative, as described below. The BLM has developed the Proposed RMP as a variation on Alternative B from the Draft RMP/EIS.

The BLM developed the action alternatives in response to input received during external and internal scoping, and developed the Proposed RMP in consultation with cooperating agencies and Tribes and based on further input from public comments and analysis results from the Draft RMP/EIS. The action alternatives and the Proposed RMP described below include land use allocations designed to respond to the purpose and need for action, including areas managed for sustained-yield timber production that would provide the annual productive capacity of timber and areas reserved from sustained-yield timber production for purposes such as the protection of clean water and the conservation and recovery of ESA-listed species. Within the context of the purpose and need for action, the BLM developed the action alternatives and the Proposed RMP to mitigate adverse effects on natural resources. Several of the purposes of the action directly address avoiding or reducing adverse effects on natural resources, such as providing clean water in watersheds and restoring fire-adapted ecosystems. As such, the action alternatives and the Proposed RMP primarily address mitigating adverse effects through their design, specifically the land use allocations and the management direction. Additionally, the BLM developed two sub-alternatives, as described below, to consider how specific design changes might further mitigate adverse effects to specific resources.

### Sub-alternatives

Sub-alternatives are variations of an action alternative that modify an individual component of the alternative to explore how these changes would alter certain outcomes. These examinations provide the responsible official with information that is useful for both fully understanding the alternatives and for informing the development of the Proposed RMP.

The BLM focuses and limits the analysis of the sub-alternatives to the specific analytical question that is associated with a sub-alternative; that is, how modifying a single component would alter the effects on the resources associated with that component. This is in contrast to the broader analysis that is associated with the No Action alternative, the four action alternatives, and the Proposed RMP, which explore the effects of the alternatives and the Proposed RMP on all resources. The sub-alternatives are variations on the action alternatives and, as such, could be carried forward as the Proposed RMP; their individual components could also be incorporated into the Proposed RMP.

The BLM developed two sub-alternatives in the Draft RMP/EIS, which vary individual components to test specific questions about alternative design based on input received during external and internal scoping. For both sub-alternatives, the BLM focused analysis on how the changes in the sub-alternative would alter effects on timber production and northern spotted owls. The BLM focused the analysis of these sub-alternatives on these two resources, because the modification of the alternative component would vary the approach to an element of northern spotted owl conservation, and the change in the sub-

alternatives would directly and explicitly alter the approach to timber production. The specific features of these sub-alternatives are described under the pertinent action alternatives.

## Features Common to the Action Alternatives and the Proposed RMP

This section contains a summary of those features that are common to all action alternatives and the Proposed RMP. The subsequent section contains a description of the features that differ among the action alternatives and the Proposed RMP.

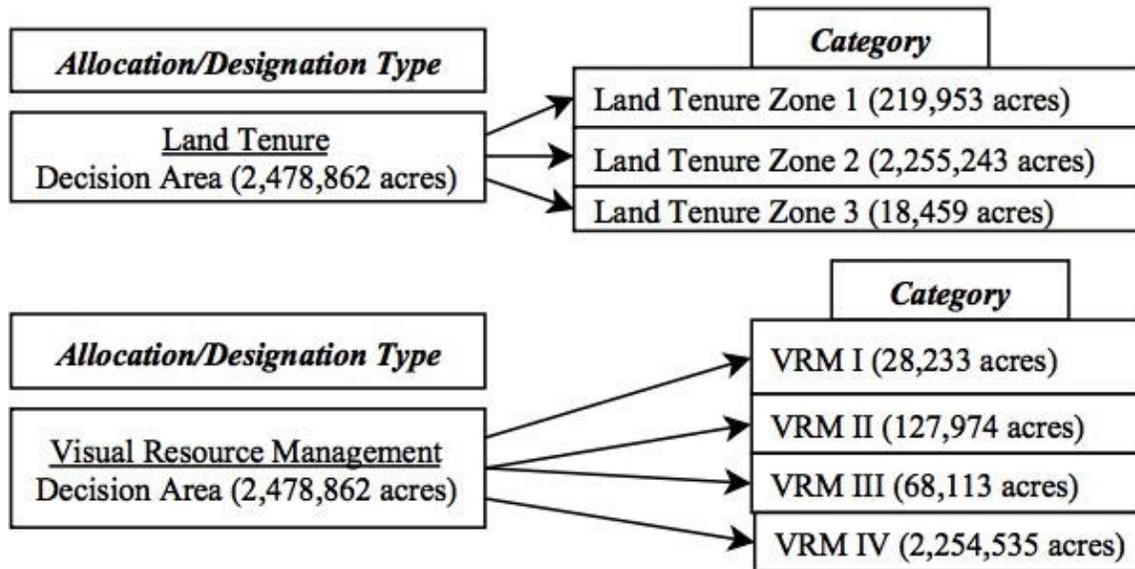
All action alternatives and the Proposed RMP include several types of land use allocations or administrative designations that the BLM will use to manage different resources or groups of resources. These types of allocations or designations include but are not limited to—

- Vegetation and habitat management (Congressionally Reserved and National Landscape Conservation System, District-Designated Reserves, Late-Successional Reserve, Riparian Reserve, Harvest Land Base, and Eastside Management Area);
- Land tenure (Zones 1, 2, or 3);
- Visual Resource Management (VRM) (Class I, II, III, or IV); and
- Public motorized access (*open, limited, or closed*).

Within each type of allocation or designation, including the examples above, all action alternatives and the Proposed RMP would assign each acre within the decision area to one, and only one category.<sup>12</sup> For example, in the land tenure designation type, every acre in the decision area would be assigned to a single Land Tenure Zone 1, 2, or 3 category. Similarly, for visual resource management, every acre within the decision area would be assigned to a single VRM Class I, II, III, or IV category. See **Figure 2-3** for a graphic example.

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<sup>12</sup> An exception are Areas of Critical Environmental Concern (ACECs) that would overlap the Harvest Land Base where the special management needed to maintain the relevant and important values of the ACEC would be compatible with sustained-yield timber production. In these areas, the BLM would apply the management direction for both ACECs and the Harvest Land Base.



**Figure 2-3.** Example of how decision area acres are assigned by land use allocation/administrative designation type

These different types of allocations or designations overlap. For example, the BLM might allocate an individual acre to the Riparian Reserve, Land Tenure Zone 2, Visual Resource Management Class IV, and *closed* to public motorized vehicle use.

The action alternatives and the Proposed RMP include the following land use allocations categories for vegetation and habitat management: Congressionally Reserved Lands and National Landscape Conservation System, District-Designated Reserves, Late-Successional Reserve, Riparian Reserve, Harvest Land Base, and Eastside Management Area. The location and acreage of these categories of allocations, with the exception of Congressionally Reserved Lands, vary by the alternatives and the Proposed RMP.

Within each action alternative and the Proposed RMP, the land use allocation categories of District-Designated Reserves, Eastside Management Area, Harvest Land Base, Late-Successional Reserve, and Riparian Reserve have been further divided into sub-allocations with differing management direction. The Harvest Land Base has multiple sub-allocations with differing management direction for forest management summarized in **Table 2-3. Appendix B** of this Proposed RMP/Final EIS contains detailed descriptions of the management direction for the sub-allocations of the Harvest Land Base for the Proposed RMP. **Appendix B – Management Objectives and Direction** in the Draft RMP/EIS contains detailed descriptions of the management direction for the sub-allocations of the Harvest Land Base for Alternatives A–D and Sub-alternatives B and C, which are hereby incorporated by reference (USDI BLM 2014, pp. 905–986).

**Table 2-3.** Forest management practices by Harvest Land Base sub-allocation

<b>Harvest Land Base Sub-allocation</b>	<b>Alternatives that Include Sub-allocation</b>	<b>Forest Management Practices</b>
High Intensity Timber Area	Alt. A Alt. C	Thinning and regeneration harvest with no retention
Moderate Intensity Timber Area	Alt. B Alt. D Proposed RMP	Thinning and regeneration harvest with retention of 5–15 percent of the pre-harvest basal area of the stand
Low Intensity Timber Area	Alt. B Proposed RMP	Thinning and regeneration harvest with retention of 15–30 percent of the pre-harvest basal area of the stand
Uneven-aged Timber Area	All action alternatives Proposed RMP	Prescribed fire, thinning, single tree selection harvest, and group selection harvest
Owl Habitat Timber Area	Alt. D	Thinning and uneven-aged timber harvest applied in a manner that would maintain and promote the development of northern spotted owl habitat

In the context of these land use allocations, the term ‘reserve’ indicates that the BLM or Congress have reserved lands within the allocation from sustained-yield timber production. These reserve land use allocations—Congressionally Reserved Lands and National Landscape Conservation System Lands, District-Designated Reserves, Late-Successional Reserve, and Riparian Reserve—are in contrast to the Harvest Land Base, which includes management objectives for sustained-yield timber production. This does not mean that the BLM is necessarily prohibiting active management in these reserve allocations. On the contrary, the action alternatives and the Proposed RMP include management direction to conduct the management actions necessary to achieve the management objectives for these reserve allocations.

### **Congressionally Reserved Lands and National Landscape Conservation System**

Congressionally Reserved Lands are those lands that Congress has designated and defined management through law, such as designated Wilderness and designated Wild and Scenic Rivers. The mandated management of these lands requires that the BLM reserve these lands from sustained-yield timber production. The location and acreage of Congressionally Reserved Lands does not vary among the alternatives and the Proposed RMP, including the No Action alternative.

In addition to Congressionally Reserved Lands, the BLM has also identified Wilderness Study Areas in the decision area, pursuant to Section 603 of the FLPMA. Until Congress makes a final determination on a Wilderness Study Area, the BLM manages these areas to preserve their suitability for designation as Wilderness.

### **District-Designated Reserves**

District-Designated Reserves<sup>13</sup> include lands that are reserved from sustained-yield timber production for a variety of reasons, including—

<sup>13</sup> These areas have been termed Administratively Withdrawn in previous planning efforts. This Proposed RMP/Final EIS does not use the term withdrawn in this context to avoid confusion with the withdrawal of areas from operation of public land laws, location, and entry under mining laws, or application and offers under mineral leasing laws.

- Areas that the BLM has constructed for specific purposes (e.g., roads, buildings, maintenance yards, seed orchards, and other facilities and infrastructure);
- Areas that the BLM has identified through the Timber Production Capability Classification<sup>14</sup> system as unsuitable for sustained-yield timber production (e.g., rock outcrops);
- Areas of Critical Environmental Concern, including Research Natural Areas, that would not overlap the Harvest Land Base; and
- Other reserves (e.g., Special Recreation Management Areas that would not overlap the Harvest Land Base, areas protected for Bureau Sensitive species, and District-Designated Reserve – Lands Managed for their Wilderness Characteristics).

Under the action alternatives and the Proposed RMP, the BLM would manage roads, maintenance yards, buildings, and other facilities for the purpose for which they were constructed.

The BLM identifies lands as unsuitable for sustained-yield timber production through the Timber Production Capability Classification system and may manage these areas for other uses, if those uses are compatible with the reason for which the BLM has reserved these lands (as identified by the Timber Production Capability Classification codes). The BLM will periodically add additional areas to those areas reserved through updates to the Timber Production Capability Classification system, when examinations indicate that an area meets the criteria for reservation. The BLM may also delete areas from those areas reserved and return the area to sustained-yield timber production through updates to the Timber Production Capability Classification system, when examinations indicate that an area does not meet the criteria for reservation. The BLM will implement these additions and deletions to the Timber Production Capability Classification through plan maintenance, because such changes will represent minor changes based on further refining the decision in the RMP (**Appendix X**).

Areas of Critical Environmental Concern are lands where special management attention is needed to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish, and wildlife resources or other natural systems or processes or to protect life and provide safety from natural hazards, pursuant to Section 202(c)(3) of the FLPMA. For areas that have relevant and important values and need special management to maintain those values, the BLM will designate and manage Areas of Critical Environmental Concern on public domain lands and acquired lands. The BLM will also designate and manage Areas of Critical Environmental Concern on O&C lands where the special management needed to maintain relevant and important values would not conflict with the planning for sustained-yield timber production for the purposes of the O&C Act. For example, designating and managing Areas of Critical Environmental Concern on O&C lands would not conflict with sustained-yield timber production in the following circumstances: on non-forested lands; on O&C lands that would otherwise be allocated to a land use allocation that would preclude sustained-yield timber production; or on lands for which the Timber Productivity Capability Classification category is ‘not included in the harvest land base.’ In addition, designating and managing Areas of Critical Environmental Concern on O&C lands would not conflict with sustained-yield timber production if the special management needed to maintain relevant and important values were compatible with sustained-yield timber production, even if that special management might condition how sustained-yield timber production would be conducted. In these areas, the BLM would designate Areas of Critical Environmental Concern within the Harvest Land Base and apply the management direction for both Areas of Critical Environmental Concern and the Harvest Land Base. For Areas of Critical Environmental Concern not within the O&C Harvest Land Base, such as those

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<sup>14</sup> The Timber Production Capability Classification is an analytical classification system by which the BLM inventories and identifies sites as capable of supporting sustained-yield timber production without degrading the site’s productive capacity. This classification considers factors such as soil depth, available moisture, slope, drainage, and stability. Sites that are not capable of supporting sustained-yield timber production are not included in the Harvest Land Base.

that would be within the Late-Successional Reserve or are on acquired lands within the Harvest Land Base, the BLM would allocate these as District-Designated Reserves where identified that special management is needed to maintain the relevant and important values.

The BLM would designate Special Recreation Management Areas as District-Designated Reserves on public domain lands and acquired lands; on non-forested O&C lands; on O&C lands that would otherwise be allocated to a land use allocation that would preclude sustained-yield timber production; or on O&C lands for which the Timber Productivity Capability Classification category is not included in the Harvest Land Base. The BLM would designate Special Recreation Management Areas on the Harvest Land Base on O&C lands to the extent that the management for recreation and visitor services would be compatible with planning for sustained-yield timber production for the purposes of the O&C Act, even if that management might condition how sustained-yield timber production would be conducted, consistent with the discussion in Chapter 1 under ‘The O&C Act and the FLPMA.’ In these areas, the BLM would manage recreation as the predominant use of the lands, applying the management direction and achieving the management objectives for both Special Recreation Management Areas and the Harvest Land Base.

District-Designated Reserve – Lands Managed for Their Wilderness Characteristics are areas outside of designated Wilderness or Wilderness Study Areas that the BLM has decided to manage for their wilderness characteristics. The BLM would reserve lands with wilderness characteristics (outside of Wilderness or Wilderness Study Areas) on O&C lands consistent with the discussion in Chapter 1 under ‘The O&C Act and the FLPMA.’

## Land Use Allocation Objectives that are Common to the Action Alternatives and the Proposed RMP in the Proposed RMP/Final EIS

### **Eastside Management Area**

All action alternatives and the Proposed RMP include an Eastside Management Area land use allocation, which applies to BLM-administered lands in the Klamath Falls Field Office east of Highway 97. On forested lands, this allocation includes management objectives to—

- Manage forested lands on a sustainable basis for multiple uses including wildlife habitat, recreational needs, riparian habitat, cultural resources, community stability, and commodity production, including commercial timber and other forest products.
- Promote development of fire-resilient forests.
- Offer for sale the probable sale quantity of 350 thousand board feet (Mbf) of timber per year.

On non-forested lands, this allocation includes management objectives to—

- Manage non-forested lands with the intent of maintaining or improving wildlife habitat and rangeland conditions based on ecological site parameters. Where conditions are currently late seral or potential natural community, maintain these conditions. Where conditions are early or mid seral, improve conditions towards late seral or potential natural community.
- Manage non-forested lands for multiple uses in addition to those listed above including recreational needs, community stability, and commodity production. Commodities include firewood, logs, biomass, chips, and other products and byproducts from juniper woodlands and rangelands.
- Promote development of fire-resilient woodlands and rangelands.
- Provide for the conservation of Bureau Special Status Species.

The Eastside Management Area – Riparian Reserve includes management objectives to—

- Provide for conservation of Bureau Special Status fish and other Bureau Special Status riparian-associated species.
  - Provide for the riparian and aquatic conditions that supply stream channels with shade, sediment filtering, leaf litter and large wood sources, and stream bank stability.
  - Maintain and restore water quality and hydrologic functions.
  - Maintain and restore access to stream channels for all life stages of aquatic species.
- Maintain and restore the proper functioning condition and ecological site potential of riparian and wetland areas.

### **Harvest Land Base**

The Harvest Land Base in the action alternatives and the Proposed RMP has management objectives to—

- Manage forests to achieve continual timber production that can be sustained through a balance of growth and harvest;
- Offer for sale the declared Allowable Sale Quantity of timber;
- Recover economic value from timber following disturbances, such as fires, windstorms, disease, or insect infestations;
- In harvested or disturbed areas, ensure the establishment and survival of desirable trees appropriate to the site and enhance their growth; and
- Enhance the economic value of timber in forest stands.

### **Late-Successional Reserve**

The Late-Successional Reserve in the action alternatives and the Proposed RMP has management objectives to—

- Maintain nesting-roosting habitat for the northern spotted owl and nesting habitat for the marbled murrelet.
- Promote the development of nesting-roosting habitat for the northern spotted owl in stands that do not currently support northern spotted owl nesting and roosting.
- Promote the development of nesting habitat for the marbled murrelet in stands that do not currently meet nesting habitat criteria.
- Promote the development and maintenance of foraging habitat for the northern spotted owl, including creating and maintaining habitat to increase diversity and abundance of prey for the northern spotted owl.

### **Riparian Reserve**

The Riparian Reserve (west of Highway 97) in the action alternatives and the Proposed RMP has management objectives to—

- Contribute to the conservation and recovery of ESA-listed fish species and their habitats and provide for conservation of Bureau Special Status fish and other special status riparian-associated species;
- Maintain and restore riparian areas, stream channels and wetlands by providing forest shade, sediment filtering, wood recruitment, stability of stream banks and channels, water storage and release, vegetation diversity, nutrient cycling, and cool and moist microclimates;
- Maintain water quality and stream flows within the range of natural variability, to protect aquatic biodiversity, and provide quality water for contact recreation and drinking water sources;
- Meet ODEQ water quality criteria;
- Maintain high-quality water and contribute to the restoration of degraded water quality downstream of BLM-administered lands; and
- Maintain high-quality waters within ODEQ designated Source Water Protection watersheds.

## Resource-specific Objectives that are Common to all action alternatives and the Proposed RMP in the Proposed RMP/Final EIS

For many programs or resources, the management objectives and management direction differ from the No Action alternative, but do not vary among the action alternatives and the Proposed RMP. For some of these resources or programs, the management objectives and management direction do not vary among the action alternatives and the Proposed RMP, but the management of the resource is tied to allocations that do vary among action alternatives and the Proposed RMP. For example, the management objectives and management direction for designated Areas of Critical Environmental Concern do not vary among the action alternatives and the Proposed RMP. However, which specific areas the BLM would designate as Areas of Critical Environmental Concern would vary with the land use allocations of the action alternatives and the Proposed RMP. The following section summarizes the resource-specific management objectives that are common to the action alternatives and the Proposed RMP. **Appendix B** of this Proposed RMP/Final EIS contains detailed descriptions of the resource-specific management objectives for the Proposed RMP. **Appendix B – Management Objectives and Direction in the Draft RMP/EIS** contains detailed descriptions of the resource-specific management objectives for Alternatives A–D and Sub-alternatives B and C, which are hereby incorporated by reference.

**Air Quality:** The BLM would follow the Clean Air Act by protecting air quality in Class 1 areas, such as designated Wilderness Areas, and preventing exceedances of National, State, or local ambient air quality standards.

**Areas of Critical Environmental Concern (ACECs):** The BLM would manage designated ACECs to maintain and restore their relevant and important values (though the array of ACECs that the BLM would designate varies by the alternatives and the Proposed RMP).

**Cultural/Paleontological Resources:** The BLM would protect significant cultural resources and ensure that all land and resource uses comply with the National Historic Preservation Act. The BLM would protect and preserve significant localities from natural or human-caused deterioration or potential conflict with other resources.

**Fire and Fuels:** In responding to wildfires, the BLM would provide for public and firefighter safety while meeting land management objectives. The BLM would also manage the land to restore and maintain resilience to wildfires and to decrease the risk of catastrophic wildfires.

**Fisheries:** The BLM would manage riparian areas to maintain and improve the aquatic habitat across the landscape.

**Forest Management:** The BLM would enhance the health, stability, growth, and vigor of forest stands. The BLM would not allow management activities that would disrupt the Density Management study sites until data collection is complete.

**Hydrology:** The BLM would manage to provide water that meets Oregon Department of Environmental Quality water quality standards for drinking water, contact recreation, and aquatic biodiversity.

**Invasive Species:** The BLM would prevent the introduction and spread of non-native invasive species.

**Lands, Realty, and Roads:** The BLM would adjust land tenure zones to facilitate potential changes in ownership to improve the management of resources and enhance public resource values. The BLM would also provide legal access to BLM-administered lands and facilities and rights-of-way, permits, leases, and easements in a manner that is consistent with Federal and State laws.

**Minerals:** The BLM would manage mineral resources in a manner that allows for their orderly and efficient development.

**Rare Plants and Fungi:** The BLM would manage to contribute toward the recovery of ESA-listed plant species. The BLM would also manage for an array of natural communities including oak woodlands, shrublands, grasslands, cliffs, rock outcrops, talus slopes, meadows, and wetlands, and would support ecological processes and disturbance mechanisms to allow for a range of seral conditions.

**Recreation:** The BLM would provide diverse recreational opportunities.

**National Landscape Conservation System:** The BLM would conserve, protect, and restore areas that Congress has designated for their outstanding values.

**Travel and Transportation:** The BLM would maintain a transportation network that best meets the full range of public, resource management, and administrative access needs.

**Visual Resource Management:** The BLM would manage for the protection of scenic values on public lands. The BLM would consider higher levels of protection where visual resource management is an issue or where high value visual resources exist (i.e., high scenic quality, visual sensitivity, and public visibility).

**Soils:** The BLM would manage to maintain the overall soil quality of BLM-administered lands.

**Sustainable Energy:** The BLM would allow for the development of sustainable energy resources to the maximum extent possible without precluding other land uses.

**Wild Horses:** The BLM would maintain a healthy population of wild and free-roaming horses in the Pokegama Herd Management Area.

**Wildlife:** The BLM would manage to contribute to the conservation and recovery of ESA-listed wildlife species. It would also implement proactive conservation measures that reduce or eliminate threats to Bureau Sensitive species to minimize the likelihood of and need for listing of these species under the Endangered Species Act.

Under all action alternatives and the Proposed RMP, the BLM would implement administrative actions at approximately the same levels as during the past decade. Administrative actions are routine transactions and activities that are required to serve the public and to provide optimum management of resources, including:

- Competitive and commercial recreation activities
- Special forest product collection permit issuance
- Lands and realty actions (including the issuance of grants, leases, and permits)
- Trespass resolution
- Facility maintenance
- Facility improvements
- Road maintenance

- Hauling permit issuance
- Recreation site maintenance
- Recreation site improvement
- Hazardous materials removal
- Abandoned Mine Land physical closure or removal and environmental remedial actions
- Law enforcement
- Legal land or mineral estate ownership surveys
- Engineering support assistance in mapping
- Field visits for the design of projects (including clearance inventories) and contract administration
- Tree sampling (including using the 3P fall, buck, and scale sampling method)
- Project implementation monitoring and plan effectiveness monitoring
- Incidental live or dead tree removal for safety or operational reasons
- Wildlife, fisheries, or plant community and population survey or monitoring
- Native plant seed collection and material development

### **Wild and Scenic Rivers**

Under the No Action alternative, the BLM would continue to manage the 51 eligible Wild and Scenic River segments under interim management to protect their ORVs, water quality, free-flowing characteristics, and tentative classification as Wild, Scenic, or Recreational until suitability is determined during subsequent land use planning efforts.

## **Action Alternative Descriptions**

This section includes a summary of those features that differ among the action alternatives. **Appendix B – Management Objectives and Direction of the Draft RMP/EIS** contains detailed descriptions by alternative of the management objectives and management direction that differ among the action alternatives, which are incorporated here by reference.

### Alternative A

Alternative A has a Late-Successional Reserve larger than the No Action alternative (**Figure 2-4, Table 2-4, and Map 2-2**; compare to **Figure 2-2, Table 2-2**). The Harvest Land Base is comprised of the Uneven-aged Timber Area and the High Intensity Timber Area. The High Intensity Timber Area includes regeneration harvest with no retention (i.e., clearcuts).

