



United States
Department of
Agriculture

Forest Service Roadless Area Conservation

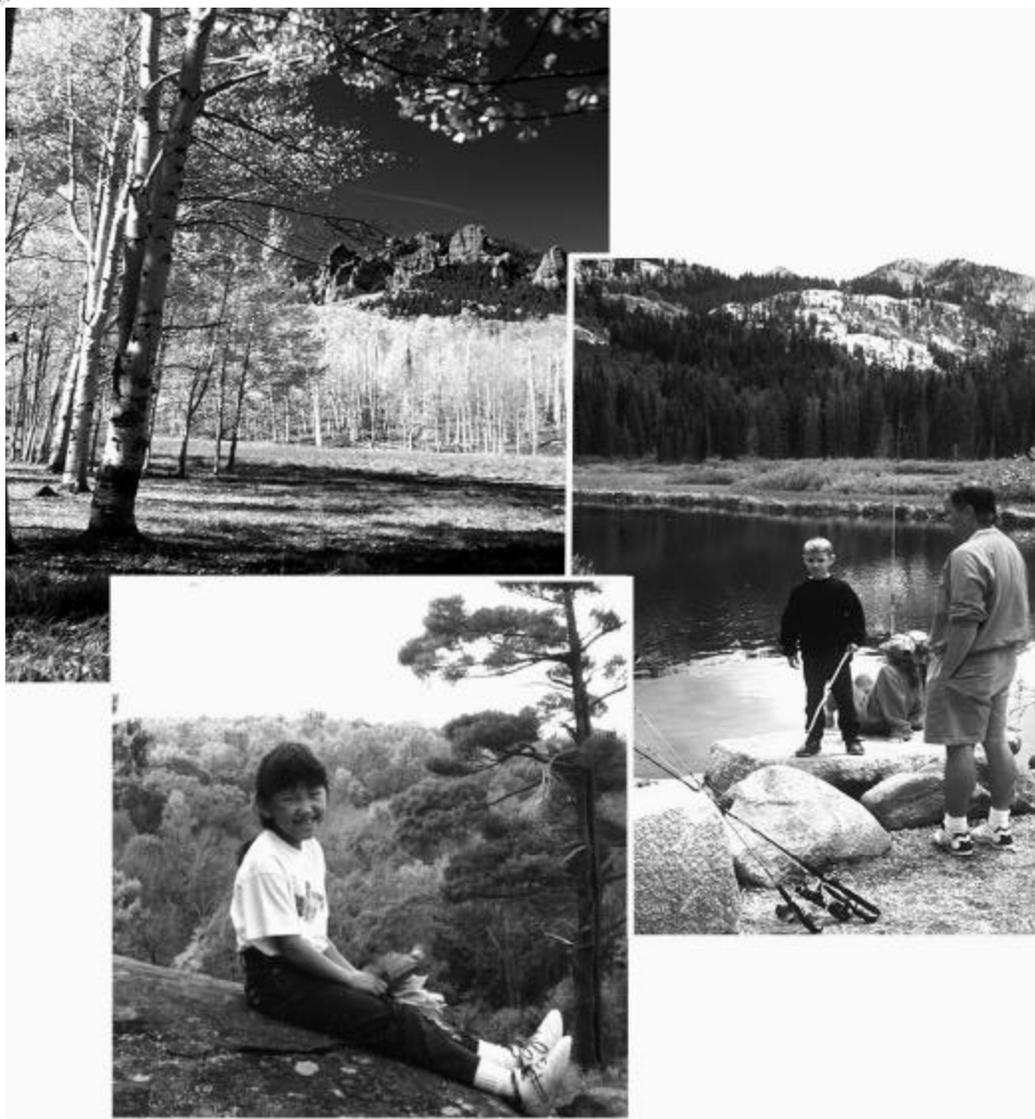
Forest Service

Final Environmental Impact Statement

Washington
Office

Specialist Report for Recreation And Recreation Special Uses

November 2000



**SPECIALIST REPORT FOR RECREATION AND
RECREATION SPECIAL USES**

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November 2000

Abstract:

The basis for describing the affected environment and analyzing alternatives in the environmental consequences for recreation and recreation special uses was the Recreation Opportunity Spectrum (ROS). ROS is divided into 6 classes: Primitive (P), Semi-Primitive Non-Motorized (SPNM), Semi-Primitive Motorized (SPM), Roaded Natural (RN), Rural (R), and Urban (U) (USDA Forest Service 1982). These classes are mixes or combinations of activities, settings, and probable experiences that contribute to outdoor recreation opportunities.

This evaluation revealed that about 33 miles of roads are planned for construction or reconstruction in the next 5 years to support or access dispersed or developed recreation opportunities. All of this planned road building would occur within portions of inventoried roadless areas that have classified roads, recreation sites, and other constructed features. Although these developed portions of inventoried roadless areas have lost their roadless character and may have shifted the ROS setting to Roaded Natural, future road construction or reconstruction associated would not occur.

As demonstrated in this analysis, inventoried roadless areas are characterized mainly by Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes. Of the 58.5 million acres of inventoried roadless areas on NFS lands, approximately 3 million acres now contain classified roads, recreation sites, and other facilities causing, in some cases, a shift to the more developed end of the ROS. Under the preferred alternative, classified roads would remain in place and be maintained, however, reconstruction of them would most likely be restricted.

Alternatives 2 through 4 maintain the highest supply of total acres in a roadless condition; and therefore, have the highest relative ability to accommodate increased demand for dispersed recreation opportunities and for outfitting and guiding services. Alternative 1 would maintain the lowest supply of total roadless acres and, thus, would accommodate fewer opportunities for commercial outfitting and guiding experiences, fewer special use permits issued to local businesses, and fewer dispersed recreation opportunities.

Proposed expansion of ski areas, resorts, or other recreation developments into inventoried roadless areas would be allowed to continue under existing Forest Service procedures if special use permits are in existence and the proposed activities occur within the boundaries established by the special use permit. Proposed expansion or new construction, inside or outside an authorized special use permit boundary, in an inventoried roadless area that has been approved by a signed Record of Decision, Decision Notice, or Decision Memo before implementation of the proposed rule, would also not be subject to the prohibitions. New construction or projects proposed outside the authorized special use permit boundary in inventoried roadless areas could be subject to the prohibitions.

Changes between Draft and Final:

- Sections describing the cumulative effects of the alternatives have been expanded for both topic areas.
- Parts of the cumulative effects written for the DEIS were shifted to comparison of the alternatives discussion in the FEIS.
- Definitions have been revised for clarity and consistency, and new definitions have been added.
- Some references have been revised.
- The section on the Recreation Opportunity Spectrum has been expanded to more fully describe what it is and how it is used.
- Based on the most recent data, the number of ski areas affected by the prohibition alternatives was revised in the Recreation Special Uses section.

Affected Environment

Recreation

Recreation provides tangible benefits for individuals, families, communities, and society as a whole (Driver and others 1991). NFS lands support a vast array of recreational activities, ranging from hiking in remote areas to snowmobiling on groomed trails to camping in developed sites. These activities and many others (Table 1) occur along a continuum, or Recreation Opportunity Spectrum (ROS).¹ ROS is divided into 6 classes: (P) Primitive, (SPNM) Semi-Primitive Non-Motorized, (SPM) Semi-Primitive Motorized, (RN) Roaded Natural, (R) Rural, and (U) Urban (USDA Forest Service 1982). These classes were created for management and conceptual convenience. They are mixes or combinations of activities, settings, and probable experience opportunities. The class names (e.g., Primitive, Rural) were selected and used because of their descriptiveness and use in land management planning and other management application. This classification system provides a framework for defining the types of outdoor recreation opportunities the public might desire, and identifies that portion of the spectrum a particular national forest might be able to provide.

