

Chapter 2: Alternatives

INTRODUCTION

This chapter contains a modified version of the preferred alternative from the *Revised Draft EIS*. This alternative incorporates the proposals from Actions Common to All Action Alternatives, some of which have also been modified. Table 2-14 at the end of the chapter provides a comparative summary of this alternative with the other alternatives presented in the *Revised Draft EIS*. The complete versions of the original preferred alternative (Alternative 4) and the other alternatives are found in the *Revised Draft EIS*.

The modified preferred alternative is described below using the same topic areas as the alternatives in the *Revised Draft EIS*.

- Management Areas
- Access
- Wilderness Management
- Commercial Services
- Backcountry Facilities
- Administrative and Scientific Activities
- Easements and Boundary Changes

Existing backcountry units and requirements for overnight camping permits, use limits, and food storage have been developed through previous planning efforts, including the 1976 *Backcountry Management Plan* and its subsequent modifications. These provisions would apply as described in appendix D of the *Revised Draft EIS*.

OVERVIEW OF THE PREFERRED ALTERNATIVE

This backcountry management plan would guide the National Park Service in providing opportunities for a variety of wilderness recreational activities and experiences while recognizing and protecting the premier wilderness resource values of the entire backcountry. Areas in the Dunkle Hills and around the Ruth and Tokositna Glaciers on the south side of the Alaska Range would be managed for those visitors who want to experience the wilderness resource values or other resource values of the Denali backcountry but require services or assistance, or who are unable to make a lengthy time commitment. Areas along the park road in the Old Park and the Kantishna Hills would provide accessible opportunities for short- or long-duration wilderness recreational activities with only limited options for guidance or assistance the farther one gets from the park road. The remainder of the backcountry would be managed for dispersed, self-reliant travel, and would include opportunities for extended expeditions in very remote locations.

MANAGEMENT AREAS

This alternative would subdivide the Natural zone identified in the 1986 *General Management Plan* into a variety of more specific management areas. Each of these new management areas reflects an overall management concept or vision and provides for a related set of opportunities in the backcountry. Each area is defined by a set of desired future resource and social conditions. Allocation of management areas is a prescriptive process that describes the desired condition rather than the existing condition.

For all areas, common management policies would apply to subsistence activities, fire management, cultural resources management, natural resources management, and reclamation as expressed in other plans. These plans include:

- *Subsistence Management Plan* (NPS 2000i, annual updates)
- *Fire Management Plan* (NPS 2004a)
- *Resource Management Plan* (NPS 1998)
- *Reclamation Plan* (NPS 2001c)

Map 2 shows how management areas would be applied under this alternative.

The backcountry includes privately-owned lands, some unpatented mining claims in the Kantishna Hills, lands conveyed to the State of Alaska, and certain segments of the State road and railroad right-of-way easements. The National Park Service recognizes these inholdings and respects the rights of the landowners. Inholdings are located primarily in the Kantishna area and the northwest part of the preserve, with a few on the south side of the Alaska Range such as the Mountain House in the Ruth Amphitheater and the Tokosha Mountain Lodge along the Tokositna River. These inholdings remain in the Special Use zone as described in the 1986 *General Management Plan*. The name for that management zone would be modified to Inholdings Special Use Area to distinguish it from the Ruth Glacier and West Buttress Special Use Areas described below. Those private lands designated Special Use in the 1986 *General Management Plan*, but which 1) have been acquired by the National Park Service, and 2) are within the geographic scope of the backcountry management plan, would be included within the new management areas described by this plan.

Management Area Descriptions

The management areas are defined to provide specific recreational opportunities and resource conditions that are appropriate given the purposes for which the national park unit was established. Most of the areas are designed to cover substantial areas of the park and preserve, but some – including the Backcountry Hiker, Corridor, Portal, and West Buttress Special Use areas – are intended to provide high use routes, trails, or landing areas to accommodate backcountry transportation and concentrated use directed at particular destinations. The former Mount McKinley National Park (the Old Park) has separately defined management areas to reflect its unique history, resource values, and legal status.

The management areas are defined in the following table. Each area has an indicated purpose, followed by descriptive terms for several qualities that define minimally acceptable conditions

for that management area. These qualities are indicators of the visitor experience and resource conditions in each management area. Although they do not capture the entire range of qualities that comprise the experience and resources of the area, they are intended to provide both a reasonable indication to visitors of what they should expect and guidance to managers about appropriate management actions and levels of use. The indicators chosen for the Denali backcountry include the following:

Resource Conditions

- Trail and campsite disturbance
- Evidence of modern human use
- Landscape modifications
- Litter and human waste
- Natural sound disturbance
- Wildlife population, demographics, and distribution

Social Conditions

- Encounters with other people
- Encounters with large groups
- Camping density
- Accessibility
- Management presence

Following the definitions in table 2-1 is a set of tables (tables 2-2 through 2-9) that provide a key for the indicators, defining them and their condition levels. These tables provide a narrative description for desired conditions, specific standards that provide a quantitative interpretation of those conditions, and both a monitoring strategy and a review process for each indicator.