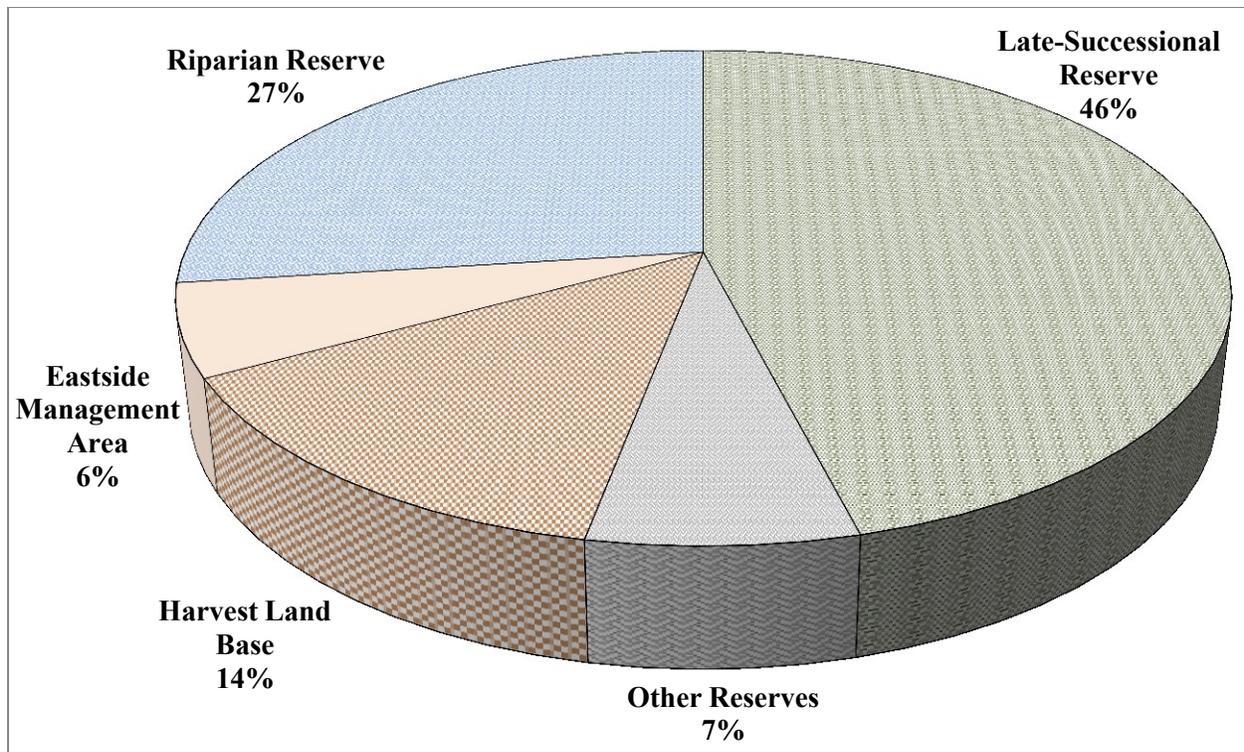


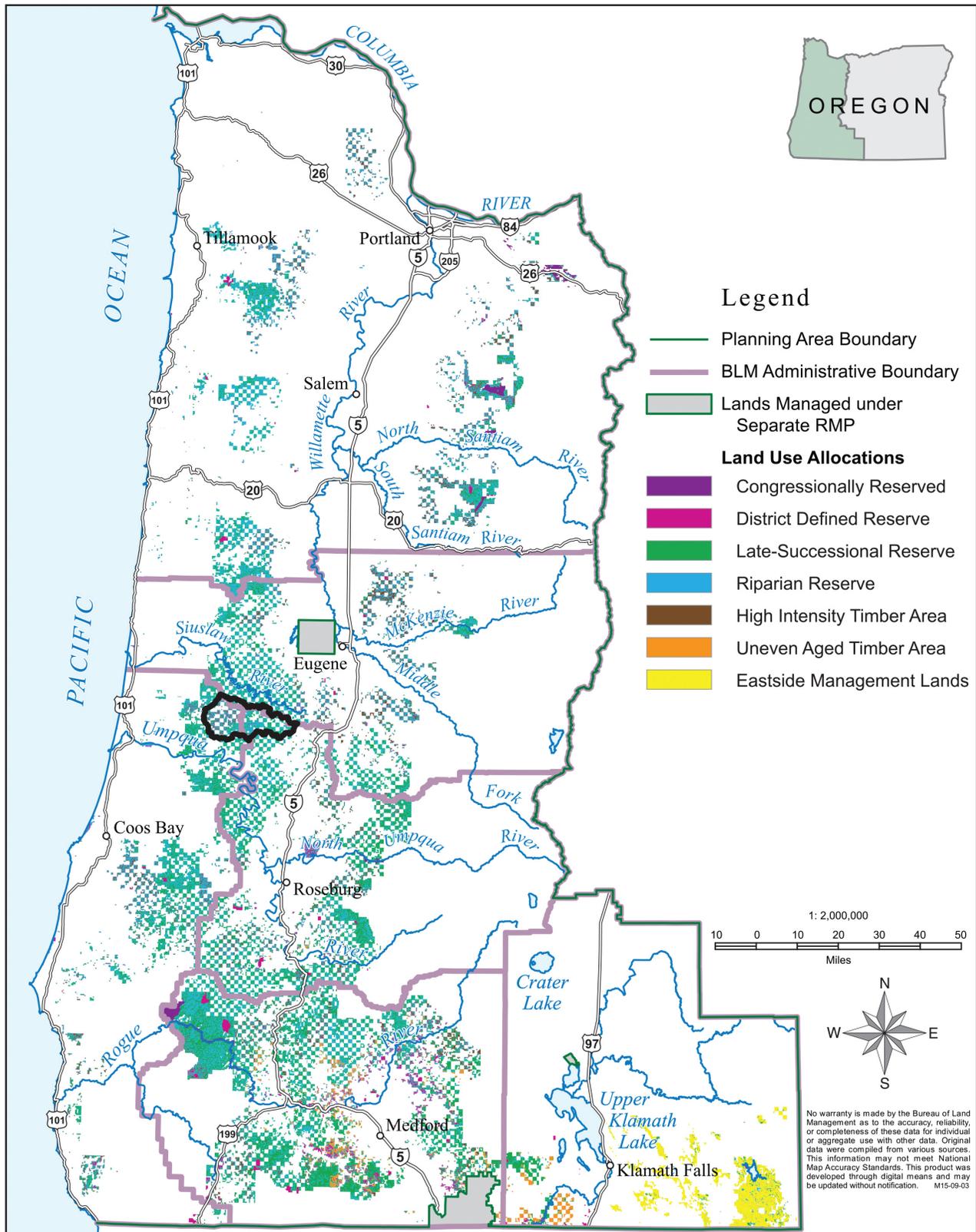
Figure 2-4. Alternative A land use allocations

Table 2-4. Alternative A land use allocations

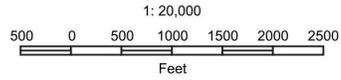
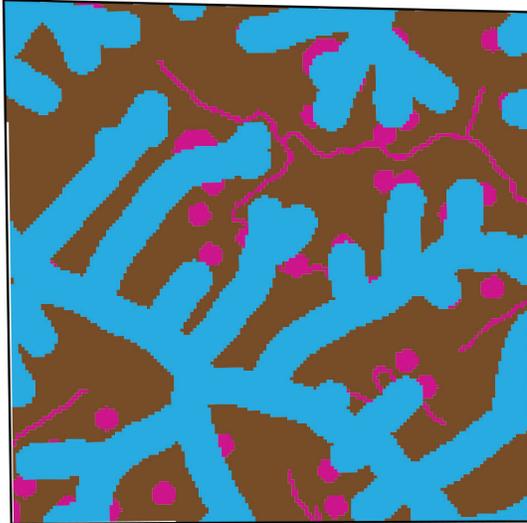
Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	1,147,527	46%	Structurally-complex Forest	655,125	26%
			Late-Successional Reserve – Moist	265,376	11%
			Late-Successional Reserve – Dry	188,440	8%
			Existing Occupied Marbled Murrelet Sites	38,312	2%
			Existing Red Tree Vole Sites*	274	<1%
Riparian Reserve	676,917	27%	Riparian Reserve – Moist	441,603	18%
			Riparian Reserve – Dry	235,313	9%
Other Reserves	170,540	7%	Congressionally Reserved	40,537	2%
			District-Designated Reserves	130,003	5%
Harvest Land Base	343,900	14%	High Intensity Timber Area	289,060	12%
			Uneven-aged Timber Area	54,840	2%
Eastside Management Area	139,972	6%	-	139,972	6%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* Existing Red Tree Vole Sites means existing sites of the North Oregon Coast Distinct Population Segment of the red tree vole.

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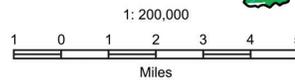
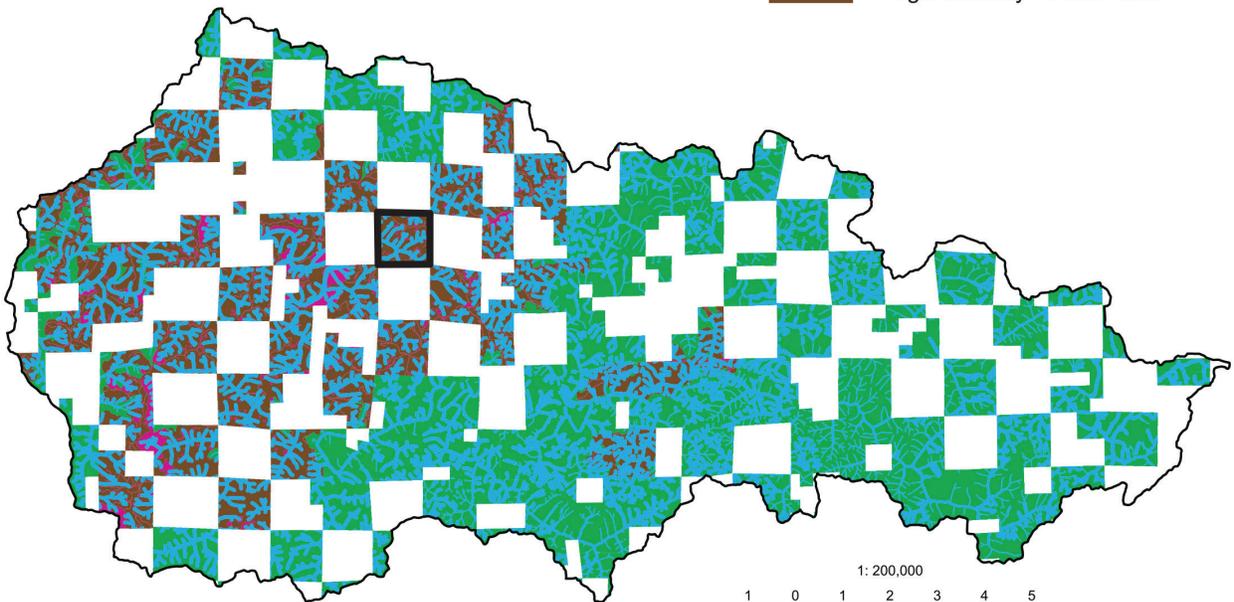
**Map 2-2: Alternative A Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  District Defined Reserve
-  Late-Successional Reserve
-  Riparian Reserve
-  High Intensity Timber Area



Upper Smith River Watershed

### **Late-Successional Reserve**

The Late-Successional Reserve includes, primarily, Structurally-complex Forest, Large Block Forest Reserves (Late-Successional Reserve – Moist and Late-Successional Reserve – Dry), and much smaller acreages from existing occupied marbled murrelet sites and existing sites of the North Oregon Coast Distinct Population Segment of the red tree vole. Within the Late-Successional Reserve, the BLM would not conduct timber salvage after disturbance, except when necessary to protect public health and safety, or to keep roads and other infrastructure clear of debris.

#### **Structurally-complex Forest**

Alternative A includes within the Late-Successional Reserve all stands 120-years old and older, based on the current age of stands in the BLM Forest Operations Inventory.

#### **Large Block Forest Reserves: Late-Successional Reserve – Moist and Late-Successional Reserve – Dry<sup>15</sup>**

Alternative A includes within the Late-Successional Reserve all northern spotted owl critical habitat designated in 2013 and marbled murrelet critical habitat designated in 2011. In moist forests, the BLM would conduct thinning to promote the development of structurally-complex forest, but without commercial removal of timber (i.e., down woody debris and snag creation only). In dry forests, the BLM would conduct activities including thinning and prescribed burning to promote the development of structurally-complex forest and to improve resilience to disturbance. In dry forests, thinning would include removing cut trees, including commercial removal, as needed to reduce the risk of uncharacteristic high-severity or high-intensity fire.

### **Riparian Reserve**

In Alternative A, the Riparian Reserve encompasses lands within one site-potential tree height<sup>16</sup> on either side of all streams.

The Riparian Reserve includes an inner zone in which thinning is not permitted. Inner zone widths are—

- 120 feet on either side of perennial and fish-bearing intermittent streams; and
- 50 feet on either side of non-fish-bearing, intermittent streams.

Outside of the inner zone, the BLM would conduct thinning as needed to ensure that stands are able to provide trees to form stable instream structures. In moist forests, the BLM would conduct thinning without commercial removal of timber (i.e., down woody material and snag creation only). In dry forests, activities would include prescribed burning and thinning that would include removal of cut trees, including commercial removal, as needed to reduce the risk of uncharacteristic high-severity or high-intensity fire.

### **Harvest Land Base**

The Harvest Land Base is comprised of the Uneven-aged Timber Area and the High Intensity Timber Area. The allocation of the Uneven-aged Timber Area in Alternative A is based on areas below an average annual precipitation threshold. Timber management in the High Intensity Timber Area includes thinning and regeneration harvest with no retention (i.e., clearcuts). The High Intensity Timber Area has no snag or down woody material retention requirements.

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<sup>15</sup> For the purpose of Late-Successional Reserve and Riparian Reserve management in Alternative A, dry forests are defined by dry and very dry forest types identified by potential vegetation types.

<sup>16</sup> Site-potential tree height is the average maximum height of the tallest dominant trees (200 years or older) for a given site class. Site-potential tree heights generally range from 140 feet to 240 feet across the decision area, depending on site productivity.

## **Wildlife**

Within the Harvest Land Base, Alternative A does not include—

- Specific protections for northern spotted owl known or historic sites;
- A requirement for surveys for the marbled murrelet prior to management actions;
- Specific management requirements for trees capable of providing marbled murrelet nesting structures in younger stands; or
- A requirement for surveys for North Oregon Coast Distinct Population Segment of the red tree vole prior to management actions.

## **Rare Plants and Fungi**

The BLM would create new populations and augment existing populations of ESA-listed and other special status plants and fungi to meet recovery plan or conservation strategy objectives.

## **Invasive Species**

Alternative A does not include treatment of sudden oak death infection sites.

## **Livestock Grazing**

The BLM would manage allotments in compliance with Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington (USDI BLM 1997). The BLM would adjust grazing levels and management practices when needed to meet or make progress toward meeting the standards for rangeland health. The BLM would make unavailable to grazing those allotments that have been generally been vacant or inactive for 5 years or more and currently have no Section 3 or Section 15 grazing preference.

## **Minerals**

Under Alternative A, the BLM would recommend for withdrawal from locatable mineral entry 170,622 acres (in addition to the 98,400 acres previously withdrawn) and would close 200,878 acres to salable mineral material disposal.

## **Areas of Critical Environmental Concern**

Under Alternative A, the BLM would designate 107 Areas of Critical Environmental Concern.

## **Recreation Management Areas**

Alternative A includes designation of Special Recreation Management Areas where developed recreation sites or facilities currently exist. In the rest of the decision area, the BLM would not manage specifically for recreation.

## **Lands with Wilderness Characteristics**

Alternative A includes management for wilderness characteristics of all identified lands with wilderness characteristics that are not within the Harvest Land Base.

## **Wild and Scenic Rivers**

Under Alternative A, the BLM would not recommend any of the 51 eligible Wild and Scenic River segments for inclusion in the National Wild and Scenic River System.

## **Visual Resource Management**

Under Alternative A, the BLM would manage Congressionally Reserved lands where decisions have been made to preserve a natural landscape (e.g., designated Wilderness Areas and the Wild sections of Wild and Scenic Rivers) as Visual Resource Management Class I. The BLM would manage the following as VRM Class II: designated and recommended suitable Wild and Scenic Rivers classified as Scenic;

National Trail management corridors; District-Designated Reserve – Lands Managed for their Wilderness Characteristics; and Special Recreation Management Areas that fall within the Primitive and Backcountry setting. The BLM would manage the following as VRM Class III: designated and recommended suitable Wild and Scenic Rivers classified as Recreational; and Special and Extensive Recreation Management Areas that fall within the Middle Country setting. The BLM would manage ACECs as a VRM class commensurate to the assigned Visual Resource Inventory class (e.g., VRI Class III as VRM Class III). The BLM would manage all other lands as Visual Resource Management Class IV.

## Alternative B

Alternative B has a Late-Successional Reserve similar in size to Alternative A, though of a different spatial design (see **Figure 2-5**, **Table 2-5**, and **Map 2-3**). The Harvest Land Base is comprised of the Uneven-aged Timber Area, Low Intensity Timber Area, and Moderate Intensity Timber Area. The portion of the Harvest Land Base in Uneven-aged Timber Area is the largest of all the action alternatives. The Low Intensity Timber Area and Moderate Intensity Timber Area include regeneration harvest with varying levels of retention.

A sub-alternative of Alternative B (hereafter Sub-alternative B) includes reserving all known and historic northern spotted owl sites that would be in the Harvest Land Base in Alternative B. All other features of Sub-alternative B are the same as Alternative B. The description of Sub-alternative B, including the acreage of each land use allocation and a map, follows the description of Alternative B.

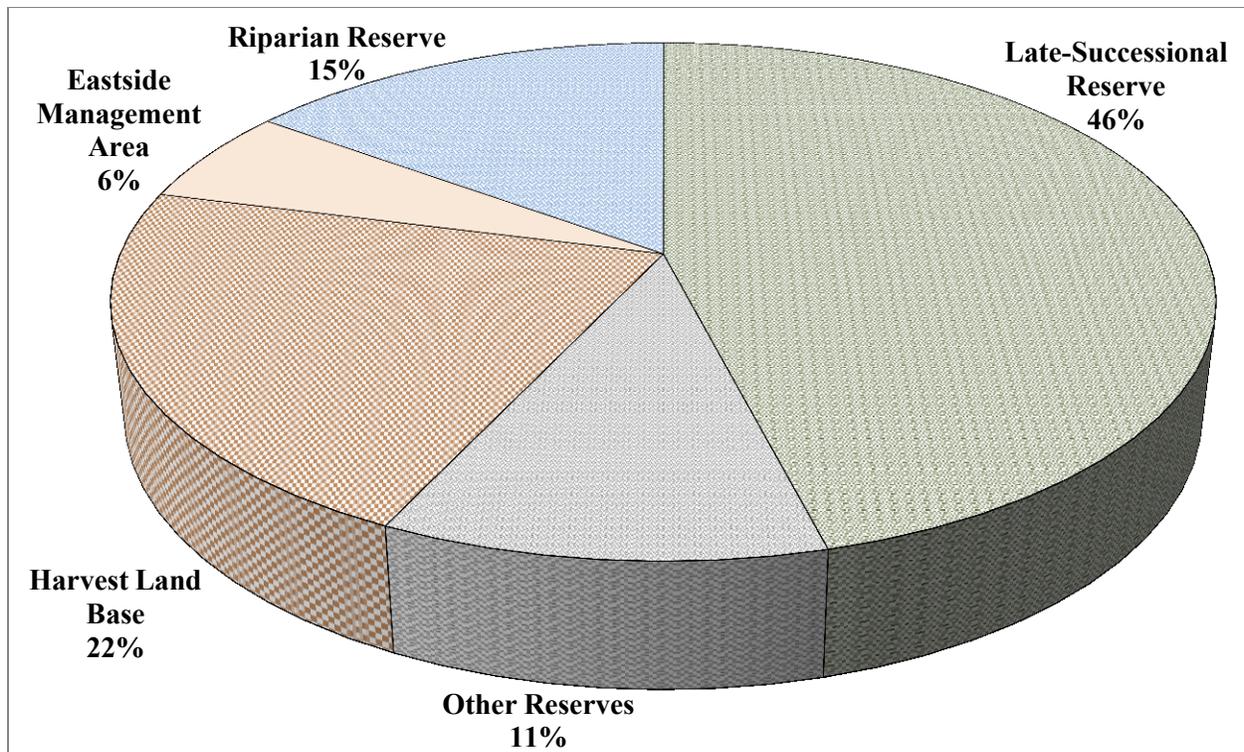
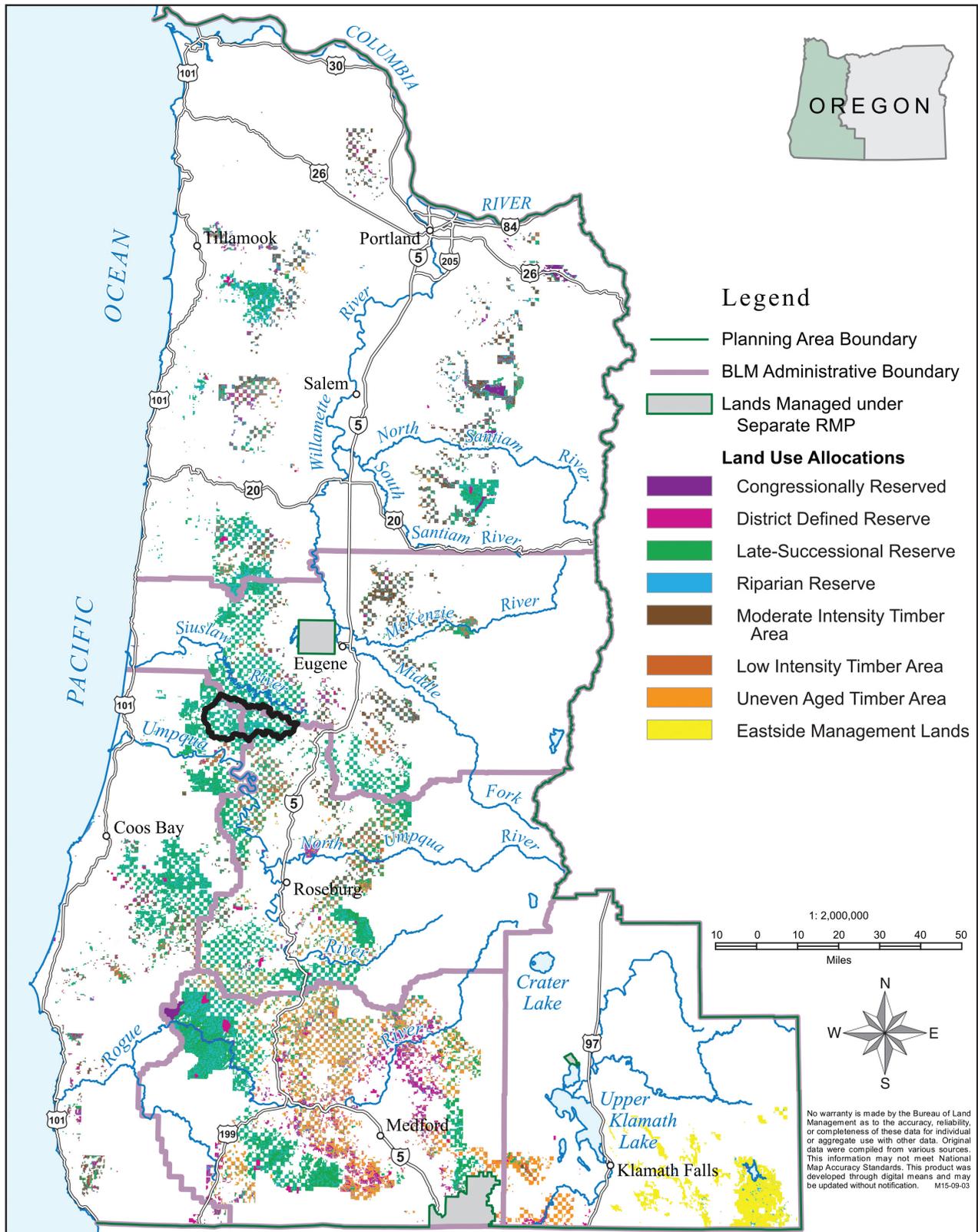


Figure 2-5. Alternative B land use allocations

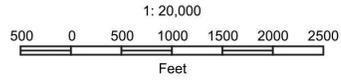
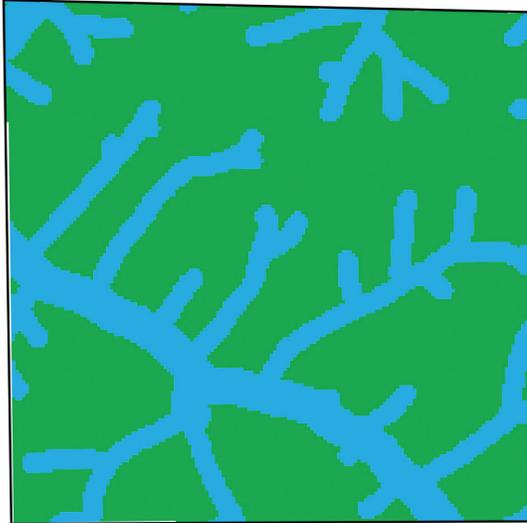
Table 2-5. Alternative B land use allocations

Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	1,127,320	46%	Structurally-complex Forest	463,910	19%
			Late-Successional Reserve – Moist	371,305	15%
			Late-Successional Reserve – Dry	223,399	9%
			Existing Occupied Marbled Murrelet Sites	41,633	2%
			Predicted Marbled Murrelet Sites	13,738	<1%
			Existing Red Tree Vole Sites*	297	<1%
			Predicted Red Tree Vole Sites*	13,039	<1%
Riparian Reserve	382,805	15%	Riparian Reserve – Moist	215,231	9%
			Riparian Reserve – Dry	167,574	7%
Other Reserves	260,510	11%	Congressionally Reserved	40,537	2%
			District-Designated Reserves	219,973	9%
Harvest Land Base	556,335	22%	Moderate Intensity Timber Area	210,087	8%
			Low Intensity Timber Area	72,358	3%
			Uneven-aged Timber Area	273,890	11%
Eastside Management Area	151,885	6%	-	151,885	6%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* Existing Red Tree Vole Sites and Predicted Red Tree Vole Sites means those sites of the North Oregon Coast Distinct Population Segment.