Inventoried roadless areas are characterized mainly by Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes. Of the 58.5 million acres of inventoried roadless areas on NFS lands, approximately 3 million acres now contain classified roads, recreation sites, and other facilities causing, in some cases, a shift to the more developed end of the ROS. Under the preferred alternative, classified roads would remain and be maintained, however, reconstruction of them would most likely be restricted.

¹ The Recreation Opportunity Spectrum (ROS) was developed to provide a framework for classifying and defining segments of outdoor recreation environments, activities, and experience opportunities. The ROS Users Guide provides guidance for inventorying, planning, and managing the recreation resource.

Dispersed Recreation

Affected Environment

Inventoried roadless areas are remnants of vast landscapes substantially unmodified by high-intensity management activities (e.g., timber harvesting, mineral extraction, developed recreation). In the past, roadless areas were viewed as a bank, holding lands in reserve for future resource development. Over time, other allocations, uses, and designations have withdrawn lands from the bank, creating a situation where the remaining relatively undisturbed landscapes have retained increasingly valuable roadless characteristics.

Some of the value of these lands lies in their unique Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized recreation opportunities. Activities that are prohibited in designated Wilderness Areas and not readily available in areas with classified roads can occur in inventoried roadless areas. For example, Wilderness areas prohibit mechanized and motorized uses like off highway vehicles (OHV), mountain bikes, chainsaws, snowmobiles, and helicopters. Wheelchairs designed for pedestrian use in urban areas are allowed, but trails in Wilderness areas seldom accommodate these devices.

Primitive and Semi-Primitive Non-Motorized settings are characterized by large natural-appearing landscapes (refer to Table 2 and Table 3 for size and setting criteria), with little evidence of other people or management restrictions. They have many Wilderness-like attributes yet allow mountain bikes and other mechanized conveyances, and they have fewer restrictions on motorized tools, search and rescue operations, and aircraft use.

Areas characterized by Semi-Primitive Motorized settings feature large natural appearing landscapes and other attributes similar to Semi-Primitive Non-Motorized, yet allow motorized activities, such as OHV use, motorboats and helicopters, chainsaws, and other motorized tools. Access is greatly enhanced for persons with disabilities in Semi-Primitive Motorized settings.

Table 1. Recreation opportunity spectrum activity characterization.^a

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
<p>Land based (includes aircraft): Viewing scenery Hiking and walking Horseback riding Camping (all) Hunting (all) Nature study (all) Mountain Climbing General information</p>	<p>Land based (includes aircraft): Viewing scenery Automobile (off-road use) Motorcycles and scooters Specialized landcraft Aircraft (motorized) Hiking and walking Horseback riding Camping (all) Hunting (all) Nature study (all) Mountain climbing General information</p>	<p>Land based (includes aircraft): Viewing scenery Viewing activities Viewing works of humankind Automobile (inc. off-road use) Motorcycles and scooters Specialized landcraft Train and bus touring Aircraft (motorized) Aerial trams and lifts Hiking and walking Bicycling Horseback riding Camping (all) Organization camping (all) Picnicking Resort and commercial services Resort lodging Recreation cabin use Hunting (all) Nature studies (all) Mountain climbing Gathering forest products Interpretive services (all)</p>		<p>Land based (includes aircraft): Recreating cabin use Hunting (all) Nature studies (all) Mountain climbing Gathering forest products Interpretive Services (all) Team sports Individual sports Games and play</p> <p>Land based: Viewing scenery Viewing activities Viewing works of humankind Automobile (inc. off-road use) Motorcycles and scooters Specialized landcraft Train and bus touring Aircraft (motorized) Aerial trams and lifts Aircraft (non-motorized) Hiking and walking Bicycling Horseback riding Camping (all) Organization camping (all) Picnicking Resort and commercial services Resort lodging</p>	

Table 1. Recreation opportunity spectrum activity characterization. ^a (cont.)

Water based: Canoeing Sailing Other non-motorized watercraft Swimming Fishing (all)	Water based: Boating (powered) Canoeing Sailing Other watercraft Swimming Diving (skin or scuba) Fishing (all)	Water based: Tour boat and ferry Boat powered Canoeing Sailing Other watercraft Swimming and water play Diving (skin and scuba) Water skiing and water-sports Fishing (all)	Water based: Tour boat and ferry Boat powered Canoeing Sailing Other watercraft Swimming and water play Diving (skin and scuba) Water skiing and water sports Fishing Snow and ice based: Ice and snow craft Ice skating Sledding and tobogganing Downhill skiing Snow play Cross-country skiing/snow shoeing
Snow and ice based: Snow play Cross country skiing/snow shoeing	Snow and ice based: Ice and snow craft Skiing, downhill Snow play Cross-country skiing/snow shoeing	Snow and ice based: Ice and snow craft Ice skating Sledding and tobogganing Downhill skiing Snow play Cross-country skiing/snow shoeing	Snow and ice based: Ice and snow craft Ice skating Sledding and tobogganing Downhill skiing Snow play Cross-country skiing /snow shoeing

^a These characteristics are illustrative only and may vary within a ROS class depending on local situations. (USDA Forest Service 1982)

Table 2. Recreation opportunity spectrum size criteria.

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
5,000 acres ^a	2,500 acres ^b	2,500 acres	No size criteria.	No size criteria.	No size criteria.

^a May be smaller if contiguous to Semi-primitive Non-motorized Class.

^b May be smaller if contiguous to Primitive Class. (USDA Forest Service 1982)

Inventoried roadless areas also provide outstanding opportunities for other dispersed recreation activities, such as hiking, fishing, camping, horseback riding, hunting, picnicking, wildlife viewing, cross-country skiing, and canoeing. While these activities can also occur in areas managed for ROS classes on the developed end of the spectrum, they typically result in different types of settings and produce different experiences. Roaded Natural, Rural, and Urban classes are characterized by more interactions with people, more sights and sounds of human development and activity, more restrictions and controls, and more landscape modification from other resource management activities.

The SPNM and Primitive experiences become increasingly more remote (Table 4) without evidence of motorized equipment, requiring more isolation, self-reliance, and challenge. The remoteness criteria in this table can be modified to conform to natural barriers and screening, or other relevant features of local topographic relief and vegetative cover. This fits the criteria to the actual forest landscape. As shown in Table 5, the SPM experience is characterized by moderate isolation, independence, and closeness to nature, tranquility, and self-reliance. Motorized equipment is allowed in an environment of challenge and risk.

Table 3. Recreation opportunity spectrum setting characterization.

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
<p>Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.</p>	<p>Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted.</p>	<p>Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.</p>	<p>Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized provided for construction standards & design of facilities</p>	<p>Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.</p>	<p>Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans, on-site, are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.</p>

(USDA Forest Service 1982)

Table 4. Recreation opportunity spectrum remoteness criteria.

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
An area designated at least 3 miles from all roads, railroads, or trails with motorized use.	An area designated at least 1/2 mile but not further than 3 miles from all roads, railroads or trails with motorized use; can include the existence of primitive roads and trails if usually closed to motorized use.	An area designated within 1/4 mile of primitive roads or trails used by motor vehicles; but not closer than 1/4 mile from better than primitive roads.	An area designated within 1/4 mile from better than primitive roads, and railroads.	No distance criteria.	No distance criteria.