Indicators are generally selected to represent those resources and conditions that are allowed to change until they approach the quantitative thresholds. However, the National Park Service would take action to manage visitor use under many other circumstances if that use would be detrimental to resource values of the park. For example, the National Park Service would act to avoid the introduction of exotic plant species to the park backcountry; to protect wildlife habitat particularly during critical times such as breeding, nesting, and denning; to protect subsistence resources and opportunities; and to avoid bear-human conflict.

Table 2-1: Management Area Descriptions

Management Area	Purpose	Resource Condition	Social Condition
A	Provide a diversity of opportunities for wilderness recreational activities that are relatively accessible to day-users and to those who have limited wilderness travel skills or equipment.	Trail & campsite disturbance: Medium Evidence of modern human use: Medium <i>Landscape modifications:</i> No Litter & human waste: Low Natural sound disturbance: High	Encounters with people: High <i>Encounters w/large groups:</i> Yes Camping density: Low Accessibility: Medium Administrative presence: Medium
B	Provide opportunities for wilderness recreational activities suitable for day-users and overnight users that are remote and require self-reliance.	Trail & campsite disturbance: Low Evidence of modern human use: Low <i>Landscape modifications:</i> No Litter & human waste: Low Natural sound disturbance: Medium	Encounters with people: Medium <i>Encounters w/large groups:</i> Yes Camping density: Low Accessibility: Low - Medium Administrative presence: Low
C	Provide opportunities for climbing and mountaineering experiences in a wilderness setting.	Trail & campsite disturbance: Medium Evidence of modern human use: Medium <i>Landscape modifications:</i> No Litter & human waste: Low Natural sound disturbance: Medium	Encounters with people: High <i>Encounters w/large groups:</i> Yes Camping density: Low Accessibility: Low – Very Low Administrative presence: Low
D	Provide opportunities for extended expeditions that are remote and require self-reliance, significant time commitment, and thorough advance planning.	Trail & campsite disturbance: Low Evidence of modern human use: Low <i>Landscape modifications:</i> No Litter & human waste: Low Natural sound disturbance: Low	Encounters with people: Low <i>Encounters w/large groups:</i> No Camping density: Low Accessibility: Low Administrative presence: Low
Portal	Provide high-use airplane landing areas that provide access to remote parts of the park and preserve. Year-round or seasonal. *Natural sound disturbance standard is same as for surrounding area, but no lower than Medium.	Trail & campsite disturbance: N/A Evidence of modern human use: Medium <i>Landscape modifications:</i> No Litter & human waste: Low Natural sound disturbance: Medium-High*	Encounters with people: N/A <i>Encounters w/large groups:</i> Yes Camping density: Medium Accessibility: Medium Administrative presence: Medium

Portal - Major Landing Area	Provide high-use airplane landing areas that are suitable for both day use and expedition drop-off and pick-up. Seasonal, May-September.	Trail & campsite disturbance: Evidence of modern human use: <i>Landscape modifications:</i> Litter & human waste: Natural sound disturbance:	N/A High Yes Low Very High	Encounters with people: <i>Encounters w/large groups:</i> Camping density: Accessibility: Administrative presence:	N/A High High Medium-High	Yes
Corridor	Provide high-use travel routes via ground or water that provide access to remote parts of the park and preserve. Year-round or seasonal.	Trail & campsite disturbance: Evidence of modern human use: <i>Landscape modifications:</i> Litter & human waste: Natural sound disturbance:	Medium High Yes Low High	Encounters with people: <i>Encounters w/large groups:</i> Camping density: Accessibility: Administrative presence:	Very High Medium Low-High Medium	Yes
Backcountry Hiker	Provide day use trails into the backcountry in areas that are accessible to many visitors. Year-round or seasonal. * No camping would be allowed on the trails.	Trail & campsite disturbance: Evidence of modern human use: <i>Landscape modifications:</i> Litter & human waste: Natural sound disturbance:	N/A High Yes Low Medium	Encounters with people: <i>Encounters w/large groups:</i> Camping density: Accessibility: Administrative presence:	Very High N/A* High High	Yes
Ruth Glacier Special Use	Provide for high use of transportation services during the season when large numbers of day users are accessing the Ruth Amphitheater. Seasonal, May-September.	Trail & campsite disturbance: Evidence of modern human use: <i>Landscape modifications:</i> Litter & human waste: Natural sound disturbance:	Medium Medium No Low Very High	Encounters with people: <i>Encounters w/large groups:</i> Camping density: Accessibility: Administrative presence:	High Low Low – Very Low Medium	Yes
Old Park						
OP1	Provide opportunities for day use and overnight wilderness recreational activities that are remote and require self-reliance in an area that has limited opportunities for motorized access.	Trail & campsite disturbance: Evidence of modern human use: <i>Landscape modifications:</i> Litter & human waste: Natural sound disturbance:	Medium Low No Low Low	Encounters with people: <i>Encounters w/large groups:</i> Camping density: Accessibility: Administrative presence:	Medium Low Medium - High Medium	Yes

