



# Recreation

## Key Points

- The BLM management actions can affect the recreational setting of an area, which influences the level and distribution of visitor use.
- The growing popularity of off-highway vehicle use has resulted in a trend towards increased demand for this type of activity on BLM-administered lands in western Oregon.

Recreation activities that take place in different settings produce different experiences for visitors. Some settings are more conducive to certain types of activities and preferred by visitors who engage in them. This relationship between recreation activities and setting preferences can, in turn, influence visitor use patterns and levels across the landscape. If a management action changes the recreational setting of an area, it can cause corresponding changes in the public use of that area.

The recreational setting classification system is based on a combination of physical, administrative, and social setting characteristics. The combination of these characteristics determines the overall recreational setting for a particular area. These settings include:

- primitive
- backcountry
- middle country
- front country
- rural

## Physical Setting Characteristics

Physical setting characteristics are directly affected by timber management activities. These features include:

- remoteness (proximity to roads and road types)
- naturalness (landscape quality, level of disturbance, forest structural complexity, and age)
- recreational developments (campgrounds, day-use areas, trails, and other facilities)

The remoteness and naturalness are best suited for measuring the effects of timber management on the recreational setting. Management actions that require road building or decommissioning directly affect the level of remoteness of an area. Those actions that affect forest stand structure and age directly influence an area's level of naturalness.

Recreational developments are also considered characteristics of the physical setting. Timber management actions generally do not directly affect these areas. However, recreational developments directly influence the level and distribution of visitor use.

The BLM's functional road classification system is used to assign road types within middle country, front country, and rural settings to determine levels of remoteness. The system is based on traffic volume, vehicle speed, trip distance, travel mobility, and property access. Road types consist of arterial, collector, local, and resource roads (USDI BLM 1996b, updated 2002). Primitive and backcountry settings are assigned to areas based on their proximity away from all of these road types. See *Table 3-68 (Classification of recreational settings by remoteness)* for classification of recreational settings from primitive to rural, by levels of remoteness.

See *Figure 3-137 (Remoteness levels for a portion of the Grants Pass and Glendale Resource Areas of the Medford District)* for the remoteness levels that exist across a portion of the BLM's land base in the Medford District.



Forest structural stage classifications describe development of forest stands over time. These structural stage classes are used to classify naturalness levels for each recreational setting. See Table 3-69 (*Classification of recreational settings by naturalness*) for the classification of recreational settings from primitive to rural by levels of naturalness.

See Figure 3-138 (*Stand visualizations for each classification of naturalness*) for the naturalness levels for each recreational setting using a series of forest stand visualizations.

**TABLE 3-68. CLASSIFICATION OF RECREATIONAL SETTINGS BY REMOTENESS**

Recreational Setting Classifications	Level of Remoteness
Primitive	Greater than 1 mile from any class of road, excluding those that are permanently closed or decommissioned
Backcountry	0.25 to 1 mile from any class of road, excluding those that are permanently closed or decommissioned
Middle country	Within 0.25 mile of local or resource roads <sup>a</sup>
Front country	Within 0.25 mile of collector roads
Rural	Within 0.25 mile of arterial roads or highways

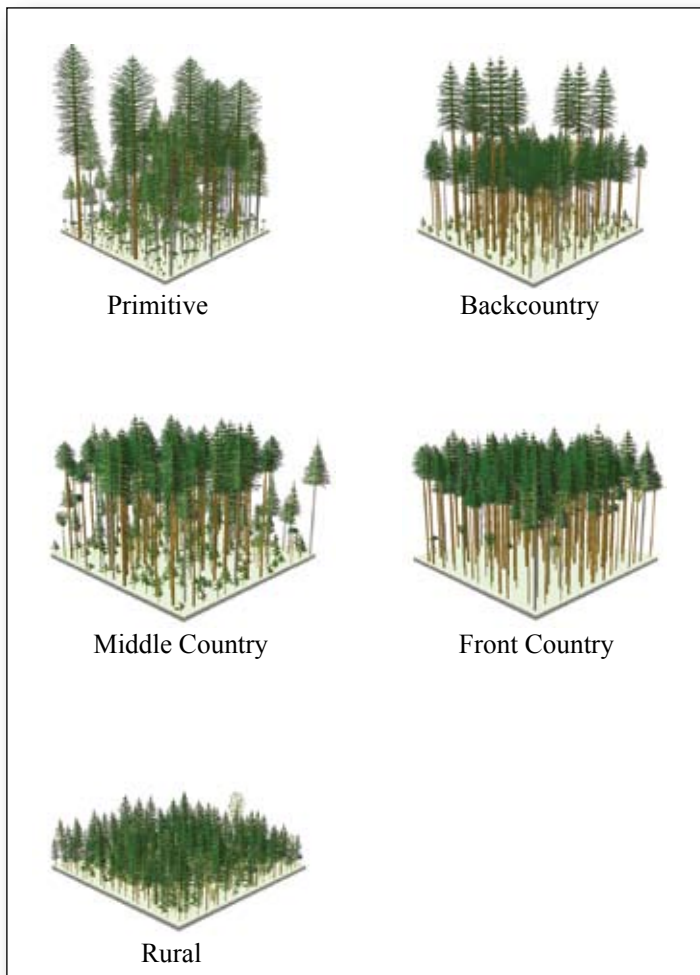
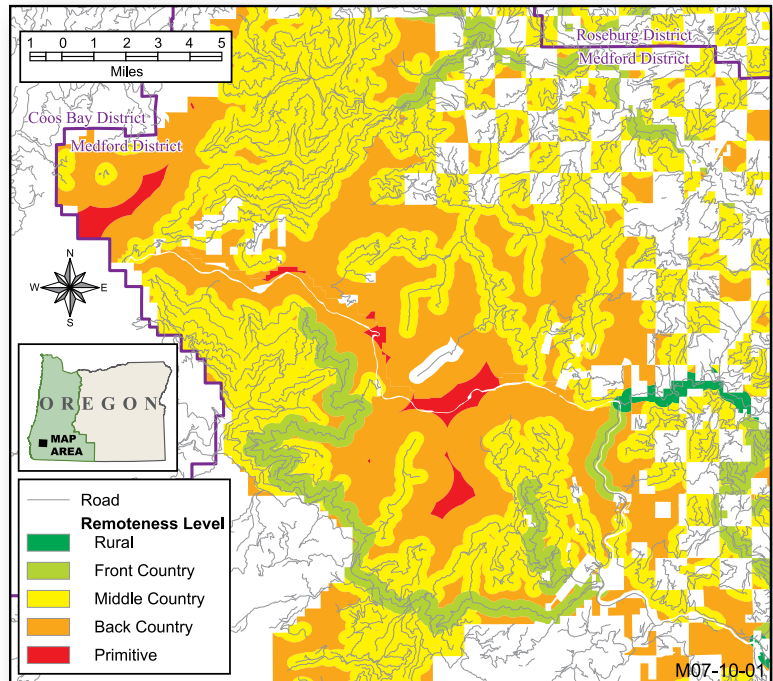
<sup>a</sup>Collector, local, and resource are functional classifications of roads in the BLM road system. For details, see *Transportation* in Chapter 3 under *Lands, Realty, Access, and Transportation*.

**TABLE 3-69. CLASSIFICATION OF RECREATIONAL SETTINGS BY NATURALNESS**

Recreational Setting Classifications	Level of Naturalness
Primitive	<ul style="list-style-type: none"> <li>• Undisturbed natural landscape</li> <li>• Structurally complex forest with existing old or very old forest</li> </ul>
Backcountry	<ul style="list-style-type: none"> <li>• Natural appearing landscape having modifications not readily noticeable</li> <li>• Mature forest with a single or multiple canopies</li> </ul>
Middle country	<ul style="list-style-type: none"> <li>• Natural appearing landscape having modifications that do not overpower natural features</li> <li>• Young, high-density forest with structural legacies; or, young, low-density forest with or without structural legacies</li> </ul>
Front country	<ul style="list-style-type: none"> <li>• Partially modified landscape with more noticeable modifications</li> <li>• Young, high-density forest without structural legacies</li> </ul>
Rural	<ul style="list-style-type: none"> <li>• Substantially modified natural landscape</li> <li>• Stand establishment forest with or without structural legacies</li> </ul>



**FIGURE 3-137. REMOTENESS LEVELS FOR A PORTION OF THE GRANTS PASS AND GLENDALE RESOURCE AREAS OF THE MEDFORD DISTRICT**



**FIGURE 3-138. STAND VISUALIZATIONS FOR EACH CLASSIFICATION OF NATURALNESS**



## Administrative Setting Characteristics

The BLM provides a wide range of recreational opportunities for the public across western Oregon. These opportunities are supported by a network of recreational developments that include:

- campgrounds
- day-use areas
- trail systems
- backcountry and scenic byways
- environmental education areas
- recreation and public purpose leases to local governments

Included within these areas are wildlife viewing areas, visitor centers, picnic areas, boat ramps, waysides, and other amenities. See tables in *Chapter 2* for a list of all recreational developments by district.

Administrative setting characteristics include:

- management controls and constraints (e.g., legal access, regulatory signing, and law enforcement presence)
- motorized use restrictions (e.g., off-highway vehicle area designations)
- visitor services (e.g., interpretive exhibits, environmental education programs, and on-site personnel)

Timber management actions typically do not directly affect these administrative setting characteristics. However, certain aspects of these administrative setting characteristics are important to understanding the recreation program:

- Legal public access is necessary for visitors seeking to recreate on public lands.
- Recreation management areas set the stage for most aspects of the administrative setting.
- Off-highway vehicle area designations directly influence the distribution of visitor use.

Since a majority of BLM-administered lands in western Oregon are intermingled with private lands, public access can vary greatly. Reciprocal right-of-way agreements, easements, and unsecured access rights across adjacent private lands all have a determining effect on public access, which, in turn, influence visitor use.

The BLM has assigned either a secured or an unsecured legal public access status to every distinct management unit of BLM-administered land throughout western Oregon.

Secured legal public access includes public access rights that have been secured by the United States. Public access rights are generally included in the acquisition of exclusive or access road easements where the United States has acquired control of the right-of-way. Physical access to these blocks of public land must be present and available via roads, trails, or navigable waterways.

Unsecured legal public access includes public access rights that have not been secured by the United States. Administrative access may be legally and physically available to the BLM, although the right-of-way agreements or easements do not include legal access rights for the public.

Within the planning area, there are 1.9 million acres (77%) of BLM-administered lands that are legally accessible to the public and 600,000 acres (23%) that are legally inaccessible to the public. See *Table 3-70 (Legal public accessibility of BLM lands by district)* and *Figure 3-139 (Proportion of BLM lands by district with secured or unsecured legal public access)* for these results by district.

See *Figure 3-140 (Secured and unsecured legal public access to a portion of the BLM's land base in the Coos Bay District)* for an example of secured and unsecured legal public access to a portion of BLM lands in the Coos Bay District.