(USDA Forest Service 1982)

The experiences described in table 5 are highly probable outcomes of participating in recreation activities in specific recreation settings.

Scoping revealed a wide range of conflicting opinions on motorized recreation use in unroaded areas. This is an important issue because motorized and non-motorized dispersed recreation use is highly variable throughout the country and dependent on distinct social and environmental conditions.

Prohibiting all activities, including motorized recreation, was considered (see Alternatives Considered but Eliminated from Detailed Study, Chapter 2), but was eliminated from further consideration because decisions of this nature are better made through local planning and collaboration processes.

Of the 58.5 million acres of inventoried roadless areas on NFS lands, about 41% are covered by land- management plan prescriptions that currently restrict road construction and reconstruction. Under the preferred alternative, inventoried roadless areas open to road construction (59%) could be affected in the short term, and even those with prescriptions that currently prohibit roading could be revised and allow roadbuilding over the long term as local conditions and situations lead to a change in management prescriptions.

Existing or future trails would not be affected by the proposed prohibitions in inventoried roadless areas. Decisions regarding trail planning, construction, reconstruction, decommissioning, or maintenance would continue to be made at the forest level based on local environmental and social conditions. A trail is a commonly used term denoting a pathway for purposes of travel by foot (or wheelchair), stock, or trail vehicle (FMS 2353.06(6)). Trail widths may vary and are not limited to 50 inches. Examples of activities associated with foot travel are hiking, skating, cross-country skiing, snowshoeing, backpacking, and rock climbing. Examples of stock animals are horses, llamas, mules, and goats.

Table 5. Recreation opportunity spectrum experience characterization.

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
Extremely high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of woodsman and outdoor skills in an environment that offers a high degree of challenge and risk.	High, but not extremely high, probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk.	Moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk. Opportunity to use motorized equipment while in the area.	About equal probability to experience affiliation with other user groups and for isolation from sights and sound of humans. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities associated with more primitive type of recreation are not very important. Practice and testing of outdoor skills might be important. Opportunities for both motorized and non-motorized forms of recreation are possible.	Probability for experiencing affiliation with individuals and groups is prevalent, as is the convenience of sites and opportunities. These factors are generally more important than the setting of the physical environment. Opportunities for wild-land challenges, risk-taking, and testing of outdoor skills are generally unimportant except for specific activities like downhill skiing, for which challenge and risk-taking are important elements.	Probability for experiencing affiliation with individuals and groups is prevalent, as is the convenience of sites and opportunities. Experiencing natural environments, having challenges and risks afforded by the natural environment, and the use of outdoor skills are relatively unimportant. Opportunities for competitive and spectator sports and for passive uses of highly human-influenced parks and open spaces are common.

(USDA Forest Service 1982))

Examples of trail vehicles are bicycles, motorcycles, snowmobiles, watercraft, 4x4s, and all terrain vehicles.

A key characteristic of inventoried roadless areas has been their ability to supply P, SPNM, and SPM settings for a wide range of dispersed recreation activities. Unroaded areas are the last relatively undisturbed landscapes outside Wilderness areas. As these lands are developed or put into a restrictive designation, the supply of unroaded lands available for other multiple-use activities continues to decline. At the same time, demand for motorized and non-motorized dispersed recreation opportunities is increasing (Cordell and others 1999).

Developed and Road-based Recreation

Affected Environment

Even though about 44% of NFS lands are available for developed and road based recreation, demand for new opportunities is increasing (Cordell and others 1999). Camping and picnicking at developed sites, driving for pleasure, visiting interpretive sites and visitor centers, riding personal watercraft, and participating in road based dispersed recreation are examples of activities associated with the developed end of the ROS. This involves greater social interaction with other people, higher levels of managerial control, and more evidence of human activity, which are summarized in Tables 6, 7, and 8. The experiences described in Table 6 are highly probable outcomes of participating in recreation activities in specific recreation settings. Traditionally, expansion of these developed and road based recreation opportunities would occur in unroaded areas, ultimately shifting the ROS classes from P, SPNM, and SPM to RN or R.

Table 6. Recreation opportunity spectrum social setting criteria.

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
Usually less than 6 parties per day encountered on trails and less than 3 parties visible at campsite.	Usually 6-15 parties per day encountered on trails and 6 or less visible at campsites.	Low to moderate contact frequency. ^a	Frequency of contact is Moderate to High on roads: Low to Moderate on trails and away from roads. ^a	Frequency of contact is Moderate to High in developed sites, on roads and trails, and water surfaces; Moderate away from developed sites. ^a	Large numbers of users onsite and in nearby areas.

^a Specific numbers must be developed to meet regional or local conditions. (USDA Forest Service 1982)

About 33 miles of roads are planned for construction or reconstruction in the next 5 years to support or access dispersed or developed recreation opportunities. They all occur within portions of inventoried roadless areas that have become developed with classified roads, recreation sites, and other constructed features. These developed portions of inventoried roadless areas have lost their roadless character, and may have shifted the ROS setting to Roaded Natural. National prohibitions would apply to these areas, and planned road construction or reconstruction would not occur.

Table 7. Recreation opportunity spectrum managerial setting criteria.

Primitive	Semi-primitive non-motorized	Semi-primitive Motorized	Roaded natural	Rural	Urban
On-site regimentation low with controls ^a primarily off-site.	On-site regimentation and controls ^a present but subtle.	On-site regimentation and controls ^a present but subtle.	On-site regimentation and controls ^a are noticeable, but harmonize with the natural environment.	Regimentation and controls ^a obvious and numerous, largely in harmony with the man-made environment.	Regimentation and controls ^a obvious and numerous.

^a Controls can be physical (such as barriers) or regulatory (such as permits). (USDA Forest Service 1982)

^b Sensitivity level 1 and 2 travel routes from Visual Management System USDA Handbook 461. (USDA Forest Service 1982)

Recreation Special Uses

Frequently, visitors to national forests turn to others to facilitate their recreation experience. This may come in the form of lodging, rental equipment, or guiding services. Recreation special use permits are employed by Forest Service managers to authorize others to provide these desired services. Permits form a legally binding relationship between the Forest Service and other entities, primarily from the private sector. However, some recreation special use permit holders are nonprofit organizations and other government agencies.

Dispersed Recreation

Affected Environment

Outfitters and guides for activities such as sightseeing, hunting, fishing, and rafting, provide most recreation opportunities authorized by special use permits in unroaded areas. Some dispersed recreation opportunities are offered by special use permit holders in association with management of ski areas, resorts, marinas, and camps. Outfitters and guides help visitors enjoy high quality experiences as an extension of the Agency’s mission. Even though they provide a small fraction of the total recreation visitor days that occur on national forests, they benefit the visitor, resources, and economy of communities where outfitters and guides are based (USDA Forest Service 1997).

Visitor demand for a diversity of experiences, settings, and opportunities on national forests continues to increase (Cordell and others 1999). Many people are capable of total self-sufficiency in conducting their activity, while others want assistance to experience the outdoors. For instance, people with disabilities and first-time visitors often choose outfitters and guides to gain access to opportunities, experiences, and settings that would otherwise be unavailable to them.

Table 8. Recreation opportunity spectrum evidence of human criteria.

Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded natural	Rural	Urban
<p>Setting is essentially an unmodified natural environment. Evidence of humans would be unnoticed by an observer wandering through the area. Evidence of trails is acceptable, but should not exceed standard to carry expected use. Structures are extremely rare.</p>	<p>Natural ^a setting may have subtle modifications that would be noticed but not draw the attention of an observer wandering through the area. Little or no evidence of primitive roads and the motorized use of trails and primitive roads. Structures are rare and isolated.</p>	<p>Natural ^a setting may have moderately dominant alternations but would not draw the attention of motorized observers on trails and primitive roads within the area. Strong evidence of primitive roads and the motorized use of trails and primitive roads. Structures are rare and isolated.</p>	<p>Natural ^a setting may have modifications which range from being easily noticed to strongly dominant to observers within the area. However from sensitive ^b travel routes and use areas these alternations would remain unnoticed or visually subordinate. There is strong evidence of designed roads and or highways. Structures are generally scattered, remaining visually subordinate or unnoticed to the sensitive ^b travel route observer. Structures may include power lines, micro-wave installations, etc.</p>	<p>Natural ^a setting is culturally modified to the point that it is dominant to the sensitive ^b travel route observer. May include pastoral, agricultural, intensively managed wildland resource landscapes, or utility corridors. Pedestrian or other slow moving observers are constantly within view of culturally changed landscape. There is strong evidence of designed roads and or highways. Structures are readily apparent and may range from scattered to small dominant clusters including power lines, microwave installations, local ski areas, minor resorts and recreation sites.</p>	<p>Setting is strongly structure dominated. Natural or natural-appearing elements may play an important role but be visually subordinate. Pedestrian and other slow moving observers are constantly within view of artificial enclosure of spaces. There is strong evidence of designed roads and or highways and streets. Structures and structure complexes are dominant, and may include major resorts and marinas, national and regional ski areas, towns, industrial sites, condominiums or second home developments.</p>

In many Southern and Eastern forests what appears to be natural landscapes may in actually have been strongly influenced by humans. The term natural appearing may be more appropriate in these cases.

Outfitting and guiding activities in inventoried roadless areas usually provide recreation opportunities for an unconfined type of outdoor recreation experience, free of the urban influence. These activities are matched with the appropriate ROS setting (Table 3), which has been identified in the land management plan. In areas managed as P and SPNM, opportunities such as hiking, boating, caving, mountaineering, hunting, horseback riding, fishing, cross-country skiing, mountain biking, dog sledding are offered. Areas managed as SPM offer additional opportunities, such as motorized rafting and boating, snowmobiling, OHV driving (motorcycle, ATV, or 4x4), and aircraft transport to remote areas (Table 1).

The need for a particular type of special use authorization is determined in the land management plan or by user demand. Increased marketing is one of the key forces driving greater demand for outdoor recreation opportunities on NFS lands. For many communities adjacent to public lands, recreation opportunities provide the potential to diversify their economies. Chambers of commerce, visitor bureaus, and businesses providing a wide range of services for America's travelers use many forms of communication, including the Internet, to offer information about recreation opportunities on Federal lands near their area. These gateway communities are extremely attractive to visitors because of their quality of life and sense of place, factors that are interdependent with the public lands in the vicinity (Abbott and Sheridan 1997).

Focusing the increasing demand for outdoor recreation opportunities through effective marketing has created a growing demand for outfitting, guiding, and ecotourism services in inventoried roadless areas. Therefore, demand for special use permits to provide these services is also on the rise. Through the NEPA process, the Agency responds to these demands within a framework of creating balance between competing resource needs and of the land's capacity to accommodate increased recreation use. Supply of unroaded areas is decreasing.² Alternatives in this rulemaking that maintain the highest supply of total acres of inventoried roadless areas have the highest relative ability to accommodate increased demand for outfitting and guiding services. Alternatives with low supply accommodate fewer opportunities for commercial outfitting and guiding experiences for forest visitors and fewer special use permits issued to local businesses.

Developed and Road-based Recreation

Affected Environment

While outfitter and guide activities are the primary uses requiring a permit in inventoried roadless areas, there are potential effects associated with campgrounds, resorts, ski areas, and other developments that are located nearby. In several cases land management plans have identified inventoried roadless areas for future expansions of existing special uses,

² See discussion in Recreation, Dispersed Activities, and Affected Environment. Supply of unroaded areas is decreasing because most land allocations allowing development or creating special designations are carved out of inventoried roadless areas.

or special use permits have been issued with expansion into inventoried roadless areas as part of the approved activities. In these cases, the permit holder has made business decisions based on the possibility of future expansion.

Holders of special use permits providing developed recreation opportunities are in various stages of master plan development, revision, or implementation. Many proposed projects are planned for construction in inventoried roadless areas, some within their authorized permit boundary and some outside their authorized permit boundary. Included in the mix of projects proposed in inventoried roadless areas are three new ski areas. All of these projects go through many levels of scrutiny before they are approved, including feasibility study, land management planning, master development planning, and NEPA review.

It should be noted that activities and constructed features of ski area development and management are primarily consistent with Rural and Urban ROS classes. That is, the setting, experience, and activities usually associated with ski areas are more in line with the developed end of the ROS. This could be considered inconsistent with management of inventoried roadless areas for roadless characteristics. Because of the sharp contrast between ski area characteristics and those of inventoried roadless areas, controversy has been high and will continue. It may become increasingly more difficult for ski area expansion or new construction because of increased regulatory jurisdictions, complex procedures, and heightened public scrutiny.

Assumptions:

Recreation and Recreation Special Uses

Recreation uses associated with Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized ROS class settings are characteristics of inventoried roadless areas.

Development in the wildland-urban interface will continue to put pressure on public lands for protection from fire and maintenance of scenic quality, recreation experiences, and other uses.

Outdoor recreation opportunities in semi-primitive and primitive settings will be available primarily on Federal lands in the future.

Demand for motorized and non-motorized outdoor recreation opportunities in the nation's wildlands continues to rise, resulting in increased demand for opportunities on inventoried roadless areas.

Because roadless areas are the bank from which development and special designations such as wilderness are withdrawn, the number of acres and areas of unroaded lands are decreasing. As this occurs, opportunities for Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized opportunities in inventoried roadless areas are decreasing.

The supply of Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized class settings is decreasing in an environment of increasing demand.

Demand for both motorized and non-motorized recreation use on wildlands is increasing as the supply of unroaded areas is decreasing. This trend contributes to the controversy throughout the National Forest System and other Federal lands regarding the appropriate balance between motorized and non-motorized recreation use.

Demand for Special Use Permits to provide outfitting and guiding services is increasing along with an increased demand for assisted recreation opportunities by the public.

In order to discuss cumulative effects, the EIS Team estimated the number of NFS acres outside of designated Wilderness and inventoried roadless areas to be 15 million. The purpose of this estimate was to characterize the magnitude of a concept; therefore, it was not necessary to collect precise data.

The proposed Roads Policy could cause a major shift in the national baseline for recreation supply. The most common scenario associated with road decommissioning is to reduce road density, not to create unroaded areas. However, the possibility exists that there could be an increase of 10%, or 8.4 million acres, of unroaded areas created over the next 40 years due to road decommissioning.