Table 2-1: Management Area Descriptions, continued

Management Area	Purpose	Resource Condition	Social Condition
OP2	Provide opportunities for extended expeditions that are remote and require a high degree of self-reliance, significant time commitment, and thorough advance planning in an area that has limited opportunities for motorized access.	Trail & campsite disturbance: Low Evidence of modern human use: Low <i>Landscape modifications:</i> No Litter & human waste: Low Natural sound disturbance: Low	Encounters with people: Low <i>Encounters w/large groups:</i> No Camping density: Low Accessibility: Low Administrative presence: Low
West Buttress Special Use	Provide a seasonal route to the summit of Mount McKinley that can accommodate large numbers of climbers during the primary climbing season. Seasonal, late April to mid-July.	Trail & campsite disturbance: N/A Evidence of modern human use: High <i>Landscape modifications:</i> Yes Litter & human waste: Low Natural sound disturbance: Low	Encounters with people: N/A <i>Encounters w/large groups:</i> Yes Camping density: High Accessibility: Low – Very Low Administrative presence: High

Key to the Management Area Descriptors

The following tables present qualitative and, where possible, quantitative standards for each descriptor used in Table 2-1; a monitoring strategy; and a review process for each indicator to allow for changes if the indicators or standards are not functioning as intended or new information requires a reappraisal. Generally, if conditions approach the minimally acceptable standards, the National Park Service would take actions described in this plan to prevent the standard from being exceeded.

Where specific standards are provided, the National Park Service would expect those standards to be achieved for 95% of all measurements or samples obtained through monitoring over the course of a visitor season (e.g., May to September for summer activities, February to April for late winter activities).

Table 2-2: Trail and Campsite Disturbance

Descriptor	Description & Standard	Monitoring	Process for Evaluation
Medium	Visitors notice occasional social trails, campsites, or cut or broken vegetation.	<p>Monitoring would occur at three levels. These include:</p> <ol style="list-style-type: none"> 1) the use of an existing grid system of plots for monitoring changes in vegetation cover that are randomly distributed through the park and preserve, 2) a set of index sites where known social trail or campsite formation can be monitored, and 3) a random sample of additional locations selected each year. <p>Variables to monitor would include bare ground, vegetation cover, soil compaction, physical damage to plants, and site characteristics, such as soil moisture and soil temperature.</p>	<p>The “Medium” descriptor is intended to match current conditions in the Old Park in areas accessible from the park road corridor. The first phase of the monitoring program would utilize existing data and new field observations to describe those conditions in more detail.</p>
Low	Visitors notice few if any signs of social trails, campsites, or cut or broken vegetation.		
N/A	Identifies an alpine area that has very scarce or no vegetation or soil. Trails and campsites on snow are not monitored.		

Table 2-3: Evidence of Modern Human Use

Descriptor	Description & Standard	Monitoring	Process for Evaluation
High	Visitors have at most 5 encounters with modern equipment or landscape modifications each day of their trip.	Monitoring would be conducted at least once every five years by visitor survey, and would be supplemented by continuous observation of ranger patrols.	The first visitor survey after plan approval would contain questions to evaluate the usefulness of this indicator and investigate other alternatives for indicating the impact of modern civilization on the wilderness experience. Survey results could be used to modify this indicator, but the relative differences between categories (High, Medium, Low) would be retained.
Medium	Visitors have at most 3 encounters with modern equipment or landscape modifications each day of their trip.		
Low	Visitors have at most 1 encounter per trip with modern equipment or a landscape modification.		
Landscape Modifications			
Yes	There may be visible mitigations for visitor use such as constructed trail segments, route markers, signs, bridges, designated campsites, food storage facilities, sanitation facilities, fixed climbing lines, or others as described or proposed by this plan.		
No	There are no visible landscape mitigations for visitor use.		
<p>Notes: “Modern equipment” includes communication facilities, research equipment, chain saws, motorized or mechanized vehicles on the ground, and other similar devices. This definition does not include portable devices that a person could reasonably carry without assistance (e.g., cell phones, GPS units, fuel-burning stoves), subsistence equipment such as traps or firearms, or aircraft in flight.</p> <p>“Landscape modifications” specifically do not include historic or cultural resources such as historic cabins, gravesites, or other structures or artifacts. They also do not include permitted modifications for subsistence use such as cabins or trapline trails.</p> <p>An “encounter” refers to visual recognition. A single trail or route markers associated with a single route would count as only one encounter. Audio recognition of noise is covered under the Natural Sound Disturbance standards.</p>			

Table 2-4: Litter and Human Waste

Descriptor	Description & Standard	Monitoring	Process for Evaluation
Low	No more than 5% of visitors encounter human waste, toilet paper, or litter in the backcountry.	Monitoring would be conducted at least once every five years by survey of backcountry visitors. This information would be supplemented by the observations of park staff during backcountry patrols.	