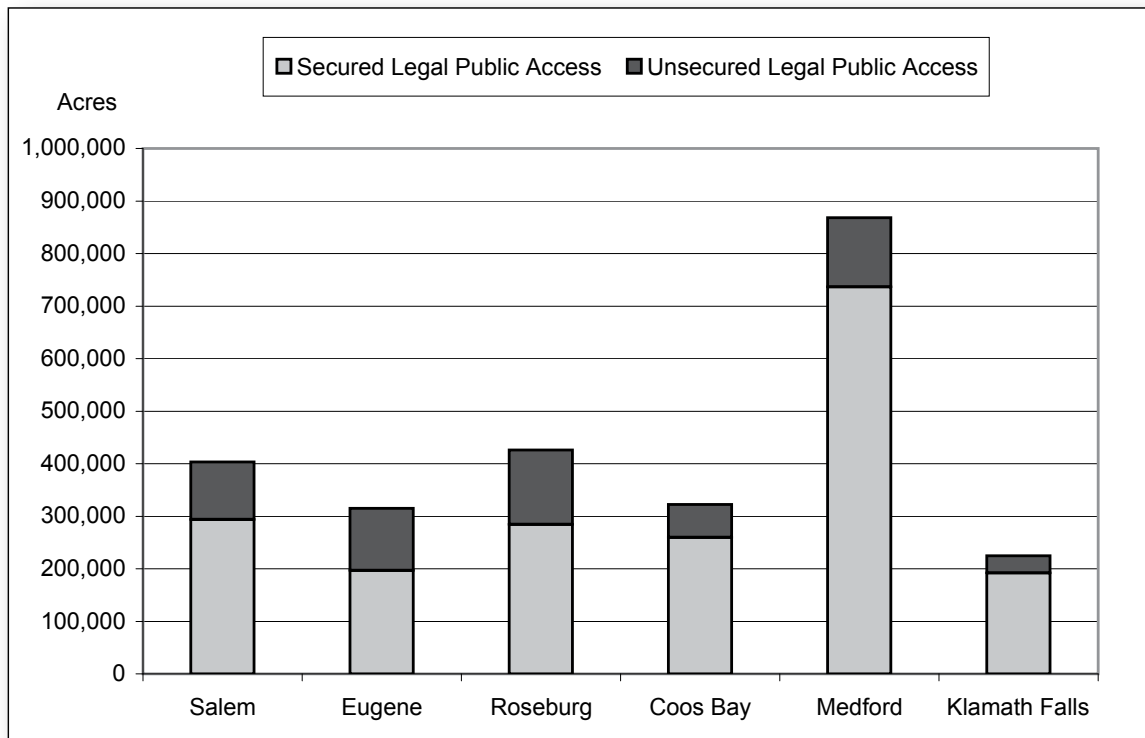




**TABLE 3-70. LEGAL PUBLIC ACCESSIBILITY OF BLM LANDS BY DISTRICT**

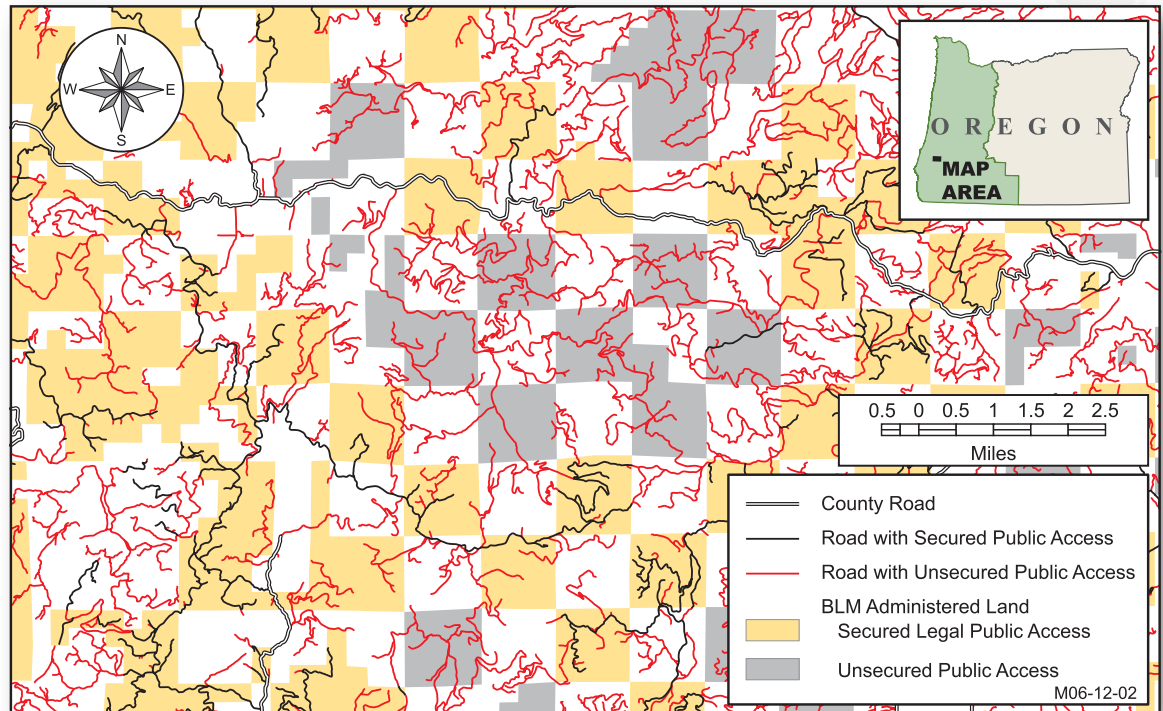
District	Secured Legal Public Access		Unsecured Legal Public Access	
	Acres	Percentage	Acres	Percentage
Salem	293,337	73%	109,887	27%
Eugene	196,740	62%	118,475	38%
Roseburg	284,484	67%	141,832	33%
Coos Bay	259,578	81%	62,647	29%
Medford	736,424	85%	131,804	15%
Klamath Falls Resource Area (Lakeview District)	192,190	85%	32,711	15%
<b>Totals</b>	<b>1,962,754</b>	<b>77%</b>	<b>597,356</b>	<b>23%</b>

**FIGURE 3-139. PROPORTION OF BLM LANDS BY DISTRICT WITH SECURED OR UNSECURED LEGAL PUBLIC ACCESS**





**FIGURE 3-140. SECURED AND UNSECURED LEGAL PUBLIC ACCESS TO A PORTION OF THE BLM'S LAND BASE IN THE COOS BAY DISTRICT**



All BLM-administered lands are classified as either special or extensive recreation management areas:

- A special recreation management area is a unit of public land identified to provide specific recreational opportunities (i.e., activities, experiences, and benefits). The BLM manages 28 special recreation management areas in western Oregon that total 155,745 acres. Refer to *Table 2-18 (District-specific special recreation management areas)* in *Chapter 2*.
- Extensive recreation management areas include all other BLM-administered lands not classified as special recreation management areas. Recreation management is generally custodial in nature and used to address dispersed recreational demand. Management is designed to ensure visitor safety and to limit resource impacts and visitor conflicts. Extensive recreation management areas total 2.4 million acres across the planning area. Refer to *Table 2-19 (District-specific extensive recreation management areas)* in *Chapter 2*.

All BLM-administered lands are required to be designated as open, limited, or closed to motorized vehicles. Refer to *Table 2-28 (District-specific off-highway vehicle area designations)* in *Chapter 2*.

Designations are based on protecting natural and cultural resources and public safety, and limiting visitor conflicts. Definitions of open, limited, and closed areas are provided below:

- **Open areas.** Areas where off-highway vehicle use is unlimited since there are no issues regarding resources, visitor conflicts, or public safety to warrant limiting cross-country travel.
- **Limited areas.** Areas where off-highway vehicle use is restricted in order to meet recreational and resource management objectives. Restrictions may include the number or types of vehicles; the time or season of use; permitted or licensed use only; and limiting use to existing or designated roads and trails.
- **Closed areas.** Areas that are closed to all motorized vehicle use to protect resources, ensure visitor safety, or reduce visitor conflicts.



The BLM also establishes sub-area designations to make distinctions within larger off-highway vehicle areas. An off-highway vehicle emphasis area is an example of a sub-area designation where off-highway vehicle use is more concentrated and intensively managed. These areas do not allow or prevent off-highway vehicle use. That use is only determined through the broader designations of open, limited, and closed. Currently, the BLM manages six off-highway vehicles emphasis areas, totaling approximately 58,000 acres, within the planning area. Refer to *Table 2-30 (District-specific off-highway vehicle emphasis areas)* in *Chapter 2*.

The combination of area and sub-area designations affects the administrative setting, which can in turn influence the level and distribution of recreational demand across the landscape.

## Social Setting Characteristics

Social setting characteristics include: visitor contacts (number of encounters with other visitors), the distribution of visitors (number of visitors per area), and evidence of visitors (signs of past visitor use). Evaluating the level and distribution of visitors across the range of physical settings aids in understanding how timber management affects recreation use.

Recreation on BLM-administered lands occurs within the larger context of overall recreational demand in western Oregon. When comparing the BLM's most recent visitor use data (USDI BLM 2006c) with the Oregon Parks and Recreation Department's most recent outdoor recreation survey data (OPRD 2003), an estimated 17% of the total recreational demand throughout the planning area occurs on BLM-administered lands.

Recreational demand is measured in two ways: (1) total number of visitors per year, and (2) total number of participants by 13 primary recreation activity categories. Because a single visitor usually participates in more than one activity, the number of participants is generally higher than the number of actual visitors.

Overall recreational demand is increasing at a rate of 1.9% each year in western Oregon (OPRD 2003). If this rate remains constant over the next 10 years, total visitation on BLM-administered lands within the planning area is expected to increase from 5.1 to 6.2 million visitors by the year 2016.

This rate of increase is not the same for all recreation activities, nor does the rate of change for individual activities proportionally affect overall changes in recreational demand. For example, nonmotorized boating is expected to increase 7% annually; however, this activity accounts for less than 1% of the total public use on western Oregon BLM lands. Conversely, camping and picnicking is projected to increase at a rate of 1.2% each year but accounts for 9% of total visitation.

See *Table 3-71 (Current and projected levels of participation by recreation activity within the planning area from 2006 to 2016)* for the current level of participation for the 13 primary recreation activities on BLM-administered lands in western Oregon, the annual rate of change for each activity (based on statewide trends), and their projected levels by the year 2016. See *Figure 3-141 (Current and projected levels of participation by recreation activity within the planning area from 2006 to 2016)* for an illustration of these trends by activity. See *Figure 3-142 (Proportion of projected recreational demand by activity in the year 2016)*. The proportions are based on the current levels and annual rates of change for each activity.