It is estimated that 10%, or 5.8 million acres, of inventoried roadless areas could be designated as Wilderness in the next 40 years. This amount includes the 7.2 % (4.2 million acres) of inventoried roadless acres already recommended for Wilderness designation in land management plans. It also assumes that an additional 2.8% (1.6 million acres) of inventoried roadless areas could be added to the National Wilderness Preservation System.

Information Used:

Recreation and Recreation Special Uses

Recreation use, including use provided by outfitters and guides, data has never been collected specifically for inventoried roadless areas. As a result, estimates of environmental consequences based on recreation use cannot be made with any degree of precision. However, comparisons of the alternatives and cumulative effects can be effectively made based on known factors such as trends in recreation use, availability of supply, demand for specific recreation opportunities, conditions that influence shifts in recreation patterns, and interrelationships with surrounding communities. *Outdoor Recreation in American Life: A National assessment of Demand and Supply Trends* (Cordell and others 1999) and other reference sources cited throughout this report provided comprehensive and current information. Informal queries of and peer review by practicing Forest Service professionals in the field and Washington Office provided expert testimony regarding trends, demand, supply, and conditions relevant to NFS lands at this time. Formal data calls to Forest Service Regions during the analysis process

provided information regarding supply, miles of roads, and special use authorizations in or proposed to be in inventoried roadless areas. The author has a professional, technical, and working knowledge of the subject matter (see Chapter 4 - Preparers and Contributors).

Methodology:

Recreation and Recreation Special Uses

The basis for describing the affected environment and analyzing alternatives in the environmental consequences for recreation and recreation special uses was the Recreation Opportunity Spectrum (ROS). ROS provides a framework for defining the types of outdoor recreation opportunities the public might desire and identifies the portion of the spectrum a given national forest might be able to provide. ROS was developed in the late seventies by collaboration between Forest Service scientists at the Rocky Mountain Research Station, academic leaders in the recreation and leisure disciplines, and practicing recreation professionals. This effort came to fruition in 1982, with the publication of the ROS Users Guide (USDA Forest Service 1982) followed up with Forest Service Manual and Handbook direction.

Since then planning for recreation opportunities using ROS has been conducted as part of the land management planning process. The recreation input includes factors such as supply and demand, issues, and identification of alternatives. Issue responses to alternatives are assessed to develop management area prescriptions designed to assure the appropriate recreation experience through setting and activity management on a national forest. ROS classes are developed at a scale suitable for recreation management, land management planning, and site specific project planning (USDA Forest Service 1982). ROS was the methodology used to evaluate alternatives in this FEIS. Maintenance of preferred or valued ROS class settings was a key measure used in alternative evaluation.

Results:

Alternative 1

No Action; No Prohibitions

Alternative 2

*Prohibit Road Construction and
Reconstruction Within Inventoried Roadless Areas*

Alternative 3

*Prohibit Road Construction, Reconstruction,
and Timber Harvest Except for Stewardship
Purposes Within Inventoried Roadless Areas*

Alternative 4

*Prohibit Road Construction, Reconstruction and
All Timber Cutting Within Inventoried Roadless Areas*

Recreation

Dispersed Recreation

The alternatives are compared by their relative ability to maintain the existing supply of inventoried roadless areas available for dispersed recreation opportunities. Alternatives that create safeguards to maintain the most NFS lands in a roadless condition are rated high; conversely, those that maintain the fewest acres in a roadless condition are rated low.

Recreation use data has not been collected specifically for inventoried roadless areas. As a result, estimates of environmental consequences based on use cannot be made with any degree of precision. Comparison of the alternatives is based on known factors, such as trends in recreation use and road construction, availability of supply to meet demands, and conditions that influence shifts in recreation patterns.

Alternative 1 – No Action

An underlying assumption in Alternative 1 is that inventoried roadless areas, outside of Wilderness and other designated areas, would be available for resource management activities that may degrade their unroaded characteristics. Road construction, timber harvesting, and other resource management activities in inventoried roadless areas (where land management plan prescriptions allow it) would reduce the supply of land available for dispersed recreation opportunities in the SPM, SPNM, and P classes. Since national prohibitions do not apply to this alternative, it has a relative low ranking for its ability to maintain a supply of roadless areas.

Demand for SPM, SPNM, and P dispersed recreation opportunities is increasing (Cordell and others 1999) in an environment of diminishing supply. The supply of lands suitable for these activities would continue to decline under this alternative, along with opportunities to resolve controversy about the appropriate balance between motorized and non-motorized dispersed recreation activities.

Alternatives 2 through 4

Because the national prohibitions are applied to the highest number of total acres, these alternatives would maintain the highest relative supply of lands with dispersed recreation potential. Availability of unroaded areas for forest visitors seeking primitive and semi-primitive recreation opportunities would remain high. Minor shifts in recreation use might occur because of timber harvesting allowed under Alternatives 2 and 3. For example, hunting or berry picking could be enhanced in timber harvest areas; lands that were avoided because of insect infestations could draw backcountry uses once they are treated.

These shifts, however, would have little or no effect on the overall supply or availability of inventoried roadless areas maintained for P, SPNM, and SPM recreation opportunities; therefore, Alternatives 2, 3, and 4 are barely distinguishable from each other. This cluster of alternatives is rated high because they would provide considerable and immediate stability to the level of supply; whereas, Alternative 1 is rated low because it would allow for continued reduction in the supply of inventoried roadless areas maintained in an undeveloped condition.

Demand for SPM, SPNM, and P dispersed recreation opportunities is increasing (Cordell and others 1999) in an environment of diminishing supply. Since Alternatives 2, 3, and 4 would maintain higher levels of supply, they would provide more opportunities to resolve the issue of balance between motorized and non-motorized dispersed recreation activities. Controversies over the type of use might be considerably fewer than under Alternative 1 and might have a higher probability of being resolved over time.

Some level of certainty for the dispersed recreation opportunities available on NFS lands would be added under these alternatives, although minor shifts would occur as use patterns, local priorities, and environmental conditions change. Under these alternatives, approximately 44% of NFS lands would be available for road-based and developed recreation (primarily U, R, and RN) and 56% would be available for dispersed recreation (primarily P, SPNM, and SPM). The lands available for dispersed recreation would include acres of designated Wilderness, inventoried roadless areas, and acres outside inventoried roadless areas and Wilderness that restrict road construction and reconstruction by land management plan prescription.

Creating a level of certainty regarding land uses on Federal lands would assist gateway communities in making sound economic, social, and land planning decisions. Recreation and tourism is a growing segment of the United States economy, which can contribute to the economic base in communities associated with NFS lands. Increasing demand for recreation on NFS lands will continue to provide economic opportunities for businesses and local communities. These recreation opportunities also contribute to the quality of life and sense of place.

In the past, communities could base decisions on the developed and road based recreation opportunities; however, dispersed recreation opportunities were more unpredictable. Selection of Alternatives 2 through 4 would define the Agency's position regarding the value of inventoried roadless areas and would set the stage for continued maintenance of dispersed recreation opportunities.

Forecasting continued availability of dispersed recreation opportunities would assist communities in determining where to place their priorities. Examples of where this has benefited communities in the past are:

- Towns and villages along the Appalachian Trail have created a service infrastructure for millions of people that hike through their areas;
- Moab, Utah has shifted to a mecca for mountain bikers and OHV use;
- Sedona, Arizona provides extensive 4-wheel drive touring services to explore the spectacular red rock country;
- Hood River and The Dalles in Oregon cater primarily to wind surfers; and
- Ely, Minnesota, is shifting to a more diversified economic base by supporting increasing demands for canoeing opportunities.