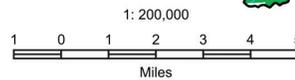
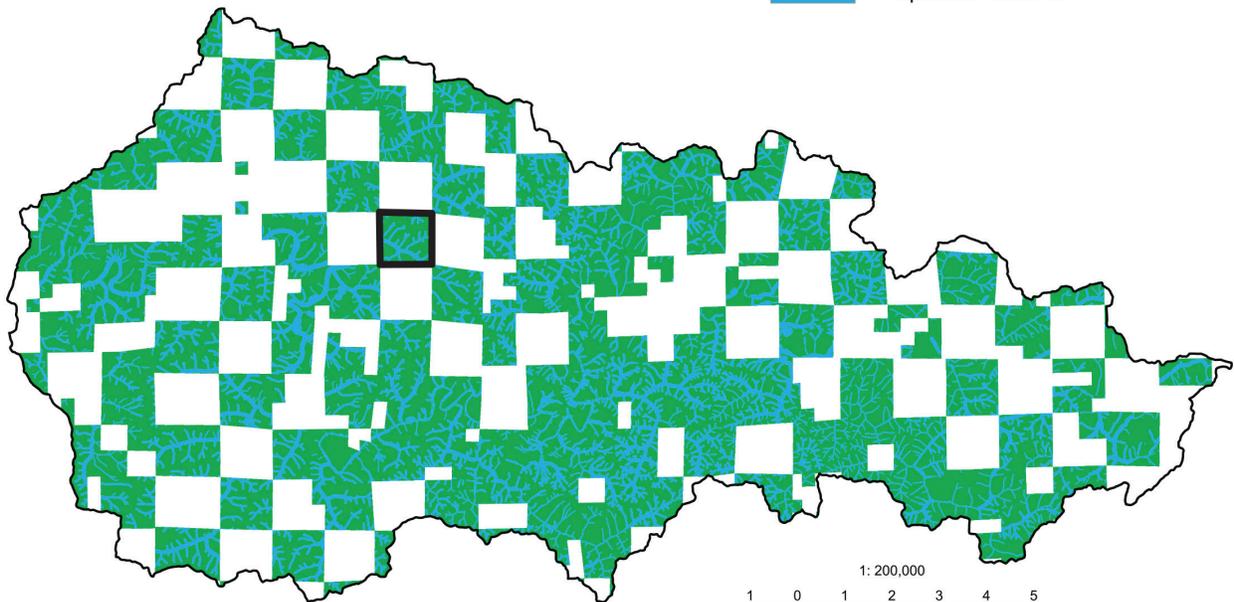
**Map 2-3: Alternative B Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  Late-Successional Reserve
-  Riparian Reserve



Upper Smith River Watershed

### **Late-Successional Reserve**

The Late-Successional Reserve includes, primarily, Structurally-complex Forest, Large Block Forest Reserves (Late-Successional Reserve – Moist and Late-Successional Reserve – Dry), and much smaller acreages from existing occupied marbled murrelet sites and existing sites of the North Oregon Coast Distinct Population Segment of the red tree vole. In addition, Alternative B includes requirements for surveys for the marbled murrelet and the North Oregon Coast Distinct Population Segment of the red tree vole, as described below; newly discovered sites would be included in the Late-Successional Reserve. Thus, this description of the Late-Successional Reserve includes predictions of the acreage of newly discovered marbled murrelet and red tree vole sites. Within the Late-Successional Reserve, the BLM would not conduct timber salvage after disturbance, except when necessary to protect public health and safety, or to keep roads and other infrastructure clear of debris.

**Structurally-complex Forest** Alternative B includes within the Late-Successional Reserve all stands identified by existing, district-specific information on structurally-complex forests.

### **Large Block Forest Reserves: Late-Successional Reserve – Moist and Late-Successional Reserve – Dry<sup>17</sup>**

Alternative B includes within the Late-Successional Reserve blocks of functional and potential northern spotted owl habitat, sufficient to meet block size and spacing requirements (Thomas *et al.* 1990, pp. 24, 28) in all provinces except the Coast Range province, where reserves include blocks of habitat without limitations for size and spacing. In moist forests, the BLM would conduct thinning to promote the development of structurally-complex forest, which may include commercial removal of cut trees. In dry forests, the BLM would conduct activities including thinning and prescribed burning to promote the development of structurally-complex forest and to improve resilience to disturbance, which may include commercial removal of cut trees.

### **Riparian Reserve**

In Alternative B, the Riparian Reserve encompass lands within—

- One site-potential tree height on either side of fish-bearing and perennial streams;
- 100 feet on either side of debris-flow-prone, non-fish-bearing, intermittent streams; and
- 50 feet on either side of other non-fish-bearing, intermittent streams.

The Riparian Reserve includes an inner zone in which thinning is not permitted. Inner zone widths are—

- 60 feet on either side of perennial and fish-bearing intermittent streams; and
- 50 feet on either side of non-fish-bearing, intermittent streams.

Outside of the inner zone, the BLM would conduct thinning, which may include commercial removal, as needed to develop diverse and structurally-complex riparian stands.

### **Harvest Land Base**

The Harvest Land Base is comprised of the Uneven-aged Timber Area, Low Intensity Timber Area, and Moderate Intensity Timber Area. The allocation bases the Uneven-aged Timber Area in Alternative B on dry and very dry forest types identified by potential vegetation types. The portion of the Harvest Land Base outside of the Uneven-aged Timber Area is divided between the Low Intensity Timber Area in designated northern spotted owl critical habitat and the Moderate Intensity Timber Area outside of designated northern spotted owl critical habitat. Timber harvest in the Low Intensity Timber Area includes thinning and regeneration harvest with retention of 15–30 percent of the stand. In the Low Intensity Timber Area, the BLM would rely on natural tree regeneration after timber harvest. Timber

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<sup>17</sup> For the purpose of Late-Successional Reserve and Riparian Reserve management in Alternative B, dry forests are defined by dry and very dry forest types identified by potential vegetation types.

harvest in the Moderate Intensity Timber Area includes thinning and regeneration harvest with retention of 5–15 percent of the stand. In the Moderate Intensity Timber Area, the BLM would use either natural tree regeneration or replanting after timber harvest, but would maintain early seral habitat conditions for several decades after harvest.

### **Wildlife**

Within the Harvest Land Base, Alternative B includes—

- No specific protections for northern spotted owl known or historic sites;
- A requirement for surveys for the marbled murrelet prior to management actions in marbled murrelet Zone 1 and protection of habitat within 300 feet around newly discovered occupied sites;
- The protection of trees capable of providing marbled murrelet nesting structures in younger stands in marbled murrelet Zone 1; and
- A requirement for surveys for North Oregon Coast Distinct Population Segment of the red tree vole prior to management actions and protection of habitat areas around newly discovered nest sites.

### **Rare Plants and Fungi**

The BLM would manage mixed hardwood/conifer communities outside of the Harvest Land Base to maintain and enhance oak persistence and structure.

### **Invasive Species**

Alternative B includes treatment at all sudden oak death infection sites outside of the Riparian Reserve and no treatment at infection sites in the Riparian Reserve.

### **Livestock Grazing**

The BLM would manage allotments in compliance with Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington (USDI BLM 1997). The BLM would adjust grazing levels and management practices when needed to meet or make progress toward meeting the standards for rangeland health. The BLM would make unavailable to grazing those allotments that have been generally been vacant or inactive for 5 years or more and currently have no Section 3 or Section 15 grazing preference.

### **Minerals**

Under Alternative B, the BLM would recommend for withdrawal from locatable mineral entry 168,072 acres (in addition to the 98,400 acres previously withdrawn) and would close 194,858 acres to salable mineral material disposal.

### **Areas of Critical Environmental Concern**

Under Alternative B, the BLM would designate 105 Areas of Critical Environmental Concern.

### **Recreation Management Areas**

Alternative B includes designation of Special Recreation Management Areas at currently developed recreation facilities, and on lands where there are both unique recreation opportunities and where designation would not conflict with sustained-yield timber harvest. Alternative B includes designation of Extensive Recreation Management Areas where the BLM has developed and currently manages recreation activities outside of developed facilities, primarily where the BLM has authorized motorized and non-motorized trails, and where the BLM currently manages dispersed recreation activities. In the rest of the decision area, the BLM would not manage specifically for recreation.

**Lands with Wilderness Characteristics**

Alternative B includes management for wilderness characteristics of all identified lands with wilderness characteristics that are outside of the Harvest Land Base, and where they are within compatible existing and potential Recreation Management Areas.

**Wild and Scenic Rivers**

Under Alternative B, the BLM would recommend for inclusion in the National Wild and Scenic River System six eligible river segments that the BLM found suitable during the BLM's suitability study (as outlined in BLM Manual 6400, USDI BLM 2012b).

**Visual Resource Management**

Under Alternative B, the BLM would manage Congressionally Reserved lands where decisions have been made to preserve a natural landscape (e.g., designated Wilderness Areas and the Wild sections of Wild and Scenic Rivers) as Visual Resource Management Class I. The BLM would manage the following as VRM II: designated and recommended suitable Wild and Scenic Rivers classified as Scenic; National Trail management corridors; District-Designated Reserve – Lands Managed for their Wilderness Characteristics and Special Recreation Management Areas that fall within the Primitive and Backcountry setting. The BLM would manage the following as VRM III: designated and recommended suitable Wild and Scenic Rivers classified as Recreational, and Special and Extensive Recreation Management Areas that fall within the Middle Country setting. The BLM would manage ACECs as a VRM class commensurate to the assigned Visual Resource Inventory class (e.g., VRI Class III as VRM Class III). The BLM would manage all other lands as Visual Resource Management Class IV.

## Sub-alternative B

Sub-alternative B is identical to Alternative B, except that it includes protection of habitat within the home ranges of all northern spotted owl known and historic sites that would be within the Harvest Land Base. This single change in design increases the Late-Successional Reserve to 57 percent of the decision area, which is larger than any other alternative, and reduces the Harvest Land Base to 12 percent of the decision area, which is smaller than any other alternative (**Figure 2-6, Table 2-6, and Map 2-4**).

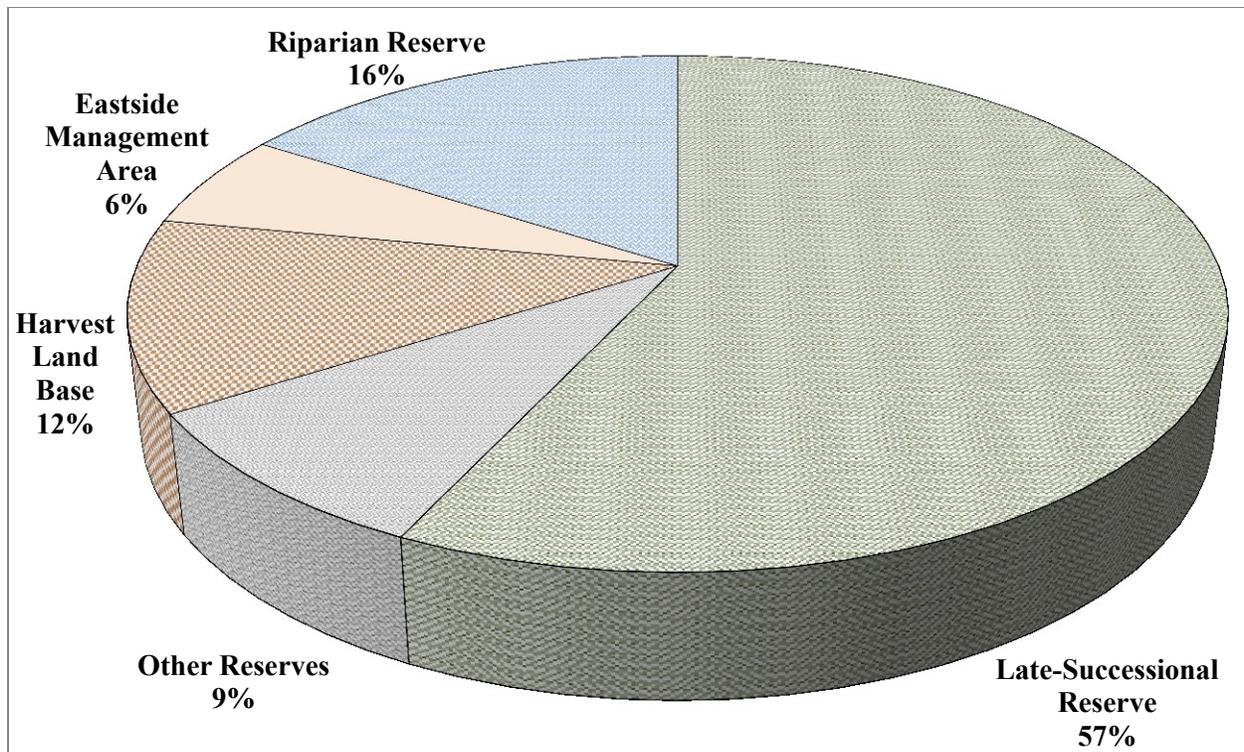


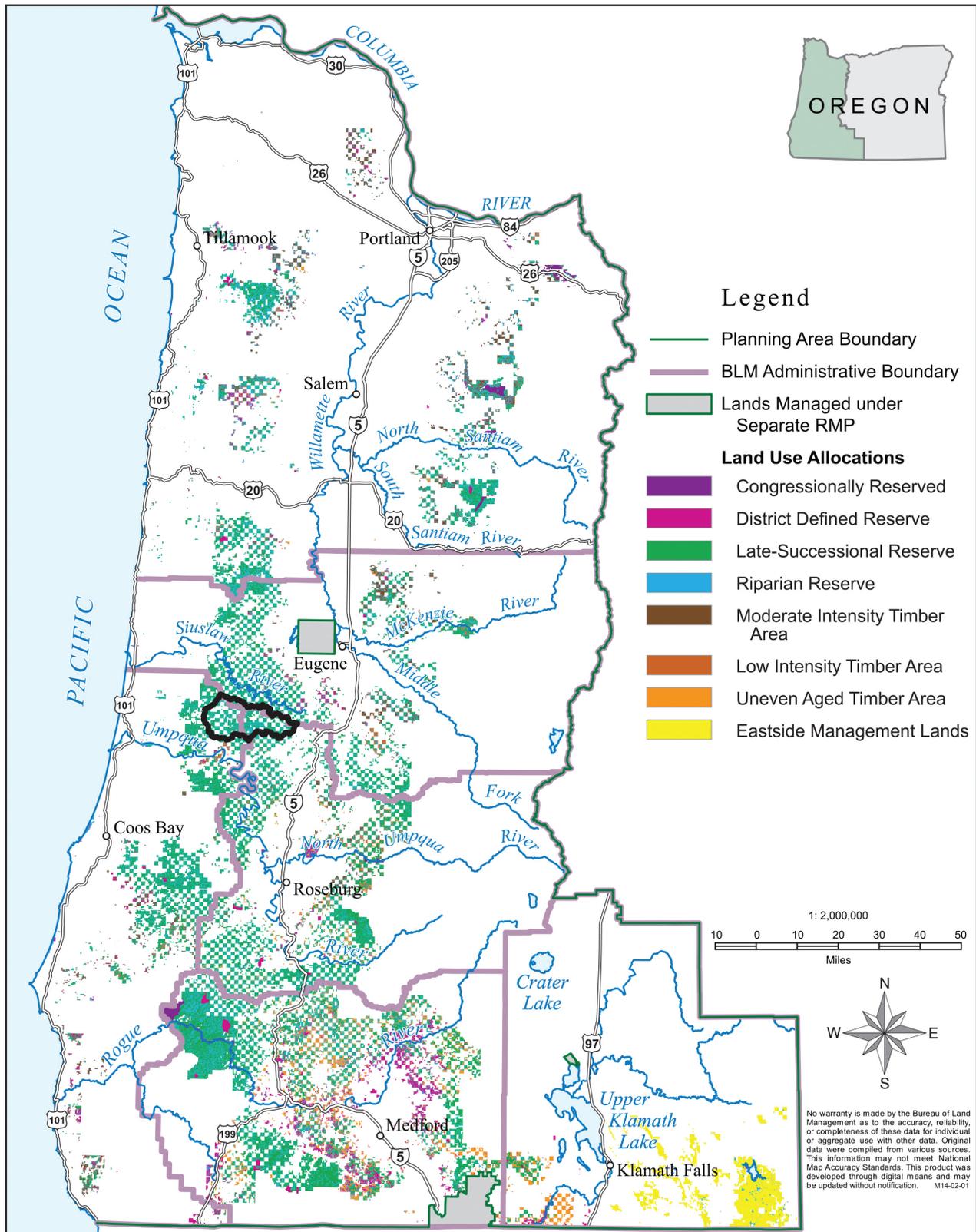
Figure 2-6. Sub-alternative B land use allocations

Table 2-6. Sub-alternative B land use allocations

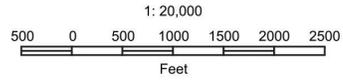
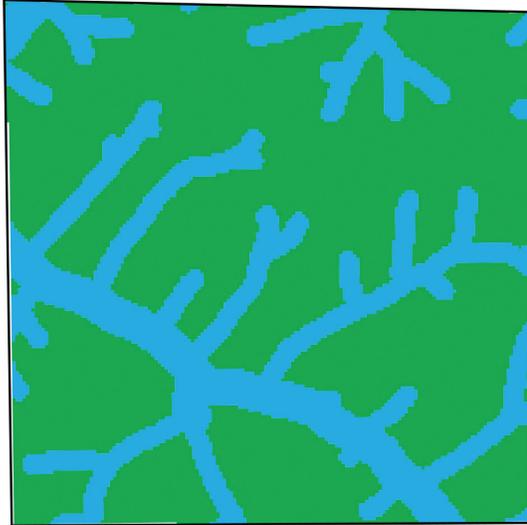
Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	1,422,933	57%	Structurally-complex Forest	463,910	19%
			Late-Successional Reserve – Moist	371,305	15%
			Late-Successional Reserve – Dry	223,399	9%
			Northern Spotted Owl Sites	295,614	12%
			Existing Occupied Marbled Murrelet Sites	41,633	2%
			Predicted Marbled Murrelet Sites	13,738	<1%
			Existing Red Tree Vole Sites*	297	<1%
			Predicted Red Tree Vole Sites*	13,039	<1%
Riparian Reserve	382,805	15%	Riparian Reserve – Moist	215,231	9%
			Riparian Reserve – Dry	167,574	7%
Other Reserves	223,111	9%	Congressionally Reserved	40,537	2%
			District-Designated Reserves	182,574	7%
Harvest Land Base	298,121	12%	Moderate Intensity Timber Area	129,120	5%
			Low Intensity Timber Area	30,761	1%
			Uneven-aged Timber Area	138,239	6%
Eastside Management Area	151,885	6%	-	151,885	6%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* Existing Red Tree Vole Sites and Predicted Red Tree Vole Sites means those sites of the North Oregon Coast Distinct Population Segment of the red tree vole north of Highway 20.

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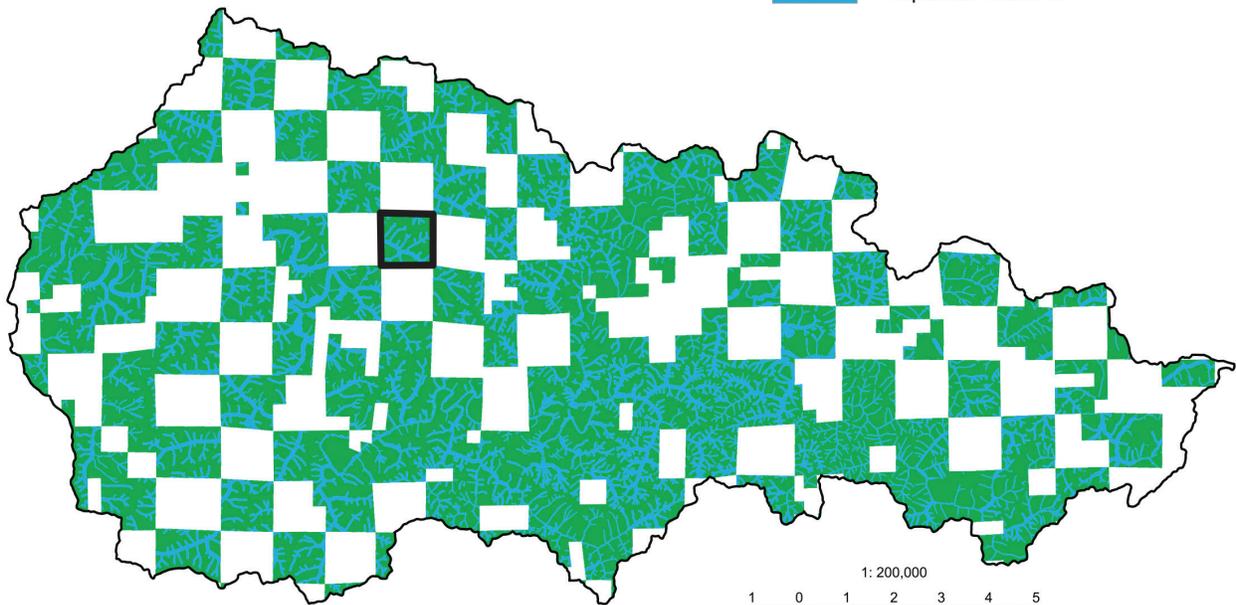
**Map 2-4: Sub-Alternative B Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  Late-Successional Reserve
-  Riparian Reserve



Upper Smith River Watershed

## Alternative C

Alternative C has the largest Harvest Land Base of any of the action alternatives (**Figure 2-7, Table 2-7, and Map 2-5**). The Harvest Land Base is comprised of the Uneven-aged Timber Area and the High Intensity Timber Area. The High Intensity Timber Area includes regeneration harvest with no retention (i.e., clearcuts). Alternative C has the smallest acreage in the Riparian Reserve of the action alternatives.

A sub-alternative of Alternative C (hereafter Sub-alternative C) includes reserving all forests 80-years old and older, based on the current age of stands in the BLM Forest Operations Inventory. All other features of Sub-alternative C are the same as Alternative C. The description of Sub-alternative C, including the acreage of each land use allocation and a map, follows the description of Alternative C.