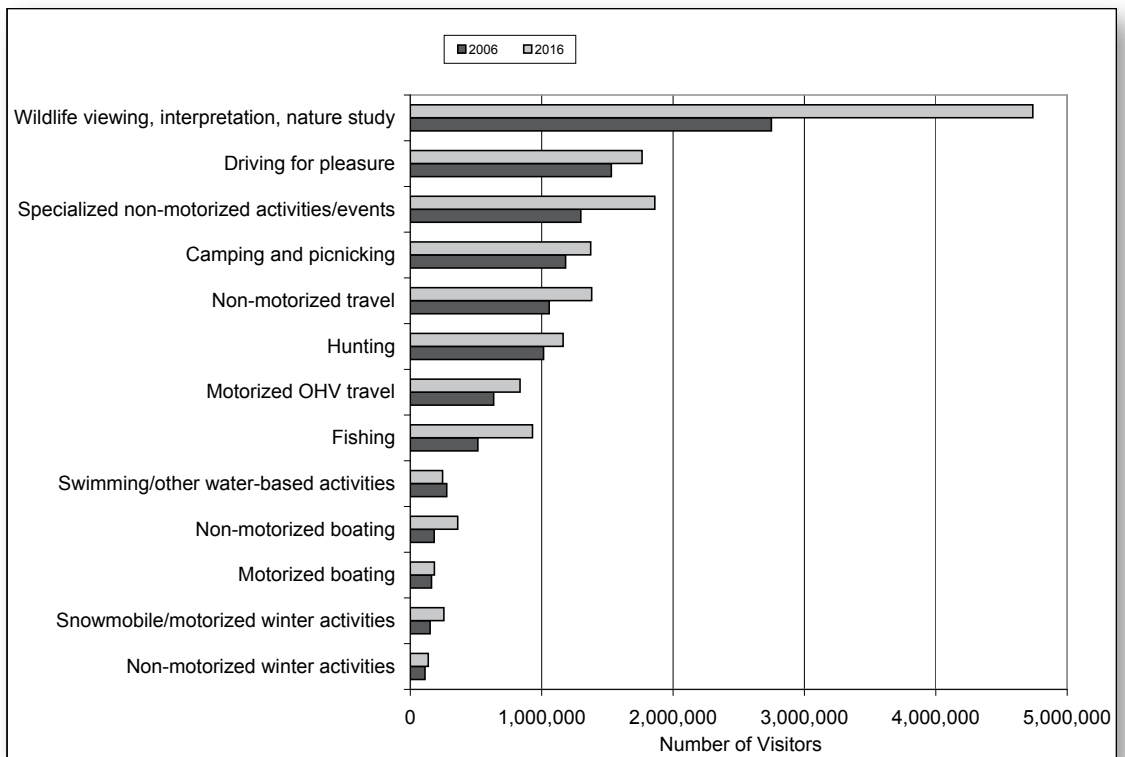
The setting preferences of visitors are used to determine the distribution of recreational demand, which has been adapted from statewide survey data collected for Oregon's Statewide Comprehensive Outdoor Recreation Plan (OPRD 2003). It is assumed that the distribution of recreational demand on BLM-administered lands within the planning area would mimic these statewide results. See *Table 3-72 (Distribution of recreational demand by setting for each recreation activity)* and *Figure 3-143 (Distribution of recreational demand by setting for each recreation activity)*. In some cases, visitor preferences may be constrained by the administrative setting. For example, off-highway vehicle riders may prefer the primitive setting (such as wilderness areas). These areas, however, are restricted to non-motorized activities. To avoid such conflicts with BLM policy, these management constraints were taken into account when developing *Table 3-72*.



**TABLE 3-71. CURRENT AND PROJECTED LEVELS OF PARTICIPATION BY RECREATION ACTIVITY WITHIN THE PLANNING AREA, 2006 TO 2016**

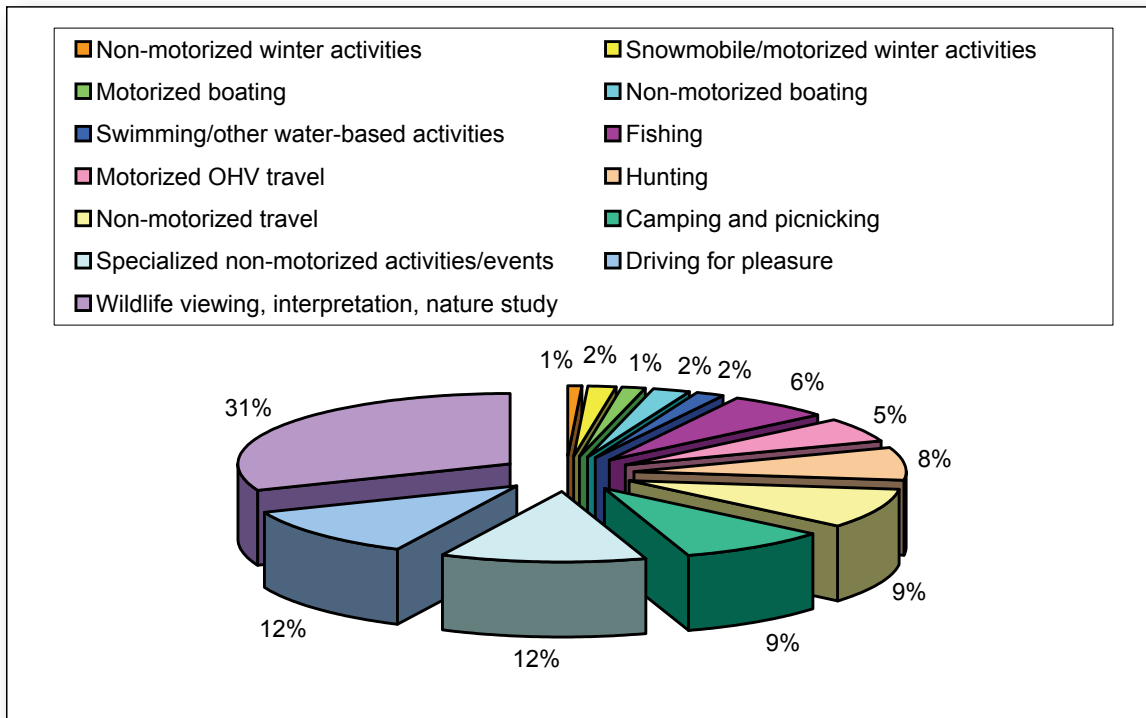
Recreation Activity	Current Level (2006)	Annual Rate of Change	Projected Level (2016)
Nonmotorized winter activities	112,153	1.6%	136,827
Snowmobile and other motorized winter activities	151,061	5.0%	255,897
Motorized boating	161,763	1.0%	183,439
Nonmotorized boating	181,822	7.0%	360,917
Swimming and other water-based activities	277,203	-0.8%	246,156
Motorized off-highway vehicle travel	634,823	2.3%	835,427
Fishing	514,091	5.8%	930,505
Hunting (big game, upland game, and migratory game birds)	1,014,102	1.1%	1,163,175
Nonmotorized travel (hiking, biking, and horseback riding)	1,057,134	2.2%	1,380,617
Camping and picnicking	1,181,868	1.2%	1,373,331
Specialized nonmotorized activities and events	1,297,771	3.1%	1,861,004
Driving for pleasure (along designated BLM roadways)	1,530,294	1.1%	1,764,429
Wildlife viewing, interpretation, and nature study	2,748,317	5.2%	4,738,099

**FIGURE 3-141. CURRENT AND PROJECTED LEVELS OF PARTICIPATION BY RECREATION ACTIVITY WITHIN THE PLANNING AREA FROM 2006 TO 2016**





**FIGURE 3-142. PROPORTION OF PROJECTED RECREATIONAL DEMAND BY ACTIVITY IN THE YEAR 2016**

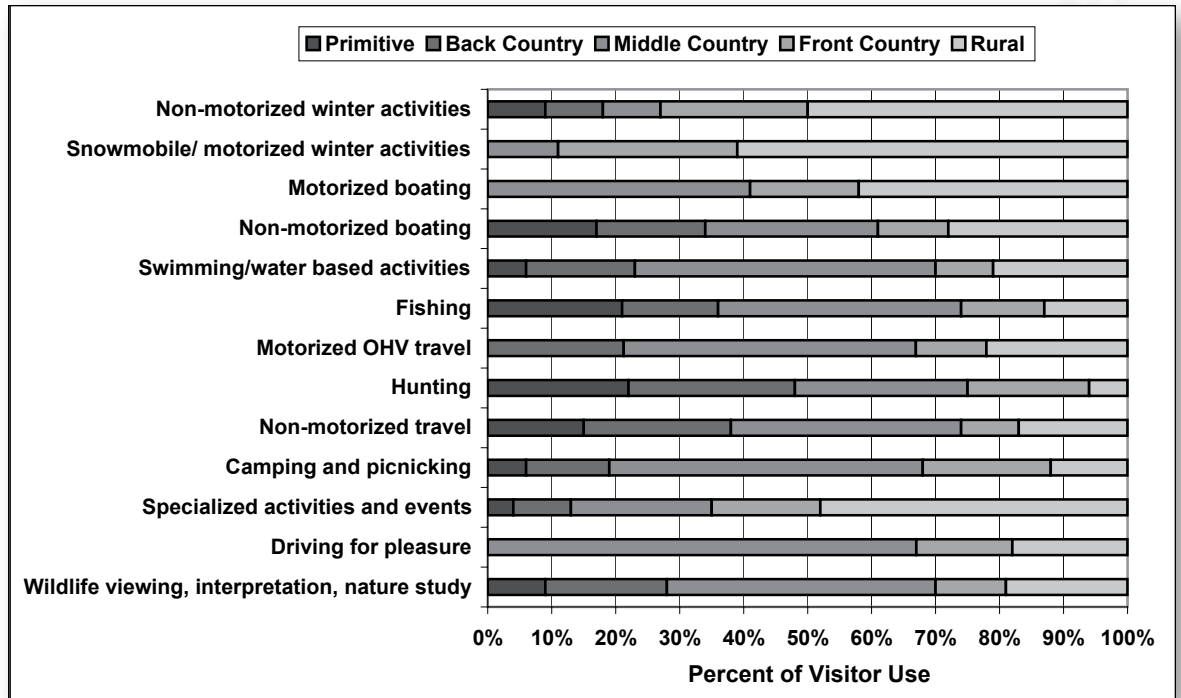


**TABLE 3-72. DISTRIBUTION OF RECREATIONAL DEMAND BY SETTING FOR EACH RECREATION ACTIVITY**

Recreational Demand	Distribution of Recreational Demand by Setting (% of visitor use)					Totals by Demand
	Primitive	Back Country	Middle Country	Front Country	Rural	
Wildlife viewing, interpretation, and nature study	9	19	42	11	19	100
Driving for pleasure	0	0	67	15	18	100
Specialized activities and events	4	9	22	17	48	100
Camping and picnicking	6	13	49	20	12	100
Non-motorized travel	15	23	36	9	17	100
Hunting	22	26	27	19	6	100
Motorized off-highway vehicle travel	0	27	42	10	21	100
Fishing	21	15	38	13	13	100
Swimming and other water-based activities	6	17	47	9	21	100
Non-motorized boating	17	17	27	11	28	100
Motorized boating	0	0	41	17	42	100
Snowmobile and other motorized winter activities	0	0	11	28	61	100
Non-motorized winter activities	9	9	9	23	50	100



**FIGURE 3-143. DISTRIBUTION OF RECREATIONAL DEMAND BY SETTING FOR EACH RECREATION ACTIVITY**







# Wilderness Characteristics

## Key Point

There are 26,123 acres of BLM-administered lands in western Oregon that have been found to contain wilderness characteristics.