Table 2-5: Natural Sound Disturbance

Descriptor	Description & Standard	Monitoring	Process for Evaluation
Very High	Natural sounds are often interrupted by motorized noise including loud noise. Motorized noise may be audible up to 50% of any hour, and there may be up to 50 motorized noise intrusions per day that exceed natural ambient sound. Motorized noise does not exceed 60dBA.	Sound monitoring would be conducted on a continuous basis using remote monitors. Long-term monitoring and attended monitoring would take place at locations of particular concern or where it has been determined that management action is necessary to meet standards. Other locations would be randomly sampled.	Indicators and standards would be used as benchmarks for five years while additional information is gathered through the initial stages of the monitoring program. After five years, the NPS would propose changes to either the indicators or standards through a public process. Relative differences between categories (Low, Medium, High, Very High) would be retained during the revision process.
High	Natural sounds are frequently interrupted by motorized noise, including some loud noise. Motorized noise may be audible up to 25% of any hour, and there may be as many as 25 motorized noise intrusions per day that exceed natural ambient sound. Motorized noise does not exceed 60dBA.		
Medium	Natural sounds predominate in this area, but there are infrequent motorized intrusions, a few of which may be loud. Motorized noise may be audible up to 15% of any hour, and there may be as many as 10 motorized noise intrusions per day that exceed natural ambient sound. Motorized noise does not exceed 40dBA.		
Low	Natural sounds predominate in this area and motorized noise intrusions are very rare and usually faint. Motorized noise may be audible up to 5% of any hour, and there is no more than 1 motorized intrusion each day that exceeds natural ambient sound. Motorized noise does not exceed 40dBA.		
Notes: “Audible” means audibility to a person of normal hearing. Maximum sound levels assume the measurement device is more than 50 feet from the noise source. For comparison, 40dBA is the overall sound level inside a typical residential home. 70dBA is the sound level of a vacuum cleaner as perceived by the user.			

Table 2-6: Encounters with People

Descriptor	Description & Standard	Monitoring	Process for Evaluation
Very High	Visitors commonly encounter other parties in these areas. They generally encounter 10 or fewer parties per day.	Monitoring would be conducted at least once every five years by survey of backcountry visitors and “displaced” (see below) backcountry visitors. This information would be supplemented by the observations of park staff during backcountry patrols.	The NPS would review encounter rate standards after each five-year survey to evaluate visitor satisfaction and the success of the standards in achieving management area goals. If professional judgment suggests that changes are necessary, the NPS would propose new indicators and/or standards through a public process. The relative differences between management areas would be retained.
High	Visitors commonly encounter other parties in these areas, although they still have many opportunities to be alone. They generally encounter 5 or fewer parties per day.		
Medium	Visitors occasionally encounter other parties in these areas, but are almost always alone. They generally encounter 2 or fewer parties per day.		
Low	Visitors are unlikely to encounter other parties in these areas during the course of their backcountry trip.		
N/A	There is no standard for encounter rate in this area. Visitors may always be within sight or sound of other visitors.		
Encounters with Large Groups			
Yes	1 or 2 of the parties encountered may have more than 6 people.		
No	No parties are encountered that are larger than 6 people.		
Notes: An <i>encounter</i> is the unaided recognition by sight or sound of another park user, including other recreationalists or subsistence users. An encounter does not include aircraft in flight which are addressed under Natural Sound Disturbance. “Displaced” backcountry visitors are those who would visit the park backcountry, but do not because management limitations, crowding, or other factors make it an undesirable destination.			

Table 2-7: Camping Density

Descriptor	Description & Standard	Monitoring	Process for Evaluation
High	During the season of peak visitation, there is little or no opportunity for visitors to camp out of sight and sound of others. At other times of year visitors may be able to camp out of sight and sound of others.	Monitoring would be conducted at least once every five years by survey of backcountry visitors. This information would be supplemented by observations of park staff during backcountry patrols.	As part of the monitoring process, NPS would evaluate the importance placed by park users on this indicator. The distinctions between categories could be adjusted through a public process within the context of all the indicators related to “social conditions” in the park backcountry.
Medium	During the season of peak visitation, visitors may have to camp within sight or sound of others, but often are able to avoid doing so. At other times of year visitors generally are able to camp out of sight and sound of others.		
Low	Visitors are always able to camp out of sight and sound of others.		
Notes: This category refers only to the opportunity to camp outside of sight or sound of other park visitors; however, visitors may still choose to camp where they can see or hear others. “Sight or sound” refers to unaided recognition of another campsite from the site where the visitor camps for the night.			

