



Wilderness Need Evaluation

**For the
Malheur, Umatilla, and Wallowa-Whitman
National Forests**

**Forest Service
U.S. Department of Agriculture**

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Introduction

The three national forests of the Blue Mountains (Malheur, Umatilla, and Wallowa Whitman) are engaged in revising their land management plans. When revising a land management plan, the national forests are required by the National Forest Management Act (NFMA) to evaluate potential wilderness areas and to determine whether these areas should be recommended to Congress for wilderness designation.

To meet this requirement, the Revision Team completed an analysis of forest system lands to identify potential wilderness areas. The analysis first examined the current inventoried roadless areas (areas identified in Appendix C --Inventoried Roadless Areas, of each forest's 1990 Land and Resource Management Plan Final EIS) to determine if they met the criteria for potential wilderness areas. Some areas in the inventory did not meet the criteria for wilderness designation. In addition, the remaining forest system lands on the three forests were examined to see if there are other areas with wilderness potential. Several areas were found that met the wilderness criteria stipulated in FSH 1909.12 71.1 – Inventory Criteria. Both these efforts followed direction outlined in the implementing regulations for the NFMA (36 CFR 219.18) and Forest Service Handbook (FSH 1909.12, Chapter 70). All areas meeting the criteria for wilderness designation were considered potential wilderness areas and evaluated as possible recommendations for designation as wilderness. Those areas that were previously identified in Appendix C but no longer met minimum criteria are noted as to the reasons they were removed from the inventory.

Through this process, 76 potential wilderness areas were identified within the Blue Mountains national forests. These areas cover 705,310 acres or 13 percent of the national forest lands (Table 1). Refer to individual forests Review of Areas with Wilderness Potential for a complete list of each of the 76 areas by national forest.

Table 1: Potential Wilderness Areas by National Forest in the Blue Mountains

National Forest	Nat. For. Acres ¹	Potential Wilderness Areas*		Areas % of National Forest
		Number	Acres ¹	
Malheur	1,708,960	19	149,590	9%
Umatilla	1,403,920	24	297,240	21%
Wallowa-Whitman	2,405,180	35	258,480	11%
TOTAL	5,518,060	76	705,310	13%

* Some areas are shared by more than one forest.

¹ Source: Blue Mountains Forest Plan Revision database

The wilderness evaluation process is defined in the Forest Service Handbook (FSH 1902.12, Chapter 70) and meets the requirements of the regulations and policies related to the Forest and Range Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976 (NFMA). The process determines the capability and availability of each potential wilderness area and any need for designation. The complete wilderness evaluation is comprised of the following components:

- Capability is the degree to which the area contains the basic characteristics that make it suitable for wilderness recommendation without regard to its availability for or need as wilderness. All areas that are determined to be capable are evaluated for availability. (FSH 1909.12 Chapter 70 subpart 72.1)
- Availability of the area for wilderness designation is conditioned by the value of and need for wilderness resource compared to the value of and need for other resources. (FSH 1909.12 Chapter 70, subpart 72.2)
- Need for wilderness designation is determined through an analysis of the degree to which an area contributes to the National Wilderness Preservation System based on several factors on both a regional and a local basis. (FSH 1909.12 Chapter 70 subpart 72.3)

Each of the seventy six potential wilderness areas is discussed according to capability and availability in the three forests “Review of Areas with Wilderness Potential.”

Due to the nature of evaluating need, it was not possible to evaluate individual need of each potential wilderness area, rather it was evaluated on the tri-forest scale.

This portion of the Wilderness Evaluation determines the need for *formal designation* of an area as wilderness to meet the requirements of law, regulation, or policy for the protection of resource values. The evaluation considers management direction and resource protections outlined in the proposed land management plan revision as well as activities that are currently taking place or may take place in the area. The evaluation provides decision makers with information on the resources and uses of each area and a regional context for making wilderness designation proposals. Proposing wilderness through the Wilderness Evaluations and completed revised Forest Plan is not the only route for making wilderness proposals. While an area may not ‘*need*’ to be formally designated to protect resources, there may be other reasons for proposing designation. Political and social factors also play a part in deciding whether to propose areas for inclusion in the wilderness system; these factors are not addressed in this evaluation.

The primary function of a Wilderness Need Evaluation is to determine the need for an area to be designated as wilderness through an analysis of the degree to which it contributes to the overall national Wilderness Preservation System. The evaluation will consider the need for wilderness based on current local, regional, national demands and demand trends and the need to protect and preserve a resource, ecosystem, or social setting that designation to the National Wilderness Preservation System would provide.

This document summarizes the evaluation and findings of whether there is a need to propose recommending potential wilderness areas for wilderness designation in the Blue Mountains related to the six factors considered. Findings for each potential wilderness area on the Malheur, Umatilla, and Wallowa-Whitman National Forests are documented in evaluation reports specific to each area (USFS 2007a). A full description of the process preceding the evaluation and detailed data supporting the evaluation can be found in the revision record.

In addition, during the Forest Plan Revision process, an environmental impact statement will be developed with alternatives. During this process, documents will be developed to analyze the effects of recommendations for both wilderness and nonwilderness recommendations for each potential wilderness area.

Factors Considered

The need for additional wilderness in the Blue Mountains was assessed using the following factors from the Forest Service Handbook (FSH 1902.12, Chapter 70 Subpart 72.31):

1. The location, size, and type of other wilderness areas in the general vicinity and their distance from the proposed area. Considering accessibility of areas to population centers and user groups. Public demand for wilderness may increase with proximity to growing population centers.
2. Present visitor pressure on other wilderness areas, the trends in use, changing patterns of use, population expansion factors, and trends and changes in transportation.
3. The extent to which nonwilderness lands on the national forests or other federal lands are likely to provide opportunities for unconfined outdoor recreation experiences.
4. The need to provide a refuge for those species that have demonstrated an inability to survive in less than primitive surroundings or the need for a protected area for other unique scientific values or phenomena.

5. Within social and biological limits, management may increase the capacity of established wildernesses to support human use without unacceptable depreciation of the wilderness resource.
6. An area's ability to provide for preservation of identifiable landform types and ecosystems. Consideration of this factor may include utilization of Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystem classification. This approach is helpful from the standpoint of round out the National Wilderness Preservation System and may be further subdivided to suit local, subregional, and regional needs.

Factor 1 – Location, Size, Type of Wilderness; Demographics; and Accessibility

This section describes the location, size, and type of wilderness; demographics; and accessibility of wilderness areas in the general vicinity and on or near the national forests of the Blue Mountains. An assumption is that public demand for wilderness increases the closer the area is to growing population.

Location, Size, and Type of Wilderness

General Vicinity

The general vicinity was derived from the primary market area (based on zip codes of origin) for visitors to the national forests of the Blue Mountains (USFS 2004a, 2006b). For the Blue Mountains, the primary market area generally encompasses most of Oregon, Washington, and parts of western Idaho. The geographic boundaries of the primary market area extend from the west coast of Oregon/Washington to the Washington/Canadian border on the north, the California/Nevada border on the south and to the middle of Idaho in the vicinity of the Salmon River.

For this analysis, the general vicinity is defined as Oregon, Washington, and Idaho (162 million acres). There are 65 designated wilderness areas on national forest lands in the general vicinity that cover 8.6 million acres or 5 percent of the area (Table 2). The locations are illustrated in Figure 1.

State	Total Acres	Number of Wilderness Areas	Size of Wilderness Areas	Wilderness Areas % of State
Oregon	63,018,240	36	2,086,504	3%
Washington	53,530,880	24	2,569,391	7%
Idaho	45,658,880	5	3,961,709	6%
TOTAL	162,208,000	65	8,617,604	5%

Source: U.S. Forest Service 2005.

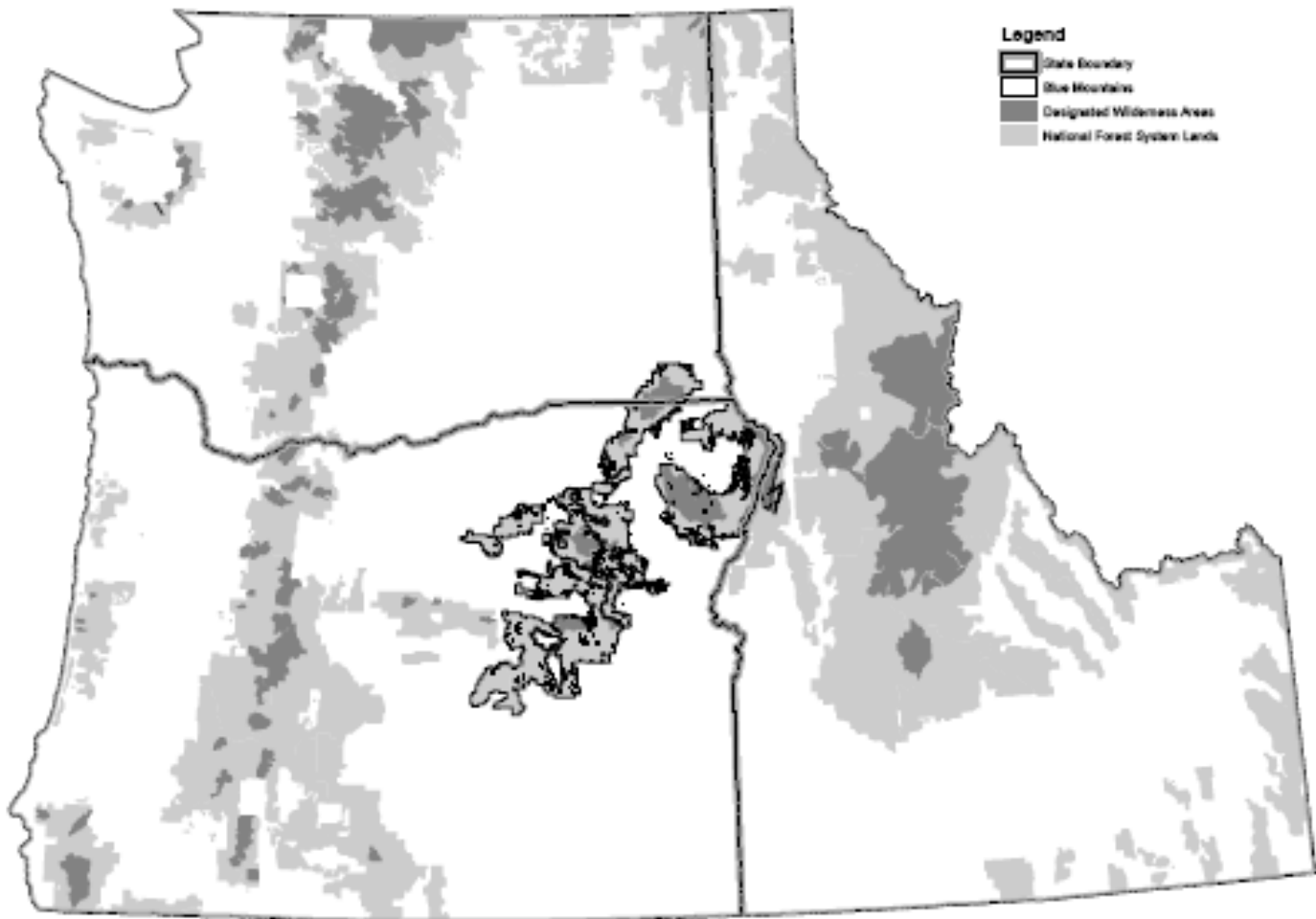


Figure 1: Designated Wilderness Areas in the General Vicinity of the Blue Mountains

Blue Mountains

The national forests of the Blue Mountains (Malheur, Umatilla, and Wallowa-Whitman) are located in the Pacific Northwest Region of the Forest Service. These national forests encompass approximately 5.5 million acres primarily in northeastern Oregon, southeastern Washington, and a small portion in west-central Idaho. This diverse geographic area borders the Snake River plain on the east, extends south into the Great Basin, west to the Columbia River plateau, and borders the Palouse prairie to the north.

There are seven designated wilderness areas in the Blue Mountains that cover approximately 972,676 acres. These areas make up 18 percent of the national forest lands in the Blue Mountains (Table 3) and 11 percent of the total designated wilderness areas within the general vicinity. Each designated wilderness area is described below.

Designated Wilderness Areas within the Blue Mountains

Strawberry Mountain Wilderness – This 69,350-acre wilderness, located on the Malheur National Forest in Grant County, has over 100 miles of hiking trails crossing through the area dominated by the Strawberry Mountain Range. This area has extremely diverse ecological makeup; five of the seven major life zones in North America can be found here. The land is rugged; elevations range from 4,000 feet to the 9,038-foot summit of Strawberry Mountain.

Monument Rock Wilderness – This 19,650-acre wilderness is shared by the Malheur (12,620 acres) and Wallowa-Whitman (7,030 acres) National Forests in Baker and Grant Counties. The area ranges from 5,200 feet in the lower regions to the 7,815-foot top of Table Rock. The visitor season generally runs from June into November. The area receives 40 inches of annual precipitation and summer brings hot days and chilly nights. Hunting is the most popular activity, with hiking and backpacking increasing in popularity.

Wenaha-Tucannon Wilderness – This 177,423-acre wilderness on the Umatilla National Forest is in Wallowa County, Oregon, and Columbia County, Washington. It contains 200 miles of managed trails providing a primitive, unconfined recreation experience. The landscape is rugged, with high basalt ridges separated by deep, steep canyons. Major streams include the Wenaha River, Tucannon River, and Crooked Creek. Elevations range from 2,000 feet at the Wenaha River to 6,400 feet at Oregon Butte.