The BLM's authority to conduct wilderness reviews, including the establishment of new wilderness study areas, expired on October 21, 1993 pursuant to Section 603 of the Federal Land Policy and Management Act. However, the BLM retained the authority under Section 201 of the Federal Land Policy and Management Act to inventory wilderness characteristics and to consider such information during land use planning.

Managing for wilderness characteristics may include protecting certain lands of sufficient size in their natural condition and providing opportunities for solitude or recreation that is primitive and unconfined. To be of sufficient size, an area must be without roads and have at least 5,000 acres. An exception may be made to this acreage requirement when a smaller area is considered large enough to provide for the preservation and use in an unimpaired condition because of its topography, vegetative screening, or other similar features. Another exception is when a BLM area with less than 5,000 acres adjoins an administrative boundary of the U. S. Forest Service and the combined acreage of the two roadless areas is a minimum 5,000 acres.

During scoping for the western Oregon resource management plan revisions, the BLM received 146 public wilderness proposals. Thirteen of these areas are located off BLM-administered lands, or are outside of the western Oregon planning area. Those 13 proposals were not included in the evaluation process. The remaining 133 public wilderness proposals were evaluated to determine if they contain wilderness characteristics. Of these, nine areas were found to contain wilderness characteristics. The remaining 124 areas do not contain wilderness characteristics and, therefore, were not analyzed further.

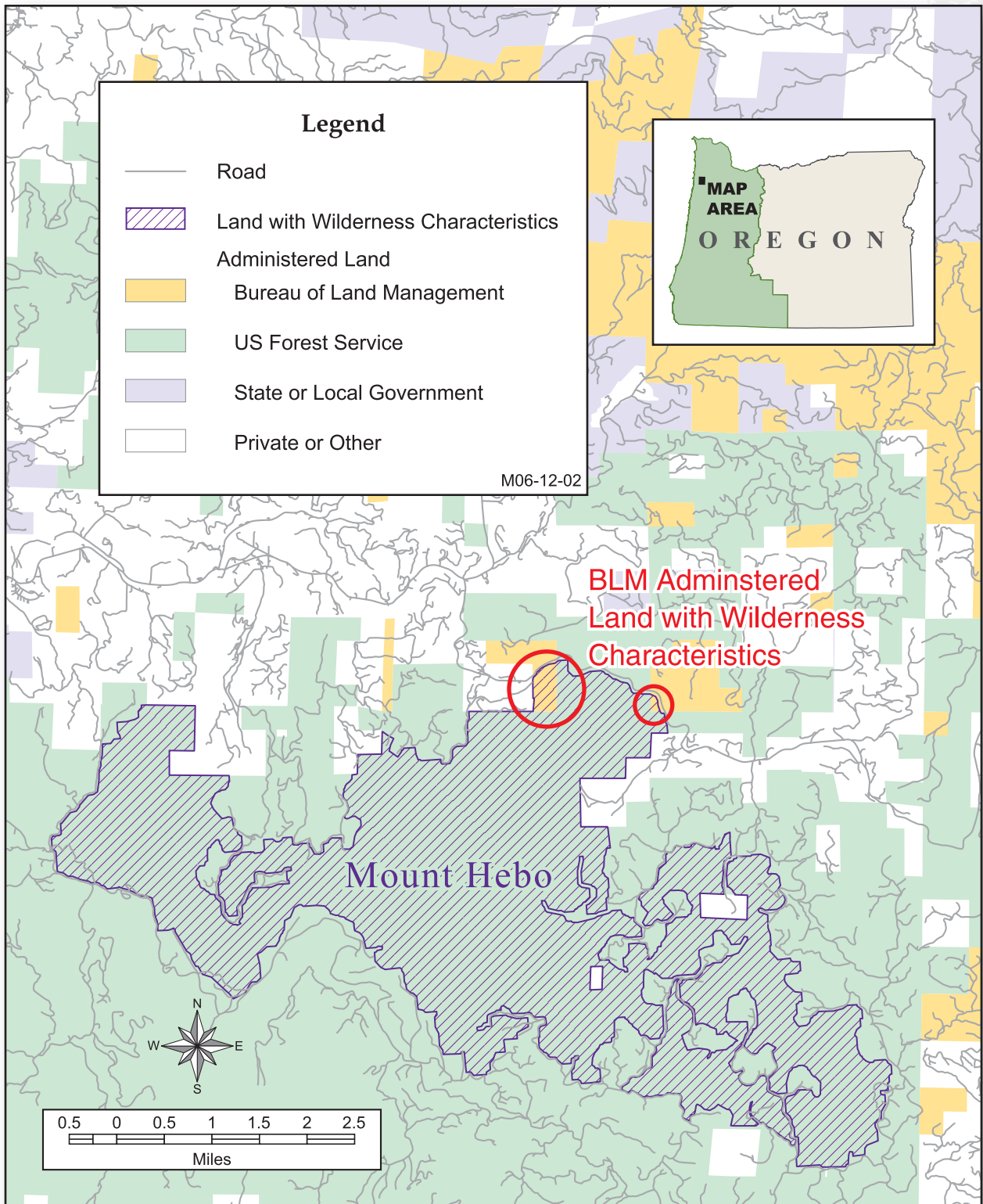
Six of the nine areas with wilderness characteristics are smaller than 5,000 acres, but meet the sufficient size criteria because they are contiguous with U. S. Forest Service roadless areas. Only the portions of these proposed areas that occur on BLM-administered lands were evaluated and considered during this land use planning process.

None of the proposed areas that are located on BLM-administered lands are currently designated as wilderness areas or wilderness study areas. See *Table 3-73 (Lands with wilderness characteristics)* for the proposed areas that were found to contain wilderness characteristics. Refer to *Chapter 2, Table 2-17 (Lands with wilderness characteristics maintained under special management)* for those areas that would receive special management. See *Appendix L - Wilderness Characteristics* for the evaluation process used to identify lands with wilderness characteristics.

*Figure 3-144 (Mt. Hebo wilderness characteristics)* shows an example of a small unit of BLM-administered land with wilderness characteristics abutting a U.S. Forest Service roadless area.



FIGURE 3-144. MT. HEBO WILDERNESS CHARACTERISTICS





**TABLE 3-73. LANDS WITH WILDERNESS CHARACTERISTICS**

BLM-administered Lands	Total (acres)	Identified Wilderness Characteristics		
		Naturalness	Outstanding Opportunities for Solitude	Outstanding Opportunities for Primitive, Unconfined Recreation
<b>Salem District</b>				
Bull of the Woods/Opal Creek Additions	3,203	X	X	X
South Fork Clackamas River	919	X	X	
Salmon Huckleberry Additions	637	X	X	X
Mount Hebo	81	X	X	X
<b>Eugene District</b>				
No lands were identified with wilderness characteristics.				
<b>Roseburg District</b>				
Williams Creek	116	X	X	
<b>Coos Bay District</b>				
Wasson Creek	3,408	X	X	X
<b>Medford District</b>				
Berry Creek	6,433	X	X	X
Wellington Mountain	5,659	X		X
Whiskey Creek	5,667	X	X	X
<b>Klamath Falls Resource Area</b>				
No lands were identified with wilderness characteristics.				
	<b>Total acres</b>	<b>26,123</b>		



# Visual Resources

## Key Point

Visual resource inventory classes provide a mechanism to assess the visual impacts of management actions.

Visual resource management is a system for minimizing the visual impacts of surface-disturbing activities and for maintaining scenic values. The BLM's visual resource management system consists of two distinct components:

- visual resource inventory classes (one set of classes—Class I through Class IV)
- visual resource management classes (another set of classes—Class I through Class IV)

Visual resource inventory classes portray the relative quality of visual resources. Inventory classes do not establish management direction and are not used as a basis for constraining or limiting surface-disturbing activities, except for the Class I visual resource inventory class. Four inventory classes are assigned to BLM-administered lands through the inventory process:

- **Visual resource inventory Class I.** This class is assigned to areas where a management decision has been made to preserve a natural landscape. This includes areas such as wilderness areas, wilderness study areas, wild and scenic rivers classified as wild, and other congressionally and administratively designated areas.
- **Visual resource inventory Class II, Class III, and Class IV.** These classes are assigned to areas based on a combination of scenic qualities, sensitivity levels, and distance zones.

Class II visual resource inventory areas have a higher visual resource quality than do Class IV visual resource inventory areas.

Visual resource management classes are designated through a resource management plan. This class designation can vary from the inventory class designations, except for the Class I visual resource management class. Refer to *Chapter 2* for a description of management objectives and the allocation of visual resource management classes.

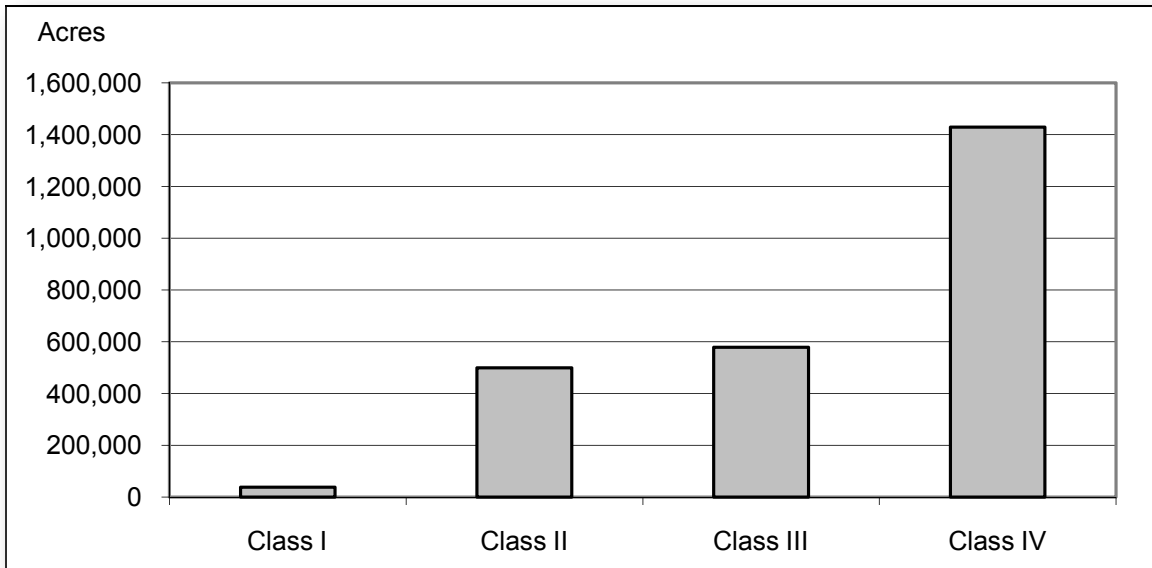
See *Table 3-74 (Acres of each visual resource inventory class by district)* and *Figure 3-145 (Acres by visual resource inventory class within the planning area)*.