Table 2-8: Accessibility

Descriptor	Description	Monitoring & Evaluation
High	These areas are suitable for casual use and do not require extensive time commitments, specialized backcountry travel skills, advance planning, or self-reliance.	This category is descriptive only. The actions that determine the rating are listed elsewhere in this plan. Since the status would not change without additional action, monitoring is unnecessary.
Medium	Visits to these areas require self-reliance, but may not require extensive time commitments, specialized backcountry travel skills, or extensive advance planning.	
Low	Visits to these areas require significant time commitment, some specialized backcountry travel skills, advance planning, and a high-degree of self-reliance.	
Very Low	Visits to these areas require significant time commitment, specialized backcountry travel skills, thorough advance planning, and a high degree of self-reliance.	
Notes: NPS management largely determines the degree of accessibility by providing facilities (such as trails) or services (transportation, guide services) that determine how easy or difficult it is to travel in an area of the park. Terrain also plays a role, primarily in the alpine mountaineering areas that require specialized equipment and knowledge. These are the only areas that achieve a “very low” rating, although the availability of guide services that can provide equipment and instruction can boost the rating to a “low.” Areas accessible to day visitors who decide to visit spontaneously without planning or preparation achieve a “high” rating.		

Table 2-9: Administrative Presence

Descriptor	Description	Monitoring	Process for Evaluation
High	Rangers are frequently present, so visitors generally have some contact with them. Visitors may occasionally encounter staff or permitted researchers involved in inventory and monitoring projects and research in some areas.	Ranger patrols would record and report visitor contacts. Visitor surveys would assess the amount and quality of interactions between visitors and NPS rangers and researchers at least once every five years.	There are no specific quantitative indicators or standards proposed for this category.
Medium	Rangers may make routine visitor contacts, so visitors may be aware of administrative presence. Visitors may occasionally encounter staff or permitted researchers involved in inventory and monitoring projects and research in some areas.		
Low	Administrative presence is generally limited to emergency activities and occasional patrols, with research and resource monitoring projects in some areas.		
Notes: This category only includes interactions with administrative and research personnel, which are not included with the encounter rate standards given above. Interactions with park aircraft, research equipment, snowmachines, or other equipment are included in the standards for Evidence of Modern Human Use and Natural Sound Disturbance.			

Wildlife

Wildlife is one of Denali's most important resources. Active monitoring of the populations, distributions, and demographics (e.g., age structure, gender ratios) of major wildlife species would occur throughout the duration of plan implementation. If statistically significant changes occur in any of the variables listed, and these changes could be correlated with changes in visitor use, the National Park Service would take actions described in this plan to manage the level and/or type of visitor use. Additional development of wildlife indicators and standards would occur during plan implementation. The National Park Service would consult with the Alaska Department of Fish and Game during the development of specific indicators, standards, and protocols for monitoring.

Management Area Designations

Management areas would be applied as depicted in Map 2. The percentage of the park and preserve allocated to each management area is as follows:

Table 2-10: Area of Park and Preserve by Management Area

Management Area	Acres	% Backcountry
A	358,256	6%
B	962,244	16%
C	312,469	5%
D	2,242,454	38%
OP1	1,408,886	24%
OP2	737,409	11%
TOTAL	6,028,202	100%
Special Use Areas	150,269	2.5%

Summer season Corridors would be designated as follows:

- Kantishna and Muddy Rivers (56 miles)
- the lower Tokositna River (4 miles)
- Skyline and Moose Creek former mining access routes in Kantishna (10 miles).

If demand is sufficient, the National Park Service could also designate the following winter season Corridor management areas:

- three Corridors from the southern park boundary to the Old Park boundary near West Fork Chulitna River, Bull River, and Cantwell Creek (12.5 miles)
- the lower Tokositna River (4 miles)
- the upper Tokositna River to the mouth of Wildhorse Creek (3 miles).

All Corridors are depicted on Map 3.

The Ruth Glacier Special Use Area would be designated to include areas of the Ruth and Tokositna Glaciers as shown on Map 2. Backcountry Hiker designations are described below under Backcountry Facilities.

Major Landing Areas and Portals would be designated as follows (see Map 4):

- Major Landing Areas – Kahiltna Base Camp and Ruth Amphitheater
- Portals – Pika Glacier, Coffee Glacier, Buckskin Glacier, Eldridge Glacier, and upper Tokositna Glacier.

The locations of Major Landing Areas and Portals could be adjusted to respond to changes in the glaciers; however, the number and approximate size of the Major Landing Areas and Portals would remain the same as these adjustments occur.