North Fork John Day Wilderness – Located mostly in Grant County (Umatilla National Forest) with a small portion in Umatilla County (Wallowa-Whitman National Forest), Oregon. This 121,352-acre wilderness features rolling bench lands, the majestic Greenhorn Mountains, and the rugged gorge of the North Fork John Day River. Trails serving this area are popular for both hiking and horseback riding and are accessible from early spring to late fall from several trailheads located around its perimeter. The nature of the area provides long-distance trips with significant elevation changes. The wilderness includes four separate units. In addition to the main body of the wilderness, the Baldy Creek Unit lies to the east (on the Wallowa-Whitman National Forest), the Greenhorn Unit lies to the south (bordering the Vinegar Hill-Indian Rock Scenic Area), and the Tower Unit lies just to the north and includes Tower Mountain.

North Fork Umatilla Wilderness – At 20,435 acres, this is one of the smaller wilderness areas in northeast Oregon, and is located on the Umatilla National Forest in Union and Umatilla Counties. The area feels much bigger and visitors find the area peaceful, yet challenging as the wilderness is characterized by varying terrain; elevation ranges from 2,000 to 6,000 feet. Using the low elevation areas, hikers and equestrians on the 31-mile trail system have ample opportunity for spring hiking and horseback-riding trips. A main attraction is the North Fork Umatilla River.

Hells Canyon Wilderness – There are approximately 360 miles of trails scattered throughout this 213,996-acre wilderness on the Wallowa-Whitman National Forest. Idaho portions include area within Idaho and Adams Counties, while the Oregon portion of the wilderness is in Wallowa County. In Idaho, the wilderness landscape rises steeply from the Snake River corridor to the rugged peaks of the Seven Devils Mountains. These alpine crags rise up to 9,393 feet. Appearance alone was enough to earn the lofty peaks such descriptive names as He Devil, the Ogre, and Devil's Tooth. The Oregon side includes

side canyons, grassy bench land and timbered ridge tops that rise to an elevation of 6,982 feet at Hat Point. The river is only 1,480 feet above sea level between the Seven Devils and Hat Point making Hells Canyon well over a mile deep and earning it the distinction of the deepest gorge in North America.

Eagle Cap Wilderness – This is Oregon's largest wilderness encompassing 350,461 acres in the heart of the Wallowa Mountains on the Wallowa-Whitman National Forest in Wallowa County, Oregon. Approximately 534 miles of trail give access to this area. This vast region has almost 60 high alpine lakes, which are surrounded by open meadows, bare granite peaks and ridges, and classical U-shaped glacial valleys thickly forested in their lower sections and rising to scattered stands of alpine timber. Elevations start at about 5,000 feet and top out at 9,845 feet on Matterhorn Peak near the center of the area. Many fish species can be found in over 37 miles of streams.

Table 3: Designated Wilderness Areas by National Forest in the Blue Mountains

National Forest and Wilderness Area	Acres of Wilderness Areas ¹	Wilderness Areas % of National Forest
Malheur National Forest	81,970	2%
Strawberry Mountain	69,350	
Monument Rock*	12,620	
Umatilla National Forest	304,925	22%
Wenaha-Tucannon	177,423	
North Fork John Day*	107,058	
North Fork Umatilla	20,435	
Wallowa-Whitman National Forest	585,781	24%
Hells Canyon	213,996	
Eagle Cap	350,461	
Monument Rock*	7,030	
North Fork John Day*	14,294	
TOTAL	972,676	18%

* Area is in two or more national forests

1 Source: National Wilderness Preservation System website (wilderness.net)

Demographics

Population

Approximately 11 million people reside in the general vicinity of the Blue Mountains. Washington State has the largest population (6.3 million) followed by Oregon (3.6 million) and Idaho (1.4 million). The major population centers within the general vicinity are the Portland area (including Vancouver, Washington), the Interstate 5 corridor (Salem and Eugene), and Central Oregon/Deschutes County (Bend) in Oregon; the Puget Sound area (Seattle), Tri-Cities (Pasco, Richland, Kennewick), and Walla Walla in Washington; and Ada County (Boise) and Kootenai County (Coeur d' Alene) in Idaho (U.S. Census Bureau 2006a).

The Blue Mountains area includes all or portions of 15 counties in Oregon, Washington, and Idaho with about 306,000 residents. Half the population (57 percent) resides in Umatilla (73,878), Walla Walla (57,558) and Nez Perce (37,931) counties (Figure 2). The least populated counties are Wheeler (1,455), Gilliam (1,794) and Garfield (2,344). The largest population centers occur along Interstate 84 in Oregon including Ontario, Baker City, La Grande, and Pendleton, and Walla Walla on Highway 125 in Washington (U.S. Census Bureau 2006b).

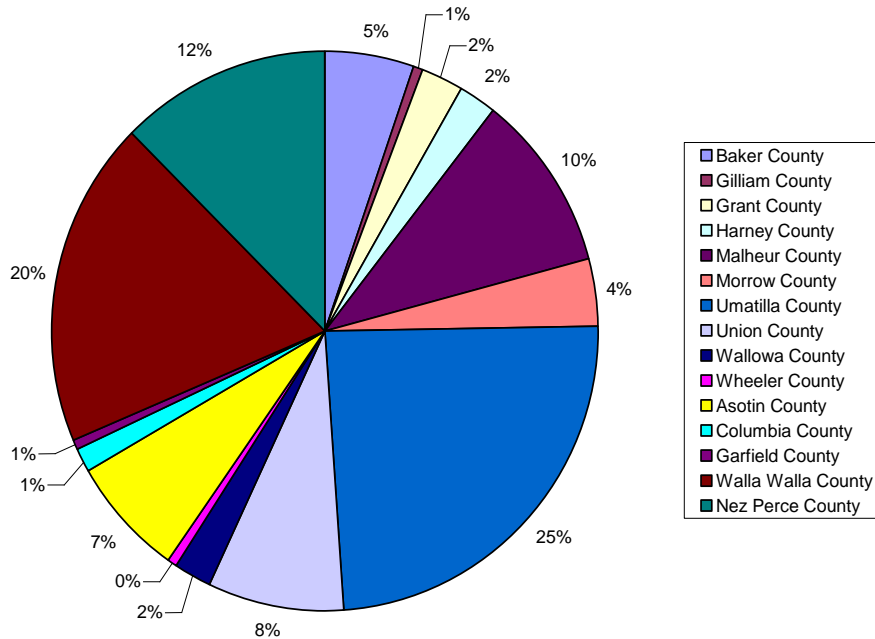


Figure 2: Blue Mountains Area Percent of Population by County

Gender

In the general vicinity and the Blue Mountains, the population is evenly split between males and females (50/50).

Age

The majority of people (36 percent) in the general vicinity are 15-39 years old, while the next largest age groups are those under 16 and 50-69 years old. People 70 years and older comprise the smallest segment (8 percent) of the population. In the Blue Mountains, half the population is under 40 years old (33 percent are 15-39 years old and 19 percent are under 15 years old). Almost a quarter of the population (22 percent) is 50-69 years old. The smallest segments of the population are 40-49 years old (14 percent) and over 70 (11 percent) (U.S. Census Bureau 2006a).

One-third of the residents in the Blue Mountains are “baby boomers,” people born between 1946 and 1964 (43-61 years old) following World War II and the end of the Korean War. Several counties contain a higher proportion of “baby boomers” than the national average of 28 percent; Gilliam, Grant, Harney and Wallowa counties have the highest percentages. The highest proportions of children (under 15) live in Malheur, Morrow, and Umatilla Counties (22-24 percent each). The greatest proportions of older people (over 70) reside in Wallowa, Wheeler, and Garfield Counties (15-18 percent each) (U.S. Census Bureau 2006b).

Race and Ethnicity

Population in the general vicinity is predominately white (88.2 percent) followed by Asian (4.8 percent); Black or African American (2.6 percent); American Indian or Alaska Native (1.5 percent); and Native Hawaiian or other Pacific Islander (0.4 percent). A portion of the population identifies with two or more races (2.6 percent). Hispanics or Latinos are distinct ethnic groups that share a common culture and may be of any race. Oregon is ethnically diverse with the largest number (10 percent of the population) of Hispanics or Latinos (any race) followed by Idaho (9 percent) (U.S. Census Bureau 2006a).

The population in the Blue Mountains area is also predominately white (94 percent) with American Indians (2.3 percent), African Americans, Asians, Pacific Islanders and mixed races providing the

remaining population (3.7 percent). People of Hispanic or Latino ethnicity comprise 12.6 percent of the population. Each county varies in diversity with the most racial diversity being Nez Perce County in Idaho, and the most ethnic diversity (27 percent Hispanic/Latino) being Malheur and Morrow counties in Oregon (U.S. Census Bureau 2006c).

Accessibility

Outside the Blue Mountains, wilderness areas in the general vicinity are within 100 miles and approximately 1- to 3-hour drive from the closest major population center (Portland, Bend, Seattle, Tri-Cities, Coeur d'Alene, and Boise). The areas are easily accessible by passenger car from these population centers for day trips or overnight use. Many visitors (20 percent) to the Blue Mountains travel up to 500 miles, driving anywhere from 4 to 6 hours along major highways.

The majority of visitors within the Blue Mountains can readily access any one of the national forests and wilderness areas within 25 to 100 miles by passenger car (USFS 2007b). Travel times range from 15 minutes to 2 hours from the nearest local community. Most wilderness areas are also within a half day to a 3- to 6-hour drive from each other.

Factor 1 Conclusion

The Pacific Northwest region has a relatively diverse and concentrated set of wilderness areas surrounding the potential wilderness areas considered by this analysis. Although the Blue Mountains are well known for recreational opportunities, the wilderness areas that are located near the potential wilderness areas under consideration, are more remote and less accessible than the highly popular wilderness areas along the Cascade Mountains of Oregon. These westside wilderness areas are near major population centers (Portland, I-5 corridor, Bend, and Seattle) and provide close and easily accessible opportunities for day trips (50-100 miles, 1-2 hours drive, and near major highways), making them much more accessible than the potential wilderness areas in the Blue Mountains.

Visitors to the Blue Mountains from the westside and other metropolitan cities in the general vicinity (such as Tri-Cities, Boise, and Coeur d'Alene) have to commit to longer trips (500-600 miles), requiring at least twice the amount of time (4-6 hour drive, one-way), at a greater expense (1-2 nights food and lodging) just to access the area to start a trip on the national forests. Thus, public demand does not create a major impetus to designating these potential wilderness areas.

Factor 2 – Use, Visitor Demographics, and Changing Patterns of Use

This section describes the current use of the national forest and wilderness areas, visitor demographics, and changing patterns of use in the general vicinity and the Blue Mountains.

Use

Annual visits to the national forests in the general vicinity (Oregon, Washington, and Idaho) total 36 million. Approximately one-third of those visits occur on the Mt. Hood, Mt. Baker Snoqualmie, and Deschutes National Forests along the Cascade Mountains in western Oregon and Washington (Figure 3). Wilderness visits (1.7 million) comprise 5 percent of the total visitation. Almost two-thirds of the wilderness visits occur along the Cascade Mountains on the most visited forests and the Wenatchee National Forest in Washington (USFS 2006a) (Figure 4).

National forest visits in the Blue Mountains total approximately 1.5 million visits a year; contributing 4 percent to the total visits in north east Oregon. Visits to the three national forests rank in the bottom quarter of all national forests in the general vicinity. Wilderness visits in the Blue Mountains total approximately 109,000 visits, 7 percent of the total wilderness visits across the general vicinity. Wilderness use on the Malheur, Umatilla, and Wallowa-Whitman National Forests ranks in the bottom quarter of all wilderness use in the Oregon, Idaho, and Washington (USFS 2006a). Refer to Figures 3 and 4 for an illustration of national forest and wilderness visits.