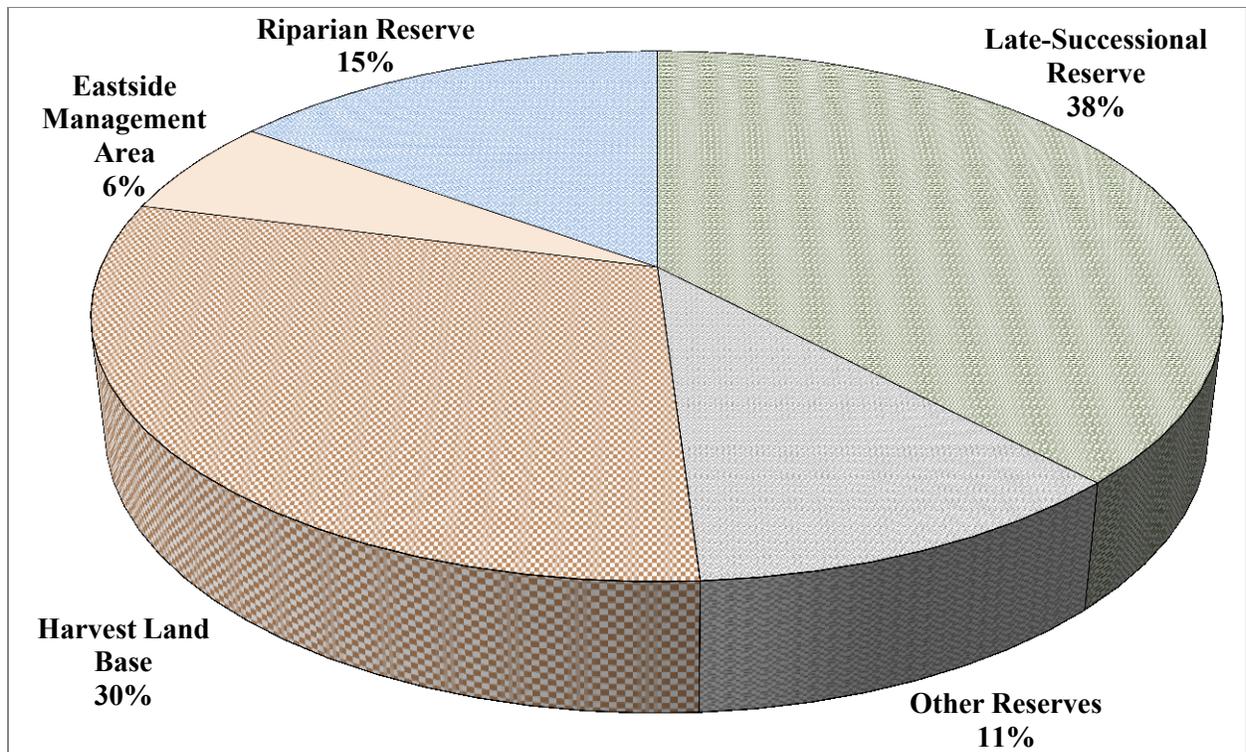
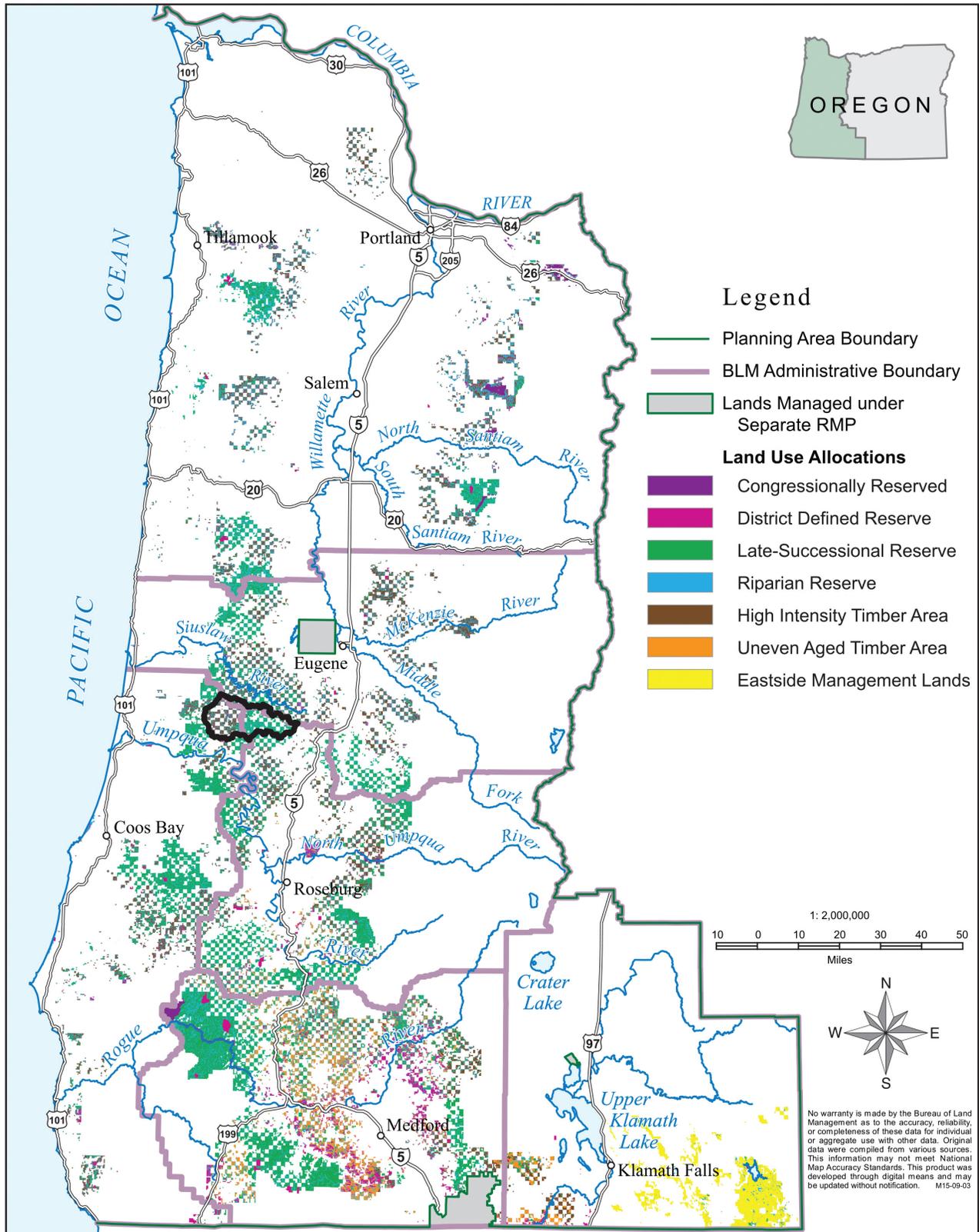


Figure 2-7. Alternative C land use allocations

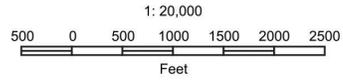
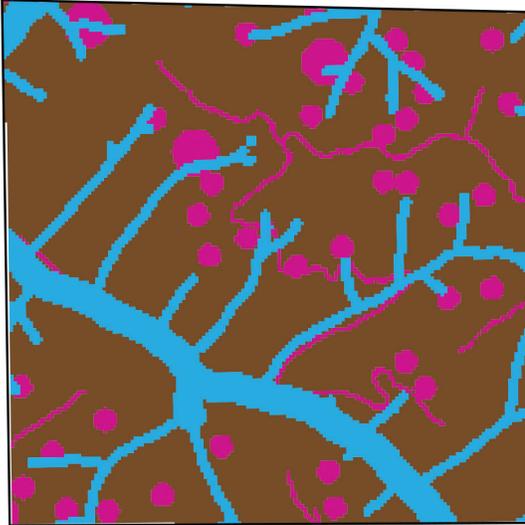
Table 2-7. Alternative C land use allocations

Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	949,279	38%	Structurally-complex Forest	428,522	17%
			Late-Successional Reserve – Moist	331,224	13%
			Late-Successional Reserve – Dry	148,776	6%
			Existing Occupied Marbled Murrelet Sites	40,468	2%
			Predicted Marbled Murrelet Sites	2,761	<1%
			Existing Red Tree Vole Sites*	287	<1%
Riparian Reserve	372,739	15%	Riparian Reserve – Moist	244,694	10%
			Riparian Reserve – Dry	128,045	5%
Other Reserves	267,678	11%	Congressionally Reserved	40,537	2%
			District-Designated Reserves	227,141	9%
Harvest Land Base	741,332	30%	High Intensity Timber Area	553,857	22%
			Uneven-aged Timber Area	184,715	7%
Eastside Management Area	147,828	6%	-	147,828	6%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* Existing Red Tree Vole Sites means those sites of the North Oregon Coast Distinct Population Segment of the red tree vole north of Highway 20.



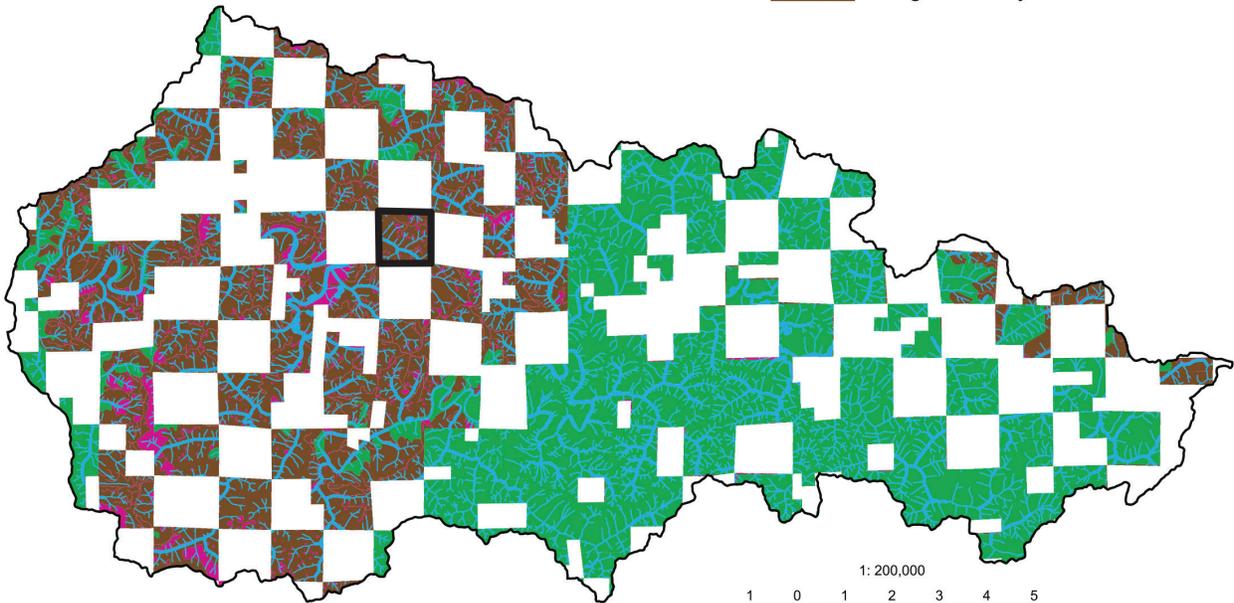
**Map 2-5: Alternative C Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  District Defined Reserve
-  Late-Successional Reserve
-  Riparian Reserve
-  High Intensity Timber Area



Upper Smith River Watershed

### **Late-Successional Reserve**

The Late-Successional Reserve includes, primarily, Structurally-complex Forest, Large Block Forest Reserves (Late-Successional Reserve – Moist and Late-Successional Reserve – Dry), and much smaller acreages from existing occupied marbled murrelet sites and existing sites of the North Oregon Coast Distinct Population Segment of the red tree vole. In addition, Alternative C includes requirements for surveys for the marbled murrelet and the North Oregon Coast Distinct Population Segment of the red tree vole, as described below, and newly discovered sites would be included in the Late-Successional Reserve. Thus, this description of the Late-Successional Reserve includes predictions of the acreage of newly discovered marbled murrelet and red tree vole sites. Within the Late-Successional Reserve, the BLM would conduct timber salvage after disturbance to recover economic value, to protect public health and safety, or to keep roads and other infrastructure clear of debris.

#### **Structurally-complex Forest**

Alternative C includes within the Late-Successional Reserve all stands 160-years old and older, based on the current age of stands in the BLM forest operations inventory.

#### **Large Block Forest Reserves: Late-Successional Reserve – Moist and Late-Successional Reserve – Dry<sup>18</sup>**

Alternative C includes within the Late-Successional Reserve blocks of functional and potential northern spotted owl habitat, sufficient to meet block size and spacing requirements (Thomas *et al.* 1990, pp. 24, 28) in all provinces. In moist forests, the BLM would conduct thinning to promote the development of structurally-complex forest, which may include commercial removal of cut trees. In dry forests, the BLM would conduct activities including thinning and prescribed burning to promote the development of structurally-complex forest and to improve resilience to disturbance, which may include commercial removal of cut trees.

### **Riparian Reserve**

In Alternative C, the Riparian Reserve encompass lands within—

- 150 feet on either side of fish-bearing and perennial streams; and
- 50 feet on either side of non-fish-bearing, intermittent streams.

The Riparian Reserve includes an inner zone in which thinning is not permitted. Inner zone widths are—

- 60 feet on either side of fish-bearing and perennial streams; and
- 50 feet on either side of non-fish-bearing, intermittent streams.

Outside of the inner zone, the BLM would conduct thinning, which may include commercial removal, as needed to develop diverse and structurally-complex riparian stands.

### **Harvest Land Base**

The Harvest Land Base is comprised of the High Intensity Timber Area and the Uneven-aged Timber Area. The allocation of the Uneven-aged Timber Area in Alternative C is based on very dry forest types identified by potential vegetation. Timber management in the High Intensity Timber Area includes thinning and regeneration harvest with no retention (i.e., clearcuts). The High Intensity Timber Area has no snag or down woody debris retention requirements.

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<sup>18</sup> For the purpose of Late-Successional Reserve and Riparian Reserve management in Alternative C, dry forests are defined by very dry forest types identified by potential vegetation types.

## **Wildlife**

Within the Harvest Land Base, Alternative C includes—

- No specific protections for northern spotted owl known or historic sites;
- A requirement for surveys for the marbled murrelet prior to management actions in stands 120-years and older and protection of habitat within 300 feet around newly discovered occupied sites;
- No specific management requirements for trees capable of providing marbled murrelet nesting structures in younger stands; and
- No requirement for surveys for North Oregon Coast Distinct Population Segment of the red tree vole prior to management actions.

## **Rare Plants and Fungi**

The BLM would create new populations and augment existing populations of ESA-listed and other special status plants and fungi to meet recovery plan or conservation strategy objectives.

## **Invasive Species**

Alternative C includes treatment at all sudden oak death infection sites.

## **Livestock Grazing**

The BLM would manage allotments in compliance with Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington (USDI BLM 1997). The BLM would adjust grazing levels and management practices when needed to meet or make progress toward meeting the standards for rangeland health. The BLM would make unavailable to grazing those allotments that have been generally been vacant or inactive for 5 years or more and currently have no Section 3 or Section 15 grazing preference.

## **Minerals**

Under Alternative C, the BLM would recommend for withdrawal from locatable mineral entry 171,584 acres (in addition to the 98,400 acres previously withdrawn) and would close 215,053 acres to salable mineral material disposal.

## **Areas of Critical Environmental Concern**

Under Alternative C, the BLM would designate 101 Areas of Critical Environmental Concern.

## **Recreation Management Areas**

Alternative C includes designation of Special Recreation Management Areas at currently developed recreation facilities, and on lands where designation does not conflict with sustained-yield timber harvest. Alternative C includes designation of Extensive Recreation Management Areas where the BLM has developed and currently manages recreation activities outside of developed facilities, primarily where the BLM has authorized motorized and non-motorized trails, and where the BLM currently manages dispersed recreation activities. In addition, the BLM would designate Special Recreation Management Areas and Extensive Recreation Management Areas to address specific recreation demand and scarcity. In the rest of the decision area, the BLM would not manage specifically for recreation.

## **Lands with Wilderness Characteristics**

Alternative C includes management for wilderness characteristics of identified lands with wilderness characteristics that are not within the Harvest Land Base, and where they are within compatible existing and potential Recreation Management Areas.

### **Wild and Scenic Rivers**

Under Alternative C, the BLM would recommend for inclusion in the National Wild and Scenic River System six eligible river segments that the BLM found suitable during the BLM's suitability study (as outlined in BLM Manual 6400, USDI BLM 2012b).

### **Visual Resource Management**

Under Alternative C, the BLM would manage Congressionally Reserved lands where decisions have been made to preserve a natural landscape (e.g., designated Wilderness Areas and Wild sections of Wild and Scenic Rivers) as Visual Resource Management Class I. The BLM would manage the following as VRM Class II: designated and recommended suitable Wild and Scenic Rivers classified as Scenic; National Trail management corridors; District-Designated Reserve – Lands Managed for their Wilderness Characteristics; and Special Recreation Management Areas that fall within the Primitive and Backcountry setting. The BLM would manage the following as VRM Class III: designated and recommended suitable Wild and Scenic Rivers classified as Recreational, and Special and Extensive Recreation Management Areas that fall within the Middle Country setting. The BLM would manage ACECs as a VRM class commensurate to the assigned Visual Resource Inventory class (e.g., VRI Class III as VRM Class III). The BLM would manage all other lands as Visual Resource Management Class IV.

### **Sub-alternative C**

Sub-alternative C is identical to Alternative C, except that the Late-Successional Reserve includes all stands 80 years old and older, based on the current age of stands in the BLM forest operations inventory. This single change in design increases the Late-Successional Reserve to 55 percent of the decision area and reduces the Harvest Land Base to 20 percent of the decision area (**Figure 2-8, Table 2-8, and Map 2-6**).

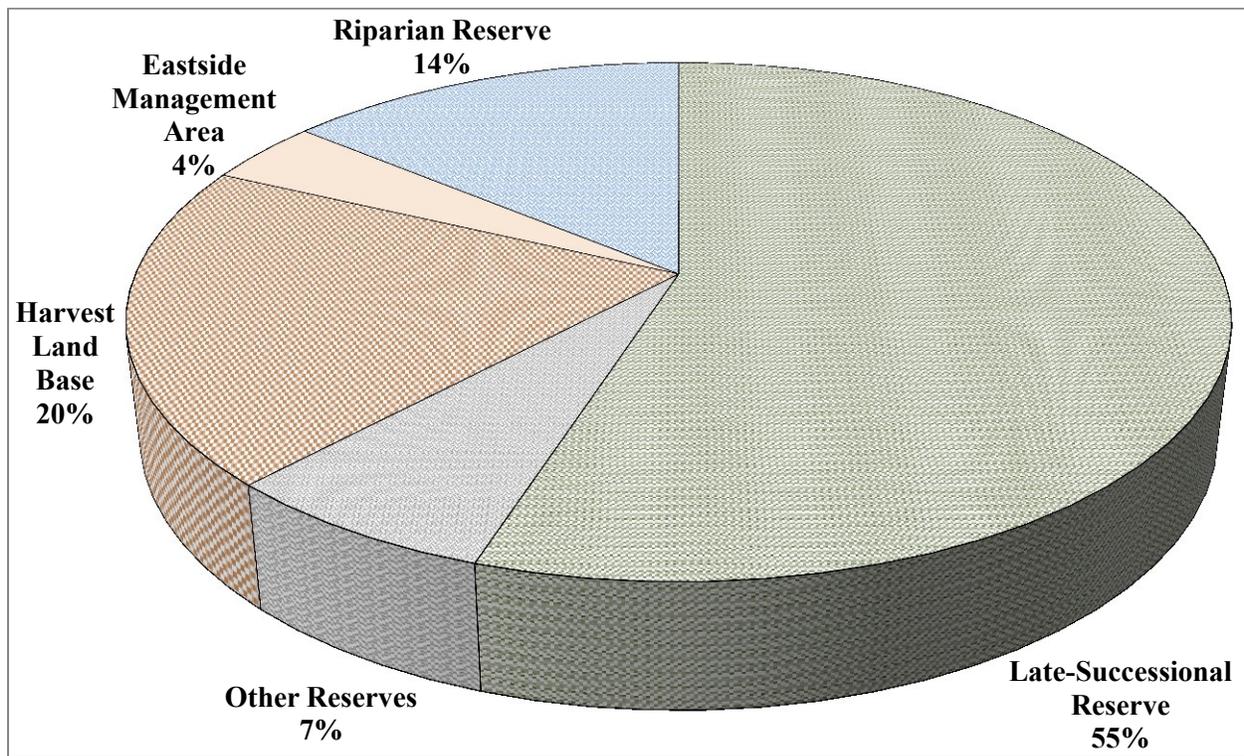
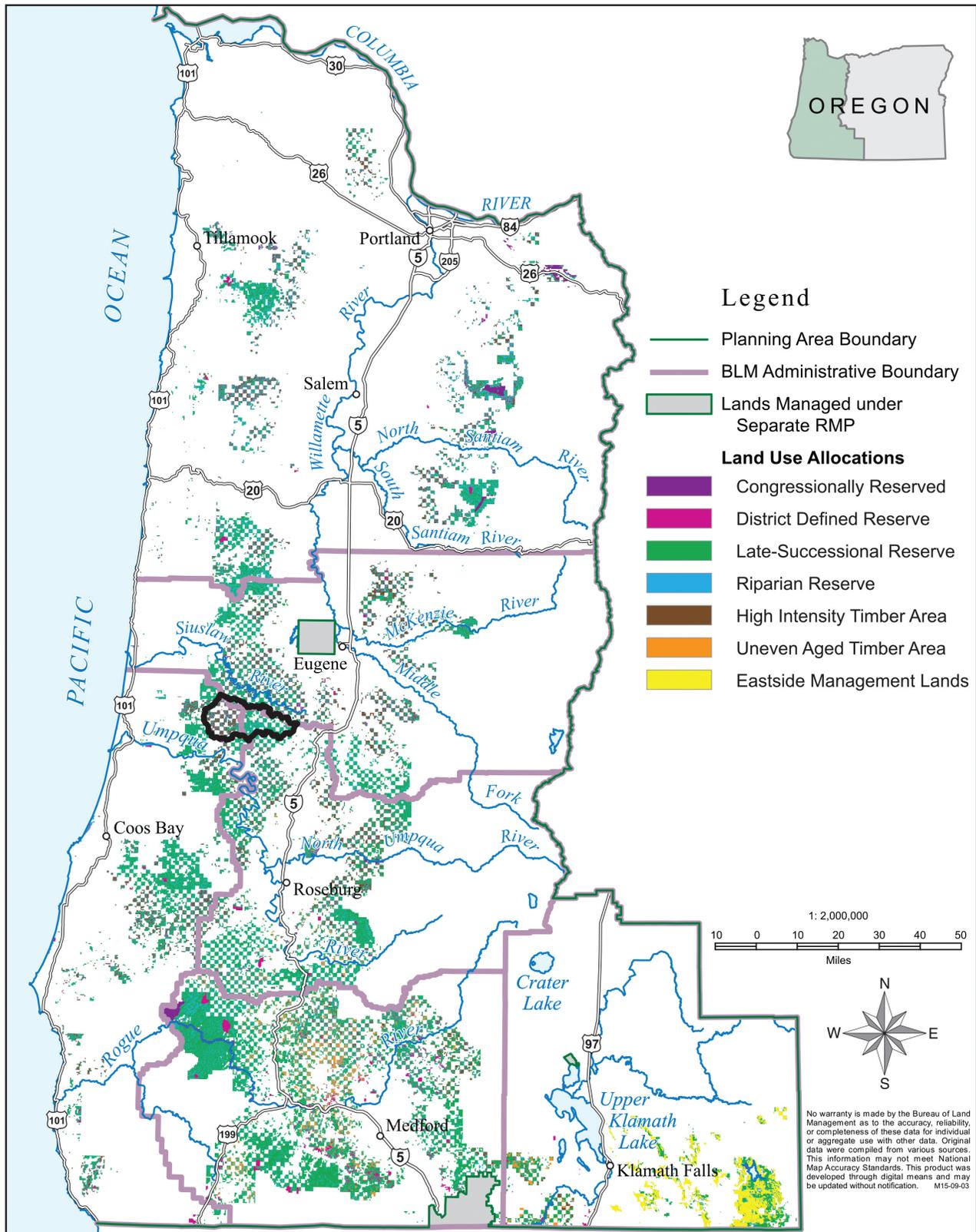


Figure 2-8. Sub-alternative C land use allocations

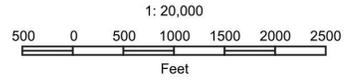
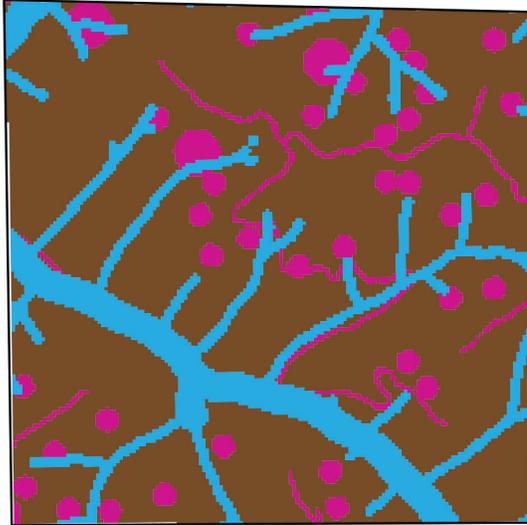
Table 2-8. Sub-alternative C land use allocations

Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	1,373,206	55%	Structurally-complex Forest	1,036,218	42%
			Late-Successional Reserve – Moist	233,967	9%
			Late-Successional Reserve – Dry	61,525	2%
			Existing Occupied Marbled Murrelet Sites	40,468	2%
			Predicted Marbled Murrelet Sites	740	<1%
			Existing Red Tree Vole Sites*	287	<1%
Riparian Reserve	337,701	14%	Riparian Reserve – Moist	253,674	10%
			Riparian Reserve – Dry	84,026	3%
Other Reserves	172,232	7%	Congressionally Reserved	40,537	2%
			District-Designated Reserves	131,694	5%
Harvest Land Base	495,507	20%	High Intensity Timber Area	402,665	16%
			Uneven-aged Timber Area	92,842	4%
Eastside Management Area	100,210	4%	-	100,210	4%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* Existing Red Tree Vole Sites means those sites of the North Oregon Coast Distinct Population Segment of the red tree vole north of Highway 20.



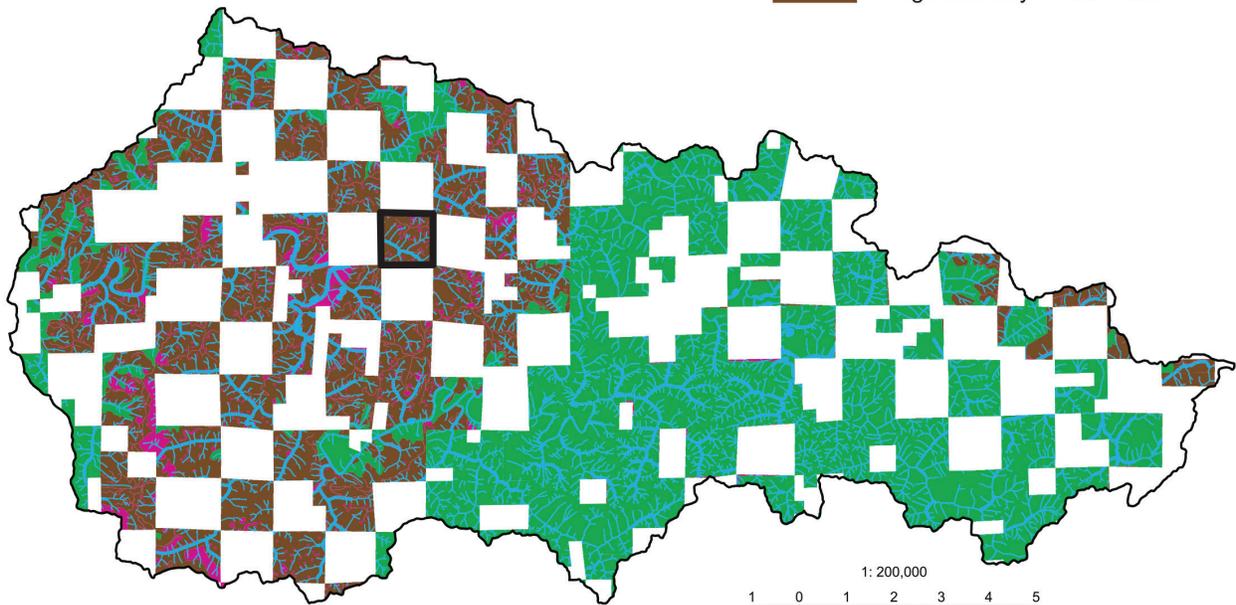
**Map 2-6: Sub-Alternative C Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  District Defined Reserve
-  Late-Successional Reserve
-  Riparian Reserve
-  High Intensity Timber Area



Upper Smith River Watershed

## Alternative D

Alternative D has the smallest Late-Successional Reserve of the action alternatives (**Figure 2-9**, **Table 2-9**, and **Map 2-7**). The Harvest Land Base is comprised of the Uneven-aged Timber Area, Owl Habitat Timber Area, and Moderate Intensity Timber Area. The Owl Habitat Timber Area includes timber harvest applied in a manner that would maintain northern spotted owl habitat. The Moderate Intensity Timber Area includes regeneration harvest with retention. Alternative D has the largest acreage in the Riparian Reserve of the action alternatives.