From a national perspective, areas with roadless characteristics will become increasingly more important as the nation's population grows and the country becomes more intensely developed. Besides reversing the decline in the number of acres of roadless areas, Alternatives 2, 3, and 4 would more sharply focus the management emphasis in these areas on roadless characteristics. Land managers would balance recreation demands with other key values such as maintenance of ecosystem and scenic integrity, clean water, wildlife viability, biodiversity, landscape character, research opportunities, traditional cultural properties, and sacred sites.

Effects of Social and Economic Mitigation on Recreation

Some road construction and reconstruction associated with mineral development would be allowed, which may cause shifts in the type of recreation opportunities available. Local areas would experience the effects of individual developments; however, from a national perspective the effects on dispersed recreation in inventoried roadless areas would be minimal.

Developed and Road Based Recreation

The alternatives are compared by their relative supply of inventoried roadless areas available for expansion of developed recreation, roads, and road based recreation. Alternatives are rated low that maintain a higher supply of unroaded areas because they would result in a lower supply of settings for more development based recreation activities. Future expansion of more urban oriented recreation would then occur in areas already developed, increasing the density of use. Alternatives are rated high that would allow for future expansion into inventoried roadless areas.

Alternative 1 – No Action

Developed and road-based recreation would continue to expand into inventoried roadless areas primarily for two reasons. First, recreation use follows roads constructed for another purpose, such as timber or fire prevention; and second, popular dispersed recreation sites are developed to manage use and to eliminate resource damage.

This alternative would provide the most opportunity for developed and road based recreation to occur. There would be no national prohibitions in place to restrict continued development of inventoried roadless areas. Opportunities to shift from Primitive and Semi-primitive settings to road-based and developed classes of recreation would be maximized. As a result, Alternative 1 receives a relative rating of high.

Alternatives 2 through 4

Because the national prohibitions are applied to all the inventoried roadless areas, these alternatives would maintain the lowest supply of lands with developed recreation potential. Access for forest visitors seeking road based or developed recreation opportunities would also be low. The road prohibition is consistent throughout; therefore, these alternatives are indistinguishable regarding their ability to expand development in inventoried roadless areas. As a group, they are rated low because they would immediately prohibit road construction and reconstruction and reduce the possibility of shifts from primitive and semi-primitive ROS settings to Roaded Natural or Rural experiences.

Most recreation use on NFS lands depends on roads for access to developed sites. Increased recreation use of all types will increase demand for more roads and more developed sites. For example, a popular dispersed recreation area near a road may become a developed site to minimize environmental damage and manage the number of people; popular backcountry destination areas may require new trailheads; or, as the NFS road system stabilizes, increased use may require reconstruction to a higher level of design. Since expansion into inventoried roadless areas would not be likely, increased demand for opportunities at the more developed end of ROS would occur in existing areas available for development or road based recreation opportunities.

Historically, dispersed recreation followed roads built for timber, fire, or other resource management activity. As use became heavy and demand for amenities increased, some areas became suitable for developed sites. This resulted in wide dispersion of small to medium sized developed sites. This option would no longer be available in inventoried roadless areas under Alternatives 2 through 4. All future increased developed recreation demand would be met and concentrated in areas already available for development.

Under Alternatives 2 through 4, many existing developed sites would require expansion, and their design levels would be raised. Concentrations or clusters of developed sites would become more common. Road-design standards would be raised to handle increased volumes of traffic. Higher concentrations of people would require more infrastructure, high intensity management, and law enforcement. Whereas, campgrounds and other developed sites have been traditionally designed for Semi-Primitive Motorized to Roaded Natural ROS classes, design standards would shift to Roaded Natural and Rural. This condition would be especially apparent in areas where demand for developed and road-based recreation is highest; usually this occurs closest to large population centers and areas with attractions that draw large numbers of people.

Recreation Special Uses

Dispersed Recreation

Comparison of the alternatives shows that effects on demand for outfitting and guiding services and special use permits are similar to those for recreation opportunities in general. Visitors to the nation's national forests are looking for the same settings, activities, and experiences whether assisted by outfitters and guides or discovering them on their own. Demand for P, SPNM, and SPM classes of dispersed recreation is increasing (Cordell and others 1999) in an environment of decreasing supply. The alternatives fall into different levels based on their relative ability to maintain a supply of outfitting and guiding dispersed recreation opportunities. An alternative that maintains the most NFS lands in an unroaded condition and provides the most protection for roadless characteristics when compared to the other alternatives would result in a high level of supply. Conversely, a low level of supply would result from alternatives that maintain the fewest acres in an unroaded condition, and offer minimal or no protection for roadless characteristics.

Alternative 1 – No Action

An underlying assumption in Alternative 1 is that inventoried roadless areas, outside of Wilderness and other designated areas, are available for resource management activities that may degrade their unroaded characteristics. Road construction, timber harvesting, and other resource management activities in inventoried roadless areas (where land management plan prescriptions allow it) would reduce the supply of unroaded areas available for outfitter and guide assisted dispersed recreation opportunities in the SPM, SPNM, and P classes. Supply of inventoried roadless areas maintained in an undeveloped condition would decline over time. Since national prohibitions do not apply to this alternative, it has a low ranking for its ability to maintain a supply of unroaded areas.

Of the 58.5 million acres of inventoried roadless areas, 41% are covered by land management-plan prescriptions that restrict road construction and reconstruction. The other 59% are not. Those inventoried roadless areas open to road construction could be affected in the short term, and even those currently restricting roadbuilding could be affected over the long term as local conditions and situations change.

Alternatives 2 through 4

Because the national prohibitions are applied to the highest number of areas and total acres, these alternatives would maintain the highest level of supply of lands with potential for outfitter and guide assisted dispersed recreation. Minor shifts in assisted recreation use may occur because of timber harvesting allowed in Alternatives 2 and 3. For instance, most outfitters and guides prefer natural appearing landscapes, so cutover areas could be avoided until they grow back; or, on the other hand, timber harvested areas may attract use because of increased hunting, wildlife viewing, or berry picking opportunities.

In the final analysis, these shifts would have little or no effect on the overall supply or availability of inventoried roadless areas maintained for P, SPNM, and SPM recreation opportunities; therefore, Alternatives 2, 3, and 4 are barely distinguishable. These alternatives are rated high because they would provide considerable and immediate stability to the level of supply, maintain the most access for forest visitors, and allow for the highest opportunity for services authorized by special use permits.

When inventoried roadless areas are managed for their unroaded characteristics, the associated uses are complementary. Outfitting- and guiding-assisted dispersed recreation opportunities would be balanced to complement the other key values such as, maintenance of high ecosystem and scenic integrity, clean water, wildlife viability and biodiversity, landscape character, research opportunities, traditional cultural properties, and sacred sites. Focusing management activities on these few multiple-use activities would enable managers to determine appropriate capacity for outfitting and guiding operations. In the short term, some operations might need to be shifted. Over the long term, the national prohibitions would begin to create a level of certainty regarding dispersed recreation opportunities. This would enhance Forest Service managers' ability to make sound decisions regarding overall management of unroaded areas and special use permit holders' ability to make long-term business decisions.