The West Buttress Special Use Area would be designated to include the entire West Buttress route on Mount McKinley, from the Old Park boundary at the Kahiltna Base Camp portal to the summit of the mountain. Existing backcountry trails (those that extend beyond the development zones and Backcountry Day Use Areas described in the 1997 *Entrance Area and Road Corridor DCP*) would be designated as Backcountry Hiker areas. These trails are described in the Visitor Use and Experience section of Chapter 3, Affected Environment.

ACCESS

General Guidance

Access to all parts of the Old Park, park additions and preserve would be managed to achieve management area standards using the tools identified below. Recreational access to the Old Park would continue to be managed to emphasize non-motorized access, but this area would be accessible by airplane and motorboat. The National Park Service would actively identify locations in the Old Park that have ecological, wildlife, or other resource values that are at substantial risk of harm from airplane landings or motorboat use, and locations where these modes of access would cause unacceptable impacts to visitor safety. The National Park Service would close or otherwise manage motorized access to these areas as appropriate to alleviate the resource and safety concerns. In the park additions and preserve, airplane and motorboat access, and snowmachine access for traditional activities, would continue. If Congress considers additional wilderness designations for Denali, the National Park Service would propose that accommodation be made as necessary for recreational snowmachine access along the winter season Corridor management areas.

The National Park Service is committed to providing visitors to the national park and preserve with reasonable access for wilderness recreational activities, traditional activities, and for other purposes as described in ANILCA and other laws summarized in chapter 1. The National Park Service would generally allow independent, cross-country travel by any legal means, and would encourage access to the park and preserve by means of facilities (e.g., trails and marked routes) and services (e.g., commercial air taxi and guide services) as described in the Backcountry Facilities and Commercial Services portions of this plan. If it becomes necessary to manage travel in any area to achieve desired future resource and social conditions for an area, to reduce visitor conflict, or to protect visitor safety, the National Park Service would use the least restrictive mechanism or “tool” necessary to accomplish the goal. The National Park Service need not wait for conditions to match or exceed standards before taking management action; an expectation that conditions would exceed standards is sufficient to mandate a response. Restrictions and closures would be accomplished consistent with the process outlined in 43 CFR 36.11 and/or other relevant regulations.

Table 2-11 lists the tools that may be used to manage access when necessary, arranged in rough order from the least restrictive to the most restrictive. The park superintendent is free to pick whichever tool is required as long as the “least restrictive” criterion is heeded. There is no implication that the tools must be tried in the listed order and a failure elicited before trying the next one.

Table 2-11: Access Management Tools

1) Education	The National Park Service would provide printed material, public presentations, targeted presentations to user groups, and Internet-based programs, with the goal of actively involving visitors in helping the park achieve the standards for all management areas.
2) Increased enforcement of existing regulations	The National Park Service would prioritize enforcement of existing regulations to assist in achieving standards for management areas. For example, enforcement of the snowmachine speed limit or the sound level limits on motorized equipment could assist in achieving standards for sound quality.
3) Voluntary restrictions	The National Park Service would ask visitors to restrict their use voluntarily. Examples of such measures could include: voluntary registration; use of low-impact equipment; avoidance of certain areas of the park or preserve; or avoidance of areas during particular seasons or times of day. Voluntary registration would not require a permit and could be accomplished by trailhead register, phone or radio call-in, or the Internet.
4) Required registration	The National Park Service would require visitors to register. Visitors would be issued a permit that provides information about park rules and conditions for use necessary to protect park resources. Permit conditions could include minimum impact travel and camping requirements and resource protection requirements; however, a registration process would not limit the number of visitors or the type or amount of access. Registration is a means to gather information about visitor use levels and to ensure visitors receive necessary resource protection and safety information.
5) Technology requirements or other requirements governing means of access	To achieve management area standards, the National Park Service would place requirements on the means of access. For example, the NPS could require individuals to use technology that meets specific noise specifications if those individuals are accessing the park by snowmachine, motorboat, or airplane.
6) Management of commercial activity	The National Park Service would adjust concession contracts and other commercial use permits to govern use levels or direct authorized commercial activity to locations, seasons, or times of day as necessary to achieve management area standards.
7) Regulate numbers of visitors	The National Park Service would establish quotas for visitor numbers in areas of the park additions and preserve when the volume of use is high enough that other mechanisms are unlikely to achieve standards. Visitors would be required to register and carry a permit, and the number of available permits would be limited. This is the mechanism presently used to manage overnight backcountry use in the Old Park and parts of the Kantishna Hills.
8) Temporal restrictions	The National Park Service would restrict access to particular times of day, days of the week, or other unit of time, or the duration of access could be limited.
9) Temporary and permanent closures	Using the appropriate authorities, the National Park Service would temporarily or permanently close areas of the park and preserve to all types of visitor use or to specific modes of access.
10) Management authorities of other agencies	The National Park Service would seek assistance from cooperating entities, such as the Federal Aviation Administration or State of Alaska, to apply regulatory or other measures to protect park resource values and achieve management area standards.