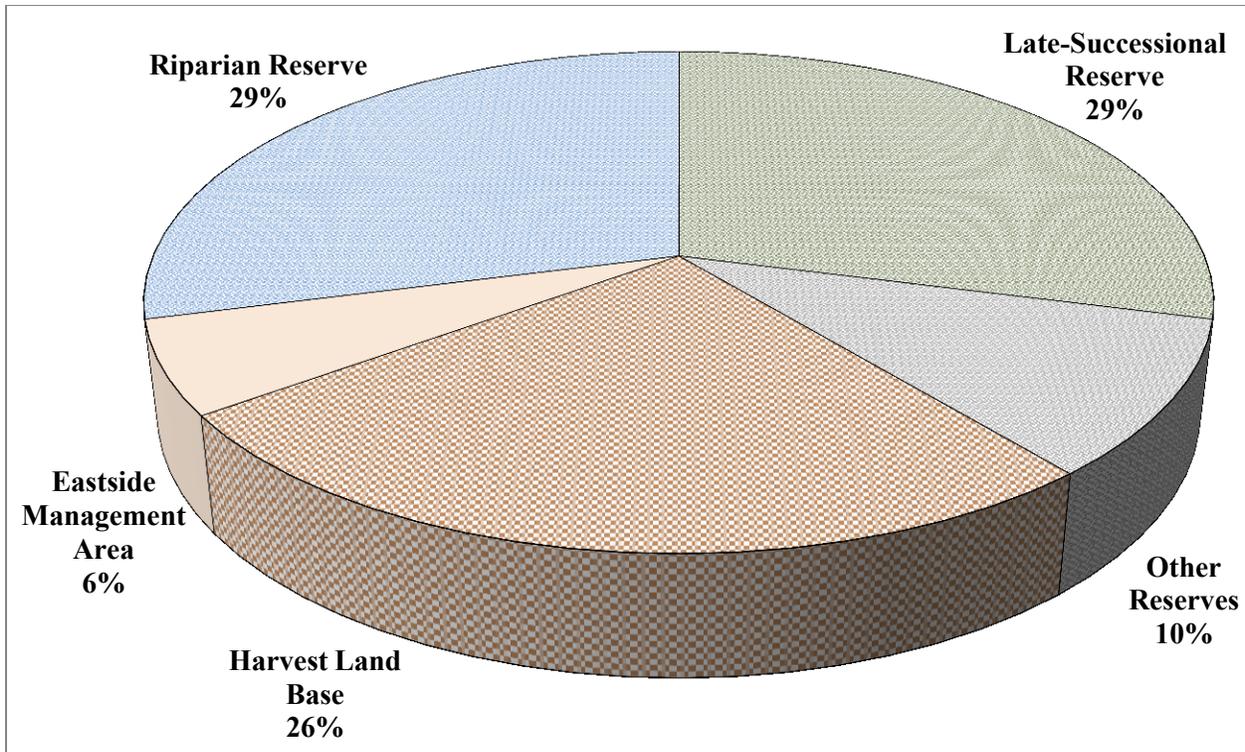
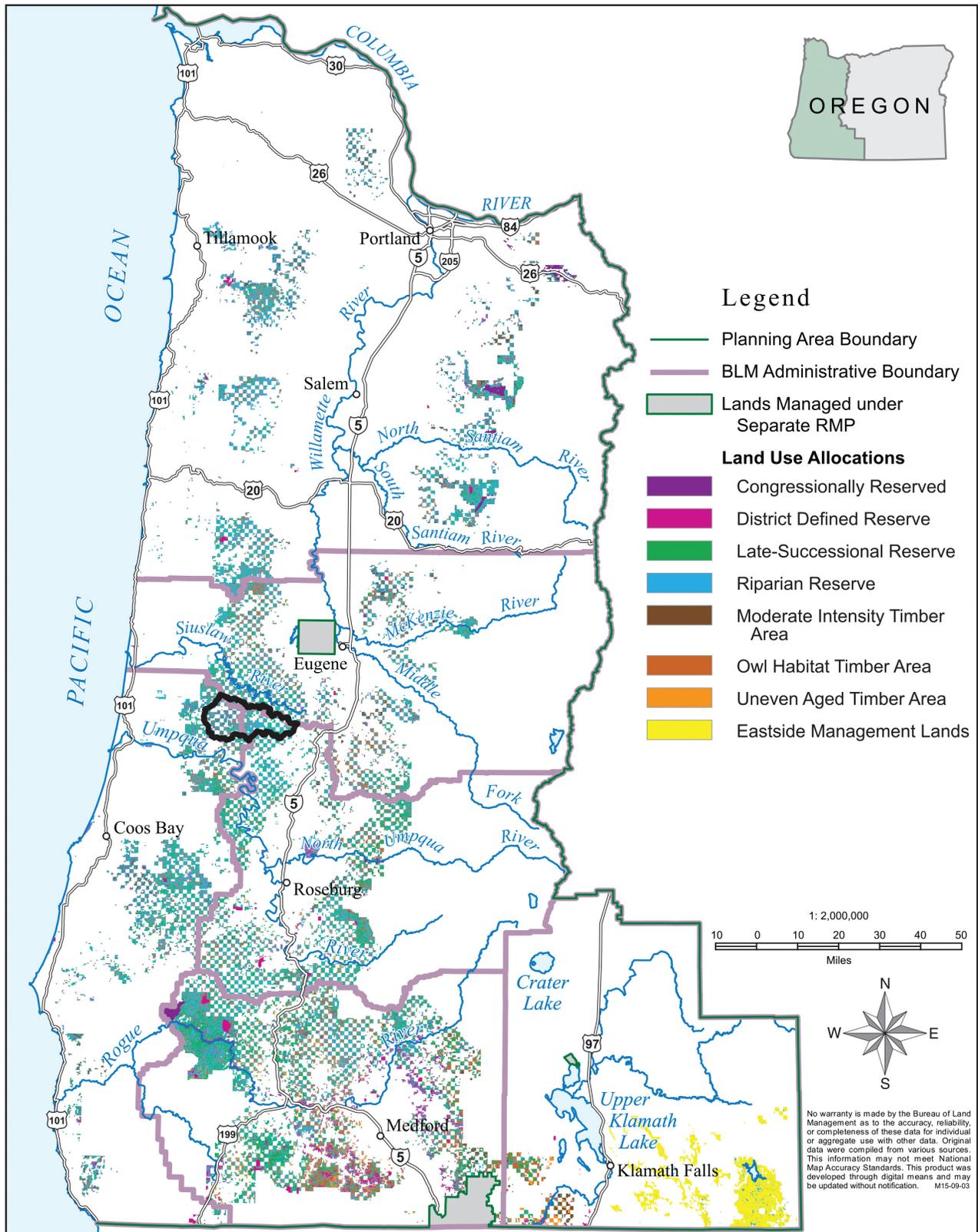


Figure 2-9. Alternative D land use allocations

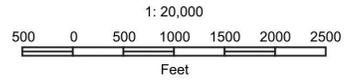
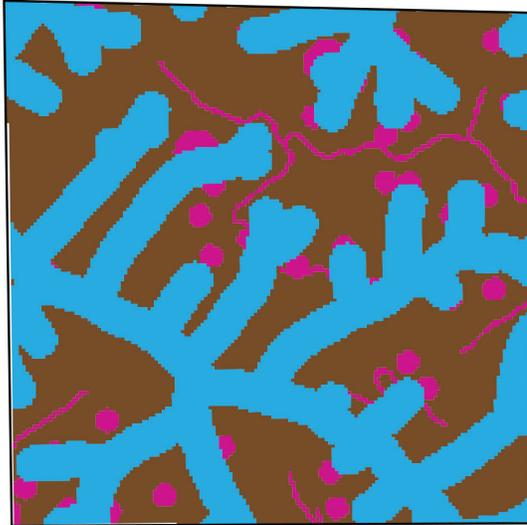
Table 2-9. Alternative D land use allocations

Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve	714,292	29%	Structurally-complex Forest	482,920	19%
			Northern Spotted Owl Sites	96,666	4%
			Existing Occupied Marbled Murrelet Sites	33,037	1%
			Predicted Marbled Murrelet Sites	91,816	4%
			Existing Red Tree Vole Sites*	245	<1%
			Predicted Red Tree Vole Sites*	9,608	<1%
Riparian Reserve	714,629	29%	Riparian Reserve – Moist	459,145	19%
			Riparian Reserve – Dry	255,484	10%
Other Reserves	250,523	10%	Congressionally Reserved	40,537	2%
			District-Designated Reserves	209,986	8%
Harvest Land Base	650,382	26%	Moderate Intensity Timber Area	160,575	6%
			Owl Habitat Timber Area	427,556	17%
			Uneven-aged Timber Area	62,251	3%
Eastside Management Area	149,030	6%	-	149,030	6%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* Existing Red Tree Vole Sites and Predicted Red Tree Vole Sites means those sites of the North Oregon Coast Distinct Population Segment of the red tree vole north of Highway 20.



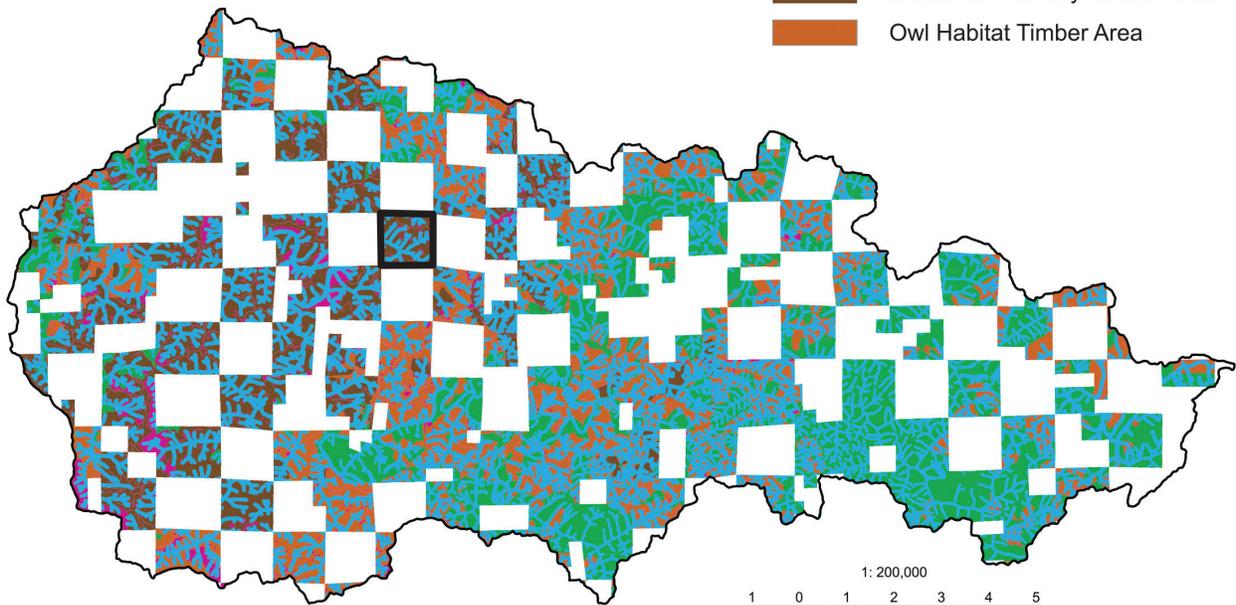
**Map 2-7: Alternative D Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  District Defined Reserve
-  Late Successional Reserve
-  Riparian Reserve
-  Moderate Intensity Timber Area
-  Owl Habitat Timber Area



Upper Smith River Watershed

### **Late-Successional Reserve**

The Late-Successional Reserve includes, primarily, Structurally-complex Forest/Large Block Forest Reserves, and much smaller acreages from nest patches of known and historic northern spotted owl sites, existing occupied marbled murrelet sites, and existing sites of the North Oregon Coast Distinct Population Segment of the red tree vole. In addition, Alternative D includes requirements for surveys for the marbled murrelet and the North Oregon Coast Distinct Population Segment of the red tree vole, as described below, and newly discovered sites would be included in the Late-Successional Reserve. Thus, this description of the Late-Successional Reserve includes predictions of the acreage of newly discovered marbled murrelet and red tree vole sites. Within the Late-Successional Reserve, the BLM would conduct no timber salvage after disturbance, except when necessary to protect public health and safety, or to keep roads and other infrastructure clear of debris.

### **Structurally-complex Forest/Large Block Forest Reserves**

Alternative D includes within the Late-Successional Reserve all stands 120 years old and older on high productivity sites, 140 years old and older on moderate productivity sites, and 160 years old and older on low productivity sites, based on the current age of stands in the BLM forest operations inventory. This Structurally-complex Forest also constitutes the Large Block Forest Reserves under Alternative D.

### **Riparian Reserve<sup>19</sup>**

In Alternative D, the Riparian Reserve encompasses lands within one site-potential tree height on either side of all streams. The Riparian Reserve includes a no-thin inner zone of 120 feet on either side of all streams. Outside of the inner zone, the BLM would conduct thinning, which may include commercial removal, as needed to ensure that stands are able to provide stable wood to the stream.

### **Harvest Land Base**

The Harvest Land Base is comprised of the Owl Habitat Timber Area, Uneven-aged Timber Area, and Moderate Intensity Timber Area. Alternative D includes the Owl Habitat Timber Area in all designated northern spotted owl critical habitat and within the home ranges of known and historic owl sites within the Harvest Land Base, (though the nest patches themselves are included in the Late-Successional Reserve). Timber harvest in the Owl Habitat Timber Area includes thinning and uneven-aged timber harvest applied in a manner that would maintain northern spotted owl habitat. The portion of the Harvest Land Base outside of designated northern spotted owl critical habitat is divided between the Uneven-aged Timber Area and the Moderate Intensity Timber Area. The allocation of the Uneven-aged Timber Area in Alternative D is based on very dry forest types identified by potential vegetation. The remainder of the Harvest Land Base in Alternative D is in the Moderate Intensity Timber Area. Timber harvest in the Moderate Intensity Timber Area includes thinning and regeneration harvest with retention of 5–15 percent of the stand.

### **Wildlife**

Within the Harvest Land Base, Alternative D includes—

- Specific protections to maintain habitat within the home ranges of all northern spotted owl known and historic sites;
- A requirement for surveys for the marbled murrelet prior to management actions in marbled murrelet Zones 1 and 2 and protection of habitat within 0.5 mile around newly discovered occupied sites;
- Protection of trees capable of providing marbled murrelet nesting structures in younger stands in marbled murrelet Zones 1 and 2; and

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<sup>19</sup> For the purpose of Riparian Reserve management in Alternative D, dry forests are defined by very dry forest types identified by potential vegetation types.

- A requirement for surveys for North Oregon Coast Distinct Population Segment of the red tree vole prior to management actions and protection of habitat areas around newly discovered nest sites.

### **Rare Plants and Fungi**

Under Alternative D, the BLM would protect known Bureau Sensitive species sites from adverse impacts where protection does not conflict with sustained-yield forest management in the Harvest Land Base.

### **Invasive Species**

Alternative D includes treatment at all sudden oak death infection sites.

### **Livestock Grazing**

Under Alternative D, the BLM would eliminate livestock grazing by terminating existing livestock grazing authorizations and making the allotments unavailable for livestock grazing.

### **Minerals**

Under Alternative D, the BLM would recommend for withdrawal from locatable mineral entry 208,478 acres (in addition to the 98,400 acres previously withdrawn) and would close 207,655 acres to salable mineral material disposal.

### **Areas of Critical Environmental Concern**

Under Alternative D, the BLM would designate 107 Areas of Critical Environmental Concern.

### **Recreation Management Areas**

Alternative D includes designation of Special Recreation Management Areas at currently developed recreation facilities, and on lands where designation does not conflict with sustained-yield timber harvest. Alternative D would include designation of Extensive Recreation Management Areas on all lands within the decision area where existing recreation use is occurring and the BLM has legal public access. In addition, the BLM would designate Special and Extensive Recreation Management Areas where known historic recreation use has occurred, and where the BLM is seeking to address activity-specific demands. The BLM would designate these to the maximum extent possible without precluding sustained-yield timber harvest.

### **Lands with Wilderness Characteristics**

Alternative D would not include management for wilderness characteristics of any identified lands with wilderness characteristics.

### **Wild and Scenic Rivers**

Under Alternative D, the BLM would recommend all 51 eligible river segments for inclusion in the National Wild and Scenic River System.

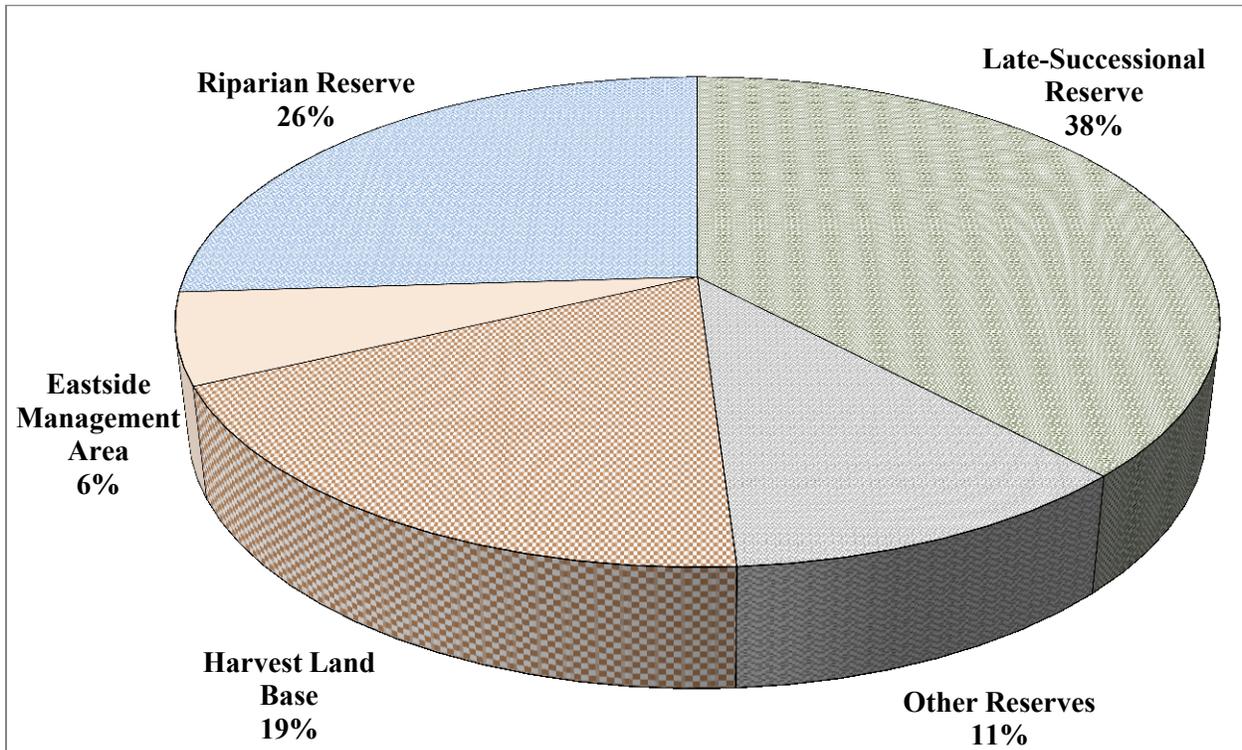
### **Visual Resource Management**

Under Alternative D, the BLM would manage Congressionally Reserved lands where decisions have been made to preserve a natural landscape (e.g., designated Wilderness Areas and the Wild sections of Wild and Scenic Rivers) as Visual Resource Management Class I. The BLM would manage the following as VRM Class II: designated and recommended suitable Wild and Scenic Rivers classified as Scenic; National Trail management corridors, and Special Recreation Management Areas that fall within the Primitive and Backcountry setting. The BLM would manage the following as VRM Class III: designated and recommended suitable Wild and Scenic Rivers classified as Recreational, and Special and Extensive Recreation Management Areas that fall within the Middle Country setting. The BLM would manage ACECs as a VRM class commensurate to the assigned Visual Resource Inventory class (e.g., VRI Class

III as VRM Class III). The BLM would manage all other lands as a VRM class commensurate to their assigned Visual Inventory Class (e.g., VRI Class III as VRM Class III), except that in the Harvest Land Base, lands inventoried as Visual Resource Inventory Class II would be managed as Visual Resource Management Class III.

## Proposed RMP

The BLM has developed the Proposed RMP as a variation on Alternative B, which the BLM identified in the Draft RMP/EIS as the preferred alternative. The Proposed RMP has a Late-Successional Reserve that is a refinement of the Late-Successional Reserve design in Alternative B (see **Figure 2-10**, **Table 2-10**, and **Map 2-8**). The Harvest Land Base is comprised of the Uneven-aged Timber Area, Low Intensity Timber Area, and Moderate Intensity Timber Area, as in Alternative B. The geographic extent of the portion of the Harvest Land Base in Uneven-aged Timber Area in the Proposed RMP is intermediate between Alternative B and Alternative C. As in Alternative B, the Low Intensity Timber Area and Moderate Intensity Timber Area include regeneration harvest with varying levels of retention.



**Figure 2-10.** Proposed RMP land use allocations

**Table 2-10.** Proposed RMP land use allocations and suballocations

Land Use Allocation	Acres	Total Acres (Percent)	Sub-allocation	Acres	Total Acres (Percent)
Late-Successional Reserve*	948,466	38%	Structurally-complex Forest	427,881	17%
			Large Block Forest Reserve – Moist	250,546	10%
			Large Block Forest Reserve – Dry	186,949	8%
			Existing Occupied Marbled Murrelet Sites	42,174	2%
			Predicted Marbled Murrelet Sites <sup>†</sup>	31,242	1%
			Existing Red Tree Vole Sites <sup>#</sup>	128	<1%
			Predicted Red Tree Vole Sites <sup>#</sup>	9,546	<1%
Riparian Reserve <sup>‡</sup>	635,717	26%	Riparian Reserve (Class I Subwatersheds)	497,331	20%
			Riparian Reserve (Class II Subwatersheds)	107,453	4%
			Riparian Reserve (Class III Subwatersheds)	30,933	1%
Other Reserves	263,647	11%	Congressionally Reserved Lands	40,505	2%
			District-Designated Reserves <sup>§</sup>	223,142	9%
Harvest Land Base**	469,215	19%	Moderate Intensity Timber Area	180,549	7%
			Low Intensity Timber Area	89,126	4%
			Uneven-aged Timber Area	199,541	8%
Eastside Management Area <sup>  </sup>	161,810	7%	Eastside Management Area	149,971	6%
			Eastside Management Area – Riparian Reserve	11,838	<1%
<b>Totals</b>				<b>2,478,856</b>	<b>-</b>

\* The acreage of the different components of the Late-Successional Reserve in this table is presented for comparison to the information for the action alternatives. The different components describe areas that are included in the Late-Successional Reserve for different reasons, including analytical projections of areas that the BLM would identify in the future as part of the Late-Successional Reserve. These different components are not sub-allocations, in that they do not have differing management objectives or management direction. The only sub-allocations of the Late-Successional Reserve, as detailed in **Appendix B**, are Late-Successional Reserve – Dry and Late-Successional Reserve – Moist.

† For the Proposed RMP, the BLM used updated detection rates to calculate acres of predicted marbled murrelet sites, which increased the acreage of predicted marbled murrelet sites compared to the alternatives (see the Forest Management and Wildlife sections of Chapter 3).

‡ The design of the Riparian Reserve (west of Highway 97) varies among three classes of subwatersheds. In addition, the Riparian Reserve (west of Highway 97) includes sub-allocations of Riparian Reserve – Moist and Riparian Reserve – Dry, which overlap the three classes of subwatershed. This table only presents the Riparian Reserve (west of Highway 97) by subwatershed class for simplicity of presentation.