**TABLE 3-74. ACRES OF EACH VISUAL RESOURCE INVENTORY CLASS BY DISTRICT**

BLM District	Visual Resource Inventory Classes (acres)			
	Class I	Class II	Class III	Class IV
Salem	19,593	56,996	56,612	253,869
Eugene	1,187	4,739	34,606	272,836
Roseburg	0	92,354	23,582	307,895
Coos Bay	592	13,455	61,974	245,108
Medford	57,093	266,248	317,049	223,447
Klamath Falls Resource Area (Lakeview District)	340	42,824	79,578	100,876
<b>Totals</b>	<b>78,805</b>	<b>476,616</b>	<b>573,401</b>	<b>1,404,031</b>



**FIGURE 3-145. ACRES BY VISUAL RESOURCE INVENTORY CLASS WITHIN THE PLANNING AREA**





# National Landscape Conservation System

## Key Point

The BLM manages a variety of National Landscape Conservation System designations within the planning area

The National Landscape Conservation System, established in June 2000, is designed to conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values. The establishment of the system does not create new legal protections. It does, however, provide the administrative structure, staff, and budget that allow BLM to better manage these areas.

All National Landscape Conservation System designated lands are withdrawn from timber harvesting with the exception of designated, suitable, and eligible wild and scenic rivers classified as scenic or recreational. These two classifications allow for limited timber harvesting in a manner that does not impair their free-flowing character, classification, or identified outstandingly remarkable values. Because of this variation in management, only wild and scenic rivers are described in detail below. All National Landscape Conservation System designated lands are summarized in *Table 3-75 (National Landscape Conservation System designated lands by district)*.

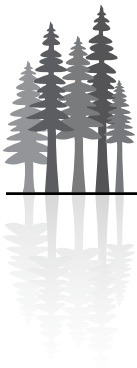
**TABLE 3-75. NATIONAL LANDSCAPE CONSERVATION SYSTEM DESIGNATED LANDS BY DISTRICT**

Designation Type	Name	BLM District	Acres
<b>National Monument</b>			
	Cascade-Siskiyou	Medford	53,000
<b>Wilderness Areas</b>			
	Table Rock	Salem	5,700
	Wild Roque	Medford	8,700
<b>National Scenic Trail</b>			
	Pacific Crest <sup>a</sup>	Medford	488
		Klamath Falls	12
<b>Wilderness Study Areas</b>			
	Soda Mountain	Medford	6,107
	Brewer Spruce	Medford	1,705
	Little Sink	Salem	80
	Cherry Creek	Coos Bay	570
	Mountain Lakes	Klamath Falls	340
<b>Outstanding Natural Area</b>			
	Yaquina Head	Salem	100
<b>Other Congressional Designations</b>			
	Mt. Hood Corridor	Salem	4,700
	Bull Run Watershed Management Unit	Salem	660
<b>Wild and Scenic Rivers<sup>b</sup></b>			
	See <i>Table 3-76</i> .	All districts	<b>68,312</b>
<b>Total</b>			<b>150,474</b>

<sup>a</sup>Acres for the Pacific Crest National Scenic Trail are based on a 100-foot wide corridor with one linear trail mile being equal to 12 acres.

<sup>b</sup>Acres for the wild and scenic rivers is based on a half-mile wide corridor with one linear river mile being equal to 320 acres.





Most rivers are added to the National Wild and Scenic Rivers System through federal legislation after a study of the river's eligibility and suitability for designation. The result of the study process is a decision on whether to recommend the designation of a river to Congress (USDA USFS and USDI BLM 1999). A number of river segments are at various stages of this process because of the high concentration of free-flowing rivers within the planning area and the in-depth nature of the study process.

Of the 78 designated, suitable, and eligible wild and scenic river segments:

- 12 are designated
- 9 are suitable for recommendation to Congress
- 57 are eligible, but have not yet been studied for suitability

The BLM must provide permanent protection of designated wild and scenic rivers. Interim protection is required for eligible and suitable river segments, until either:

- An eligible river segment is determined, through a suitability study, to be unsuitable for inclusion as a wild and scenic river; or
- A determination is made by Congress to include or remove a suitable river segment from the National Wild and Scenic River System.

All designated, suitable, and eligible wild and scenic river segments must be classified as wild, scenic, or recreational. These classifications are defined as follows.

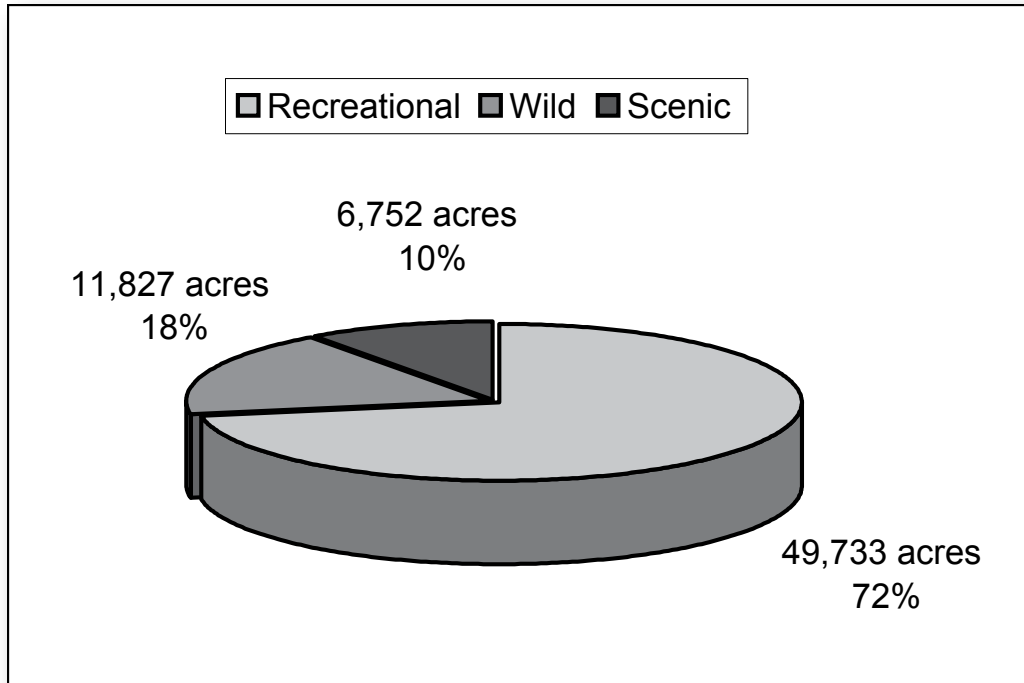
- **Wild river segments.** River segments that are free of impoundments and generally inaccessible, except by trail. Their watersheds or shorelines are essentially primitive and their waters unpolluted. These represent vestiges of primitive America. No timber harvesting is allowed.
- **Scenic river segments.** River segments that are free of impoundments. Their shorelines or watersheds are largely primitive and undeveloped, but their shorelines are accessible in places by roads. Limited timber harvesting is allowed.
- **Recreational river segments.** River segments that are readily accessible by road or railroad. They may have some development along their shorelines and may have undergone some impoundment or diversion in the past. Limited timber harvesting is allowed.

In addition to meeting one of the above criteria, all designated, suitable, and eligible rivers must possess one or more outstandingly remarkable value. These include: scenic, recreational, geological, fish, wildlife, historic, prehistoric, or other similar values.

See *Table 3-76 (Wild and scenic rivers by district)* for a summary of the wild and scenic river segments that occur on BLM-administered lands within the planning area. See *Figure 3-146 (Wild and scenic rivers by classification)* for a summary of these river segments by classification. Individual wild and scenic river segments are listed by district in the tables in *Chapter 2*.



**FIGURE 3-146. WILD AND SCENIC RIVERS BY CLASSIFICATION**



**TABLE 3-76. WILD AND SCENIC RIVERS BY DISTRICT**

Wild and Scenic River Classification	Status	District	Number of River Segments	Acres	Limited Timber Harvesting Allowed
Wild	Designated	Salem	1	142	No
		Medford	1	6,602	
	Suitable	Medford	4	5,083	
	Eligible	Medford	0	0	
Scenic	Designated	Salem	3	1,398	
		Klamath Falls	1	2,780	
	Eligible	Salem	3	1,401	
		Medford	1	1,173	
Recreational	Designated	Medford	1	4,911	Yes
		Roseburg	1	2,142	
		Salem	4	2,505	
	Suitable	Salem	2	6,004	
		Eugene	3	6,691	
	Eligible	Salem	25	8,560	
		Coos Bay	4	1,958	
		Eugene	6	2,512	
	Roseburg	3	4,338		
	Medford	15	10,112		
<b>Totals</b>			<b>78</b>	<b>68,312</b>	



## Soils

### Key Points

- Soils perform many functions in the environment that are important for plant growth, water quality, and human benefit.
- Natural events and management actions can change the capacity of a soil to perform these functions.

Physical, chemical, and biological properties determine soil compactibility, erosiveness, and productivity. For example, shallow soils tend to hold less moisture and fewer nutrients, which make them more susceptible to loss of soil productivity than deeper soils. Some soils are more or less susceptible to landslides and debris flows depending on geology and slope.

The potential for plant growth depends on the ability of the soil to accept, hold, and release nutrients and moisture. Soil provides the environment for root growth and development. Soil serves as the habitat for microorganisms that control processes related to plant nutrition, nutrient cycling, and the biological control of pests. The condition of the soil determines the effectiveness of these functions.

Natural events or management actions can change soil properties. Wildfire can reduce the organic matter found in soil and landslides can cause erosion. Timber harvesting, site preparation, road construction, prescribed burns and fuels reduction, off-highway vehicle use, mining, and livestock grazing cause soil compaction or displacement, surface erosion, and mass wasting processes. They also alter nutrient status, soil biology, and long-term soil productivity.