Registration and Permit Systems

The National Park Service would study and deploy the most efficient, cost-effective, and user-friendly system for park visitors to register or obtain permits to access the park backcountry where required. The goals would be to: 1) provide safety and resource protection information to visitors before they enter the backcountry; 2) track the amount and type of visitor use; 3) improve the existing system; and 4) if necessary, expand the system to serve new activities and/or areas. Some options that would be considered include:

- Same-day and advance permits or registration
- One-time, seasonal, and annual registration
- Staffed desks or automated kiosks in Anchorage, Fairbanks, Trapper Creek, Talkeetna, Cantwell, Healy, or other locations
- Permits and registration by phone, Internet, or mail, or through transportation services (e.g., air taxis, Visitor Transportation System (VTS) bus system).

The National Park Service would impose new registration requirements only in areas where use levels are sufficient enough that user conflicts and/or resource damage are occurring or would occur and when other methods for obtaining accurate information on visitor use and conveying essential visitor safety and resource protection information are unlikely to be successful. It is likely that overnight use and winter day use from the Kahiltna Glacier east would meet these criteria in the near future. The National Park Service would begin a system of voluntary registration for airplanes landing in the Old Park. To test the feasibility of advance backcountry registration, an experimental system for advance registration would be employed for dispersed camping and camping at designated campsites in the Kantishna Hills.

The number of available permits for climbers attempting to climb Mount McKinley would be restricted to 1,500 during the main mountaineering season (April 1- August 1). The limit of 1,500 would be reevaluated 10 years after approval of the backcountry management plan.

Aircraft Overflights Working Group

The National Park Service would establish an aircraft overflights working group, which would include scenic air tour operators, commercial airlines, general aviation organizations, and other concerned parties. This group would develop voluntary measures for assuring the safety of passengers, pilots, and mountaineers and for achieving desired future resource conditions at Denali.

Cross-Country Travel

Except as otherwise specified in the management area descriptions and the Backcountry Facilities section, backcountry access and travel in Denali would continue without designated routes or constructed trails to allow for freedom to explore and to minimize signs of human presence. To prevent vegetation damage and social trail formation, the National Park Service would take the following actions:

- 1) Apply the Access Management tools specified for the situations described in Table 2-12.
- 2) Establish a social trails working group consisting of NPS staff, guided hiking concessioners, Murie Science and Learning Center staff and associated non-profit partners, and commercial services that provide access to the backcountry (by shuttle bus and air taxi). This group would address specific problem areas through coordinated action.

- 3) Develop Leave-No-Trace guidelines that are specific for Denali National Park and Preserve in consultation with the internal working group, NPS resource managers, and the Murie Science and Learning Center.

Table 2-12: Decision Guide for Addressing Social Trail Formation

Situation	Strategy	Application of Access Management Tools
No social trail formation; terrain allows dispersal or travel on durable surfaces (e.g., gravel river beds).	Keep use dispersed.	Provide Leave-No-Trace education for backcountry users to encourage continued dispersal and travel on durable surfaces.
No social trail formation at existing use levels, but terrain does not allow for dispersal or travel on durable surfaces.	Maintain use at level such that social trail formation does not begin.	Provide Leave-No-Trace education for backcountry users; manage guided groups to limit use; monitor level of use to detect increases; and limit number of visitors if necessary.
Social trails are present and are either stable or deteriorating, but additional dispersal is possible.	Encourage additional dispersal to lower levels of use on the social trail.	Provide Leave-No-Trace education for backcountry users and encourage voluntary dispersal coordinated through a social trails working group (see #2 below).
Social trails are present but stable at existing levels of use; little opportunity for dispersal.	Concentrate use on social trail and limit use sufficiently to prevent deterioration.	Educate visitors or restrict them to social trail, and limit numbers of visitors if necessary.
Social trails are present and are deteriorating; additional dispersal is not possible because of terrain.	Lower use levels until condition stabilizes.	Limit numbers of visitors or use temporary closures to restrict use.
<i>In addition, the National Park Service may temporarily close some areas around social trails to allow rehabilitation even if conditions are stable.</i>		

WILDERNESS MANAGEMENT

General Guidance

The National Park Service would manage all backcountry areas of the national park to protect wilderness resource values and provide opportunities for wilderness recreational activities, consistent with the direction of law and policy, with particular attention to the following:

- ANILCA Section 101 lists “preserve wilderness resource values” as a fundamental purpose of ANILCA.
- ANILCA Section 102(13) states that the term “wilderness” as used in ANILCA has the same definition as in the Wilderness Act.
- ANILCA Section 202(3)(a) states that a fundamental purpose of the Denali park and preserve additions is to provide continued opportunities, including reasonable access, for wilderness recreational activities.

As described in chapter 1, the Wilderness Act identifies two key components of wilderness character as

- 1) generally appearing to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; and
- 2) having outstanding opportunities for solitude or a primitive and unconfined type of recreation.