Stable land uses on Federal lands would allow communities in and around national forest to make sound economic, social, and land use planning decisions. Outfitting and guiding on NFS lands is an important aspect of recreation and tourism, and can be a key component of local economies. In the past, availability of unroaded areas was unpredictable. Continued availability of unroaded areas for P, SPNM, and SPM dispersed recreation opportunities would assist communities and small businesses in setting their priorities.

Effects of Social and Economic Mitigation on Recreation Special Uses

Some road construction and reconstruction associated with mineral development would be allowed, which may cause shifts in the type of recreation opportunities available. Local areas would experience the effects of individual developments; however, from a national perspective the effects on recreation activities associated with outfitters and guides in inventoried roadless areas would be minimal.

Developed and Road Based Recreation

Comparison of the alternatives is based on the relative ability of the special use permit holders to proceed with the process of planning and implementing their projects; or, in the case of new recreation developments, their ability to proceed with the process to acquire a special use permit. Those alternatives that allow the projects to proceed under existing policy and safeguards would be rated high. Those that preempt existing procedures, creating a situation where the project may be placed in jeopardy because of imposed restrictions would be rated lower.

Alternative 1 – No Action

Under this alternative, projects associated with campgrounds, resorts, ski areas, or other entities that hold special use authorizations would proceed with planning. The largest category of projects proposed is ski area expansion or new ski area development. Determination of actual implementation in inventoried roadless areas would be dependent on existing policy, not on a decision influenced by an overlay of national prohibitions. Because all proposals, no matter what stage of planning or implementation, would be allowed to proceed under existing Forest Service policy, this alternative has a relative rating of high.

Alternatives 2 through 4

Proposed expansion of ski areas, resorts, or other recreation developments into inventoried roadless areas would be allowed to continue under existing Forest Service procedures if special use permits are in existence and proposed activities take place within boundaries established by the special use permit. Proposed expansion or new construction, inside or outside an authorized special use permit boundary, in an inventoried roadless area that has been approved by a signed Record of Decision, Decision Notice, or Decision Memo before implementation of the proposed rule, would also not be subject to the prohibitions.

New construction or projects proposed outside the authorized special use permit boundary in inventoried roadless areas could be subject to the prohibitions; it would depend on the type of project and how it would be constructed. For example, if it were possible to design and build a project without road construction or reconstruction, the project would not be prohibited and could proceed complying with existing processes in Alternative 2. If a proposed project could be designed and built without road construction or reconstruction and timber harvesting (assuming timber harvesting for stewardship purposes is not appropriate for clearings created for developed recreation), it could proceed with normal Forest Service procedures in Alternatives 3 and 4.

It is unlikely that new ski areas would be built under any of these alternatives unless it already had a Record of Decision before implementation of the final rule. Impacts on categories (other than ski areas) of developed recreation special use permit holders would be minimal from a national perspective.

One project proposed in an inventoried roadless area is expected to have a Record of Decision in place before implementation of the final rule; it is an expansion of an existing ski area. It would not be subject to national prohibitions. Six other proposed projects will not have a decision in place before implementation of the final rule, three are new ski areas and three are expansions of existing ski areas. All of these projects would be subject to the national prohibitions. Being subject to national prohibitions probably would affect their ability to proceed with planning and implementation of the projects if road construction and reconstruction is planned.

Future ski area expansion of any kind outside existing authorized permit boundaries would probably not occur in Alternatives 2, 3, and 4 because roads would not be allowed. Although the alternatives have a different mix of prohibitions, the overall effect on ski

areas would be similar. These alternatives are rated low because national prohibitions would affect some existing planned projects and would have a considerable effect on new ski areas or expansion of existing ski areas beyond their authorized permit boundaries.

Conclusions:

Other Indirect and Cumulative Effects on Recreation

Demand for developed and dispersed recreation will continue to grow (Cordell and others 1999b). Growing recreation demand on NFS lands is and will be driven by population increases, population migration to areas close to NFS lands, the travel and tourism industry, expanded information services, new and shifting recreation activities and technology, influence of special interest groups, and actions of other land management agencies. However, specific projections regarding developed and dispersed recreation growth would be speculative, and would not add substantially to our understanding of the incremental contributions from the alternatives considered in this FEIS. Although the Forest Service has very little, if any, control over this growing demand, it does have control over how it manages the effects.

In the next 40 years, as demand increases, there would likely be more competition for recreation uses and conflicts between recreation users. Carrying capacity for developed and dispersed recreation will exceed supply in various locations throughout the country. In particular, the Eastern United States, areas close to urban population centers, and popular attractions will experience stress due to increased competition. Carrying capacity would usually be exceeded if heavy resource damage occurs, management standards cannot be met, or user satisfaction can no longer be provided. This situation is often related to developed and road based recreation opportunities. However, in dispersed areas close to high population centers and attractions, these management challenges would also become prevalent. In situations where carrying capacity is exceeded, aggressive administrative controls, such as entry stations, closures, increased compliance and law enforcement, increased use of reservation, fee, and permit systems, rest and rotation of recreation areas and facilities, and more dependency on the private sector, would be implemented to manage use. A road system with fewer miles would tend to exacerbate the situation.

Supply of inventoried roadless areas is the basis for comparing alternatives. If an action alternative (Alternatives 2 through 4) were selected, the supply of inventoried roadless areas would be stabilized at close to 58.5 million acres. Coupling acres of inventoried roadless area with the 34.7 million acres of designated Wilderness provides a more complete picture of NFS lands available for Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized dispersed recreation opportunities. The total area available for dispersed recreation opportunities would then approach 93.2 million acres, or 48% of NFS lands.

Data are unavailable to identify the number of available NFS acres outside of Wilderness and inventoried roadless areas with road construction and reconstruction restrictions. However, a conservative estimate would place the amount at approximately 15 million additional acres. Although this is a rough estimate, the total acreage of inventoried roadless areas, designated Wilderness, and other NFS lands with road construction restrictions can serve as a baseline for discussion of cumulative effects. Areas without road construction restrictions are generally available for developed and road based recreation activities and are estimated at 84.1 million acres.

Within the context of NFS lands, analysis identified factors that might have major, minor, or no effect on the baseline of recreation supply. The Roads Policy could cause a major shift in the national baseline of recreation supply. The most common scenario associated with road decommissioning is to reduce road density, not to create unroaded areas. However, the possibility exists that there could be an increase of 10%, or 8.4 million acres, of unroaded areas created over the next 40 years due to road decommissioning. This would decrease the supply available for developed and road based recreation opportunities.

Factors that might have minor effects on the baseline of recreation supply include lands acquired through purchase, exchange, or legislation; reduced access because of private property closures; temporary use restrictions; or fish and wildlife protection closures. These factors may cause recreation use shifts in localized areas or cause small incremental shifts over long periods. However, they typically would not cause major shifts in the national baseline of recreation supply.

Another factor that would not change the baseline recreation supply but would reduce the supply of inventoried roadless areas acres is future Wilderness designations. It is estimated that 10%, or 5.8 million acres, of inventoried roadless areas could be designated as Wilderness in the next 40 years. This amount includes the 7.2% (4.2 million acres) of inventoried roadless acres already recommended for Wilderness designation in land management plans. It also assumes that an additional 2.8 % (1.6 million acres) of inventoried roadless areas could be added to the National Wilderness Preservation System. This would maintain the baseline but could potentially displace some motorized, mechanized, and other forms of dispersed recreation use.