## Compaction

Soil compaction is the packing together of soil particles by physical pressure or vibration at the soil surface that results in an increase in soil density and a decrease in pore space. Decreased pore space where water, air, and plant roots have restricted movement can increase surface runoff and reduce plant growth. Compaction can be caused by livestock and timber harvest machinery. Examples of reduced early tree growth due to soil compaction are well documented in literature (Shestak et al. 2005). All soils are susceptible to compaction and displacement. Regardless of soil type, machine type, soil moisture, or other soil characteristics, ground skidding machinery will cause soil compaction (Skaugset 1997). In addition, research and monitoring confirmed that despite their unique design and use, highly mechanized systems (e.g., harvesters and forwarders) for logging younger and smaller timber have the potential to produce significant soil compaction (Adams 2005). Another study (Horn et al. 2007) concluded much the same, saying that all vehicles that were tested caused an impact on forest soils which led to stresses exceeding the pre-compression stress and resulting in plastic deformation. For future forest use, deformed areas must be classified as irreversibly degraded. Deformed areas require many decades of swelling and shrinkage, as well as biological strengthening, to regain pore functioning processes (Horn et al. 2007).

Soil displacement is a process where the soil surface is moved some distance by mechanical means or the hoof action of livestock. If nutrients, water, and soil organisms are removed from the site, the rooting depth is reduced to the point that plant growth is decreased. This process usually occurs concurrently with soil compaction.

Residual compaction and displacement from past timber harvesting occurs across the planning area. Exactly where and how much compaction and displacement remain is not well known. However, based on the amount of ground-based logging performed in the past, a rough estimate of residual detrimental soil compaction would be about 77,000 acres out of the 2,557,800 acres in the planning area.



Soil compaction is also caused by road construction. The road surface must be compacted to hold the weight of rolling vehicular traffic. This compaction results in soil that is unavailable for tree growth. Some literature suggests, however, that the growth of roadside trees may benefit from the increased light, moisture, and reduced competition (Miller et al. 1989). It is not known if increased growth makes up for the loss of trees on the running surface of a road. There are approximately 78,300 acres of land in roads that are administered by the BLM within the planning area, which represents about 3% of BLM-administered land.

## Erosion

Erosion is the detachment and movement of soil particles by water, wind, ice, or gravity. All soils are susceptible to erosion. The soils within the planning area are primarily subject to two types of erosion:

- surface erosion
- mass soil movement from debris flows or avalanches, slumps, and earth flows

Surface erosion is rare on undisturbed forest lands within the planning area since soils have a cover of vegetation, duff, and litter, which limits the overland flow of water and the subsequent erosion. Surface erosion can occur on compacted sites such as skid trails and non-surfaced roads. Road ditch lines are another source for eroded material.

The geology and geologic features conducive to mass soil movement cover most of western Oregon. The Tye, Umpqua and Yamhill formations in the Coast Range and the intrusive, extrusive, and pyroclastic geology of the West Cascades are examples of bedded sediments and volcanics that form unstable soils. Geologic features (such as steep slopes, faults, and high ground water) add to the concern. For example, fast-moving debris flows develop in shallow, coarse-textured soils on steep slopes (greater than 65%) in V-shaped drainages. Slumps and earth flows occur in deep, saturated soils that are high in silt or clay on gentle to moderate slopes. Soils derived from volcanic and deeply weathered sedimentary materials are also subject to this mass movement.

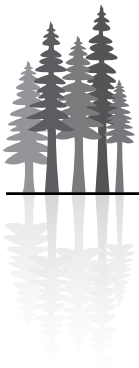
## Soil Heating

Wildfires and prescribed burns both cause soil heating. Wildfire is a natural process that occurs with varying frequency, intensity, and severity. Prescribed burns are used as a tool to prepare sites for planting after timber harvests, change vegetative species, and reduce fuels. When soil heating occurs, soil functions are impaired. This impairment is caused by a breakdown in soil structure resulting from a reduction or loss of organic matter and microbial species, and an increase in water repellency or surface erosion.

Burning causes a change in the availability of carbon and nitrogen, which are key soil nutrients. The significance of these changes is directly tied to the productivity of a given ecosystem. With a given change in nitrogen capital, the productivity of a nutrient-rich soil system might not significantly change following burning. A similar loss in nitrogen capital in a nutrient-stressed system could result in a much greater change in productivity (Neary et al. 2005). The majority of soil systems in the planning area benefit from the addition of nitrogen. The more nutrient-rich soil systems tend to occur in the northern portion of the planning area, and the nutrient-stressed soil systems tend to occur in the southern portion of the planning area.

## Productivity

Soil productivity is the ability of a soil to produce vegetation. Vegetative growth requires adequate air, water, and nutrients. The physical (texture and structure), chemical (organic matter decomposition and nutrient



release), and biological (nutrient cycling and nitrogen fixation) properties of soil supply the required air, water, and nutrients for plant growth. When any of these properties are altered to the point that vegetative growth is reduced, the soil function is impaired and the productivity of the soil is reduced accordingly. The three soil properties are influenced by soil compaction and displacement, erosion, and fire. Impairing soil function for one harvest rotation is considered a long-term impairment.

Soil productivity can be altered through such management actions as the harvesting of timber or the addition of fertilizer. Nitrogen is the main growth-limiting nutrient within the planning area except for some Coast Range soils. All districts have applied nitrogen fertilizer in the past.

Soil carbon in the form of organic matter and its subsequent decomposition and nutrient release is a major factor of long-term soil productivity. The small components of trees and understory vegetation (needles, leaves, and twigs) in timber-dominated sites and the shrub, forb, and grass components of the shrub-steppe grasslands contain the highest concentrations of nitrogen and are the easiest material to remove from a site through displacement, erosion, or fire. Forest ecosystems receive much of their nitrogen from the decomposition and recycling of organic matter, including decayed leaves or needles, branches, fallen trees, and roots. A soil comprised of rich organic matter helps to improve water retention, maintain good soil structure, aid infiltration of water into the soil, store more carbon, and promote growth of soil organisms (Rapp et al. 2000).

Decisions concerning management of dead wood and organic matter can influence site productivity in two ways. First, the productive capacity of soils could be degraded when removal of nutrient and organic matter from site exceeds the replacement capacity provided by mineral weathering and atmospheric inputs of nutrients. Intensive utilization of fiber by whole-tree harvesting, piling of logging slash, and prescribed burning can decrease organic matter and increase nutrient losses (Hayes et al. 2005).



# Grazing

## Key Points

- The availability of forage and water is generally adequate for livestock.
- The number of vacant allotments and leases within the planning area has increased since 1996 by more than 300%.
- The condition within individual allotments is variable based on historic grazing levels, past management actions, and current grazing management.

The Medford and Coos Bay Districts and the Klamath Falls Resource Area administer livestock grazing on approximately 560,000 acres, which represent 22% of the planning area. See *Figure 2-3 (Lands available for livestock grazing)* in *Chapter 2*. This level of grazing represents 14% of the total federal grazing acres that occur on lands covered by the Northwest Forest Plan. See *Figure 3-147 (Percentage of grazing on BLM and Forest Service lands within the planning area)*.

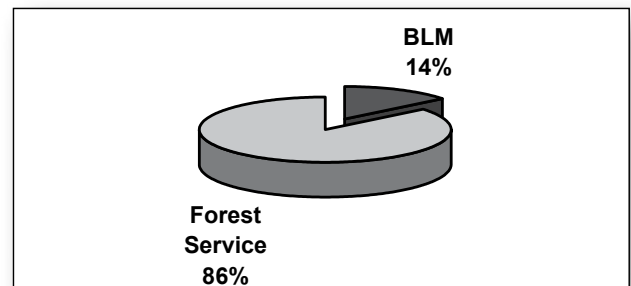
The existing grazing leases and permits authorize a total of 26,840 active animal unit months during the grazing season. See *Table 3-77 (Livestock grazing authorizations by district)*.

The level of livestock grazing on Forest Service and BLM-administered lands covered by the Northwest Forest Plan decreased between the early 1990s and the early 2000s (Charnley 2006). The reasons for the decline include:

- requirements of the Northwest Forest Plan
- periods of drought
- requirements of the Endangered Species Act
- socioeconomic factors causing the viability of grazing operations to decline
- difficulty of managing livestock across the checkerboard pattern of intermingled private and federal lands

The level, duration, and timing of livestock grazing use permitted or leased within the planning area have been at or below the levels of the current resource management plans.

**FIGURE 3-147. PERCENTAGE OF GRAZING ON BLM AND FOREST SERVICE LANDS WITHIN THE PLANNING AREA**



**TABLE 3-77. LIVESTOCK GRAZING AUTHORIZATIONS BY DISTRICT**

Authorization Type	Coos Bay District	Medford District	Klamath Falls Resource Area (Lakeview District)	Total
Allotments	0	95	96	191
Leases	4	0	0	4
Public land acres	16	352,312	207,682	560,010
Active animal unit months	23	13,416	13,401	26,840
Permittees or lessees	3	59	92	154





The number of vacant allotments and leases within the planning area increased from 17 in 1996 (all in the Medford District), to 53 in 2004 (43 in the Medford District, 2 in the Coos Bay District, and 8 in the Klamath Falls Resource Area of the Lakeview District). See *Figure 3-148 (Change in the number of active allotments between 1996 and 2004)*. Some allotments have been vacant since the 1970s. The reasons for the increase of vacant allotments include:

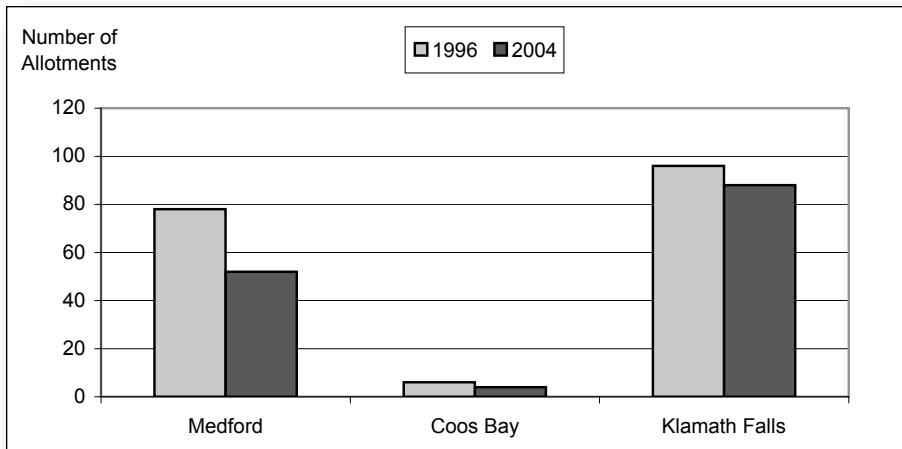
- relinquishment by operators
- cancellation due to nonuse or noncompliance
- lack of interest
- intermingled private land making it difficult to graze within an allotment
- lack of fencing to control livestock on public land

**Vacant allotment**

A vacant allotment is an allotment that does not currently have an active permit or lease.