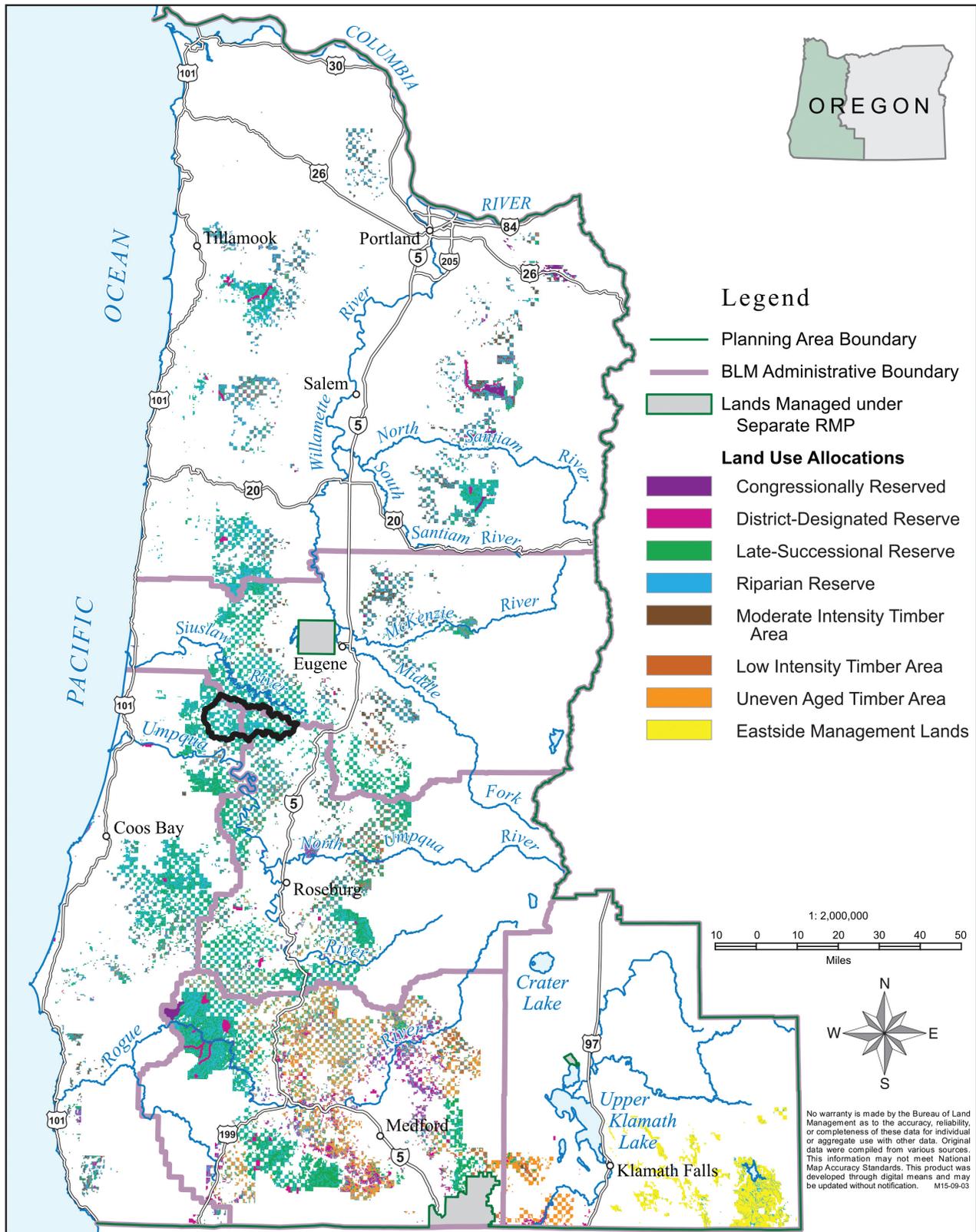
§ District-Designated Reserves include several sub-allocations, as detailed in **Appendix B**, which are grouped together in this table.

|| The acreage for the Eastside Management Area in this table includes both forested and non-forested lands and Eastside Management Area – Riparian Reserve.

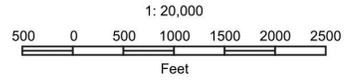
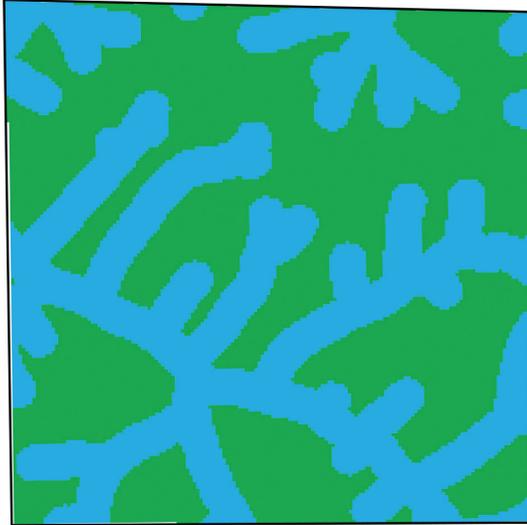
# Existing Red Tree Vole Sites and Predicted Red Tree Vole Sites means those sites of the North Oregon Coast Distinct Population Segment of the red tree vole north of Highway 20.

\*\* Acres mapped to the Harvest Land Base would be greater than shown here due to acres of Harvest Land Base that the BLM would shift to Late-Successional Reserve in the future based on surveys and discovery of sites for marbled murrelets and red tree voles during implementation of the Proposed RMP (shown as “predicted marbled murrelet sites” and “predicted red tree vole sites” in the Late-Successional Reserve).

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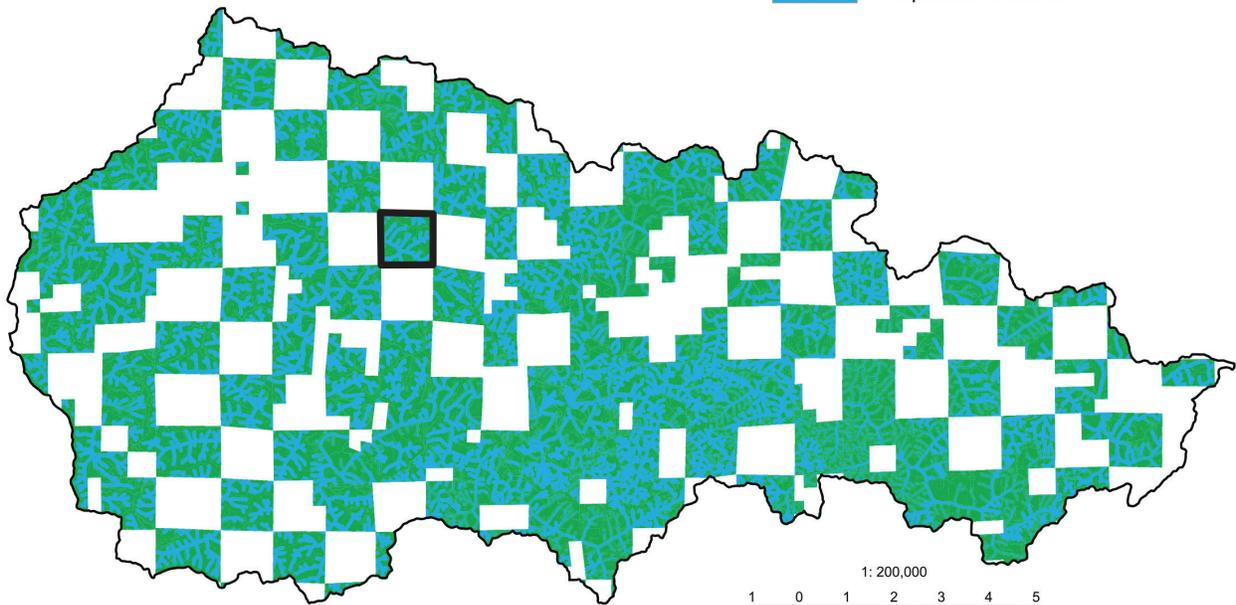
**Map 2-8: Proposed RMP Land Use Allocations**



Township 20 South, Range 8 West, Section 23

**Land Use Allocations**

-  Late-Successional Reserve
-  Riparian Reserve



Upper Smith River Watershed

The BLM identified Alternative B as the preferred alternative in the Draft RMP/EIS because of the outcomes associated with most resources. However, Alternative B does not provide the best possible response to the purpose and need for action and the guidance for the formulation of alternatives concerning the management of every resource. Recognizing this, the Draft RMP/EIS explained that the BLM would seek to develop a Proposed RMP that would, in comparison to Alternative B—

- Reduce the risk of adverse effects to ESA-listed fish and water quality;
- Increase protection of unique recreation settings and increase recreation use;
- Increase protection of identified lands with wilderness characteristics; and
- Minimize the spread of sudden oak death.

Based on the analysis in the Draft RMP/EIS and comments the BLM received on the Draft RMP/EIS, the BLM has modified the management approach of Alternative B for riparian management, recreation management, protection of identified lands with wilderness characteristics, and treatment of sudden oak death in the development of the Proposed RMP, as summarized below.

To reduce the risk of adverse effects to ESA-listed fish and water quality compared to Alternative B, the Proposed RMP includes a Riparian Reserve design that is intermediate among the alternatives and incorporates elements of each of the alternatives. The Proposed RMP carries forward the concept of key watersheds from the No Action alternative, in that it varies riparian management based on the importance of the subwatershed to the conservation and recovery of ESA-listed fish. For fish-bearing streams and perennial streams in all subwatersheds, the Riparian Reserve design is similar to Alternative D. For non-fish-bearing intermittent streams, the Riparian Reserve design in Class I and II subwatersheds is a slight modification of Alternative A, and the Riparian Reserve design in Class III subwatersheds is similar to Alternative C (see more detailed description below under Riparian Reserve).

To increase protection of unique recreation settings and increase recreation use compared to Alternative B, the Proposed RMP includes an approach to the management of recreation resources modified from Alternative C.

To increase protection of identified lands with wilderness characteristics compared to Alternative B, the Proposed RMP includes an approach to the management of identified lands with wilderness characteristics from Alternative A.

To minimize the spread of sudden oak death compared to Alternative B, the Proposed RMP includes the sudden oak death treatment approach of the No Action alternative, Alternative C, and Alternative D.

In designing the Proposed RMP to best meet all of the purposes for the RMP revision, the BLM considered the effects disclosed in the Draft RMP/EIS as well as the comments received from the public and cooperating agencies. The BLM made many of the modifications to Alternative B to mitigate further the adverse effects to resources through the land use allocations and the management direction. Specifically, the BLM modified the Riparian Reserve design and management direction of Alternative B for the Proposed RMP to reduce the risk of adverse effects to ESA-listed fish and water quality. The BLM increased the protection of identified lands with wilderness characteristics under the Proposed RMP compared to Alternative B to reduce the loss of wilderness characteristics. The BLM adopted the most aggressive sudden oak death treatment approach among the alternatives for the Proposed RMP to minimize the spread of sudden oak death. Additionally, the Proposed RMP included specific management direction intended to reduce or avoid adverse effects. For example, as described below, and in **Appendix B** and **Appendix X**, the Proposed RMP would prohibit the incidental take of northern spotted owls from timber harvest until implementation of a barred owl management program has begun, and would participate in, cooperate with, and provide support for an interagency program for barred owl

management when the U.S. Fish and Wildlife Service determines the best manner in which barred owl management can contribute to the recovery of the northern spotted owl.

The Proposed RMP would prohibit the incidental take<sup>20</sup> of northern spotted owls from timber harvest until implementation of a barred owl management program has begun (**Appendix B** and **Appendix X**). This design feature of the Proposed RMP is a refined and focused version of the management approaches for northern spotted owl sites in Alternative D and Sub-alternative B. Alternative D allocated the home ranges of all known and historic northern spotted owl sites in the Harvest Land Base to the Owl Habitat Timber Area (see above; also USDI BLM 2015, pp. 74, 938–939). Sub-alternative B allocated the home ranges of all known and historic northern spotted owl sites to the Late-Successional Reserve (see above; also USDI BLM 2015, pp. 53, 938–939). In both the Owl Habitat Timber Area in Alternative D and the Late-Successional Reserve in Sub-alternative B, management direction would prohibit timber harvest that would not maintain northern spotted owl nesting-roosting habitat. This management direction in Alternative D and Sub-alternative B would effectively prohibit incidental take of northern spotted owls from timber harvest by prohibiting timber harvest that would remove nesting-roosting habitat in occupied northern spotted owl sites. Beyond this, and in contrast to the management direction in the Proposed RMP, this management direction in Alternative D and Sub-alternative B would also prohibit timber harvest that would not cause incidental take of northern spotted owls (such as removal of nesting-roosting habitat in unoccupied northern spotted owl sites). Finally, this management direction in Alternative D and Sub-alternative B would be permanent, in contrast to the management direction in the Proposed RMP, which would prohibit the incidental take of northern spotted owls from timber harvest until implementation of a barred owl management program has begun. Thus, the management approach for northern spotted owl sites in the Proposed RMP is a temporary and more limited refinement of the approaches in Alternative D and Sub-alternative B, which were described and analyzed in the Draft RMP/EIS.

The design of the Proposed RMP included all reasonable measures to avoid and minimize adverse effects to natural resources while meeting the statutory requirements under the O&C Act for a sustained yield of timber and the other purposes of the action. The Proposed RMP would not eliminate all adverse effects. Some level of residual adverse effects would be necessary to accomplish all of the purposes for the action. For example, the application of management direction and best management practices for road construction would reduce, but not eliminate, the potential for sediment delivery to streams. Some amount of road construction and consequent potential sediment delivery would be necessary to accomplish the purpose of providing for a sustained yield of timber and management objectives such as providing access to BLM-administered lands and facilities to support resource management programs. The management direction in the Proposed RMP intended to reduce or avoid adverse effects are too numerous to catalog here, but the effectiveness of such management direction in mitigating adverse effects and residual adverse effects are addressed by the issues and analysis contained in Chapter 3.

This section contains bulleted lists of the management objectives for the land use allocations and resource programs for the Proposed RMP. For some allocations and programs, this section also contains brief descriptions of the allocation and abbreviated descriptions of the management direction. **Appendix B** contains the management objectives and management direction in their entirety for all land use allocations, sub-allocations, and resource programs of the Proposed RMP.

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<sup>20</sup> The ESA defines ‘take’ as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. 1532(19). The definition of harm is “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” 50 CFR 17.3; *Babbitt v. Sweet Home Chapter of Cmty. for a Greater Or.*, 515 U.S. 687, 696-700 (1995).

## Congressionally Reserved Lands and National Landscape Conservation System

- Conserve, protect, and restore the identified outstanding cultural, ecological, and scientific values of the National Landscape Conservation System and other congressionally designated lands.
- Preserve the wilderness character of designated Wilderness Areas.
- Preserve wilderness characteristics in Wilderness Study Areas in accordance with non-impairment standards as defined under the management policy for Wilderness Study Areas (BLM Manual 6330 – Management of BLM Wilderness Study Areas; USDI BLM 2012), until Congress either designates these lands as Wilderness or releases them for other purposes.
- Protect and enhance the free-flowing condition, water quality, and outstandingly remarkable values of eligible, suitable, and designated Wild and Scenic River corridors.<sup>21</sup>
- Provide protection to Wild and Scenic River corridors that are suitable for inclusion as components of the National Wild and Scenic Rivers system until Congress makes a decision on designation.
- Provide protection to Wild and Scenic River corridors that are eligible but have not yet been studied for suitability as components of the National Wild and Scenic Rivers system pending suitability evaluations.

Under the Proposed RMP, the BLM would recommend for inclusion in the National Wild and Scenic River System the six eligible Wild and Scenic River segments that the BLM found suitable during its administrative process (as outlined in BLM Manual 6400 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning and Management, USDI BLM 2012b).

### District-Designated Reserves

- Maintain the values and resources for which the BLM has reserved these areas from sustained-yield timber production.

The Proposed RMP includes management for wilderness characteristics of all identified lands with wilderness characteristics that are outside of the Harvest Land Base.

### Eastside Management Area – Forested Lands

- Manage forested lands on a sustainable basis for multiple uses including wildlife habitat, recreational needs, riparian habitat, cultural resources, community stability, and commodity production, including commercial timber and other forest products.
- Promote development of fire-resilient forests.
- Offer for sale the probable sale quantity of 350 Mbf of timber per year.

### Eastside Management Area – Non-forested Lands

- Manage non-forested lands with the intent of maintaining or improving wildlife habitat and rangeland conditions based on ecological site parameters. Where conditions are currently late-seral or potential natural community, maintain these conditions. Where conditions are early or mid-seral, improve conditions towards late-seral or potential natural community.
- Manage non-forested lands for multiple uses in addition to those listed above including: recreational needs, community stability, and commodity production. Commodities include firewood, logs, biomass, chips, and other products and byproducts from juniper woodlands and rangelands.

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<sup>21</sup> Wild and Scenic River corridors include all of the river classifications – Wild, Scenic, and Recreational.

- Promote development of fire-resilient woodlands and rangelands.
- Provide for the conservation of Bureau Special Status Species.

### Eastside Management Area – Riparian Reserve

- Provide for conservation of Bureau Special Status fish and other Bureau Special Status riparian-associated species.
- Provide for the riparian and aquatic conditions that supply stream channels with shade, sediment filtering, leaf litter and large wood sources, and stream bank stability.
- Maintain and restore water quality and hydrologic functions.
- Maintain and restore access to stream channels for all life stages of aquatic species.
- Maintain and restore the proper functioning condition and ecological site potential of riparian and wetland areas.

### Harvest Land Base

- Manage forests to achieve continual timber production that can be sustained through a balance of growth and harvest.
- Offer for sale the declared Allowable Sale Quantity of timber.
- Recover economic value from timber following disturbances, such as fires, windstorms, disease, or insect infestations.
- In harvested or disturbed areas, ensure the establishment and survival of desirable trees appropriate to the site and enhance their growth.
- Enhance the economic value of timber in forest stands.

In the Proposed RMP, the Harvest Land Base is comprised of the Uneven-aged Timber Area, Low Intensity Timber Area, and Moderate Intensity Timber Area.

The Uneven-aged Timber Area is located in—

- Dry and very dry forest types identified by potential vegetation types in the Klamath Falls Field Office;
- Dry forest types within northern spotted owl critical habitat designated in the 2012 final rule (77 FR 71908) and very dry forest types in the Medford District; and
- Very dry forest types in the South River Field Office of the Roseburg District.

The Low Intensity Timber Area is located in areas within the Harvest Land Base outside of the Uneven-aged Timber Area, in which the BLM identified that higher level of retention within regeneration harvest units would better integrate the management of multiple resources. Timber harvest in the Low Intensity Timber Area includes thinning and regeneration harvest with retention of 15–30 percent of the stand. In delineating these areas, the BLM included—

- Northern spotted owl critical habitat designated in the 2012 final rule (77 FR 71908) in the Harvest Land Base outside of the Uneven-aged Timber Area;
- Dry forest types outside of designated northern spotted owl critical habitat in the Harvest Land Base in the Medford District; and
- Special Recreation Management Areas that overlap the Harvest Land Base outside of the Uneven-aged Timber Area where increased tree retention in regeneration harvests would facilitate recreation management.

The Moderate Intensity Timber Area is located in the remaining portions of the Harvest Land Base. Timber harvest in the Moderate Intensity Timber Area includes thinning and regeneration harvest with retention of 5–15 percent of the stand.

In contrast to Alternative B, the Proposed RMP includes either natural tree regeneration or replanting after timber harvest in both the Low Intensity Timber Area and Moderate Intensity Timber Area.

### Late-Successional Reserve

- Maintain nesting-roosting habitat for the northern spotted owl and nesting habitat for the marbled murrelet.
- Promote the development of nesting-roosting habitat for the northern spotted owl in stands that do not currently support northern spotted owl nesting and roosting.
- Promote the development of nesting habitat for the marbled murrelet in stands that do not currently meet nesting habitat criteria.
- Promote the development and maintenance of foraging habitat for the northern spotted owl, including creating and maintaining habitat to increase diversity and abundance of prey for the northern spotted owl.

In the Proposed RMP, the Late-Successional Reserve includes, primarily, Structurally-complex Forest, Large Block Forest Reserves (Late-Successional Reserve – Moist and Late-Successional Reserve – Dry), and much smaller acreages from existing occupied marbled murrelet sites and existing sites of the North Oregon Coast Distinct Population Segment of the red tree vole north of Highway 20. In addition, the Proposed RMP includes requirements for surveys for the marbled murrelet and the North Oregon Coast Distinct Population Segment of the red tree vole, as described below; newly discovered sites would be included in the Late-Successional Reserve. Thus, this description of the Late-Successional Reserve includes predictions of the acreage of newly discovered marbled murrelet and red tree vole sites. Within the Late-Successional Reserve, the BLM would not conduct timber salvage after disturbance, except when necessary to protect public safety, or to keep roads and other infrastructure clear of debris.

#### **Structurally-complex Forest**

The Proposed RMP includes within the Late-Successional Reserve all stands identified by existing, district-specific information on Structurally-complex Forests.<sup>22</sup>

#### **Large Block Forest Reserves: Late-Successional Reserve – Moist and Late-Successional Reserve – Dry<sup>23</sup>**

The Proposed RMP includes within the Late-Successional Reserve blocks of functional and potential northern spotted owl habitat, sufficient to meet block size and spacing requirements (Thomas *et al.* 1990, pp. 24, 28) in all provinces except the Coast Range province, where reserves include blocks of habitat without limitations for size and spacing. In comparison to Alternative B, the Proposed RMP includes additional areas of Late-Successional Reserve in the Eugene and Roseburg Districts to facilitate east/west northern spotted owl movement and survival between the Coast Range and Cascade Mountains. In moist forests, the BLM would conduct thinning to promote the development of structurally-complex forest, which may include commercial removal

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<sup>22</sup> The BLM has updated this information since the preparation of Alternative B in the Draft RMP/EIS, which used the district-specific information on structurally-complex forests available at that time.

<sup>23</sup> The Late-Successional Reserve – Dry and Riparian Reserve – Dry sub-allocations in the Proposed RMP are delineated as those portions of the Late-Successional Reserve and Riparian Reserve, respectively, which are in dry and very dry forest types identified by potential vegetation types within the Klamath Falls Field Office, the Medford District, and the South River Field Office of the Roseburg District.

of cut trees. In dry forests, the BLM would conduct activities including thinning and prescribed burning to promote the development of structurally-complex forest and to improve resilience to disturbance, which may include commercial removal of cut trees.

### Riparian Reserve (west of Highway 97)

- Contribute to the conservation and recovery of ESA-listed fish species and their habitats and provide for conservation of Bureau Special Status fish and other Bureau Special Status riparian-associated species.
- Maintain and restore natural channel dynamics and processes, and the proper functioning condition of riparian areas, stream channels, and wetlands by providing forest shade, sediment filtering, wood recruitment, stability of stream banks and channels, water storage and release, vegetation diversity, nutrient cycling, and cool and moist microclimates.
- Maintain water quality and streamflows within the range of natural variability, to protect aquatic biodiversity, provide quality water for contact recreation and drinking water sources.
- Meet ODEQ water quality criteria.
- Maintain high quality water and contribute to the restoration of degraded water quality for 303(d)-listed streams.
- Maintain high quality waters within ODEQ designated Source Water Protection watersheds.

In the Proposed RMP, the Riparian Reserve encompasses lands along streams and other waterbodies. The design of the Riparian Reserve (west of Highway 97) varies among three classes of subwatersheds,<sup>24</sup> based on the importance of the subwatershed to the conservation and recovery of ESA-listed fish (see **Figure 2-11**). The BLM evaluated the importance of subwatersheds to the conservation and recovery of ESA-listed fish primarily based on designated critical habitat<sup>25</sup> and the presence of streams with a high-intrinsic potential for salmon. Class I subwatersheds are those that include both designated critical habitat and high-intrinsic potential streams.<sup>26</sup> Class II subwatersheds are those that include designated critical habitat or high-intrinsic potential streams. Class III subwatersheds are those that include neither designated critical habitat nor high-intrinsic potential streams. In identifying subwatershed classes, the BLM considered primarily the information in critical habitat designations and data on high intrinsic potential streams to indicate the importance of subwatersheds to the conservation and recovery of ESA-listed fish. However, future changes in designated critical habitat or data on high intrinsic potential streams would not alter the identification of subwatershed classes for the purpose of Riparian Reserve design and management direction (**Appendix X**).

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<sup>24</sup> The BLM defined the three classes for Riparian Reserve design in the Proposed RMP based on ‘6<sup>th</sup> field watersheds’ (Hydrologic Unit Code 12). Hydrologic Unit Codes (HUC) are a U.S Geological Survey classification based on a hierarchy of nested watersheds. HUC 12 subwatersheds are typically 10,000–40,000 acres in size.

<sup>25</sup> For subwatersheds on the east side of the Willamette River, the BLM included core-genetic and core-legacy populations in addition to designated critical habitat.

<sup>26</sup> The ‘intrinsic potential’ is the set of habitat features that most influence whether that habitat is likely to be used or selected (or not) by an individual fish species. ‘High intrinsic potential’ streams are those streams with the habitat features that are known to be highly productive for an individual fish species (BLM 2015b, pp. 2–3).