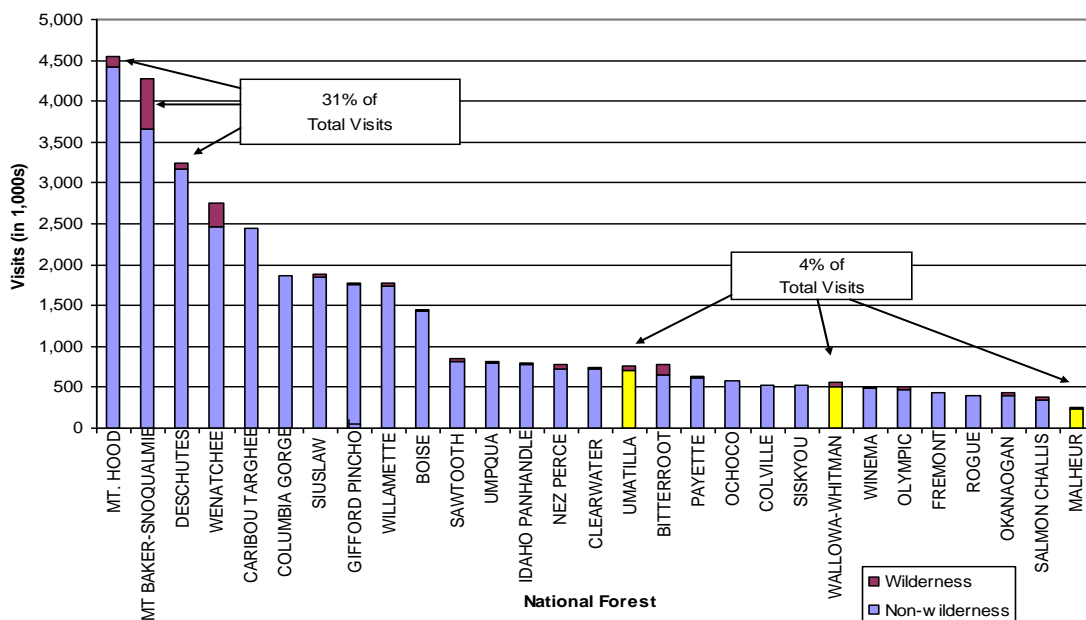


Figure 3: Total National Forest Visits (including Wilderness Visits) in Oregon, Washington and Idaho

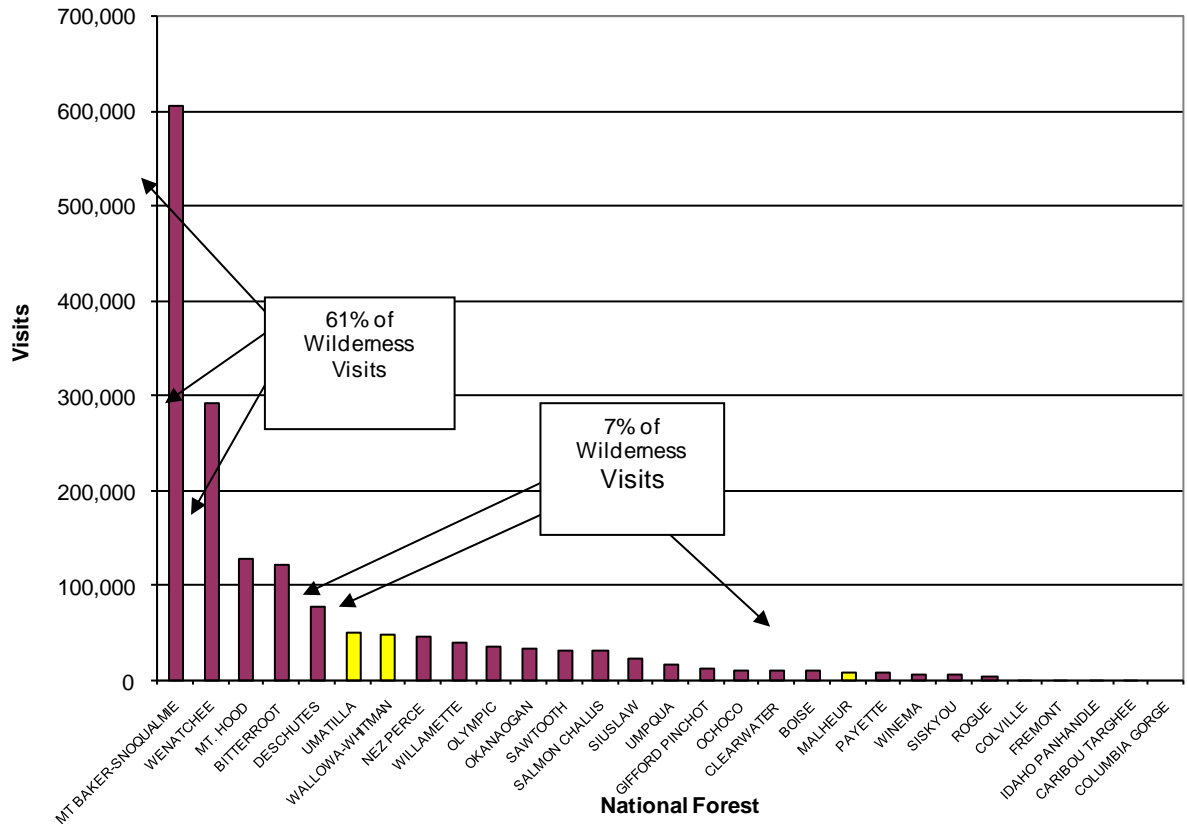


Figure 4: Total Wilderness Visits in Oregon, Washington, and Idaho

Within the Blue Mountains, the Umatilla National Forest is the most visited for all purposes and also contributes the highest wilderness use followed by the Wallowa-Whitman and the Malheur National Forests. Wilderness visitation provides about 8 percent of the total use on the Blue Mountains national forests (Table 4).

Table 4: National Forest Visits (including Wilderness) in the Blue Mountains			
National Forest	National Forest Visits	Wilderness Visits	Wilderness Visits % of Total
Malheur	242,000	9,000	4%
Umatilla	703,000	52,000	7%
Wallowa-Whitman	505,000	48,000	10%
TOTAL	1,450,000	109,000	8%

Source: U.S. Forest Service 2006a.

Primary Activities and Participation Levels

The main activity when visiting each of the national forests in the Blue Mountains is hunting (20-26 percent of the total). Other activities (Figure 5) that are top reasons for visiting each national forest include relaxing and driving for pleasure on the Malheur; relaxing, fishing and downhill skiing on the Umatilla; and hiking/walking, relaxing, and fishing on the Wallowa-Whitman. Across all three national forests, hunting, relaxing, fishing, hiking, and walking comprise the majority (74 percent) of the use (USFS 2004a).

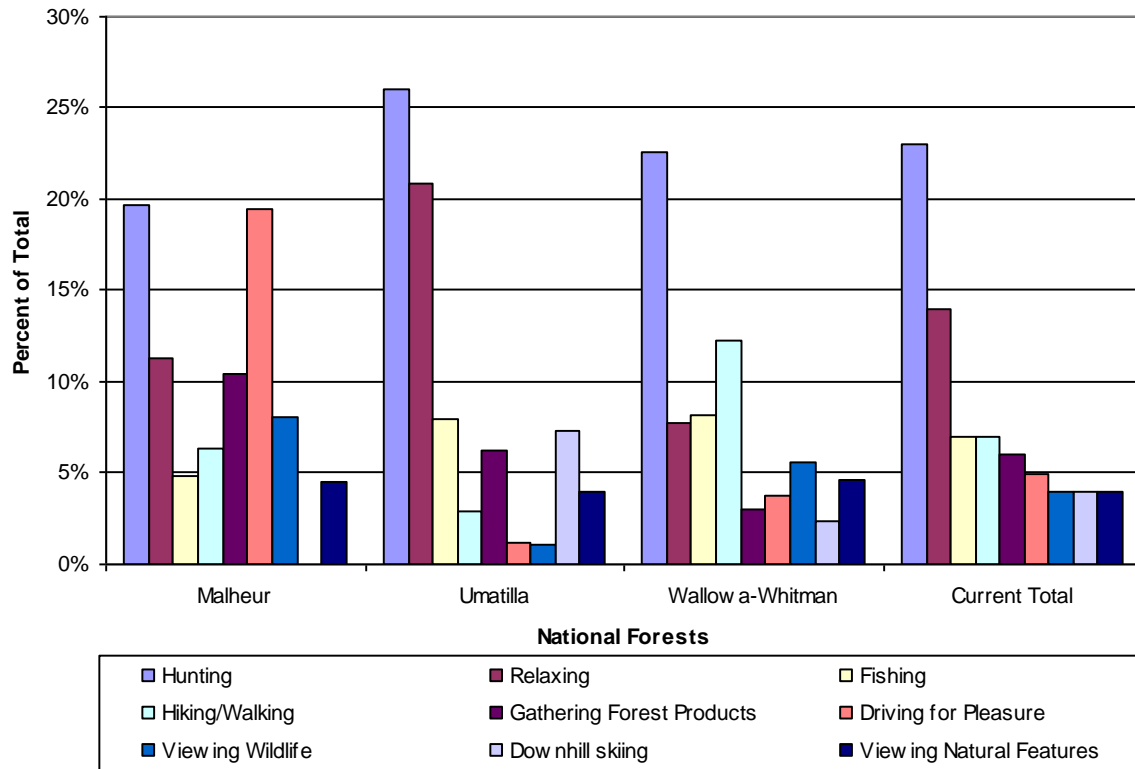


Figure 5: Current Primary Activities

Type of Infrastructure

The primary activities take place in both developed and dispersed recreation settings. Roads, specifically scenic byways, and trails are the most common types of infrastructure that support visitor use across the three national forests. Developed campgrounds are the next highest-used facility for the Malheur and Umatilla National Forests, while scenic byways are next highest for the Wallowa-Whitman National Forest (USFS 2004a).

Visitor Demographics

Gender

Visitors to the three national forests are primarily male (75-85 percent), which is consistent with regional patterns (71 percent). Wilderness visitors to the Blue Mountains are more evenly mixed between males and females (53 percent and 47 percent) compared to the region (76 percent and 24 percent) (USFS 2004a, 2004b).

Age

Visitors are mostly over 50-years-old on the Malheur and Wallowa-Whitman National Forests and under 16 on the Umatilla National Forest. Regionally, visitors are primarily 16-39 years old. Ages of wilderness visitors vary with 40- to 69-year-old visitors providing the majority of the use on the Malheur National Forest. Visitors 50- to 69-years-old contribute the highest use on the Wallowa-Whitman National Forest. The sample size on the Umatilla National Forest was insufficient to describe age. Regionally, 16- to 39-year-old visitors provide the majority of wilderness use, similar to overall visitation (USFS 2004a, 2004b).

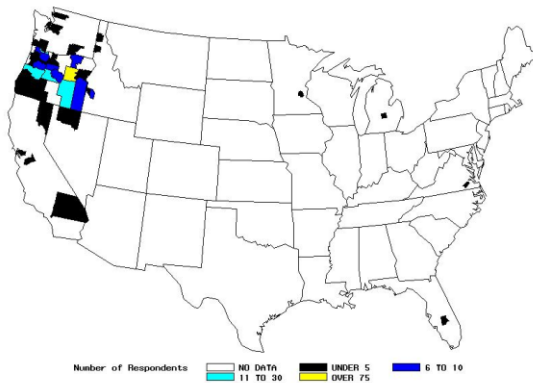
Race and Ethnicity

Visitors to all three national forests, including wilderness visitors, are predominately white, which is consistent with regional use patterns. A small segment (3-4 percent) of users is Hispanic or Latino, Native American, African American, Asian, and Pacific Islander. Wilderness visitors are also predominately white, similar to the total visitation pattern. Less than 5 percent of visitors to the wilderness are Hispanic or Latino, Native American, African American, Asian, or Pacific Islander (USFS 2004a, 2004b).

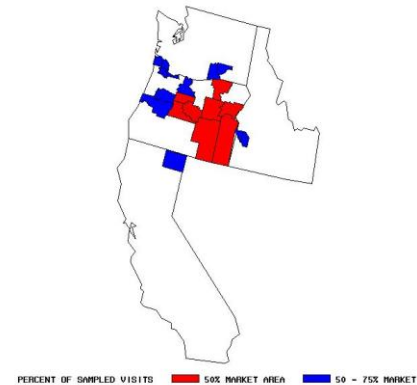
Origin and Market Area

Visitors to the three national forests of the Blue Mountains originate from across the nation, but primarily from Oregon, Washington, and Idaho. The primary market area (50-75 percent of visitors) is a core area within 60 miles of the national forests that extends to primary population centers within a 200-300 mile radius around the Blue Mountains. Figure 6 illustrates the origin and primary market areas for visitors to each national forest (USFS 2004a, 2006b).

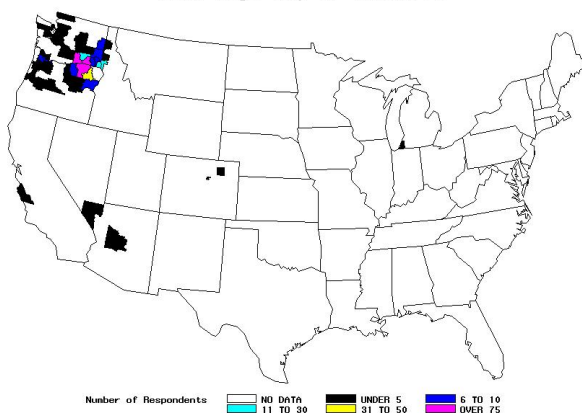
VISITOR ORIGIN MAP FOR MALHEUR NATIONAL FOREST



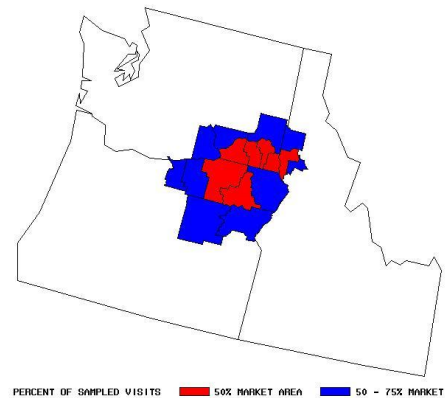
50% AND 75% MARKET AREA FOR MALHEUR NF



Visitor Origin Map for Umatilla NF



50% AND 75% Market Area for Umatilla NF



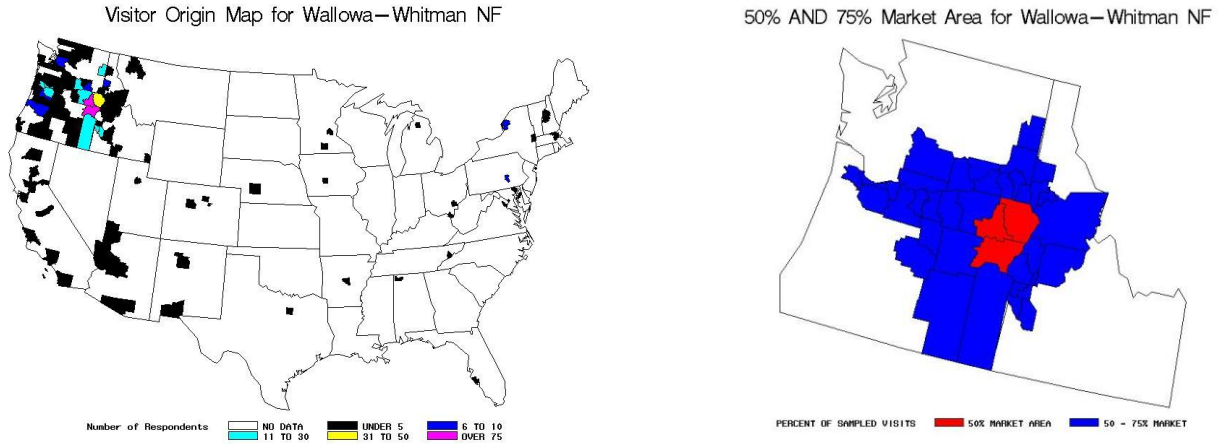


Figure 6: Visitor Origin and Market Area by National Forest

Market Segments

Visitors are classified into subgroups based on the type of trip:

- Non-local - visitors living greater than 50 miles from the national forests.
- Local - visitors generally living within 50 miles driving distance of the national forest.
- Non-primary – visitors where recreation is not the primary purpose of the trip.