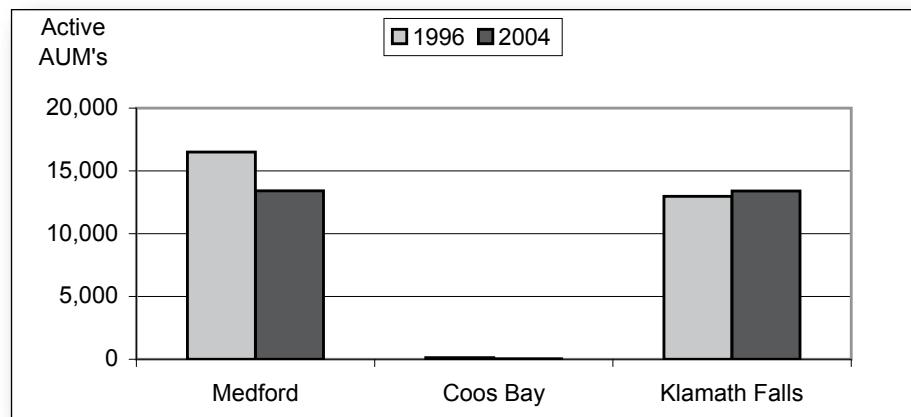
The overall number of active animal unit months has decreased within the planning area. See *Figure 3-149 (Change in active animal unit months between 1996 and 2004)*. The increase in the total active animal unit months for the Klamath Falls Resource Area between 1996 and 2004 is a result of a combination of factors, including:

- land sales, acquisitions, and exchanges
- changes based on rangeland health assessments and rangeland survey results
- adjustments to correct past allocation errors



**FIGURE 3-148. CHANGE IN THE NUMBER OF ACTIVE ALLOTMENTS BETWEEN 1996 AND 2004**

**FIGURE 3-149. CHANGE IN ACTIVE ANIMAL UNIT MONTHS (AUMs) BETWEEN 1996 AND 2004**





The condition within individual allotments is variable based on historic grazing levels, past management actions, and current grazing management. For example:

- In the Coos Bay District, the vegetation on BLM-administered land within the four grazing leases is characterized by a mix of native grass species, noxious weeds, and nonnative pasture vegetation with the nonnative pasture species being the dominant vegetation.
- In the Medford District, the vegetation within grazing allotments is characterized by a mix of grassland, chaparral, and mixed conifers and hardwoods.
- In the Klamath Falls Resource Area of the Lakeview District, the eastern portion of the resource area is characterized by nonforested uplands comprised of sagebrush and juniper communities. The western portion of the resource area is characterized by mixed conifers and hardwoods.

Current grazing regulations direct BLM to manage livestock grazing in accordance with the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington. The standards are the basis for assessing and monitoring rangeland conditions and trends. If livestock is a significant causal factor in the failure to meet a standard, management is implemented to ensure that progress is being made toward attainment of the standard. A total of 116 allotments (59% of the number of allotments and leases, and 56% of the total number of public land acres within the planning area) have been assessed. Livestock was identified as a significant causal factor in the failure to meet one or more of the standards on all or portions of 12 allotments. See *Table 3-78 (Rangeland health standards assessment results)*.

Range improvements have been developed when needed to achieve the standards for rangeland health for Oregon and Washington, resource management plan objectives, or other allotment-specific objectives.

**TABLE 3-78. RANGELAND HEALTH STANDARDS ASSESSMENT RESULTS**

Rangeland Standards Category	Coos Bay District		Medford District		Klamath Falls Resource Area (Lakeview District)		Totals	
	# of Allotments	Acres	# of Allotments	Acres	# of Allotments	Acres	# of Allotments	Acres
Meeting or making significant progress toward meeting all standards	4	16	20	19,640	52	106,659	76	126,315
Not meeting or making significant progress, but appropriate action has been taken to ensure significant progress (livestock is a factor)	0	0	3	640	9	35,404	12	36,044
Not meeting or making significant progress toward meeting standards due to causes other than livestock grazing	0	0	18	103,743	10	47,452	28	151,195
<b>Total Assessed</b>	<b>4</b>	<b>16</b>	<b>41</b>	<b>124,023</b>	<b>71</b>	<b>189,515</b>	<b>116</b>	<b>313,554</b>
<b>Total Not Assessed</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>228,289</b>	<b>25</b>	<b>18,167</b>	<b>79</b>	<b>246,456</b>
<b>Totals per District</b>	<b>4</b>	<b>16</b>	<b>95</b>	<b>352,312</b>	<b>96</b>	<b>207,682</b>	<b>195</b>	<b>560,010</b>

**Note:** The category of *Rangelands Not Meeting All Standards or Making Significant Progress Toward Meeting the Standard-No Appropriate Action* is provided here to ensure the category *Significant Progress Toward Meeting the Standard (Livestock is a Significant Factor)* is not included in the above table since the numbers would all be zero.



See Table 3-79 (Range Improvements constructed or maintained from 1996 through 2006). Range improvements have been constructed to:

- improve livestock distribution
- provide forage for livestock
- provide for restoration
- protect sensitive areas
- improve wildlife habitat
- facilitate intensive management of livestock by implementing grazing systems.

As overstory canopy cover decreases, understory forage production increases (USDA Soils Conservation Service 1971, Young et al. 1967). Forage production is greater within regeneration harvest units than within thinned stands, because the understory vegetation does not have to compete with the overstory for limited resources. Over time, forage production would decline as juvenile trees continue to grow and begin to outcompete forage for the limited resources. The understory production is also influenced by successional stage and forest type (Walburger et al. 2005). The amount of forage production would be higher within a stand establishment forest than within a young, mature and structurally complex forest. See Figure 3-150 (Forage production [represented through canopy cover] within a stand establishment forest versus a young forest).

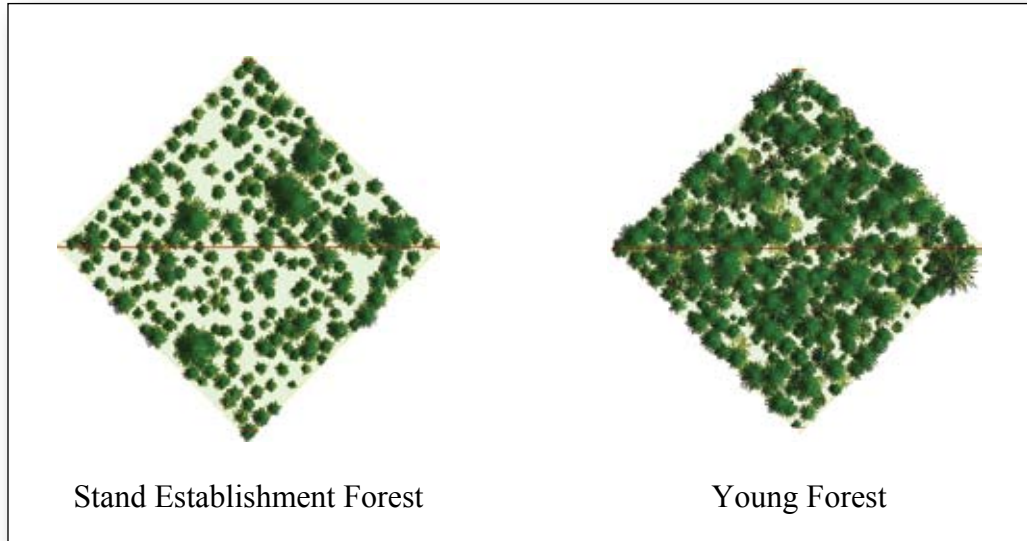
Off-highway vehicle use affects livestock grazing through the disturbance or harassment of livestock, and by the type of vehicles and access that permittees and lessees use to manage livestock or to conduct range improvement maintenance. For example:

- Areas designated as open to off-highway vehicle use provide more opportunities for the disturbance or harassment of livestock than areas designated as limited.
- Areas designated as open to off-highway vehicle use do not limit the type of vehicle and availability of access that operators can use to move livestock or conduct range improvement maintenance.

Vegetation treatments affect livestock grazing by changing the use of foraging areas and changing forage production. If vegetation treatments cause conditions in which soil and vegetation are no longer capable of supporting livestock, adjustments to foraging areas would be made. Forage production declines following vegetation treatments, but increases over time as vegetation recovers.

**TABLE 3-79. RANGE IMPROVEMENTS CONSTRUCTED OR MAINTAINED FROM 1996 THROUGH 2006**

Type of Project	Coos Bay District		Medford District		Klamath Falls Resource Area (Lakeview District)		Totals	
	Units	Miles	Units	Miles	Units	Miles	Units	Miles
Livestock fences constructed	0	0	18	5	11	19	29	24
Livestock fences maintained	0	0	123	64	21	38	144	102
Reservoirs constructed or springs developed	0	---	6	---	3	---	9	---



**FIGURE 3-150.** FORAGE PRODUCTION (REPRESENTED THROUGH CANOPY COVER) WITHIN A STAND ESTABLISHMENT FOREST VERSUS A YOUNG FOREST



# Wild Horses

## Key Points

The wild horses within the Pokegama Herd Management Area have an appropriate management level of 30 to 50 head.

The Pokegama Herd Management Area is the only herd management area within the planning area. It encompasses a total of 80,885 acres in Oregon and California and includes private, state, and federal lands. About 84% of the herd management area (67,869 acres) is within the planning area. See *Figure 2-3 (Location of Pokegama Herd Management Area)* in Chapter 2 and *Figure 3-151 (Wild horses in the Pokegama Herd Management Area)*.

The Wild Free-Roaming Horses and Burro Act of 1971 requires BLM to protect and manage wild horses in areas where they were found at the time of the Act, in a manner designed to achieve and maintain a thriving natural ecological balance. This includes the Pokegama Herd Management Area. Management of the Pokegama Herd Management Area is guided by the Pokegama Wild Horse Herd Management Area Plan (USDI BLM 2002) that identifies specific management objectives and actions.

Approximately 23% of the herd management area that lies within the planning area is located on BLM-administered land; the remainder is on private land. The wild horse herd is estimated to spend approximately 80% to 90% of its time on private land. The herd management area on BLM land is administered by the Klamath Falls Field Office of the Lakeview District. Private landowners have generally allowed wild horses on their lands, providing the horses are within the established appropriate management level and do not range outside the herd management area.



**FIGURE 3-151. WILD HORSES IN THE POKEGAMA HERD MANAGEMENT AREA**



The appropriate management level for the Pokegama Herd Management Area is 30 to 50 head. The appropriate management level has been maintained through two captures that were completed in 1996 and 2000. Since designation of the herd management area in 1971, its wild horse population has ranged from 25 in 1972, to 55 in 2000. The current estimate of the herd size is 30 to 35 animals.

The average growth rate for the Pokegama herd is 4% to 5%, which is below the average rate of 20% for other wild horse herds. The lower growth rate for the Pokegama herd may be related to a higher ratio of male to female horses (Gottlieb 1993). The lower growth rate may also be related to young horses being killed by mountain lions during the winter or being illegally removed (USDI BLM 2002). The overall condition of the herd is excellent (USDI BLM 1996c, 2002).