Actions by other land management agencies can be important factors in increasing demand for recreation opportunities on NFS lands. Public lands managed by some local, County, and State agencies, the National Park Service, and the U.S. Fish and Wildlife Service will most likely reach carrying capacity sooner than lands managed by the Forest Service. Access to private lands for outdoor recreation, particularly for semi-primitive and primitive settings, will become increasingly constrained. Actions such as placing limitations on visitation or closing areas to the public (Betz and others 1999), would displace recreation use and shift more demand to available recreation opportunities on NFS lands. For example, the National Park Service is currently promulgating regulations that would reduce or eliminate certain motorized recreation equipment (snowmobiles and personal watercraft) in areas under its jurisdiction. This reduction in supply of public lands for motorized recreation use may put additional pressure on the Forest Service to allow or continue to allow the uses on NFS lands. This action may also increase the use

of motorized recreation where allowed. Snowmobiling, which is a recreation activity suited for unroaded areas, is expected to be one of the fastest growing outdoor recreation activities over the next 40 years (Bowker and others 1999). As the demand increases and supply of land diminishes, the future issue for the Forest Service is likely to be striking the appropriate balance between motorized (for example, snowmobiling) and non-motorized (for example, cross-country skiing, snow shoeing) uses in unroaded areas; these are uses generally thought to be incompatible.

Use of personal watercraft (jet skis), on the other hand, is usually associated with developed recreation because roaded access and boat ramps are needed. If any of the action alternatives are implemented, no new roads could be constructed to lakes or rivers in inventoried roadless areas, which would result in limited access to new venues for personal watercraft. In this case, effects of the National Park Service action and the Roadless Rule would be additive in reducing areas (present and future) for use of personal watercraft.

Another current example is the Bureau of Land Management action to develop a national strategy regarding OHV use. The Bureau of Land Management manages the largest supply of Federal lands where opportunities for motorized recreation are abundant. Although the outcome of this action is uncertain at this time, there is a trend for land management agencies to more closely monitor and manage OHV use. Any limitations on OHV use resulting from this action on Bureau of Land Management lands would likely increase demand for OHV use on NFS lands.

Other Indirect and Cumulative Effects on Recreation Special Uses

Increasing demand for dispersed developed, and road-based recreation opportunities (Cordell and others 1999) could affect private-sector delivery of recreation products and services. Over the next 40 years, budget limitations would most likely cause the Forest Service to turn more often to the private sector to construct and manage developed recreation facilities and to provide more dispersed recreation opportunities through outfitters and guides. As demand continues to increase, the private sector will play a more important role in the delivery of recreation related products and services on NFS lands.

Future expansion of ski areas, resorts, and other developed recreation entities that require a special use permit would only be able to expand into inventoried roadless areas within their existing authorized permit boundary if the preferred alternative is selected. NFS lands would no longer be the reservoir for future ski areas because lands suitable for ski area development are usually associated with high elevation unroaded areas. One major ski area expansion has been approved on NFS lands in the last 20 years. Ski area use, nationwide, is relatively flat. Because of this, it is expected that there would be little impact in the near future. Over time, however, the number of ski areas would become finite in number and size, resulting in increased resource impacts and demand for more support facilities and infrastructure. Future opportunities, although limited by the amount of suitable lands available for ski area development, would occur on private, Tribal, or other government lands, or through legislation.

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Definitions:

Backcountry – A generic term that refers to areas that are relatively unmodified and usually accessible only by foot, horse, watercraft, or Off Highway Vehicle (OHV).

Carrying capacity – A measure used to signify the optimum use that the area can accommodate without having unacceptable degradation of resources or undesirable social interaction, in accordance with specified standards usually found in the land and resource management plan.

Developed recreation – Activities that are consistent with the settings and experiences identified with the Roded Natural (RN), Rural (R), and Urban (U) classes of the Recreation Opportunity Spectrum. These activities are usually associated with an area that has been improved or developed for recreation, such as campgrounds and picnic areas, scenic overlooks and interpretive sites, or visitor centers and resorts.

Dispersed recreation – Activities usually associated with backcountry and trails and are consistent with the settings and experiences identified with Primitive (P), Semi-Primitive Non-Motorized (SPNM), and Semi-Primitive Motorized (SPM) classes of the Recreation

Opportunity Spectrum. Examples of these activities include hiking, snowmobiling, mountain biking, wilderness use, backpacking, horseback riding, and OHV use.

Forest road or trail – Any road or trail wholly or partly within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

Gateway communities – Communities that are economically and socially interdependent on the associated public lands. Proximity to these lands contributes to the quality of life and sense of place for residents and visitors.

Inventoried roadless area – Undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and that were inventoried during the Forest Service’s Roadless Area Review and Evaluation (RARE II) process, subsequent assessments, or forest planning. These areas are identified in a set of inventoried roadless area maps, contained in *Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2*, dated November 2000, which are held at the National headquarters office of the Forest Service.

Motorized equipment – Machines that use a motor, engine, or other nonliving power sources. This includes, but is not limited to, chain saws, aircraft, snowmobiles, generators, motorboats, and motor vehicles. It does not include small battery or gas powered hand carried devices such as shavers, wristwatches, flashlights, cameras, stoves, or other similar small equipment.

Primitive (P) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that is essentially an unmodified natural environment of large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

Road – A motor vehicle travelway over 50 inches wide, except those designated and managed as a trail. A road may be classified, unclassified, or temporary.

Road based recreation – Activities that are normally associated with classified roads and are consistent with the settings and experiences identified with Semi-Primitive Motorized (SPM), Roded Natural (RN), Rural (R), and Urban (U) classes of the Recreation Opportunity Spectrum. Examples of these activities include car camping and picnicking, gathering berries and firewood, driving for pleasure, wildlife viewing, and OHV use.

Roded Natural (RN) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that has predominantly natural-appearing environments with moderate evidences of the sights and sounds of humans. Such evidences are usually in harmony with the natural environment. Interaction between users may be low to moderate, but evidence of other users is prevalent. Resource modification and practices

are evident but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and facilities design.

Roadless areas – For the purposes of this EIS, a generic term that includes inventoried roadless area and unroaded areas.

Roadless characteristics – Roadless area characteristics include the following:

Soil, water, and air

Sources of public drinking water

Diversity of plant and animal communities

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land

Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of recreation opportunities

Reference landscapes

Landscape character and scenic integrity

Traditional cultural properties and sacred sites

Other locally identified unique characteristics

Rural (R) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area with a substantially modified natural environment. Sights and sounds of humans are readily evident, and the interaction between users is moderate to high. A considerable number of facilities are designed for use by large numbers of people. Facilities for intensified motorized use and parking are available.

Semi-Primitive Motorized (SPM) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that has a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.

Semi-Primitive Non-Motorized (SPNM) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that has a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but they are subtle. Motorized use is not permitted.

Sense of place – The aesthetic, nostalgic, or spiritual effects of physical locations on humans based on personal, use-oriented or attachment-oriented relationships between individuals and those locations. The meaning, values, and feelings that people associate with physical locations because of their experiences there.

Trail – A pathway for travel by foot, stock, or trail vehicles.

Urban (U) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize a substantially urbanized environment, although the background may have natural appearing elements. Affiliation with individuals and groups is prevalent, as is the

convenience of sites and opportunities. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor vehicle use and parking are available. Regimentation and controls are obvious and numerous.

Wilderness – A designated area defined in the Wilderness Act of 1964 in the following way: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which – (a) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (c) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (d) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wildland – Land other than that dedicated for other uses such as agriculture, urban, mining, or parks.