Within these subgroups, use is further segmented into day use, overnight use on the national forest, or overnight use off the national forest (Stynes and White 2005). As shown in Table 5 and Figure 7, local use (41-48 percent) is slightly higher than non-local use (38-46 percent) on the Malheur and Umatilla National Forests. On the Wallowa-Whitman National Forest, non-local use (43 percent) is slightly more than local use. Visits to either of the national forests as part of another destination make up a small percentage of use and are mostly non-local.

Day use (40-43 percent) is by far the greatest type of local use on all three national forests. Non-local visitors are primarily staying overnight (both on and off the forests). The Malheur National Forest has the highest overnight use by non-locals and the Wallowa-Whitman has the highest day use by non-locals.

Overnight stays for local and non-local visitors typically involve one or more days over a weekend, with destination use extending from 3- to 7-day visits. Wilderness visits are typically day use (average 12 hours). The average number of visitors per party for both types of visits is 2.5 people (USFS 2004a).

Segments National Forest	Non-local Visits				Local Visits				Non-Primary Not Prime Destination
	Day Use	Overnight On-Forest	Overnight Off-Forest	Total	Day Use	Overnight On-Forest	Overnight Off-Forest	Total	
Malheur	2%	25%	19%	46%	40%	2%	1%	48%	11%
Umatilla	12%	9%	17%	38%	43%	10%	6%	41%	3%
Wallowa-Whitman	21%	13%	9%	43%	43%	5%	2%	41%	7%

Source: Stynes and White 2005

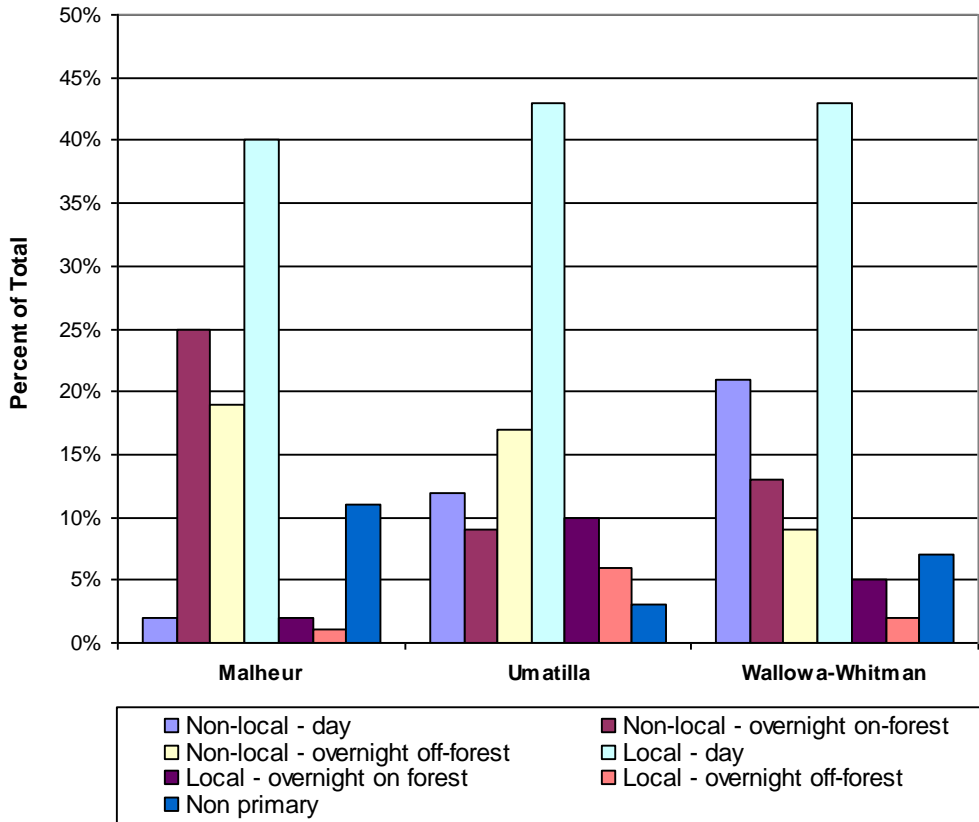


Figure 7: Market Segments

Changing Patterns of Use

Population Growth

The main pressure that may impact use on the national forests in the general vicinity of the Blue Mountains is increasing population. The most significant influence in the next 15 years is likely to come from Washington and Oregon, which are the fastest growing states (10-13 percent per decade) on the West Coast (Figure 8). Idaho has the highest growth rate within the Pacific Northwest (17 percent per decade) although the growth rate is projected to decrease. This trend is similar to national declines expected due to the aging “baby boomers” and subsequent decreases in the size of the total population (U.S. Census Bureau 2005).

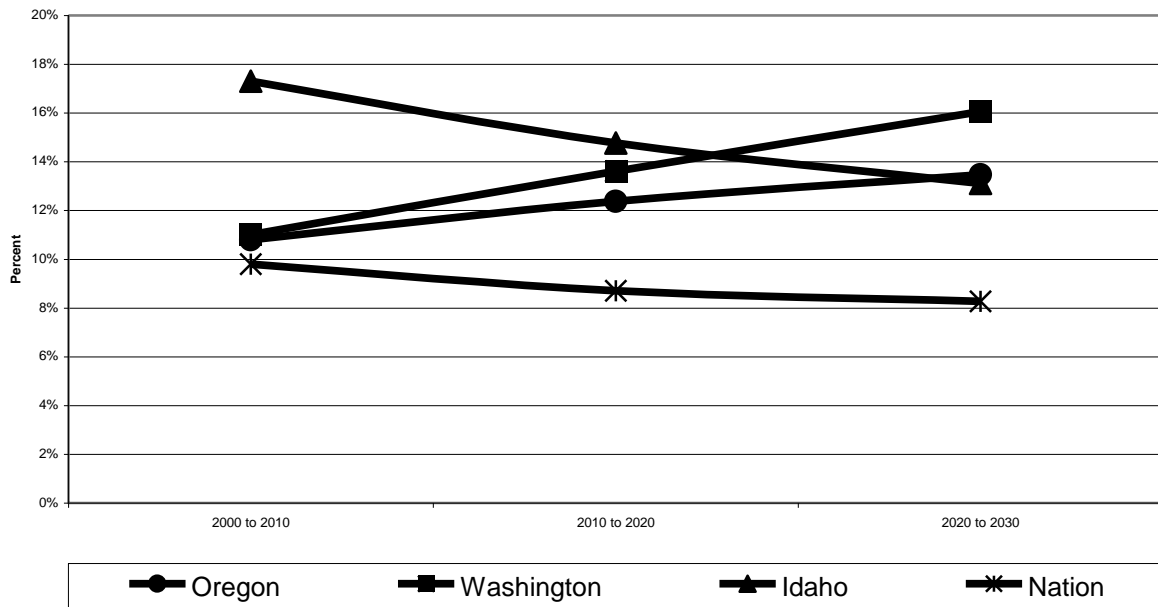


Figure 8: Projected Population Growth

Population Diversity

The population in the general vicinity will increasingly consist of people 65 years of age and older with the highest concentrations of older people along the coast and in the Portland and Puget Sound areas. National forests near these areas are more likely to experience overall increases, especially in day use (Hall 2005).

Despite large increases in Hispanic and Asian populations projected in the general vicinity (Figure 9), the recreating public on the national forests will likely remain primarily white over the next 15 years due to the size (95 percent) of this user group (U.S. Census Bureau 1996). However, substantial growth of Hispanic residents in eastern Washington and Oregon may create higher demand for group activities such as picnicking or facilities for family-oriented activities (Hall 2005).

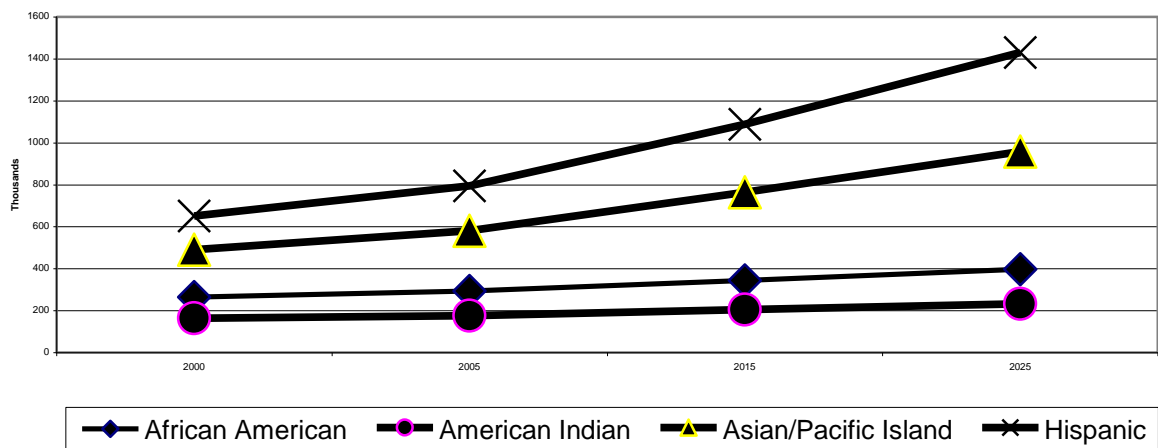


Figure 9: Projected Changes in Race and Ethnicity in Oregon, Washington, and Idaho

The greatest pressure will likely come from rapid population growth in the larger metropolitan areas where visitors already originate from, such as Boise (7.5 percent) and Portland/Vancouver (6.5 percent). The Puget Sound, Bend, Walla Walla, and Tri-Cities are growing at three times the national average (2-3 percent) followed by Coeur d'Alene (1.2 percent) (USFS 2006b). These population centers create a circle of rapidly changing populations and increasingly diverse users around the Blue Mountains.

Populations in the Blue Mountains are expected to remain stable or grow slower than the statewide or national averages (less than 2.5 percent). Higher levels of unemployment, lower income levels, and aging populations suggest that recreation demand from within populations of northeast Oregon will not rise rapidly compared to the region. Due to the distance from major population centers (100-300 miles), the overall increases in use are expected to be slower (Hall 2005).

Recreation Demand

Recreation demand in the future is most influenced by population trends and income levels of the recreating population. Other factors such as the differences in participation rates by racial or ethnic groups, age structure, education, cost of recreation, availability of suitable and/or substitute opportunities, level of crowding, and environmental conditions may also influence future recreation demand on the national forests (Quigley and Arblebide 1997).

Predicting recreation use is most often based on population projections and past trends in use due to comparability of available data. This approach was used along with information about national trends that influence use to provide insight into the likely trends in recreation on national forests in the region (Hall 2005). These national and regional trends were used to derive qualitative and quantitative projections in recreation trends for the national forests in the Blue Mountains.

Nationally, increasing trends in single-parent families, women marrying later in life, a greater number of non-traditional relationships, and more reliance on both parents working may affect outdoor recreation patterns. As a result, more adults are working and report greater conflicts between balancing home and work obligations. Implications for recreation use include a decline of families passing on traditional activities (such as hunting, fishing, and hiking) and increases in single women participating in traditional pursuits as well as seeking out new recreational activities (Hall 2005).

Across all age groups, walking, visiting nature centers or museums, bicycling, driving for pleasure, picnicking, and sightseeing have the highest rates of participation. The levels of participation drop off as the age levels increase. Younger people (24 or younger) are increasingly interested in sport-oriented adventure activities such as bicycling, driving off-road, backpacking, and snowboarding. As the population ages, older people (60 or older) are, and will continue to be, more interested in activities that keep them active longer such as walking for pleasure, picnicking, sightseeing, driving for pleasure, and visiting nature centers or museums (Hall 2005).

These national changing patterns of use and transportation are similar in the planning area of the Blue Mountains. National increases in off-highway vehicle use in the last few years indicate how important the rate of change is in addition to the amount of participation in any activity. Table 6 summarizes the general rates of change expected (decreasing to increasing) for recreation activities on the national forests in the Blue Mountains over the next 15 years. The highlighted activities are the primary activities that currently occur in the Blue Mountains from Figure 5.

Considering national trends and the highlighted primary activities for all three national forests, hunting participation is likely to decrease. Downhill skiing, fishing, and gathering forest products will remain stable or generally decrease, although these activities are highly dependent on seasonal conditions such as weather, water flow, and fire use restrictions. Relaxing, driving for pleasure, viewing natural features, viewing wildlife, and hiking and walking are expected to increase. Participation in hiking and walking and motorized off-highway use is expected to grow considerably over the next several years.