Due to the high percentage of private lands (77%) within the herd management area and the use the herd makes of those lands, 150 animal unit months of forage are allocated to the herd on BLM-administered lands. That amount of forage is based on the proportion of BLM-administered lands in the herd management area.

The Oregon portion of the herd management area lies within the boundaries of two grazing allotments. There is abundant forage and available water within the two allotments that comprise the herd management area, even though the distribution of the wild horses is not uniform. Forage is allocated for livestock, wild horses, deer and elk (USDI BLM 1994f). The Pokegama herd prefers (94%) meadows, open areas, and the tree cover on the edge of meadows (Gottlieb 1993). During the spring and summer, the horses are seen in the northern and central portions of the herd management area. Due to the typically high winter snow accumulations present on the northern and central portions of the herd management area, the horses concentrate in the southern portion of the area from December through March.

Most (95%) of the Californian portion of the herd management area (13,016 acres) is located on private and state land; only 5% is located on BLM-administered land. Usually, the Pokegama herd can be found on the Californian portion of the herd management area during the winter and early spring, although they can be found there at any time of the year.

The diet of the Pokegama herd is predominantly grasses and grass-like species. Their primary water sources include creeks, springs, and reservoirs. The BLM and private landowners have constructed several enclosures to protect riparian areas from wild horse use. The majority (70% to 80%) of developed water sources (springs and reservoirs) for the Pokegama herd is on private land (Lindsey 2006).





# Areas of Critical Environmental Concern and Research Natural Areas

## Key Points

- Relevant and important resource values are being protected and maintained on BLM-administered lands through the special management attention prescribed within 95 designated and 4 old potential areas of critical environmental concern totaling 82,232 acres.
- There are 33 new potential areas of critical environmental concern totaling 19,751 acres.
- There is a high level of diversity in both the values protected within the areas of critical environmental concern across the planning area and the number and types of values within any one area of critical environmental concern.

**Areas of Critical Environmental Concern** (ACECs) are defined in the Federal Land Policy and Management Act as areas within the public lands where special management attention is required to protect or to prevent irreparable damage to:

- important historic, cultural, or scenic values
- fish and wildlife resources
- other natural processes or systems
- life and safety from natural hazards

Special management attention is developed to expressly protect relevant and important values. The management measures used for special management attention would not be necessary if the relevant and important values were not present, if they were already protected through some other mechanism, and would not be prescribed in the absence of the designation.

Some special management attention is designed to change the relevant and important value on a trend towards the desired condition. Other special management attention is designed to protect the relevant and important values from management actions or other human activities. This may include prohibiting or modifying certain management activities.

To be considered for designation as an area of critical environmental concern, an area must meet relevance and importance criteria and require special management attention. An area meets the relevance criterion if it contains one or more of the following:

- an important historic, cultural, or scenic value
- a fish and wildlife resource
- a natural process or system
- a natural hazard

The value, resource, process or system, or hazard described above must have substantial significance to satisfy the importance criteria. This generally means that the value, resource, process or system, or hazard is characterized by one or more of the following:

- The qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource, are more than locally significant.
- It has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
- It has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Management and Practices Act.



- It has qualities that warrant highlighting to satisfy public or management concerns about safety or public welfare.
- It poses a significant threat to human life or safety, or to property.

**Research Natural Areas** (RNAs) are designated as a type of area of critical environmental concern. These areas are established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics:

- typical representation of a common plant or animal association
- unusual plant or animal association
- threatened or endangered plant or animal species
- typical representation of common geologic, soil, or water feature
- outstanding or unusual geologic, soil, or water feature

The research natural area network in the Pacific Northwest is designed to represent a wide range of elevation, geology, topography, soils, and vegetation communities throughout the region in partnership with the Forest Service, state natural resource agencies, and key private organizations. This network allows for evaluation of differential responses to environmental change in comparison to forests managed for sustained yield.

**Outstanding Natural Areas** (ONAs) are dually designated as areas of critical environmental concern. These areas are designated to protect unique scenic, scientific, educational, and recreational values of certain areas within the public lands.

Within the planning area, there are:

- 95 designated areas of critical environmental concern
- 4 potential areas of critical environmental concern under interim management
- 33 designated areas of critical environmental concern that are also research natural areas
- 7 designated areas of critical environmental concern that are also outstanding natural areas

There are 82,232 acres within the designated and old potential areas of critical environmental concern. These potential areas of critical environmental concern are under interim management. (The potential areas of critical environmental concern were nominated during the previous resource management plan process [USDI BLM 1994 a, b, c, d, e, and f] and are referred to in this analysis as “old” potential areas of critical environmental concern.) See *Table 3-80 (Designated and old potential areas of critical environmental concern by district)*.

Each district received new nominations for areas of critical environmental concern for the revisions of the western Oregon resource management plans. Of those nominations, 33 areas were found to meet the relevance and importance criteria and were recommended for further analysis in the plan revisions as new potential areas of critical environmental concern. Although these areas are not currently designated as areas of critical environmental concern, their relevant and important values receive interim management upon nomination and are discussed in this analysis. None of these areas were nominated as research natural areas or outstanding natural areas. There are 19,751 acres within these 33 new potential areas of critical environmental concern. See *Table 3-81 (New potential areas of critical environmental concern by district)*.

Relevant and important values are usually described in four categories. See *Table 3-82 (Value categories for designated and old potential areas of critical environment concern by district)* and *Table 3-83 (Value categories for new potential areas of critical environmental concern by district)*.

- **Historic, cultural, or scenic values** include, but are not limited to, rare or sensitive archeological resources and religious or cultural resources that are important to Native Americans.



- **Fish and wildlife resources** include, but are not limited to, habitat that is needed for endangered, sensitive, or threatened species, or habitat that is essential for maintaining species diversity.
- **Natural processes or systems** include, but are not limited to, endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features.
- **Natural hazards** include, but are not limited to, areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may be considered a natural hazard if it is determined through the resource management planning process that it has become part of a natural process.

Although it is only necessary for an area to meet the relevance and importance criteria for one value to qualify as an area of critical environmental concern, many areas within the planning area meet these criteria for several values. However, the number of values that meet the relevance and importance criteria can vary widely across the planning area, as can the combination of values that meet these criteria within an area of critical environmental concern. For example, area of critical environmental concern values range from a single special status plant species (Kincaid’s lupine) in the Stouts Creek Potential Area of Critical Environmental Concern in Roseburg, to a combination of unique geologic features, vernal pools, special status plants (natural processes and systems), listed fairy shrimp (fish and wildlife), developed interpretive educational area, scenic and cultural values at the Table Rocks Area of Critical Environmental Concern/ Outstanding Natural Area in Medford.

**TABLE 3-80. DESIGNATED AND OLD POTENTIAL AREAS OF CRITICAL ENVIRONMENTAL CONCERN BY DISTRICT**

Areas of Critical Environmental Concern (ACECs)	Salem	Eugene	Roseburg	Coos Bay	Medford	Klamath Falls	Totals
Designated ACECs	26	15	10	11	28	5	<b>95</b>
Potential ACECs (under interim management)	0	3	0	0	0	1 <sup>a</sup>	<b>4</b>
Research natural areas <sup>b</sup>	7	5	7	1	12	1	<b>33</b>
Outstanding natural areas	4	2	0	0	1	0	<b>7</b>
<b>Total ACEC acres per district</b>	<b>19,157</b>	<b>12,755</b>	<b>12,022</b>	<b>9,752</b>	<b>17,320</b>	<b>11,226</b>	<b>82,232</b>
<b>Total BLM acres per district</b>	<b>403,000</b>	<b>315,100</b>	<b>426,300</b>	<b>322,700</b>	<b>865,800</b>	<b>224,900</b>	<b>2,557,800</b>
<b>% ACEC acres of BLM acres</b>	<b>4.8%</b>	<b>4.0%</b>	<b>2.9%</b>	<b>3.0%</b>	<b>2.0%</b>	<b>5.6%</b>	<b>3.3%</b>

<sup>a</sup>At the time of publication of the DEIS, the Bureau of Reclamation (BOR) was considering a proposal to relinquish a withdrawal of public lands known as the Four Mile property. Anticipating that relinquishment, the DEIS included this property in the analysis. However in January 2008, the BOR decided to drop the proposed relinquishment. Thus, the administration over the Four Mile property remains with the Bureau of Reclamation and as such would not be subject to management direction by the BLM’s resource management plan. The Four Mile ACEC, therefore, has been removed from analysis in the EIS.

<sup>b</sup>The research natural areas and outstanding natural areas are dually designated as Areas of Critical Environmental Concern, and their numbers are already counted within the designated and potential numbers.

**TABLE 3-81. NEW POTENTIAL AREAS OF CRITICAL ENVIRONMENTAL CONCERN BY DISTRICT**

Areas of Critical Environmental Concern (ACECs)	Salem	Eugene	Roseburg	Coos Bay	Medford	Klamath Falls	Totals
New potential ACECs	11	5	3	5	7	2	<b>33</b>
<b>Total potential ACEC acres per district</b>	<b>4,648</b>	<b>2,040</b>	<b>205</b>	<b>4,053</b>	<b>8,620</b>	<b>185</b>	<b>19,751</b>
<b>Total BLM acres per district</b>	<b>403,000</b>	<b>315,100</b>	<b>426,300</b>	<b>322,700</b>	<b>865,800</b>	<b>224,900</b>	<b>2,557,800</b>
<b>% ACEC acres of BLM acres</b>	<b>1.2%</b>	<b>0.6%</b>	<b>0.05%</b>	<b>1.3%</b>	<b>1.0%</b>	<b>0.08%</b>	<b>0.8%</b>



**TABLE 3-82. VALUE CATEGORIES FOR DESIGNATED AND OLD POTENTIAL AREAS OF CRITICAL ENVIRONMENT CONCERN BY DISTRICT**

<b>Value Category</b>	<b>Salem</b>	<b>Eugene</b>	<b>Roseburg</b>	<b>Coos Bay</b>	<b>Medford</b>	<b>Klamath Falls</b>	<b>Totals</b>
Historic, cultural, and scenic	8	4	2	5	8	4	<b>31</b>
Fish and wildlife	17	12	3	5	8	4	<b>49</b>
Natural process or system	26	15	9	11	27	6	<b>94</b>
Natural hazard	2	0	0	0	0	0	<b>2</b>

**TABLE 3-83. VALUE CATEGORIES FOR NEW POTENTIAL AREAS OF CRITICAL ENVIRONMENTAL CONCERN BY DISTRICT**

<b>Value Category</b>	<b>Salem</b>	<b>Eugene</b>	<b>Roseburg</b>	<b>Coos Bay</b>	<b>Medford</b>	<b>Klamath Falls</b>	<b>Totals</b>
Historic, cultural, and scenic	0	0	0	1	1	1	<b>3</b>
Fish and wildlife	1	3	0	2	3	1	<b>10</b>
Natural process or system	9	4	3	5	7	2	<b>30</b>
Natural hazard	1	0	0	0	0	0	<b>1</b>