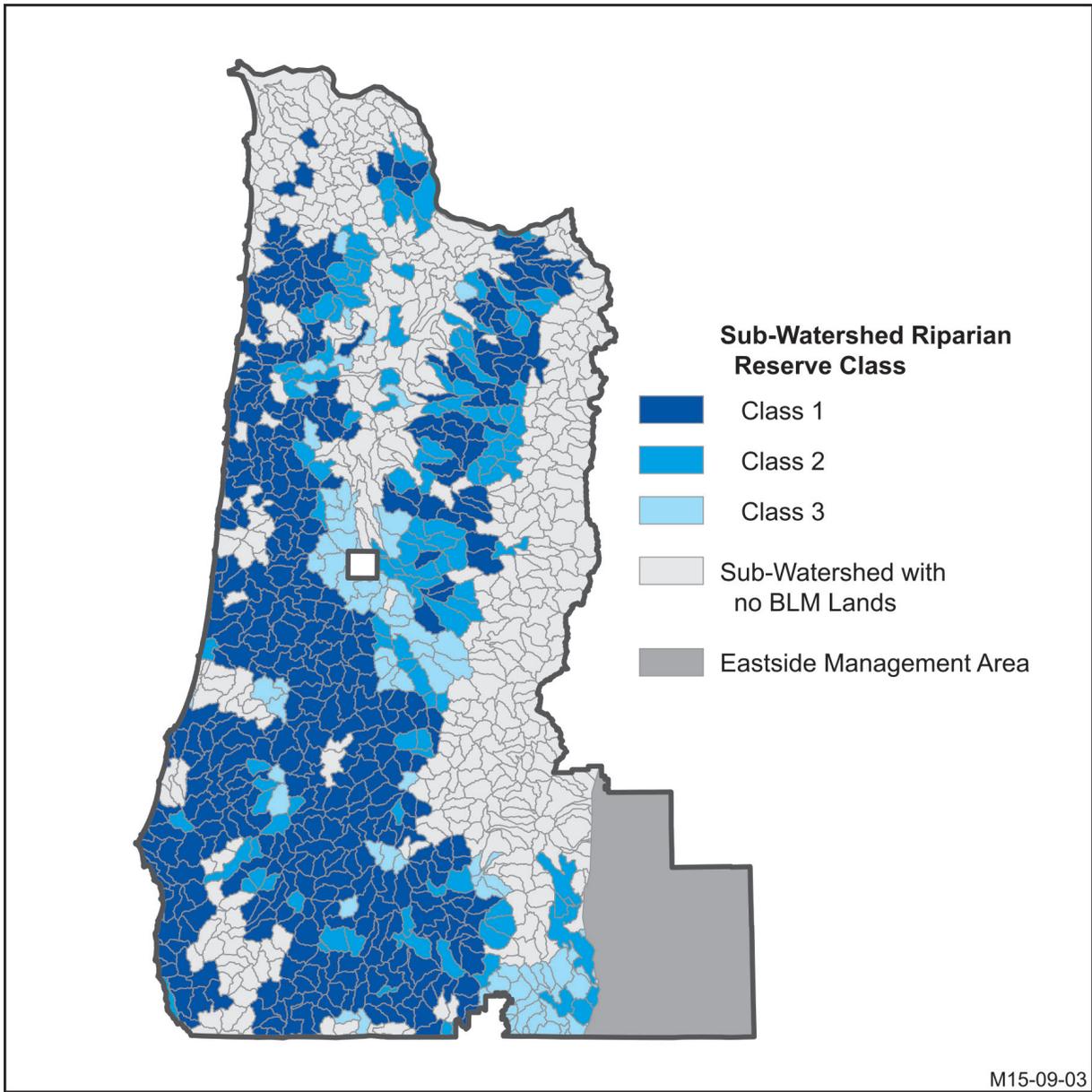


Figure 2-11. Proposed RMP subwatershed classes

### **Class I Subwatersheds**

The Riparian Reserve encompasses lands within one site-potential tree height on either side of all streams.

The Riparian Reserve includes an inner zone in which thinning is generally not permitted. Inner zone widths are—

- 120 feet on either side of perennial streams and fish-bearing intermittent streams, and
- 50 feet on either side of non-fish-bearing, intermittent streams.

The Riparian Reserve includes a middle zone from 50 to 120 feet on either side of non-fish-bearing, intermittent streams. No middle zone is delineated on perennial streams and fish-bearing intermittent streams. In the middle zone, the BLM would conduct thinning as needed to ensure that stands are able to provide trees to form stable instream structures. In the middle zone in moist forests, the BLM would conduct thinning without commercial removal of timber (i.e., down woody debris and snag creation only). In the middle zone in the Riparian Reserve – Dry, activities would include prescribed burning and thinning that would include removal of cut trees, including commercial removal, as needed to reduce the risk of stand-replacing, crown fires.

The outer zone of the Riparian Reserve would be from 120 feet to one site-potential tree height on either side of all streams. In the outer zone, the BLM would conduct thinning, which may include commercial removal, as needed to ensure that stands are able to provide stable wood to the stream.

### **Class II Subwatersheds**

The Riparian Reserve encompasses lands within one site-potential tree height on either side of all streams.

The Riparian Reserve includes an inner zone in which thinning is generally not permitted. Inner zone widths are—

- 120 feet on either side of perennial streams and fish-bearing intermittent streams, and
- 50 feet on either side of non-fish-bearing, intermittent streams.

In the outer zone, the BLM would conduct thinning, which may include commercial removal, as needed to develop diverse and structurally-complex riparian stands.

### **Class III Subwatersheds**

The Riparian Reserve encompasses lands within—

- One site-potential tree height on either side of perennial streams and fish-bearing intermittent streams, and
- 50 feet on either side of non-fish-bearing, intermittent streams.

The Riparian Reserve includes an inner zone in which thinning is generally not permitted. Inner zone widths are—

- 120 feet on either side of perennial and fish-bearing intermittent streams, and
- 50 feet on either side of non-fish-bearing, intermittent streams.

In the outer zone, the BLM would conduct thinning, which may include commercial removal, as needed to develop diverse and structurally-complex riparian stands.

### Administrative Actions

- Provide for the orderly and efficient management of resources.

### Air Quality

- Protect air quality-related values in Federal mandatory Class I areas.
- Prevent exceedances of national, State, or local ambient air quality standards.

### Areas of Critical Environmental Concern

- Maintain or restore relevant and important values in Areas of Critical Environmental Concern, including Research Natural Areas and Outstanding Natural Areas.

Under the Proposed RMP, the BLM would designate 108 Areas of Critical Environmental Concern.

### Cultural Resources

- Preserve and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations.
- Reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration or potential conflict with other resources by ensuring that all authorizations for land and resource use will comply with Section 106 of the National Historic Preservation Act.

### Fire, Fuels, and Wildfire Response

- Respond to wildfires in a manner that provides for public and firefighter safety while meeting land management objectives by utilizing the full range of fire management options.
- Fire management strategies would be risk-based decisions that consider firefighter and public safety, values at risk, management objectives, and costs that are commensurate with the identified risk.
- Actively manage the land to restore and maintain resilience of ecosystems to wildfire and decrease the risk of uncharacteristic, large, high-intensity/high-severity wildfires.
- Manage fuels to reduce wildfire hazard, risk, and negative impacts to communities and infrastructure, landscapes, ecosystems, and highly valued resources.
- Manage fire, fuels, and wildfire response consistent with the National Cohesive Wildland Fire Management Strategy.
- Participate with communities bordering Federal lands in partnership with local, State, and Federal stakeholders to reduce the risks and threats from wildland fire.

### Fisheries

- Improve the distribution and quantity of high-quality fish habitat across the landscape for all life stages of ESA-listed, Bureau Special Status Species, and other fish species.
- Maintain and restore access to stream channels for all life stages of aquatic species.

### Forest Management

- Enhance the health, stability, growth, and vigor of forest stands.
- In harvested or disturbed areas, ensure the establishment and survival of desirable vegetation appropriate to the site.

- Facilitate safe and efficient forestry operations for the BLM, reciprocal right-of-way agreement holders, and permittees.

### Hydrology

- Maintain water quality within the range of natural variability that meets ODEQ water quality standards for drinking water, contact recreation, and aquatic biodiversity.

### Invasive Species

- Prevent the introduction of invasive species and the spread of existing invasive species infestations.
- Prevent the introduction and the spread of sudden oak death (*Phytophthora ramorum*) infections.

The Proposed RMP includes treatment at all sudden oak death infection sites.

### Lands, Realty, and Roads

- Make land tenure adjustments to facilitate the management of resources and enhance public resource values.
- Provide legal access to BLM-administered lands and facilities to support resource management programs.
- Provide needed rights-of-way, permits, leases, and easements over BLM-administered lands in a manner that is consistent with Federal and State laws.
- Protect lands that have important resource values or substantial levels of investment by withdrawing them, where necessary, from the implementation of nondiscretionary public land and mineral laws.
- Provide a road transportation system that serves resource management needs (administrative/commercial) and casual use needs (recreational/domestic) for both BLM-administered lands and adjacent privately owned lands.

### Livestock Grazing

- Provide for livestock grazing consistent with other resource objectives while maintaining or improving the health of the public rangelands.
- Prevent livestock from causing trampling disturbance to fish spawning beds where ESA-listed and Bureau Sensitive species occur.

Under the Proposed RMP, the BLM would manage allotments in compliance with Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington (USDI BLM 1997). The BLM would adjust grazing levels and management practices when needed to meet or make progress toward meeting the standards for rangeland health. The BLM would make unavailable to grazing those allotments, as listed in **Appendix B**, that have been generally been vacant or inactive for 5 years or more and currently have no Section 3 or Section 15 grazing preference.

### Minerals

- Manage the development of leasable (including conventional and non-conventional hydrocarbon resources) minerals, locatable mineral entry, and salable mineral material disposal in an orderly and efficient manner.

- Maintain availability of mineral material sites needed for development and maintenance of access roads for forest management, timber harvest, local communities, rights-of-way for energy production and transmission, and other uses.

Under the Proposed RMP, the BLM would recommend for withdrawal from locatable mineral entry 208,912 acres (in addition to the 98,400 acres previously withdrawn) and would close 217,711 acres to salable mineral material disposal.

### Paleontological Resources

- Protect and preserve significant localities from natural or human-caused deterioration or potential conflict with other resources.
- Provide appropriate scientific, educational, and recreational use, such as research and interpretive opportunities for paleontological resources.

### Rare Plants and Fungi

- Provide for conservation and contribute toward the recovery of plant species that are ESA-listed or candidates.
- Support the persistence and resilience of natural communities, including those associated with forests, oak woodlands, shrublands, grasslands, cliffs, rock outcrops, talus slopes, meadows, and wetlands. Support ecological processes and disturbance mechanisms to allow for a range of seral conditions.
- Provide for the conservation of Bureau Special Status plant and fungi species.
- Support the persistence and resilience of oak species within oak woodlands and within mixed hardwood/conifer communities.

Under the Proposed RMP, the BLM would manage mixed hardwood/conifer communities to maintain and enhance oak persistence and structure and manage mixed conifer communities to maintain and enhance pine persistence and structure.

### Recreation and Visitor Services

- Provide a diversity of quality recreational opportunities.
- Meet legal requirements for visitor health and safety and mitigate resource user conflicts.
- Mitigate recreational impacts on natural and cultural resources. In land use allocations where management of other resources is dominant, provide recreational opportunities where they can be managed consistent with the management of these other resources.
- Develop new recreation opportunities to address recreation activity demand created by growing communities, activity groups, or recreation-tourism if—
  - Recreation development is consistent with interdisciplinary land use plan objectives; and
  - The BLM has secured commitments from partners (e.g., a cooperative management agreement, adopt-a-trail agreement, and memorandum of understanding).

The Proposed RMP includes designation of Special Recreation Management Areas at currently developed recreation facilities, and on lands where designation does not conflict with sustained-yield timber harvest. The Proposed RMP includes designation of Extensive Recreation Management Areas where the BLM has developed and currently manages recreation activities outside of developed facilities, primarily where the BLM has authorized motorized and non-motorized trails, and where the BLM currently manages dispersed recreation activities. In addition, the BLM would designate Special Recreation Management Areas and Extensive Recreation Management Areas to address specific recreation demands and scarcity,

or address where unique opportunities for activity-specific demands exist. In the rest of the decision area, the BLM would not manage specifically for recreation, but recreation could occur to the extent that the BLM has legal public access and recreation is not in conflict with the primary uses of these lands. The Proposed RMP would designate 241 RMAs (see **Appendix O**). The BLM would manage RMAs to achieve the management objectives and management direction described for Recreation and Visitor Services in Appendix B, and in accordance with their RMA Frameworks.<sup>27</sup>

### Soil Resources

- Maintain or enhance the inherent soil functions (e.g., ability of soil to take in water, store water, regulate outputs for vegetative growth and stream flow, and resist erosion or compaction) of managed ecosystems.
- Provide landscapes that stay within natural soil stability failure rates during and after management activities.

### Sustainable Energy

- Develop sustainable energy resources to the maximum extent possible without precluding other land uses.

### Trails and Travel Management

- Maintain a comprehensive travel network that best meets the full range of public use, resource management, and administrative access needs.
- Protect fragile and unique resource values from damage by public motorized vehicle use.
- Provide public motorized vehicle use opportunities where appropriate.

### Tribal Interests

Under the Proposed RMP, the BLM would consult with affected Tribes early in project planning in order consider effects to, and appropriately avoid or mitigate impacts to all cultural resources of concern, including both archaeological and natural resources. The BLM would identify opportunities to partner with Tribes on restoration projects and other land management activities that include resources and areas of interest to the Tribes. The BLM would accommodate access to and ceremonial use of sacred sites and places of traditional cultural importance to Tribes as well as avoid adversely affecting their physical integrity to the extent practicable, permitted by law, and not clearly inconsistent with other agency functions.

### Visual Resource Management

- Protect scenic values on public lands where visual resources are an issue or where high-value visual resources exist.
- Prohibit activities that would disrupt the existing character of the landscape in Visual Resource Management Class I areas.
- Retain the existing character of the landscape in Visual Resource Management Class II areas.
- Partially retain the existing character of the landscape in Visual Resource Management Class III areas.

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<sup>27</sup> Recreation Management Frameworks for the Proposed RMP are located at <http://www.blm.gov/or/plans/rmpswesternoregon/feis.php>.

- Allow for major modification of the existing character of the landscape in Visual Resource Management Class IV areas.

Under the Proposed RMP, the BLM would manage Congressionally Reserved lands where decisions have been made to preserve a natural landscape (e.g., designated Wilderness Areas and the Wild segments of Wild and Scenic Rivers) as Visual Resource Management Class I. The BLM would manage the following as VRM Class II: designated and recommended suitable Wild and Scenic Rivers classified as Scenic; National Trail management corridors; District-Designated Reserve – Lands Managed for their Wilderness Characteristics; and Special Recreation Management Areas that fall within the Primitive and Backcountry setting. The BLM would manage the following as VRM Class III: designated and recommended suitable Wild and Scenic Rivers classified as Recreational, and Special and Extensive Recreation Management Areas that fall within the Middle Country setting. The BLM would manage ACECs as a VRM Class commensurate to the assigned Visual Resource Inventory class (e.g., VRI Class III as VRM Class III), except that the BLM would manage ACECs within the Harvest Land Base that are VRI Class II as VRM Class III. The BLM would manage all other lands as Visual Resource Management Class IV.

### Wildlife

- Conserve and recover species that are ESA-listed, proposed, or candidate, and the ecosystems on which they depend.
- Implement conservation measures that reduce or eliminate threats to Bureau Sensitive species to minimize the likelihood of and need for the ESA-listing of these species.
- Conserve or create habitat for species addressed by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act and the ecosystems on which they depend.

Under the Proposed RMP, the BLM would implement the mitigation measure described in the Draft RMP/EIS for BLM participation in barred owl management (see **Appendix X**). As described in the Draft RMP/EIS, the BLM would cooperate with the U.S. Fish and Wildlife Service and provide financial support for their experimental removal of barred owls. Further, when the U.S. Fish and Wildlife Service determines the best manner in which barred owl management can contribute to the recovery of the northern spotted owl, the BLM would participate in, cooperate with, and provide support for an interagency program for barred owl management to implement Recovery Action 30. Barred owl management actions on BLM-administered lands within the range of the northern spotted owl could include BLM participation in scheduling, funding, and implementing such actions.

The Proposed RMP includes a requirement to avoid the incidental take of northern spotted owls from timber harvest until implementation of a barred owl management program has begun. As part of the process to determine whether a planned timber harvest would result in take of northern spotted owls, the BLM would establish whether the northern spotted owl is actually present in the area that would be affected by the timber harvest using the best available science at that time, such as through pre-project northern spotted owl surveys.

Management for the marbled murrelet under the Proposed RMP includes—

- A requirement for survey of nesting habitat in all land use allocations in marbled murrelet Zone 1 and in reserve land use allocations in marbled murrelet Zone 2;
- A requirement for protection of habitat within 300 feet around newly discovered occupied marbled murrelet sites; and
- The protection of trees capable of providing marbled murrelet nesting structures in younger stands within the Harvest Land Base in marbled murrelet Zone 1.

The Proposed RMP also includes a requirement for surveys for North Oregon Coast Distinct Population Segment of the red tree vole prior to management actions north of Highway 20 and protection of habitat areas around known sites and newly discovered nest sites north of Highway 20, and protection of known sites in the Late-Successional Reserve and Riparian Reserve south of Highway 20.

### Wild Horses

- Manage and maintain a healthy population of wild and free-roaming horses in the Pokegama Herd Management Area of the Klamath Falls Field Office.

## **Mitigation**

The Council on Environmental Quality regulations state that mitigation includes avoiding, minimizing, rectifying, reducing, eliminating, or compensating for adverse environmental impacts (40 CFR 1508.20). The BLM NEPA Handbook explains that measures or practices should only be termed mitigation measures if they have not been incorporated into the proposed action or alternatives. If they are incorporated into the proposed action or alternatives, they are called design features, not mitigation measures (BLM Handbook 1790-1 – National Environmental Policy Act, USDI BLM 2008, p. 61). Most of the measures that would avoid, rectify, or reduce environmental impacts are integral to the design of the alternatives and the Proposed RMP, such as the size, location, and extent of the Late-Succession Reserve, and therefore these design features cannot be addressed as discrete mitigation measures. Throughout Chapter 3, this Proposed RMP/Final EIS describes the varying effects of these different design features and their effectiveness at avoiding, minimizing, rectifying, reducing, eliminating, or compensating for adverse environmental impacts. These different design features and their effects are too numerous and too thoroughly integrated into the analysis in Chapter 3 to enumerate here.

Best Management Practices (BMPs) are practices that have been determined to be the most effective and practicable in preventing or reducing the amount of pollution generated by diffuse sources to a level compatible with water quality goals (40 CFR 130.2 [m]). The BMPs are measures or practices that would avoid, rectify, or reduce environmental impacts, and are included in the approved RMP. **Appendix J** lists the BMPs and provides a detailed discussion of the role and application of BMPs. Under all alternatives and the Proposed RMP, project-level planning and analysis would identify the appropriate and applicable BMPs needed to achieve management objectives.

The Draft RMP/EIS identified one potential mitigation measure common to all action alternatives: BLM participation in barred owl management. This measure has been incorporated into the Proposed RMP, as described above and in **Appendix X**.

## **Alternatives Considered but not Analyzed in Detail**

An EIS must rigorously explore and objectively evaluate all reasonable alternatives. The BLM may eliminate from detailed analysis alternatives that are not reasonable. As explained in the BLM NEPA Handbook (USDI BLM 2008, p. 52), an alternative need not be analyzed in detail if–

- It does not meet the purpose and need (see Chapter 1 for the purpose and need);
- It is technically or economically infeasible;
- It is inconsistent with the basic policy objectives for the management of the area (see Chapter 1 for the guidance for the formulation of alternatives);
- Its implementation is remote or speculative;
- It is substantially similar to an alternative being considered in detail; or
- It would have substantially similar effects to an alternative being considered in detail.

The BLM considered the following alternatives but eliminated them from detailed analysis, as explained below.

### **No Timber Harvest**

This alternative would prohibit all timber harvesting on BLM-administered lands. The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need, which includes providing a sustained yield of timber in accordance with the O&C Act.

This Proposed RMP/Final EIS does make use of a reference analysis of no timber harvest on BLM-administered lands. This reference analysis is not a reasonable alternative. Instead, this Proposed RMP/Final EIS includes discussion of this reference analysis to provide context and a point of comparison as needed to analyze and interpret the effects of the alternatives.

### **Continuation of the Current Practices**

This management approach would seek to continue the varying current practices that the BLM has been implementing since the adoption of the 1995 RMPs. The BLM cannot analyze continuation of the current practices as the No Action alternative. Additionally, the BLM has eliminated from detailed analysis the continuation of the current practices as an action alternative.

As discussed earlier in this chapter, the No Action alternative in this Proposed RMP/Final EIS is implementation of the 1995 RMPs as written (in contrast to using one of the variable years representing how the BLM has been implementing the 1995 RMPs). It is not possible to analyze continuation of the current practices within the decision area as the No Action alternative for two reasons. First, implementation of the timber management program has departed substantially from the outcomes predicted in the 1995 RMPs, and the manner and intensity of this departure has varied substantially over time and among districts (USDI BLM 2012, pp. 6–12). There is no apparent basis on which the BLM might select and project into the future the continuation of practices from a specific year (or set of years) since 1995. Second, continuing to harvest timber at the current declared annual productive capacity level for multiple decades into the future would not be possible using the current practices of predominately thinning harvests (USDI BLM 2012, pp. 6–12). The No Action alternative provides a benchmark to compare outputs and effects, even though this alternative does not meet the purpose and need of the project. Because of the inherent unsustainability and variability of current practices, the BLM cannot project their implementation into the future; thus, analyzing continuation of the current practices would not serve the essential function of the No Action alternative of providing a baseline for comparison of outputs and effects. In contrast, it is possible for the BLM to project the implementation of the 1995 RMPs as written for multiple decades into the future and provide a baseline for comparison to the action alternatives.

The BLM will not present the implementation of the 1995 RMPs as written and continuation of the current practices as two separate No Action alternatives. The BLM developed two separate No Action alternatives in a previous planning effort to amend the 1995 RMPs, and the District Court for the Western District of Washington determined this approach was inconsistent with NEPA. The District Court for the Western District of Washington stated that agencies are “...obligated to provide a single, comprehensive no-action alternative that accurately represented the status quo...” *Conservation NW. v. Rey*, 674 F. Supp. 2d 1232, 1251 (W.D. Wash. 2009). The status quo at this time is that the BLM must implement actions in conformance with the 1995 RMPs, consistent with 43 CFR 1610.5–3. Therefore, implementation of the 1995 RMPs as written, amended, and modified by court orders, represents the single No Action alternative for this RMP revision.

The BLM also eliminated continuation of the current practices from detailed analysis as an action alternative, because it would not be a reasonable alternative, in that it would not meet the purpose and need for this planning effort. The purpose and need includes providing a sustained yield of timber, which requires that the management of the forest provide a continuous volume of timber at the current intensity of management without decline. The current implementation practices in the timber program are not sustainable (USDI BLM 2012, pp. 6–12).

Timber harvest practices have varied since the adoption of the 1995 RMPs. Nevertheless, in recent years, all districts have implemented a timber harvest program that has been predominately thinning. The level of regeneration harvest has been substantially less than assumed in the 1995 RMPs for all districts, ranging from 4 percent to 16 percent of the assumed levels during the period from 2004 to 2010 (USDI BLM 2012, p. 7, Appendices 3–8). Thus, a management approach that would limit timber harvest to thinning would approximate the continuation of the practices of the past decade.

The 2008 FEIS analyzed a sub-alternative of Alternative 1 that would limit timber harvest to thinning, which provides an approximation of the effects of continuation of the current practices. That analysis evaluated how long thinning alone could provide at least 90 percent of the annual productive capacity for Alternative 1. That analysis concluded that none of the sustained-yield units could maintain that harvest level for a decade. As concluded in that analysis, “This sub-alternative demonstrates that high levels of thinning cannot be maintained for extended periods to sustain an allowable sale quantity”<sup>28</sup> (USDI BLM 2007, p. 561). That analysis is incorporated here by reference (USDI BLM 2007, pp. 560–561). The timber harvest level of Alternative 1 would have been higher than the timber volume being produced under current practices. Thus, at the slower pace of harvesting under the current practices, compared to the harvest rates assumed under Alternative 1 in the 2008 FEIS, it could be inferred that thinning might be able to support the current harvest volume for approximately one to two decades. However, during the years since the BLM conducted that analysis, the BLM has continued to harvest predominately with thinning, exhausting much of the thinning opportunities considered in that analysis. As a result, the overall analytical conclusion from the 2008 FEIS that high levels of thinning can only be sustained for less than a decade is still applicable.

This analytical conclusion is consistent with the plan evaluations that the BLM conducted in 2012, which determined that the current timber harvest practices are “not sustainable at the declared ASQ level” due to reliance on predominately thinning (USDI BLM 2012, pp. 10–11).

In summary, the BLM cannot analyze continuation of the current practices as the No Action alternative, because the current practices have been variable and are not sustainable, preventing the projection of the current practices into the future. The BLM has eliminated from detailed analysis the continuation of the current practices as an action alternative, because it would not be a reasonable alternative, in that it would not provide for a sustained yield of timber over the long term. The analysis of a thinning only sub-alternative in the 2008 FEIS provides an approximation of the effects of this management approach, concluding that thinning levels can only be sustained for less than a decade.

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<sup>28</sup> As noted in Chapter 1, the terms ‘annual productive capacity,’ ‘annual sustained yield capacity,’ and ‘allowable sale quantity’ are synonymous.

## **Implement the 1995 RMPs at the Sustained-yield Timber Harvest Levels Declared in the 1995 RMPs**

This alternative would implement the 1995 RMPs as written with the annual productive capacity for sustained-yield timber fixed at the level declared in the 1995 RMPs. The BLM eliminated this alternative from detailed analysis because—

- It is reasonably foreseeable that the BLM would adjust the annual productive capacity based on new information and analysis;
- Ignoring new information and analysis on annual productive capacity would produce a flawed and incomplete analysis of environmental effects;
- The 1994 RMP/EISs already analyzed a management approach with an annual productive capacity at the currently declared levels; and
- A management approach with an annual productive capacity at the currently declared levels does not represent a benchmark among the range of alternatives in this Proposed RMP/Final EIS.

As discussed earlier in this chapter, the No Action alternative in this Proposed RMP/Final EIS is implementation of the 1995 RMPs as written. The 1995 RMPs determined and declared the annual productive capacity to be 211 MMbf, based on information and analysis available at that time. In response to new information described in plan evaluations, the BLM adjusted the annual productive capacity in 1999 in some sustained-yield units through plan maintenance, resulting in a total annual productive capacity of 203 MMbf. As part of the analysis of the No Action alternative in this RMP/EIS, the BLM has calculated the annual productive capacity under the management described in the 1995 RMPs (i.e., the land use allocations and management direction), in light of the most current information available to the BLM on the condition of forests within the decision area. That analysis demonstrates that the annual productive capacity under the management described in the 1995 RMPs, based on current conditions and current information, would be 277 MMbf. The discussion in Chapter 3 in the Forest Management section explains the reasons for this increase in the determination of the annual productive capacity. This conclusion is consistent with the conclusion in the 2008 FEIS, which calculated the annual productive capacity for the No Action alternative to be 268 MMbf at that time. If the BLM were to adopt the No Action alternative at the conclusion of this planning process, it is reasonably foreseeable that the BLM would adjust the declaration of the annual productive capacity through plan maintenance based on this new information, as the BLM did in 1999 following plan evaluations. Even if the BLM were to eschew any amendment or revision of the 1995 RMPs, the regulations at 43 CFR 1610.5–4 would still compel the BLM to maintain the 1995 RMPs and refine the previously approved decision based on a change in data. Therefore, it is not reasonably foreseeable that, under the No Action alternative, the BLM would continue in the future to determine the annual productive capacity to be 203 MMbf (or the originally declared 211 MMbf).