Backpacking, primitive camping, fishing, and horseback riding will increase but at a slower rate. Increases in wilderness visitation may be expected for relaxing, nature study, picnicking, viewing natural features, wildlife viewing, and visiting historic sites. Hiking and walking is projected to increase the most.

Table 6: Projected Changes in Activity Participation on National Forests of Blue Mountains

Activity	National Trends 1993-2004	Oregon Trends 1987-2002	Washington Projections 2013-2023	Blue Mountains Projections 2008-2023	Rationale
Hunting	Decreasing-Stable	30% (small game) 69.5% (big game)	(-15-21)%	Decreasing (10-15%)	Hunting will continue to be controlled by tags and unit restrictions. Resident licenses on the decline
Motorized Water Activities	Decrease-Stable-Increase	27.2% (water skiing) to 3.1% (power boat)	10%	Decreasing (10-15%)	Declines in boating days reported by counties
Backpacking	Decreasing-Stable-Fluctuating	-29%	5-8%	Decreasing-Stable (0-5%)	Declining use nationally
Downhill Skiing	Decreasing-Stable	30%	21%	Decreasing-Stable (0-5%)	Depends on snow conditions
Primitive Camping	Stable	-24%	5%	Decreasing-Stable (0-5%)	Recreational vehicle use on the rise
Cross-country Skiing	Decreasing-Stable	--	23%	Stable (0-5%)	Popular areas in the Blue Mountains
Fishing	Stable-Fluctuating	44%	(-5-10)%	Stable (0-5%)	Registered anglers on the decline
Bicycling	Decreasing-Stable	--	19-29%	Stable (5-10%)	Based on youth populations, expect slow growth
Gathering Forest Products	--	--	N/A	Stable (5-10%)	Tied to driving for pleasure, firewood restrictions limit use
Horseback Riding	Decrease-Fluctuating	-32%	5-8%	Stable (5-10%)	Aging populations
Non-motorized Water	Increasing	138%	21-30%	Stable-Increasing (20-30%)	Increases nationwide
Snowmobiling	Stable-Fluctuating	97%	42%	Stable-Increasing (5-40%)	Stabilized in other parts of the country, may decline in the next few years
Other Non-motorized	--	--	N/A	Increasing (5-10%)	Similar to hiking/walking, horseback riding, backpacking, some hunting
Relaxing	--	--	N/A	Increasing (5-10%)	Use related to top activities (hunting, driving, fishing, gathering)
Developed Camping	Stable-Fluctuating	--	10-20%	Increasing (10-20%)	Aging populations
Driving for Pleasure	Stable-Increasing	21%	10-20%	Increasing (10-20%)	Stable or declining in rest of the PNW
Nature Center Activities	--	--	23-37%	Increasing (10-20%)	Limited visitor facilities, expect slow growth
Nature Study	--	--	23-37%	Increasing (10-20%)	Similar to nature centers
Other Motorized Activity	--	--	N/A	Increasing (10-20%)	Similar to driving for pleasure
Picnicking	Decrease-Fluctuating	-24%	20-31%	Increasing (10-20%)	Similar to driving for pleasure
Resort Use	--	--	N/A	Increasing (10-20%)	Similar to nature centers
Viewing Natural Features	--	--	N/A	Increasing (10-20%)	Associated with driving for pleasure
Viewing Wildlife	Fluctuating-Increase	170%	N/A	Increasing (10-20%)	Associated with nature centers, driving, hiking
Visiting Historic Sites	--	--	N/A	Increasing (10-20%)	Associated with nature centers, driving, hiking
Hiking / Walking	--	0%	10-34%	Increasing (10-30%)	Aging populations
Off-Highway Use	Increasing	38%	10-20%	Increasing (10-40%)	Increases nationwide

Activities (USFS 2006a) Blue Mountain projections were estimated based on national, Oregon, and Washington trends and rationale listed. National observed trends, Oregon trends, and Washington projections (Hall 2005).

Considering all activities, the levels of participation, and the potential trends in these activities, total use on the national forests in the Blue Mountains will increase 2-8 percent in the next 15 years. Across all three national forests, hunting is likely to decline (19 percent) but will remain the main activity. In the future, the main activity for visiting the Malheur National Forest will shift from hunting to driving for pleasure (21 percent of the total). On the Umatilla and Wallowa-Whitman National Forests, the main activity will remain hunting (Figure 10).

In addition to hunting, relaxing, fishing, hiking, and walking will continue to be primary activities in the future. These activities along with gathering forest products, driving for pleasure, viewing wildlife, downhill skiing, and viewing natural features will most likely provide the majority of use (73 percent) in the future.

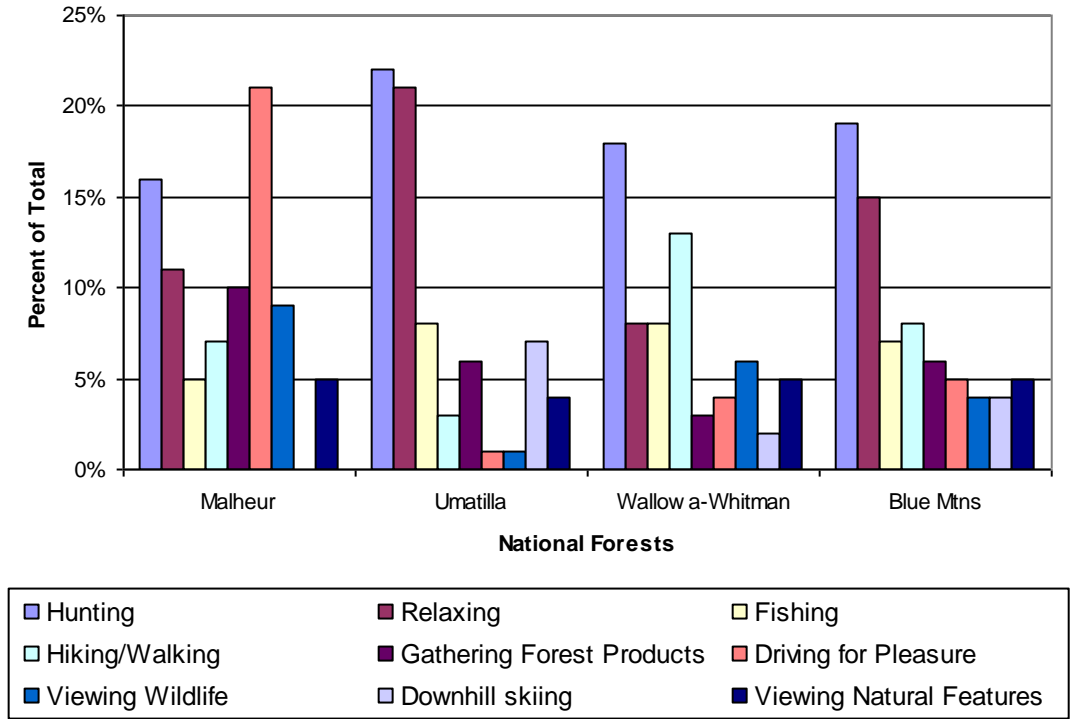


Figure 10: Projected Primary Activities

Shifts in the relative proportion of any activity’s contribution to the total will be limited in the next 15 years (Figure 11). Although total hunting use is expected to decline, it drops 4 percent as a percent of the total use. Relaxing, hiking, and walking increase a relatively minor amount (1 percent) in proportion to total use. The rest of the activities vary insignificantly or retain their ranking in terms of total participation.

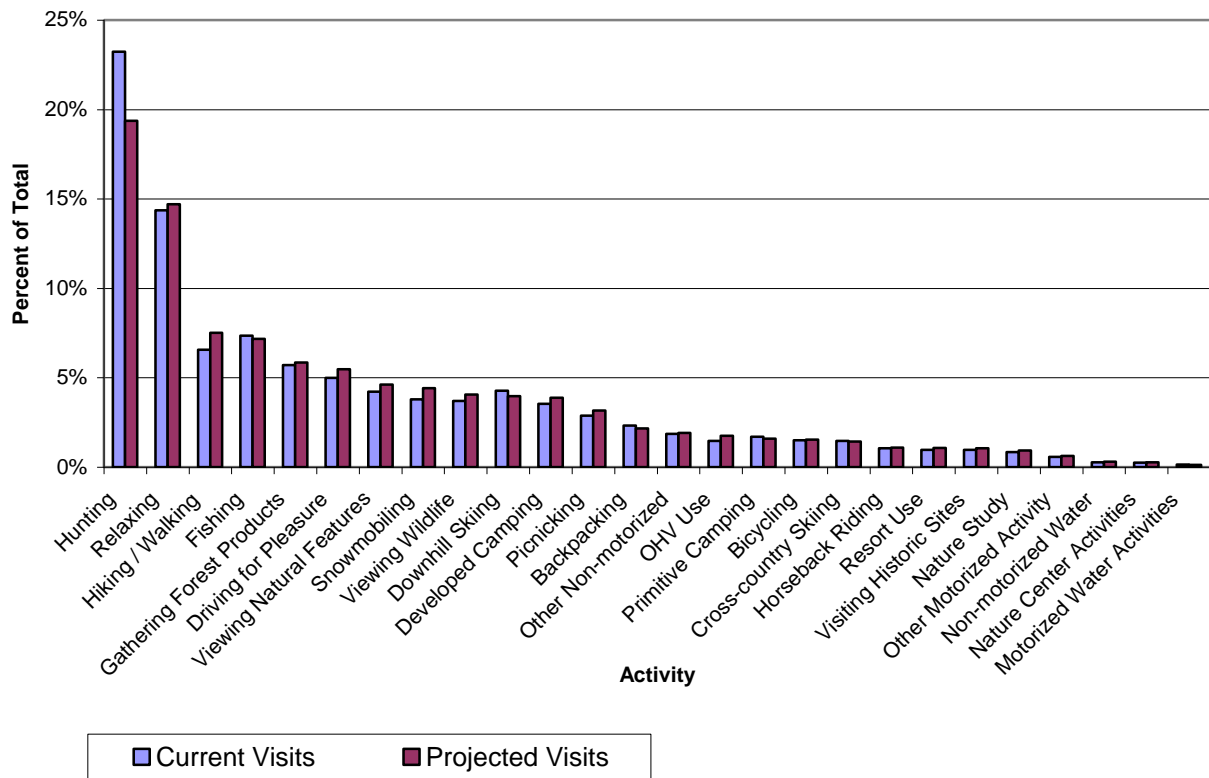


Figure 11: Current and Projected Participation in Primary Activity

Factor 2 Summary and Conclusion

The national forests of the Blue Mountains are not major contributors to total visitor use in the planning area (4 percent) and provide only a small fraction of the overall wilderness use (0.3 percent). Wilderness visitation provides only 8 percent of the total use on the Blue Mountains national forests.

The majority of recreation use (50-75 percent) is from residents adjacent to the national forests, most of whom participate primarily in day use (42-64 percent). This has contributed to the majority of wilderness use also being day use related. Less than half the visitors (29-47 percent) make extended trips and stay overnight (1-2 days) on or off the forests. A few happen to visit the national forests on their way to another destination (3-11 percent).

The primary recreation group to the Blue Mountains will remain predominately white males (over 50 and less than 40-years-old) over the next 15 years.

Even though growth rates in Oregon and Washington are expected to increase by 10-13 percent, particularly in Hispanic and Asian populations, these effects will most likely increase visitation on national forests where these populations already exist (Portland and Puget Sound). Growth in Hispanic populations in eastern Oregon may create higher demand for larger developed sites to accommodate family groups. Declines in Idaho and national population growth rates are also expected due to aging baby boomers. Overall changes to the total population and diversity of the primary market area and the visitor population to the national forests are expected to be less than 2.5 percent.

Based on the small portion (8 percent) of visitor use in wilderness areas, the majority of visitor uses occur outside wilderness by both motorized and non-motorized forms of access. Although some activities that may occur in wilderness are expected to increase in the future (such as relaxing, nature

study, picnicking, viewing natural features, wildlife viewing, visiting historic sites), other activities are expected to decrease (including hunting, backpacking, primitive camping, fishing, horseback riding). The net effect of these use trends, aging populations, and shifts in the type of activities younger people are interested in, is a 2-8 percent increase in demand expected for these activities primarily as day uses from non-wilderness areas over the next 15 years.

While population centers in the Inland Northwest are increasing, the effect of this increase is diluted to the Blue Mountain Wilderness areas because of the distance and the frequency of other wilderness areas that are closer. Due to the low amount of visitor pressure on wilderness areas within the Blue Mountains and the decreasing trends in visitor use for wilderness related activities, this factor does not indicate increasing need for additional wilderness designation.

Factor 3 - Opportunities for Unconfined Outdoor Recreation Experiences

This section describes the extent to which nonwilderness lands on the national forests of the Blue Mountains or other federal lands are likely to provide opportunities for unconfined, unmanaged, pristine, and unroaded opportunities for visitors to experience solitude, remoteness, isolation, or a sense of wildness. The analysis is based on social perceptions of opportunities in the Blue Mountains for the general vicinity and forest-level social values from the public comments received during the Blue Mountains forest plan revision process.

Potential Wilderness Area Vicinity

The national forests of the Blue Mountains provide an island of public land bounded by and interfaced with private land and small communities. Several cities in Oregon, Washington, and Idaho (Bend, Portland, Seattle, Spokane, and Boise) form a ring of larger population centers that surround the Blue Mountains.

The national forests and adjacent federal lands in the Blue Mountains provide the largest blocks of land for primitive, unconfined, and undeveloped outdoor recreation experiences in the Pacific Northwest. The national forests provide some of the least crowded wilderness and high potential opportunities for experiencing solitude. These opportunities overlap with the highest opportunities in the region for cultural and spiritual values, areas of historic significance, scenic vistas, hunting, and off-highway vehicle use (USFS 2006b).

Blue Mountains

The majority of the recreation opportunity provided in the Blue Mountains is in the roaded natural (43 percent) and roaded modified (20 percent) settings of the Recreation Opportunity Spectrum. Unconfined opportunities for experiencing solitude are more likely and available in the primitive (14 percent), semi-primitive nonmotorized (12 percent), and semi-primitive motorized (11 percent) settings (Figure 12).

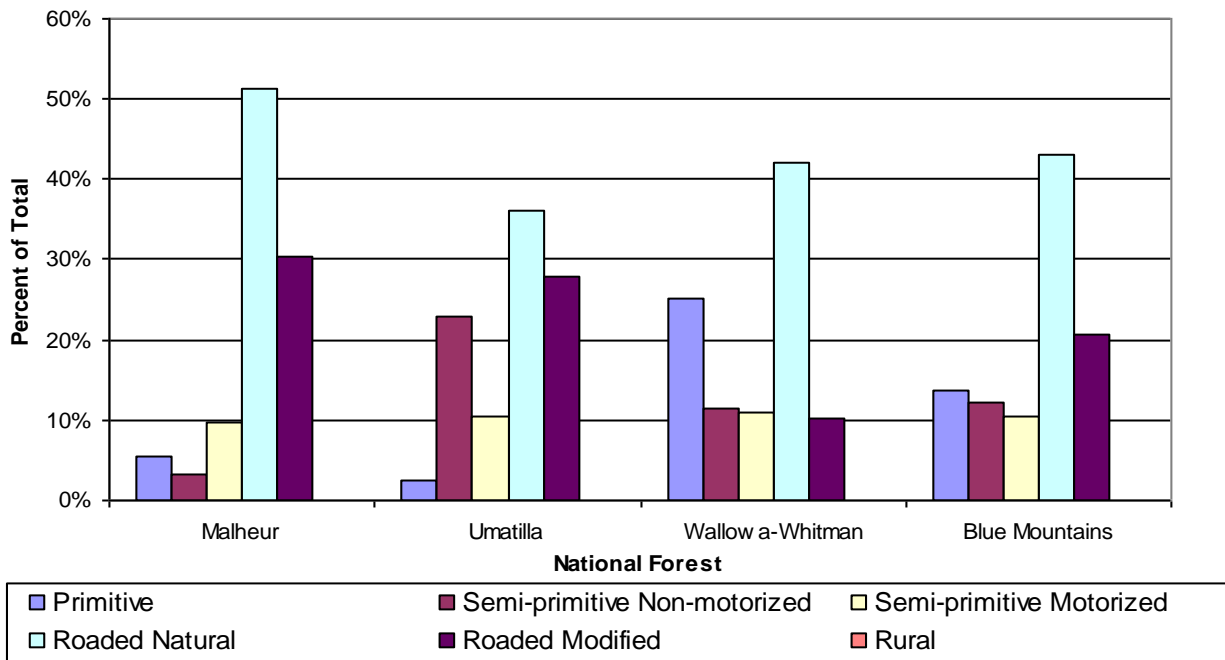


Figure 12: Recreation Opportunity Spectrum

Public comments received during the land management plan revision process (community workshops, letters, emails, and meetings) describe a wide range of social values that are associated with the national forests of the Blue Mountains. Some comments highlight social values related to nonmotorized, unconfined outdoor recreation experiences in wilderness areas or potential wilderness areas:

- Provide pristine forests and wilderness areas for hiking because it restores my spirit, connects me to past and future generations, brings visitors to the area, and provides low-cost family recreation.
- Manage large blocks of wild, unroaded, unfragmented forests to provide intact habitat, landscapes, canopy cover, natural regeneration, history, and wilderness experience.
- Provide areas for spiritual uses because human beings need solace of open, quiet, beautiful places reserved for such recreation and in respect and honor of other species.
- Establish new wilderness areas to provide solitude, high biological value, clean water, wildlife habitat, healthy fisheries, and a boost to rural economic development with tourism.

Other comments highlight social values associated with motorized and other non-wilderness uses:

- Provide a balance of non-motorized areas as well as motorized areas for four wheelers and motorcycles to keep a wide variety of activities for the forest user to do on a vacation or a weekend.
- Provide for multiple uses in our forest, and allow motorized vehicles everywhere except the wilderness. It helps the economics in our county by bringing income to the community.
- Manage areas for overall ecosystem health to provide unspoiled areas for all to enjoy, contribute to healthy environment while providing economic opportunities for tourism, hunting, fishing, and outdoor recreation.

- Promote sustainable timber production on appropriate landscapes to supply raw material for wood products industry, to prevent large scale wildfires, and to maintain a healthy forest.

Table 7 describes some examples of competing or conflicting public demands for potential wilderness areas or adjacent areas (based on watersheds) and why these places are important to the person commenting:

Table 7: Place-based Wilderness and Non-wilderness Values		
Watershed	Wilderness Values	Nonwilderness Values
Upper North Fork Malheur River	Put aside areas for a true wilderness experience without modern-day technologies to provide solitude, renewal and wilderness experience.	Provide freedom to drive around in the forest and enjoy wildlife and vegetation for psychological well-being and tourism for communities.
	Provide roadless hunting experiences because elk are disturbed by motorized travel year-round and ATVs and trucks can ruin a hunt.	Provide ATV trails that will connect with the adjoining forest trails because there are none in the Malheur National Forest and ATV recreation is plentiful.
Upper Big Sheep Creek	Provide wilderness experiences of outstanding quality because it is hard to find and getting scarcer.	Manage forests for ecosystem health and community opportunities for raw materials to the wood products industry.
	Provide back country wilderness recreation opportunities for inspiration, solitude, rejuvenation, and economics in the Wallowas.	Encourage new economic opportunities (bike, horse, ATV) trail riding because it is more desirable than road riding.
Wenaha River	Provide non-motorized areas for hiking in solitude for personal renewal and health.	Provide motorcycle (or any off-road vehicle) riding opportunities for family sport.
	Provide cross-county ski touring with no groomed trails and minimal or no snowmobiling to experience solitude, quiet, and beauty of the forest in the winter.	Provide developed winter recreation in perpetuity as part of our culture, and form of recreation that can be enjoyed for a lifetime. It's a wonderful way to spend time with family and friends.

Source: Wilderness and Wild and Scenic River comment Content Analysis (USFS 2007c)

The planning record for the Blue Mountains revised land management plan contains a record of the social values and maps associated with public comments from the planning process (USFS 2007c, 2007d, 2007e).

Factor 3 Conclusion

The national forests in the Blue Mountains are currently and will continue to remain popular in the next 15 years primarily for recreation activities in non-wilderness areas. Hunting, relaxing, fishing, hiking and walking, gathering forest products, driving for pleasure, viewing wildlife, downhill skiing, and viewing natural features comprise 73 percent of the use. Although some of these uses may occur in wilderness areas, none are exclusive to or dependent upon wilderness areas to provide for these activities.

Even though the Blue Mountains provide high potential opportunities for unconfined recreation experiences and solitude, regionally and locally, the social demand for these unconfined experiences is related to general dispersed settings, not just wilderness, that provide both motorized and non-motorized activities. From a regional perspective, the national forests of the Blue Mountains are perceived as high opportunities for cultural and spiritual values, historic significance, scenic vistas, hunting, and off-highway vehicle use.

From a forest-level perspective, the public has expressed social values for wilderness areas in numerous ways (such as solitude for psychological health; unfragmented forests for habitat and intact landscapes; spiritual uses for solace of open, quiet, beautiful places; and wildlife, pristine settings, economic opportunities for tourism, hunting, and fishing).

Commentary also noted social values for non-wilderness areas in the same places for a variety of reasons (such as provide balance of non-motorized and motorized uses; allow multiple uses including hunting, fishing, recreation, tourism and timber harvesting to manage for forest health and support community economics). In many cases, the comments represent competing or conflicting social values for wilderness and non-wilderness uses for the same places (such as motorized and non-motorized access unmanaged and managed landscapes; expansion of recreation trails and limitations on uses).

Within the Blue Mountain Planning area, there appears to be a wide variety of opportunities for unconfined outdoor recreation experiences in nonwilderness national forest lands. This factor does not indicate a great need for additional wilderness designation.

Factor 4 – Refuge for Species or Protected Areas

This section assesses the importance of wilderness areas to the Forest Service's contribution to the viability and diversity of native fish, wildlife, and plant species as required by the National Forest Management Act and regulations governing the land management planning process. This evaluation is to determine whether designated wilderness is needed to provide a refuge for species that have demonstrated an inability to survive in less than primitive surroundings or to protect areas for other unique scientific values or phenomena. The assumption is that some species and/or associations may require the environment found only in a designated wilderness in order to survive. These resource needs are assessed for native fish, wildlife, and plants across the national forests within Oregon, Washington, and Idaho and the Blue Mountains.

Geographic Setting

There are 65 designated wilderness areas within the general vicinity (Table 2) making up approximately 5 percent of the area. The Blue Mountains are situated in the eastern portion of the region and contain seven designated wilderness areas (Table 3) covering approximately 18 percent of the national forest lands. These seven wilderness areas are located throughout the area, although none are in the southern portion of the Malheur National Forest.

Regional Context

- The three national forests within the Blue Mountains are physically separated and isolated from the other national forests and designated wilderness areas within Oregon and Washington. The separation to the north and south are substantial, spanning miles of either developed agriculture or sagebrush range lands. The separation to the west is less pronounced. It is only a few miles between the Malheur and Ochoco National Forests; approximately 35 miles between the Black Canyon Wilderness Area on the Ochoco National Forest and the Strawberry Mountain Wilderness Area on the Malheur. This narrow gap would suggest that this connectivity area would be of crucial importance to certain wildlife species.
- The Blue Mountains are immediately adjacent to the Nez Perce and Payette National Forests in Idaho, and the immediate proximity of these national forests make this eastern connectivity area very important. This connection maintains a link between the Blue Mountains and the Rocky Mountains.

Blue Mountains Context

- None of the seven designated wilderness areas in the Blue Mountains are immediately adjacent to one another.
- Some of the existing wilderness areas are separated by an interstate highway or a major valley.
- Connectivity between the existing wilderness areas is a very important element in the Forest Service's contribution to species diversity within the Blue Mountains.
- Connectivity between some of the existing wilderness areas would be difficult to achieve.

Wildlife Habitat

The 1982 Planning Rule (36 CFR sec. 219.19) directs us to manage viable populations of native and desired non-native vertebrate species in the planning area. The National Forest Management Act requires us to maintain or enhance native plant and animal community diversity. The forest plan will contain components that satisfy both of these requirements. Preliminary analysis of viability and diversity looked at many different wildlife species, and determined that the major species in the Blues that might depend on primitive surroundings is the wolverine.

Approximately 18 percent (wilderness) of the National Forest System lands in the Blue Mountains could meet the definition of primitive. An additional 13 percent of the Blue Mountains is in a primitive but non-wilderness condition.

Native Fish Species Habitat

Four native fish species (Chinook salmon, steelhead trout, bull trout, and inland redband trout) have been identified as focal species through the land management plan revision process as an evaluation and analysis tool for the remaining native fish species found in the Blue Mountains. All four of these aquatic species meet the criteria for federally-listed species. This evaluation was used to determine if additional wilderness designations are needed to provide viability of the four aquatic focal species.

The Interior Columbia Basin Ecosystem Management Project's (ICBEMP) scientific evaluation determined that 75 percent of the watersheds supporting strong populations of fish were located on national forest lands. That evaluation also noted that strong populations of fish occurred in watersheds with lower road densities. Information exists that suggests that stronger fish populations are located within areas of minimal disturbance (Quigley and Arblebide 1997).

The majority of the habitat supporting strong fish populations in the Blue Mountains is located within currently designated wilderness.

Rare Plant Species Habitat

The Forest Service Handbook also sets the stage for land management plans to develop the framework to provide ecosystem diversity and contribute to diversity of native plant species. Wilderness areas and Specially Designated Areas are an important part of the Forest Service's contribution to viability of native plant species diversity. Specially Designated Areas include Research Natural Areas (RNAs) and Botanical Areas (BAs). Research Natural Areas are a nationwide network of areas established to promote and protect natural diversity. Botanical Areas conserve individual plant species or plant communities that are unique to the Blue Mountains. Designated wilderness and many specially designated areas provide natural, undisturbed habitat for rare plant species.

There are currently 40 botanical and research natural areas in the Blues that comprise 24,000 acres. All but two of the biophysical settings (warm hot riparian forests and warm hot riparian shrublands) in the Blue Mountains are found within currently designated wilderness areas. All of the biophysical settings and their associated suite of special habitats are represented within designated wilderness, botanical, research natural areas, or roadless areas.

Factor 4 Conclusion

Wildlife Habitat

The existing designated wilderness and areas in the potential wilderness inventory form the core of a system of source habitats for a variety of focal species. The core areas will provide the mechanism for the Forest Service to contribute to the diversity of native wildlife species within the Blue Mountains. The only wildlife species that may need primitive areas to survive is the wolverine, and areas in the potential wilderness inventory and wilderness should provide for its needs.

Native Fish Species Habitat

The existing designated wilderness areas and roadless areas will provide an excellent foundation that will contribute to the species diversity of native fish species within the Blue Mountains.