For the purpose of RMP analysis, the determination of the amount of sustained-yield timber harvest that the BLM could produce under an alternative is indirectly determinative of a host of environmental effects, as documented throughout Chapter 3 of this Proposed RMP/Final EIS. To ignore new information and inaccurately analyze the amount of sustained-yield timber harvest under an alternative, (i.e., to fix the annual productive capacity for the No Action alternative at either 203 or 211 MMbf) would provide a flawed and incomplete analysis of environmental effects.

The BLM presented analysis of the 1995 RMP with an annual productive capacity of 211 MMbf in the RMP/EISs for the 1995 RMPs (USDI BLM 1994 a, b, c, d, e, f). For many effects, that analysis remains a reasonably accurate depiction of the effects of an alternative with that level of sustained-yield timber harvest. The plan maintenance prepared by the BLM for the adjustments of the annual productive capacity to 203 MMbf documented that the adjustment was simply a refinement of the previously approved decision and did not require additional NEPA analysis (e.g., USDI BLM 2003a, p. 108).

Finally, omitting detailed analysis of an alternative with an annual productive capacity of 203 MMbf (or the originally declared 211 MMbf) from this RMP/EIS does not deprive the BLM of a benchmark in its analysis. The alternatives and sub-alternatives in the Proposed RMP/Final EIS would result in an annual productive capacity that ranges from 119 to 486 MMbf. Both Sub-alternative B and Alternative D would result in an annual productive capacity lower than 203 MMbf. Thus, an alternative with an annual productive capacity of 203 MMbf (or the originally declared 211 MMbf) represents an intermediate level of resource development and an intermediate outcome. Regardless of whether the BLM analyzes the continued implementation of the 1995 RMPs with an annual productive capacity calculated based on the current information or fixed at the previous declared level, the range of alternatives analyzed in the Proposed RMP/Final EIS spans “the full spectrum of alternatives,” and the action alternatives include management approaches with “greater and lesser levels of resource development,” consistent with guidance from the Council on Environmental Quality (“Forty Most Asked Questions...” 46 FR 18027).

### **‘Natural Selection Alternative’ – Harvest Only Dead and Dying Trees**

This alternative would remove only “naturally selected dead and dying trees, conditioned upon meeting the needs of other species.” Timber harvesting of such trees would be accomplished with small equipment from a network of narrow roads. The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need and the basic policy objectives described in the guidance for development of all action alternatives, in that it would not make a substantial and meaningful contribution to providing a sustained yield of timber. As explained in the Purpose and Need for Action in Chapter 1, O&C Act states that “[t]he annual productive capacity for such lands shall be determined and declared...” and that volume of timber “...shall be sold annually.” To limit the harvest of timber to trees that die or are dying would not reflect the annual productive capacity for such lands. Furthermore, the timber volume in dead and dying trees from year to year would be inherently unpredictable and variable, and thus would not support sustained-yield timber production because the annual volume for sale would fluctuate unpredictably based on annual conditions. Therefore, limiting the harvest of timber to trees that die or are dying would not be consistent with the requirements of the O&C Act and would not respond to the purpose for the action.

### **Harvest Only Small-diameter Trees with a One-time Entry**

This alternative would limit timber harvest to small diameter trees cut for restoration treatments. Timber harvest would be conducted only as a one-time entry into stands for timber volume. The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need and the basic policy objectives described in the guidance for development of all action alternatives, in that it would not make a substantial and meaningful contribution to providing a sustained yield of timber. An alternative designed for “one-time entry” with restoration as the primary objective would not provide sustained yield of timber. Limiting timber harvest to “one-time entry” and establishing restoration of some resource condition as the primary objective would preclude producing a given volume of timber in perpetuity at a given intensity of management, as required by the O&C Act and specifically described in the purpose for the action. Therefore, such an alternative would not be a reasonable alternative.

### **Maximize Carbon Storage**

This alternative would maximize the storage of carbon on BLM-administered lands. The Draft RMP/EIS analyzed the effects of the alternatives on carbon storage. The BLM considered those effects on carbon storage, as well as the effects on other resources, in the development of the Proposed RMP. However, the BLM has no specific legal or regulatory mandate or policy direction to manage BLM-administered lands

for carbon storage, and carbon storage is not part of the purpose and need for action. Therefore, the BLM has not developed alternatives specifically and explicitly intended to maximize carbon storage.

The BLM has various climate-related policies, including the following:

- Executive Order 13514, which directs agencies to measure, manage, and reduce greenhouse gas emissions toward agency-defined targets for agency actions such as vehicle fleet and building management
- Executive Order 13653, which directs agencies to assess climate change related impacts on and risks to the agency's ability to accomplish its missions, operations, and programs and consider the need to improve climate adaptation and resilience
- Secretarial Order 3289, which establishes a Department of the Interior approach for applying scientific tools to increase understanding of climate change and to coordinate an effective response to its impacts
- Departmental Manual 523 DM 1, which directs the Department of the Interior agencies to integrate climate change adaptation strategies into programs, plans, and operations

These policies address topics related to greenhouse gas emissions and climate change, but none directs the BLM to manage BLM-administered lands specifically for carbon storage. This Proposed RMP/Final EIS is consistent with these policies to the extent they address topics within the scope of this planning effort.

### **Protect All Nesting, Roosting, and Foraging Habitat for the Northern Spotted Owl**

The BLM eliminated this alternative from detailed analysis because it would be substantially similar in design and effects to Sub-alternative C, which would reserve all forests 80 years of age and older. Although an age threshold of 80 years old does not function as a *de facto* definition of nesting, roosting, and foraging habitat, the majority of forests over 80 years of age provide nesting, roosting, and foraging habitat for the northern spotted owl, and the majority of forests less than 80 years of age do not provide nesting, roosting, and foraging habitat. At the scale of analysis of the decision area, an alternative that would reserve all nesting, roosting, and foraging habitat for the northern spotted owl would not be sufficiently different from Sub-alternative C to warrant separate analysis.

### **Reserve All Forests 200 Years of Age and Older**

The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need and the basic policy objectives described in the guidance for development of all action alternatives, in that it would not make a substantial and meaningful contribution to maintaining older, more structurally-complex multi-layered conifer forest. Forests 200 years of age and older only constitutes about two-thirds of the structurally-complex forest, according to the structural stage descriptions used in this Proposed RMP/Final EIS. This alternative would leave too much older, more structurally-complex multi-layered conifer forest available for timber harvest to constitute a substantial and meaningful contribution to maintaining older, more structurally-complex multi-layered conifer forest.

### **Maintain the 50 Percent of the Landscape with the Highest Structural Complexity**

This alternative, which was suggested in public comments on the Draft RMP/EIS, would identify the 50 percent of the moist forest landscape with the highest structural complexity and manage those stands to promote and enhance their structural complexity. The remainder of the landscape would be available for variable retention regeneration harvest. This alternative would include monitoring the development of structural complexity and re-designating the most valuable 50 percent every 10 years.

The proponent of this alternative does not provide enough detail or explanation for the BLM to develop this proposal into an alternative. Specifically, the proponent does not specify if the retention of 50 percent of the landscape in a reserve system would *include* reserves for other objectives, such as Riparian Reserve, District-Designated Reserves, and Congressionally Reserved lands, or if the 50 percent of the landscape that would be managed for structural complexity would be *in addition to* these reserves for other objectives.

If the proponent intends that the 50 percent of the landscape that would be managed for structural complexity *includes* reserves for other objectives, such as Riparian Reserve, District-Designated Reserves, and Congressionally Reserved lands, then the resultant reserve network as a whole would include approximately 11–24 percent of the decision area managed for structural complexity, depending upon the approach for these other reserves. For comparison, the action alternatives would allocate a Late-Successional Reserve network of 29–46 percent of the decision area. The BLM eliminated this alternative from detailed analysis because such a small reserve network would be insufficient to meet the purpose of contributing to the conservation and recovery of threatened and endangered species.

If the proponent intends that the 50 percent of the landscape that would be managed for structural complexity *in addition to* reserves for other objectives, such as Riparian Reserve, District-Designated Reserves, and Congressionally Reserved lands, then the resultant Harvest Land Base would be approximately 5–18 percent of the decision area, depending upon the approach for these other reserves. In comparison, the Harvest Land Base ranges from 14 percent to 40 percent of the decision area for the alternatives. However, the approach for formulation of the other reserves would be critical in evaluating an alternative that proposes 50 percent of the landscape to be managed for structural complexity in addition to reserves for other objectives, both in the alternative's ability to meet the purpose and need and the effects of the alternatives. Without further information on the approach for the other reserves, especially the Riparian Reserve, the BLM cannot fully formulate such an alternative.

In addition to more detail being necessary in order to consider for detailed analysis, the proponent's alternative at face value would not meet the purpose and need, which includes contributing to the conservation and recovery of threatened and endangered species. As the purpose and need explains, contributing to the conservation and recovery of the spotted owl necessarily includes maintaining a network of large blocks of forest to be managed for late-successional forests. Retaining 50 percent of the moist forest landscape with the highest structural complexity does not provide for the maintenance of large blocks of forest to be managed for late-successional forest and therefore is not a reasonable alternative. It would instead reserve forest based on its current structural condition. Setting a simple landscape target for forest structural conditions would not provide an effective conservation strategy for threatened and endangered species. The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need.

### **Do Not Reserve Older, More Structurally-complex Forest**

The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need, which includes contributing to the conservation and recovery of ESA-listed species. As the purpose and need explains, contributing to the conservation and recovery of the spotted owl necessarily includes maintaining older and more structurally-complex multi-layered conifer forests. As such, any alternative that does not maintain older, more structurally-complex forest is not a reasonable alternative.

### **Increase Riparian Reserve Widths**

This alternative would include a Riparian Reserve that would be wider than the Riparian Reserve in the No Action alternative (i.e., more than two site-potential tree heights on fish-bearing streams and more than one site-potential tree height on non-fish-bearing streams). Such an alternative would be substantially similar to the Riparian Reserve in the No Action alternative, because of its effect on the conservation and recovery of ESA-listed fish and the protection of clean water. Based on the results in the interagency Aquatic and Riparian Effectiveness Monitoring Program, which evaluated watershed condition and trend in the Northwest Forest Plan area, the protections provided, in part, by the Riparian Reserve, are improving watershed conditions (Miller *et al.* 2015, Lanigan *et al.* 2012). Additional width of the Riparian Reserve would not provide additional protections for fish habitat or water quality. Furthermore, the Riparian Reserve in the No Action alternative was designed to meet an array of objectives, including broad ecological objectives and riparian and terrestrial species habitat. In contrast, the Riparian Reserve in the action alternatives is designed to meet narrower objectives: conservation and recovery of ESA-listed fish and protection of clean water, consistent with the purpose and need for action. Because of these narrower objectives, the action alternatives considered in detail do not include widening the Riparian Reserve widths. The action alternatives address the broad ecological objectives and terrestrial species habitat objectives from the Aquatic Conservation Strategy of the No Action alternative through a variety of approaches, such as larger Late-Successional Reserve, maintaining older, more structurally-complex forest, and specific management direction for protection of habitat components in the Harvest Land Base. Because the action alternatives include a range of such approaches, it would be unwarranted to add these broad ecological objectives and terrestrial species habitat objectives to the Riparian Reserve in the action alternatives.

### **2008 BLM RMPs (Western Oregon Plan Revisions)**

This alternative would manage BLM-administered lands consistent with the 2008 Records of Decision/RMPs. The U.S. District Court, District of Oregon (*Pacific Rivers Council et al. v. Shepard*, 03:11-CV-442-HU, 2012 WL 950032 (D. Or. March 20, 2012)) vacated the 2008 Records of Decision/RMPs on May 16, 2012. The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need and therefore is not a reasonable alternative. As the purpose and need explains, contributing to the conservation and recovery of the spotted owl necessarily includes maintaining older and more structurally-complex multi-layered conifer forests. As such, any alternative that does not maintain older, more structurally-complex forest is not a reasonable alternative. Specifically, the 2008 RMPs would not maintain older and more structurally-complex multi-layered conifer forests, because they would only defer the harvest of older forests for 15 years, after which such stands would be available for timber harvest. On the face of it, an alternative that would plan the harvest of these older, more structurally-complex forests after 15 years would not be consistent with maintaining these forests, as the purpose for the action specifically requires. Therefore, an alternative that would manage BLM-administered lands consistent with the 2008 Records of Decision/RMPs would not meet the purpose of the action to contribute to the conservation and recovery of ESA-listed species.

### **Oregon Forest Practices Act**

This alternative would manage BLM-administered lands with only those protections required by the Oregon Forest Practices Act, such as riparian protections and retention requirements during timber harvest. The BLM eliminated this alternative from detailed analysis because it would not meet the purpose and need for action and therefore is not a reasonable alternative.

In the 2008 FEIS, the BLM used a reference analysis of managing most commercial forest lands for timber production, which considered the effects of managing "...in a manner similar to private industrial lands" and that analysis is incorporated here by reference (USDI BLM 2008b, p. 484). The 2008 FEIS

used this reference analysis to provide context and a point of comparison where needed to analyze the effects of the alternatives, rather than as a reasonable alternative itself. Nevertheless, the information in the 2008 FEIS on the effects of this reference analysis is sufficient to demonstrate that this management approach would not meet the purpose and need for action, in that it would not provide a substantial and meaningful contribution to the conservation and recovery of ESA-listed species, including the northern spotted owl, marbled murrelet, and numerous fish species. It would not meet the purpose and need for action because it would not provide a network of large blocks of forest to be managed for late-successional forests and maintain older and more structurally-complex multi-layered conifer forests and would not maintain marbled murrelet habitat (USDI BLM 2008b, p. 532). It would not meet the purpose and need for action because this management approach or similar management approaches would result in stream temperature increases after timber harvest, increased risk of sediment delivery to streams, and increased susceptibility to peak flows and subsequent adverse effects to fish habitat (USDI BLM 2008b, pp. 755–759, 762–764, 765).

### **Provide “Not Less than One-half Billion Feet Board Measure” of Timber**

This alternative would include providing an annual productive capacity of at least 500 million board feet of timber. Several commenters have asserted during the planning process that the O&C Act makes this requirement of the BLM. The O&C Act directs, “The annual productive capacity for such lands shall be determined and declared as promptly as possible after August 28, 1937, but until such determination and declaration are made the average annual cut therefrom shall not exceed one-half billion feet board measure: Provided, that timber from said lands in an amount not less than one-half billion feet board measure, or not less than the annual sustained yield capacity when the same has been determined and declared, shall be sold annually, or so much thereof as can be sold at reasonable prices on a normal market.”

The purpose and need for action includes providing a sustained yield of timber but does not specify a target volume of timber. The basic policy objectives described in the guidance for development of all action alternatives stipulate that the alternatives must make a substantial and meaningful contribution to each of the purposes for action to be considered reasonable. The BLM has not specified a quantitative threshold for the amount of timber harvest that would constitute a substantial and meaningful contribution to sustained-yield timber production, and does not accept that “one-half billion feet board measure” (that is, 500 million board feet) is a relevant or appropriate threshold.

Moreover, the BLM does not accept that the O&C Act requires that this RMP provide an annual productive capacity of “not less than one-half billion feet board measure” of timber. The O&C Act requires that the BLM offer for sale annually “...not less than one-half billion feet board measure, or not less than the annual sustained yield capacity when the same has been determined and declared...”(emphasis added). Previous BLM planning efforts, including the 1995 RMPs, determined and declared the annual sustained yield capacity, rendering obsolete the requirement to offer for sale “...not less than one-half billion feet board measure.” This RMP revision will likewise determine and declare the annual sustained yield capacity based on the eventual RMP selected, again rendering obsolete the requirement to offer for sale “...not less than one-half billion feet board measure.”

### **Change the O&C Act**

This alternative would change or repeal the O&C Act, changing or removing the mandate for the BLM to manage the O&C lands “for permanent forest production, and the timber thereon shall be sold, cut, and removed in conformity with the principle of sustained yield for the purpose of providing a permanent source of timber supply, protecting watersheds, regulating stream flow, and contributing to the economic stability of local communities and industries, and providing recreational facilities.” Changes to existing

laws or repeal of existing laws are not within the authority of the BLM and would be beyond the scope of this action, which is to revise the current RMPs with management objectives, land use allocations, and management direction that best meet the purpose and need. The purpose and need specifically includes providing a sustained yield of timber as required by the O&C Act.

Bills have recently been introduced to Congress that would change or repeal the O&C Act, including H.R. 1526 (O&C Trust, Conservation, and Jobs Act, passed House September 20, 2013) and S. 1784 (Oregon and California Land Grant Act of 2013, introduced December 9, 2013). Neither of these bills has yet become law. If Congress passes and the President signs into law any legislation that would change or repeal the O&C Act, the BLM would reconsider the purpose and need for action in this RMP revision, as appropriate. However, any such changes to the O&C Act or the purpose and need at this time would be speculative.

## **Comparison of Alternatives and the Proposed RMP**

**Table 2-11** summarizes key features of the alternatives and the Proposed RMP. This table is not comprehensive and focuses on design features that vary substantially among the alternatives and the Proposed RMP and are easily quantified and summarized. **Appendix B** of the Proposed RMP/Final EIS provides detailed descriptions of the management objectives and management direction for the Proposed RMP. Appendix B of the Draft RMP/EIS provides detailed descriptions of the management objectives and management direction for each action alternative.

**Table 2-11. Key features of the alternatives and the Proposed RMP**

Alternative/ Proposed RMP	Total Late-Successional Reserve (Acres)	Protection of Structurally-complex Forest	Riparian Reserve Total Width	Riparian Reserve Inner Zone Width	Marbled Murrelet Survey and Protection
No Action	478,860	None specified	2 SPTH* on fish-bearing streams; 1 SPTH* on non-fish-bearing streams	None specified	Survey in Zones 1 and 2; protect contiguous recruitment and existing habitat within 1/2 mile of sites
Alt. A	1,147,527	≥ 120 years	1 SPTH* on all streams	120' on perennial and fish-bearing streams; 50' on non-fish-bearing intermittent streams	None
Alt. B	1,127,320	District-defined map based on existing, district-specific information	1 SPTH* on perennial and fish-bearing streams; 100' on debris-flow-prone non-fish-bearing intermittent streams; 50' on other non-fish-bearing intermittent streams	60' on perennial and fish-bearing streams; 50' on non-fish-bearing intermittent streams	Survey in Zone 1; protect contiguous habitat within 300' of sites
Sub. B	1,422,933				
Alt. C	949,279	≥ 160 years	150' on perennial and fish-bearing streams; 50' on non-fish-bearing streams	60' on perennial and fish-bearing streams; 50' on non-fish-bearing intermittent streams	Survey stands >120 years; protect contiguous habitat within 300' of sites
Sub. C	1,373,206	≥ 80 years			None
Alt. D	714,292	≥ 120/140/160 years on high/moderate/low productivity sites	1 SPTH* on all streams	120' on all streams	Survey in Zones 1 and 2; protect habitat within 1/2 mile of sites
PRMP	948,466	District-defined map based on existing, district-specific information (updated from Alternative B)	Class I and II subwatersheds: 1 SPTH* on all streams	Class I subwatersheds: 120' on perennial and fish-bearing streams; 50' on non-fish-bearing intermittent streams; Middle zone from 50' to 120' on non-fish-bearing intermittent streams	Survey nesting habitat in all land use allocations in Zone 1, survey nesting habitat in reserve land use allocations in Zone 2; protect contiguous habitat within 300' of sites
			Class III subwatersheds: 1 SPTH* on perennial and fish-bearing streams; 50' on non-fish-bearing intermittent streams	Class II and III subwatersheds: 120' on perennial and fish-bearing streams; 50' on non-fish-bearing intermittent streams	

\* Site-potential tree height

Alternative/ Proposed RMP	Total Harvest Land Base (Acres)	Green Tree Retention	Areas of Critical Environmental Concern (Number Designated)	Recreation Management Areas		District- Designated Reserve—Lands Managed for their Wilderness Characteristics (Acres)	Wild and Scenic Rivers Recommended for National System Inclusion (Number of River Segments)
				Special Recreation Management Area (Acres)	Extensive Recreation Management Area (Acres)		
No Action	691,998	GFMA†: 6–8 TPA‡ Connectivity/Diversity: 12–18 TPA‡ Southern GFMA†: 16–25 TPA	86 <i>(and 55 potential)</i>	168,968	2,397,460	-	- <i>(all 51 eligible would continue receiving interim protections)</i>
Alt. A	343,900	No retention	107	20,065	-	79,709	-
Alt. B	556,335	Low Intensity Timber Area: 15–30% retention Moderate Intensity Timber Area: 5–15% retention	105	24,972	139,320	76,525	6
Sub. B	298,121						
Alt. C	741,332	No retention	101	59,046	357,771	66,190	6
Sub. C	495,507						
Alt. D	650,382	Owl Habitat Timber Area: maintain owl habitat Moderate Intensity Timber Area: 5–15% retention	107	86,693	580,458	-	51
PRMP	469,215	Low Intensity Timber Area: 15-30% retention Moderate Intensity Timber Area: 5–15% retention	108	70,730	420,311	79,107	6

† GFMA = General Forest Management Area

‡ TPA = Trees per acre

**Table 2-12** summarizes key effects of the alternatives and the Proposed RMP. This table is not comprehensive and focuses on effects that vary substantially among the alternatives and the Proposed RMP and are easily quantified and summarized. Inclusion or omission of effects from this table does not indicate the importance of the effects to the decision-making process. For example, the table does not include summarization of effects to northern spotted owls, because differences among the effects of alternatives and the Proposed RMP cannot be summarized briefly or quantitatively. Nevertheless, the effects on northern spotted owls are directly related to the purpose for the action, and these effects will be relevant in the decision-making process. Chapter 3 provides detailed analysis of the environmental consequences of the alternatives and the Proposed RMP.

**Table 2-12. Key effects of the alternatives and the Proposed RMP**

<b>Current Conditions</b>	<b>Payments to Counties</b>	<b>Jobs</b>	<b>Allowable Sale Quantity of Timber (MMbf/Year)</b>	<b>Total Timber Volume (MMbf/Year)</b>	<b>Carbon Storage (Teragrams)</b>	<b>Greenhouse Gas Emissions (Megagrams of CO<sub>2</sub>e/Year)</b>
Current (2012)	\$11.7 million*	7,403	203	205 <sup>†</sup>	367	123,032
<b>Alternative/ Proposed RMP</b>	<b>Payments to Counties, Mid-Point of First Decade (2012 dollars/Year)</b>	<b>Jobs, Mid-Point of First Decade</b>	<b>Allowable Sale Quantity of Timber (MMbf/Year)</b>	<b>Total Timber Volume, Average of First Decade (MMbf/Year)</b>	<b>Carbon Storage in 50 years (Teragrams)</b>	<b>Greenhouse Gas Emissions in 10 Years (Megagrams of CO<sub>2</sub>e/Year)</b>
No Action	\$46.5 million	10,152	277	400	467	277,667
Alt. A	\$28.1 million	7,909	234	249	484	260,126
Alt. B	\$36.4 million	9,127	234	332	478	300,719
Alt. C	\$67.4 million	12,245	486	555	440	383,957
Alt. D	\$18.7 million	7,083	176	180	501	223,824
PRMP	\$25.6 million	8,549	205	278	482	230,759
<b>Current Conditions</b>	<b>High Fire Hazard in Interior/South (Acres)</b>	<b>Marbled Murrelet High-quality Nesting Habitat (Acres)</b>	<b>Existing Roads (Miles)</b>	<b>Existing Sediment Delivery to Streams (Tons/Year)</b>	<b>Potential Wood Supply to Streams (TPA &gt; 20" DBH)</b>	<b>Existing Detrimental Soil Disturbance (Acres)</b>
Current (2012)	194,690	233,219	14,330	60,265	19.0	139,299
<b>Alternative/ Proposed RMP</b>	<b>High Fire Hazard in Interior/South in 50 Years (Acres)</b>	<b>Marbled Murrelet High-quality Nesting Habitat in 50 Years (Acres)</b>	<b>New Road Construction in 10 Years (Miles)</b>	<b>Additional Sediment Delivery to Streams, Average of First Decade (Tons/Year)</b>	<b>Potential Wood Supply to Streams in 100 Years (TPA &gt; 20" DBH)</b>	<b>Additional Detrimental Soil Disturbance in 10 Years (Acres)</b>
No Action	150,618	294,666	637	369	36.3	32,986
Alt. A	117,870	305,620	299	116	39.2	18,433
Alt. B	108,698	308,023	531	201	34.0	34,171
Alt. C	129,124	276,789	699	269	31.5	40,961
Alt. D	107,717	310,055	240	93	39.4	27,407
PRMP	116,172	308,863	437	165	37.0	31,563

\* Payments counties would have received in 2012 if payments had been based on timber receipts instead of Secure Rural Schools payments

<sup>†</sup> Total timber volume offered for sale in 2012

DBH = Diameter at breast height

TPA = Trees per acre

MMbf = Million board feet

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