Rare Plant Species Habitat

There are 32 established or proposed Research Natural Areas (RNA) within the Blue Mountains, as well as an additional eight Botanical Areas. These and other roadless areas will provide the keystones for the forest service contribution to native plant species diversity. Each RNA and Botanical Area protects or promotes a particular combination of unique and important plant communities.

Factor 5 – Capacity of Established Wildernesses to Support Human Use

This section describes the capacity of designated wilderness areas to support human use without unacceptable depreciation of the wilderness resource. The analysis highlights visitor pressures and wilderness settings where social and biological factors may be influencing capacity and where management may need to be directed to reduce visitor pressures on these wilderness areas.

Visitor Pressures

Satisfaction

Based on a 3-year study of regional wilderness visitors, most visitors appeared to be highly satisfied with their trip and with wilderness conditions (Cole, Hall, and Schuster 2007). Visitor satisfaction in the region and across the national forests of the Blue Mountains is good to very good for developed sites, general forest areas, and designated wilderness based on composite scores for the condition of developed facilities, access, services and the perception of safety (USFS 2004a, 2007b).

In the Blue Mountains (Figure 13), the perception of safety rated the highest, and access and services rated the lowest in all settings. Satisfaction rated the most for developed sites (81-95 percent of visitors are satisfied) and designated wilderness (78-90 percent of visitors are satisfied). General forest areas rated the lowest (60-91 percent of visitors are satisfied) in particular for visitor services (USFS 2004a, 2007b).

Within these satisfaction categories, scenery and the condition of the roads score the highest in terms of importance across the three national forests. Visitors are satisfied with the conditions for scenery but the road conditions are not as satisfactory. The availability of recreation information, value for fees paid, and adequate signing is also important. Visitors are mostly satisfied with these elements of their visit. Scenery and the condition of the environment was also the most important feature in visitor satisfaction with their wilderness visit (USFS 2004a, 2007b).

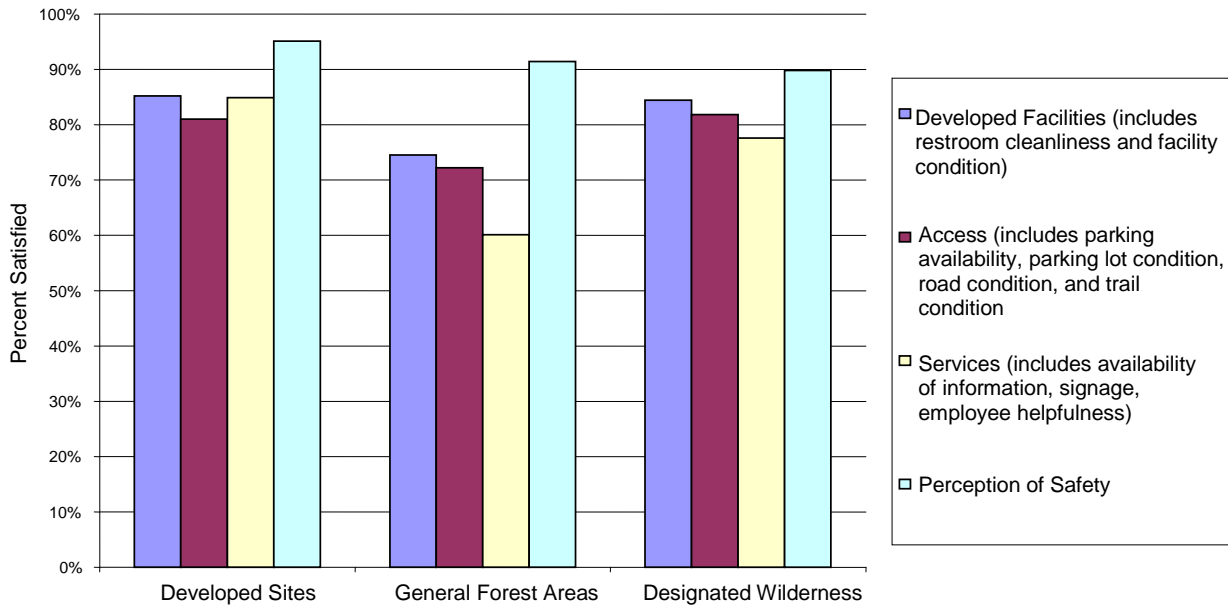


Figure 13: Satisfied Survey Respondents in the Blue Mountains

Congestion and Crowding

Social perceptions of crowding are high on the national forests and federal lands around the Puget Sound area extending south along the Cascades into the Willamette Valley due to higher population densities (USFS 2004a, 2007b).

In the Blue Mountains, the developed and general forest areas across the three national forests are not perceived as crowded by visitors. On a scale of 1-10 (10 meaning the area is perceived as overcrowded, 1 meaning hardly anyone is there) the majority (80-95 percent) of visitors to all three forests report that their perception of others is somewhere on a scale of 1-5 (Figure 14).

A few visitors (2 percent) feel crowded in some developed day use sites and in general forest areas (14 percent) on the Wallowa-Whitman National Forest. A minor amount (4 percent) of overcrowding is perceived in general forest areas on the Umatilla National Forest. Virtually no one reported a feeling of overcrowding in any area of the Malheur National Forest.

In wilderness settings, visitors reported little to no perception of overcrowding. The majority of visitors (94-100 percent) perceive few to hardly any other people around during their visit (USFS 2004a, 2007b). Across the region, visitors to highly-used wilderness areas have had to adjust their tolerance of other wilderness visitors, but this did not highly distract from their experience. Only about 20 percent of visitors usually or always change their use of wilderness to avoid crowding (Cole, Hall, and Schuster 2007).

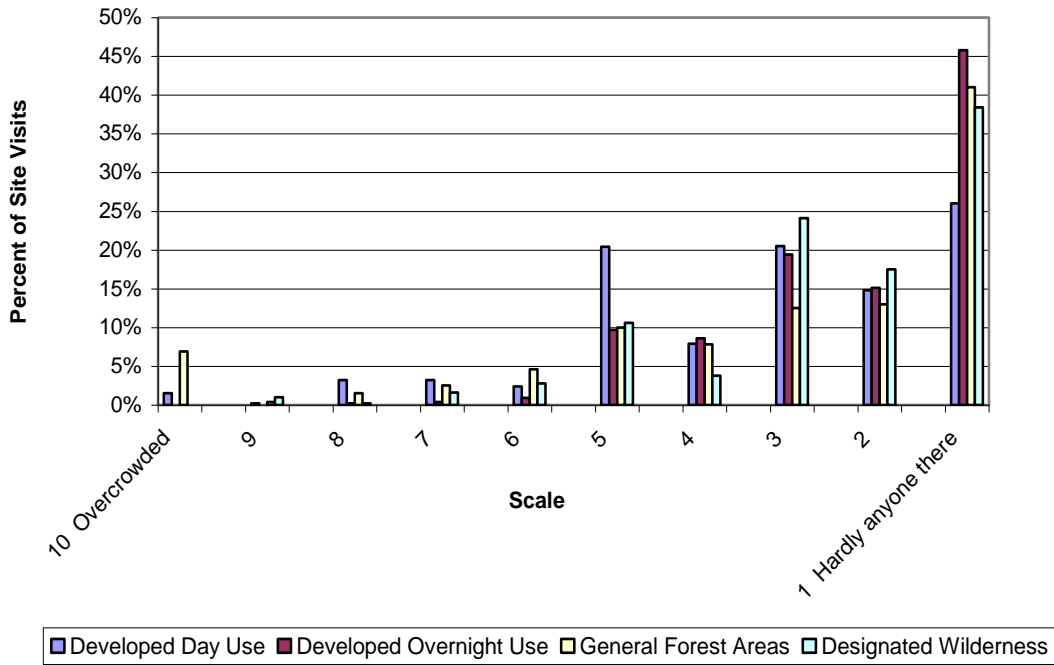


Figure 14: Perception of Crowding

Substitute Behavior

If overcrowding or other pressures deter people from recreating in their preferred location or their primary activity, most visitors to the Blue Mountains indicate they will go elsewhere for the same activity (Table 8). The second choice would be to come back to the same place at another time. Visitors are less likely to stay at home or find a different activity (USFS 2004a). In the region, many wilderness visitors are taking more day trips and more short trips than they did previously (Cole, Hall, and Schuster 2007).

National Forest	Go elsewhere for same activity	Come back another time	Stay at home	Go elsewhere for different activity	Some other response
Malheur	75%	16%	4%	2%	3%
Umatilla	43%	20%	24%	10%	3%
Wallowa-Whitman	58%	13%	16%	5%	9%

Wilderness Settings

General Vicinity

From a broad, overall view of the general vicinity, the area between private and public lands at the northwestern edge of the Blue Mountains is near or at capacity for providing recreation use along riparian areas within acceptable resource parameters. Some areas within the Blue Mountains, primarily the Eagle Cap Wilderness, may also be approaching capacity. Capacity for the other six wilderness areas in the Blue Mountains are mixed across the landscape from high to low levels of concern (USFS 2006b).

Blue Mountains

At a finer scale, some specific settings in wilderness areas in the Blue Mountains are experiencing higher use levels that may lead to overcrowding during high use periods at specific times of the year. These social pressures differ for each wilderness and the type of use.

Strawberry Mountain Wilderness – Most people use this wilderness between July and November. The area receives heavy use in specific locations during specific seasons. The heaviest used area during the summer months is the lakes basin on the east end of the wilderness. During fall big game hunting seasons, the west end of the wilderness receives moderate use by hunters.

Monument Rock Wilderness – This wilderness is shared by the Malheur and Wallowa-Whitman National Forests. The visiting season here generally runs between June and November. Overall the area receives low use with the primary use occurring during big game hunting season in the fall. Hiking and backpacking are increasing in popularity. The general use trend seems to be consistent and not increasing in either users or diversity of uses.

Wenaha-Tucannon Wilderness – The primary recreation activity within this wilderness has traditionally been elk hunting with a large number of hunters packing into the wilderness on horses each fall. Past entry permit information indicates that 80 percent of the use occurs during big game hunting season. There has been an increase in anglers and backpackers during the summer and early fall months.

North Fork John Day Wilderness – The area is popular for both hiking and horseback riding, and is accessible from early spring to late fall from several trail heads located around its perimeter. The majority of use occurs during fall big game hunting season, and the overall use is light to moderate. Fishing in the North Fork John Day River and in some of the larger lakes was popular prior to this area becoming wilderness, and continues to be an area attraction.

North Fork Umatilla Wilderness – Visitors use the area from early spring through late fall. Hunting, hiking, and equestrian use are important activities occurring in the wilderness. The North Fork Umatilla River is a popular spot for anglers. The overall use is light to moderate and not expected to change over time. Sixty percent of the use comes from the popular trails leading up from developed sites along the North Fork Umatilla River.

Hells Canyon Wilderness – Visitor pressure in this area is low outside the Snake River corridor and increasing slowly. In Idaho, backpackers are the dominant recreational group from June to September with the alpine lakes of the Seven Devils Mountains being the main attraction. Equestrians dominate the Oregon side with heaviest use associated with spring and fall big game hunting season. However, the lower elevations offer wilderness recreational opportunities year-round.

Eagle Cap Wilderness – This wilderness area receives heavy use that is slowly increasing. Restrictions in the area to maintain wilderness character include party size restrictions (area-wide), fire prohibitions, and no camping zones around the popular Lakes Basin area. Visitor use exceeds capacity primarily on trails leading into the Lakes Basin and in the basin on weekends and holidays in July and August. The wilderness settings that approach or exceed capacity are limited to high alpine lakes for hiking and horseback riding in the summer and lower elevation trails for big game hunting in the fall.

Factor 5 Conclusion

Regionally and locally, visitors are satisfied with their experience on the national forests and are highly satisfied with their wilderness trip and conditions. In the Blue Mountains, 94-100 percent of the visitors perceive little to no crowding with few to hardly any other people around. Some instances of crowding occur on high use weekends around alpine lakes popular for backpacking and horseback riding in the summer and on lower elevation trails used by horse packers during big game hunting seasons in the fall. These crowding experiences occur in four of the seven existing wilderness areas (Strawberry Mountains, Wenaha-Tucannon, Hells Canyon, and Eagle Cap).

Although visitors to highly-used areas in the region have had to adjust their tolerances of other visitors, only 20 percent make changes in their patterns of use including going elsewhere for the same activity, coming back to the same place at a different time, staying home, going elsewhere for a different activity, taking more day trips, or shorter trips to avoid overcrowding. Based on these reported responses and observed use patterns, 20 percent of these wilderness visitors are likely to first seek out opportunities for the same activity in a similar location (different trailhead and camping locations) in the same wilderness area or come back to the same wilderness area at a different time (earlier or later in the summer or change in hunting season). Dispersed, semi-primitive motorized areas adjacent to existing wilderness areas that provide similar settings are likely alternatives. In addition, the other three wilderness areas (North Fork John Day, North Fork Umatilla, and Monument Rock) in the Blue Mountains have capacity to accommodate users seeking the same activity in a similar setting that is within the primary market zone.

Twenty percent of visitors to high-use wilderness areas in the general vicinity that experience overcrowding will likely react in a similar manner and seek out alternatives in their wilderness use patterns or use areas. Given the longer distance, less accessibility from these major population centers to the Blue Mountains, and greater commitment of time and expense, visitors are more likely to stay home or go elsewhere for a different activity closer to home rather than substitute entirely different places (for example, westside vs. eastside ecosystems). While some visitors may seek out the Blue Mountains settings as a substitute, four of the existing wilderness areas have the capacity to accommodate additional use without crowding. Overall, these shifts in regional and local wilderness use patterns and substitution responses are expected to decline because hunting, horseback riding, and backpacking are declining in use locally, regionally, and nationally.

Key social indicators show that within social and biological limits, management is in a position to increase the capacity within the established wilderness areas, forgoing the need for additional wilderness designation on a large scale.

Factor 6 – Ability to Provide for Preservation of Landform Types and Ecosystems

This section assesses the area's ability to provide for preservation of identifiable landform types and ecosystems.

Plant Communities

The intent of this section is to identify gaps in the designated wilderness areas for vegetation types that exist in the region (Oregon and Washington), but are not represented within designated wilderness within the region or in the Blue Mountains.

An analysis was completed by the Pacific Northwest Region of the Forest Service in 2001 that used Current Vegetation Survey (CVS) inventory plot data to compare vegetation type abundance inside and outside of designated wilderness areas in the region. For the Blue Mountain land management plan revision process, the data was re-formatted to make it more compatible for comparison with locally collected data (Table 9). A comparison was made between the amount of each vegetation type on national forest lands overall to the amount of that vegetation type in designated wilderness areas. The difference between each vegetation type in wilderness was described along a continuum from non-represented in wilderness to strongly over-represented in wilderness (Table 9). An ideal rating for a vegetation representation would be one where the percent of each vegetation type for the region (national forest wilderness and non-wilderness) as a whole was the same as the percent of that vegetation type in designated wilderness.

The regional data shows that some lower elevation vegetation types, as well as vegetation types with limited distribution, are 'not represented' or 'strongly under-represented' in wilderness. These

vegetation types include alder, aspen, cottonwood, ponderosa pine, forb lands, and non-alpine meadows. Vegetation types that are 'somewhat under-represented' include Douglas-fir, grand fir, and Western hemlock. Vegetation types that are 'strongly over-represented' to 'somewhat over-represented' in wilderness include silver fir, subalpine fir, and mountain hemlock.

Table 9: Representation of Vegetation Types on National Forest non-wilderness and wilderness lands in the Pacific Northwest Region (Oregon and Washington)

Vegetation Type	Total Estimated Area (mi ²)	Percent	Area in wilderness	Percentage of Area in Wilderness	Difference between Veg Type & Wilderness	Departure Rating
Western redcedar	347	1	0	0	-1	1
Red alder	6	.02	0	0	-.02	1
Cottonwood	9	.02	0	0	-.02	1
Oregon white oak	3	.01	0	0	-.01	1
Quaking aspen	3	.01	0	0	-.01	1
Forb land (all types)	9	.02	0	0	-.02	1
Meadow (non-alpine)	52	0.1	0	0	-0.1	1
Meadow (alpine)	6	.02	0	0	-.02	1
Ponderosa pine	4,040	11.3	12	0.2	-11.1	2
Douglas-fir	5,329	14.9	586	9.9	-5	3
Grand fir	6,320	17.6	695	11.8	-5.9	3
Western hemlock	5,696	15.9	456	7.7	-8.2	3
Juniper	474	1.3	9	0.2	-1.2	4
Lodgepole pine	1,896	5.3	171	2.9	-2.4	4
Sitka spruce	156	0.4	11	0.2	-0.3	4
Shrubland (non-alpine)	813	2.3	81	1.4	-0.9	4
Grassland (non-alpine)	567	1.6	102	1.7	0.1	4
Red fir	439	1.2	162	2.7	1.5	4
Grassland (alpine)	17	0.1	11	0.2	0.1	4
Shrubland (alpine)	69	0.2	46	0.8	0.6	4
Non-vegetated (all types)	260	0.7	138	2.3	1.6	4
Tanoak	1,179	3.3	294	5	1.7	4
Silver/Noble fir	3,303	9.2	859	14.5	5.3	5
Subalpine fir/ Engelmann spruce	2,454	6.8	982	16.6	9.8	5
Mountain hemlock	2,404	6.7	1,298	21.9	15.2	6

Estimates were derived from CVS plot sampling. USDA 2001

Percentages are based on overall regional estimated area: 35,851 mi².

Expected proportion in wilderness = the percentage of each vegetation type within the landscape (wilderness and non-wilderness).

Departure Rating:

- (1)= not-represented in wilderness;
- (2)= strongly underrepresented in wilderness (greater than -10% from expected proportion);
- (3)= somewhat underrepresented in wilderness (- 5% to -10% from expected proportion);
- (4)= represented within wilderness (-5% to +5% of expected proportion)
- (5)= somewhat over-represented (+5% to +10%) in wilderness;
- (6)= strongly over-represented (greater than 10%) in wilderness;

An analysis was also done for the Blue Mountains, comparing the abundance of vegetation types on forest lands as a whole and vegetation type abundance inside of designated wilderness (Table 10). The local analysis shows that some low elevation and limited distribution types such as warm riparian forest and warm riparian shrubland, were 'not represented' or 'strongly under-represented' in wilderness. Dry grand fir, dry ponderosa pine, and moist forest were 'somewhat under represented' in wilderness. Vegetation types that are strongly over-represented to 'somewhat over-represented' include cold forest and non-vegetation.

Table 10: Biophysical Setting Acres compared to Blue Mountain Wilderness and Potential Wilderness Areas**

Biophysical Setting (veg type)	Blue Mountains Total Acres		Blue Mountains Wilderness Acres		Difference between % of wilderness & % of total	Departure rating	Acres in Blue Mountains Roadless
	Percent		Percent				
Warm-hot riparian forest	500	1	0	0	-1	1	200
Warm-hot riparian shrubland	2900	1	0	0	-1	1	400
Dry grand fir forest	935,500	17	101,700	10	-7	3	99,400
Dry ponderosa pine forest	620,500	11	30,200	3	-8	3	30,700
Moist forest	1,067,900	19	129,800	13	-6	3	144,400
Cold herbland	60,100	1	27,200	3	2	4	19,400
Cold shrubland	27,200	1	20,200	2	1	4	4,800
Dry Douglas-fir forest	810,200	15	11,7000	12	-3	4	122,800
Dry herbland	584,400	11	136,600	14	3	4	230,400
Dry shrubland	164,300	3	18,800	2	-1	4	20,200
Hot dry pine forest	270,000	5	3,800	1	-4	4	13,700
Juniper woodland	73,100	1	600	1	0	4	8,300
Moist herbland	92,100	1	18,500	2	1	4	39,300
Moist shrubland	66,100	1	8300	1	0	4	12,400
Warm-hot riparian herbland	38,300	1	2500	1	0	4	1,900
Whitebark pine forest	57,001	1	40,500	4	3	4	11,650
Non-veg	252,600	2	74,300	7	5	5	28,600
Cold forest	566,100	10	268,500	27	17	6	109,900

** percentages may not add to 100 percent due to rounding.

Data source: Blue Mountain Forest Plan Revision existing vegetation polygon layer.

Factor 6 Conclusion

Plant Communities

Both the regional evaluation (Table 9) and the Blue Mountain evaluation (Table 10) show that cold forest plant community types are 'over-represented' in wilderness and moist forest, and dry grand fir types are 'moderately under-represented'.

The regional evaluation did find more vegetation types that were essentially 'not represented' (such as aspen and cottonwood), or 'strongly under-represented' (such as ponderosa pine), than in the Blue Mountains. There is very limited opportunity to increase representation of these types in the potential wilderness areas of the Blue Mountains.

In the Blue Mountains, the vegetation types that are currently 'not represented' in wilderness (warm riparian forest and shrubland) make up less than 1 percent of the total landscape; therefore, there is limited opportunity to significantly increase representation in designated wilderness. The few areas of riparian vegetation types are widely scattered, making it difficult to incorporate them into the wilderness system. The Blue Mountains evaluation found several vegetation types that were 'somewhat under-represented' (moist forest, dry ponderosa pine, and dry grand fir). Potential wilderness areas in the Blue Mountains contain 55,000 acres of these vegetation types that are available to increase their representation in the wilderness system.

Table 15 displays a summary of vegetation types in Oregon and Washington and in the Blue Mountains that are rated as: 1- 'not represented' in wilderness, 2- 'strongly under-represented' in wilderness, or 3- 'somewhat under represented'. Vegetation types that have representation ratings 1-3 both regionally and locally and occur in potential wilderness areas in the Blue Mountains include ponderosa pine and grand fir (moist forest and dry).

Table 15: Opportunities for Under-represented Vegetation Types

Vegetation Types	Regional Rating	Blues Representation Rating	Acres in Blues Roadless
Western red cedar	1	N/A	0
Red alder	1	N/A	0
Cottonwood	1	N/A	0
Oregon white oak	1	N/A	0
Quaking aspen	1	N/A	0
Meadow (non-alpine)	1	N/A	0
Western hemlock	3	N/A	0
Forb land	1	4 (dry+ moist+ cold herbland)	289,100
Ponderosa Pine	2	3	30,700
Douglas-fir	3	4	122,800
Grand fir	3	3 (moist forest)	144,400
Warm/hot riparian forest	N/A	1	200
Warm/hot riparian shrubland	N/A	1	400
Dry grand fir	N/A	3	99,400

Summary Conclusion

National forest lands within the Blue Mountains, which meet wilderness capability requirements and are available for wilderness designation have been identified and evaluated following the process outlined in the Forest Service Handbook. The needs evaluation provides a bases for a determination of “need” for additional wilderness by considering the *value of* and *need for* the wilderness resource as compared to the *value of* and *need for* other resources (Forest Service Handbook 1909.12).

Other uses of potential wilderness areas were considered as part of the needs evaluation including current and likely future uses and current and potential value of the resources involved. Additionally, issues such as boundary disputes, subsurface mining claims, or incompatible or unresolved uses of national forest lands were considered in making the decision regarding wilderness recommendation. Possible utilization prescriptions of timber, rangeland, and wildlife habitat were also considered. The evaluation of need also recognizes that legislative or other legal designations such as scenic areas and research natural areas or other land management designations established through other land management planning processes also play a role in maintaining biological and natural diversity within the national forests in protecting or enhancing wilderness values, without a formal Congressional designation.

While some national forest lands may be eligible and available for inclusion into the National Wilderness Preservation System, these lands and the biological species and resources that they contain may be better protected under a different management classification in the final revised land management plan or through other legal authorities. Alternative land management designations established through the planning process play a vital role in maintaining biological and natural diversity within the national forests by protecting or enhancing wilderness values.

A wilderness recommendation may also be made based on needs brought forward through public comment. Therefore, the decision to propose a wilderness recommendation is not entirely based on need, but may be made based on various land management strategies and factors; all of which include maintaining biological and natural function and diversity within and on the natural landscape.

Factor 1 – Location, size, type of wilderness; Demographics; and Accessibility

Designated wilderness areas in the Blue Mountains are more remote and less accessible to major population centers than other wilderness areas in the general vicinity. While the current designated wilderness areas offer opportunities for solitude, the time and expense needed to visit the Blue Mountains limits the number of out of area visitors that utilize current wilderness. Only a small

percentage of the use in current wilderness occurs by other than local residents. Given the expected population growth in the general vicinity over the next 15 years, this is not expected to change.

Factor 2 – Use, Visitors, and Changing Patterns of Use

Currently, use of the Blue Mountains wilderness areas account for only a small part (8 percent) of the overall use on the Blue Mountains and even a smaller proportion (4 percent) of the use of national forest lands in the general vicinity. Use trend data suggests that aging populations and shifts in the type of activities younger people are interested in will result in a 2-8 percent increase in demand for activities over the next 15 years. This increase will primarily be in day uses from non-wilderness areas. Current wilderness areas in the Blue Mountains reach capacity only in specific areas during brief high use periods.

Factor 3 - Opportunities for Unconfined Outdoor Recreation Experiences

The Blue Mountains provide high potential opportunities for unconfined recreation experiences and solitude, regionally and locally. The social demand for these unconfined experiences is related to general dispersed settings, not specifically wilderness areas that provide both motorized and non-motorized activities.

Factor 4 – Refuge for Species or Protected Areas

The draft revised land management plan will identify a variety of plan components (existing designated wilderness, management areas, desired conditions, objectives, guidelines, and monitoring). The arrangement of these areas on the landscape and the objectives and guidelines through which they are managed will set the stage for the Malheur, Umatilla and Wallowa-Whitman National Forests' contribution to the diversity of native plant, animal, and fish species. Based on this conclusion, no recommendations for additional designated wilderness are needed to provide refuge for native species.

Factor 5 – Capacity of Established Wildernesses to Support Human Use

Although social desires exist for more wilderness areas across the Blue Mountains, there is not a social need to designate additional wilderness because the current wilderness areas are not exceeding capacity, except in site-specific locations on limited occasions. Alternative sites exist within and adjacent to these areas and within other wilderness areas in the Blue Mountains to accommodate visitor responses to these instances. Based on current uses, trends, primary market zones, demographic changes, crowding levels, visitor pressures, projected uses, existing opportunities for unconfined recreation, and social values. Wilderness use is unlikely to exceed the capacity of the existing wilderness areas and is not likely to result in a need for more wilderness in the next 15 years.

Factor 6 – Ability to Provide for Preservation of Landform-types and Ecosystems

Desired conditions, objectives for treatments, and guidelines for management in the draft revised land management plan insure that natural process will predominate and that ecosystems will be preserved across the landscape. While there are opportunities to increase representation of under-represented vegetation types in the wilderness system, given the management direction outlined in the draft revised land management plan, wilderness designation is not needed for “preservation of landform types and ecosystems”.

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