The qualities of “affected primarily by the forces of nature” and the “imprint of man’s work substantially unnoticeable” would be interpreted for Denali by the following characteristics:

- Absence of permanent human structures, including buildings, roads, trails, dams, and communications facilities
- Perpetuation of natural ecological relationships and processes and the continued existence of native wildlife populations in largely natural condition

Providing “opportunities for solitude” would include managing for visitor experiences with the following characteristics:

- Freedom from the reminders of society
- Privacy and isolation
- Absence of distractions, such as large groups, mechanization, unnatural noise, signs, and other modern artifacts

Providing a “primitive and unconfined type of recreation” would include recreation with these characteristics:

- Self-sufficiency, absence of support facilities or motorized transportation
- Direct experience of weather, terrain, and wildlife with minimal shelter or assistance from devices of modern civilization
- Lack of restriction on movement; freedom to explore in the way that is desirable given conditions of weather, terrain, and personal ability; ability to be spontaneous; minimal formal regulatory requirements

The above are the wilderness resource values that the National Park Service would seek to preserve at Denali. The NPS recognizes that ANILCA and other laws provide for exceptions in national park and wilderness management for particular uses or activities. Primary examples include:

- ANILCA 811 allows the use for subsistence purposes of snowmachines, motorboats, and other means of surface transportation traditionally employed for such purposes.
- ANILCA 1110(a) allows use of snowmachines, motorboats, and airplanes for traditional activities.
- ANILCA 1315(d) allows for the construction of a limited number of public use cabins or shelters in designated wilderness if necessary for the protection of public health and safety.
- ANILCA 1316(a) allows the establishment and use of temporary campsites, tent platforms, shelters, and other temporary facilities and equipment directly and necessarily related to the activities of taking fish and wildlife where such activities are allowed.
- Section 4(a-b) of the Wilderness Act establishes that the act does not change the statutory authority for which a park was created, nor does it lower the standards of any other act of Congress which might pertain to or affect such area, including the Antiquities Act or Historical Sites Act allowing for the preservation of historic structures.
- Section 4(c) of the Wilderness Act allows land managers the discretion to use motorized vehicles, use motorized equipment or motorboats, land aircraft, use other forms of mechanical transport, or construct structures or installations as necessary to meet the minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area).

In implementing this plan, and with future management actions, the National Park Service would, with every decision, forego actions that might have no seeming physical impact, but which would detract from the idea of wilderness as a place set apart, a place where human uses, convenience, and expediency do not dominate.

Group Size

The National Park Service would establish a maximum group size of 12 for backcountry areas of Denali for both private and guided groups, including guides. In Management Areas OP2 and D, the maximum group size would be six for both private and guided groups, including guides. The park superintendent could make an exception to the group size limit if that would benefit visitor safety or park resources. This limit does not apply in designated Hiker areas (trails) identified in the 1997 *Entrance Area and Road Corridor DCP*, but does apply on any trail that crosses into a backcountry area within the scope of this plan. Commercial and non-commercial groups would be required to have a group leader who is trained in Leave-No-Trace principles for tundra environments generally and Denali National Park and Preserve in particular. In all cases, larger groups (more than four) would be encouraged to disperse or stay on durable surfaces such as gravel river beds.

Human Waste

Removal of human waste from the park would be required in the following areas:

- The West Buttress Route on Mount McKinley above the 14,000 foot camp
- Campsites within one-half mile of air taxi landing locations on glaciers unless pit latrines or other waste disposal facilities are provided.

In other glaciated locations, including the West Buttress of Mount McKinley below the 14,000-foot camp, climbers would be encouraged, but not required, to remove their waste. Additional requirements for removing waste from glaciated areas could be imposed in high use areas if waste handling technology and techniques improve to make more widespread removal practical. The

National Park Service would emphasize education about human waste removal during climber orientation, during patrols, in working with mountaineering organizations such as the American Alpine Club, and in distributed publications.

The current rules on human waste in the Denali backcountry would remain in force. As described in the 2005 Superintendent's Compendium, these rules are as follows:

- *Human body waste will be deposited in cat-holes when the ground is not frozen, dug at least 100 feet from any surface freshwater source.*
- *Toilet paper will be burned or removed as trash.*
- *Persons engaged in any travel (such as skiing, snowshoeing, aircraft landings) or activities (such as mountaineering, climbing, flightseeing, camping) in a glacier environment, such as Mount McKinley and other peaks and glaciers within the park and preserve, must dispose of all human wastes according to the following guidelines:*
 - *Use pit latrines where they are provided by the National Park Service, such as those typically located at the 7,000-foot and 14,000-foot base camps along the West Buttress route, the Ruth Glacier in the vicinity of the Mountain House landing area, and elsewhere as provided.*
 - *At locations without pit latrines, bag all human waste (feces) and carry it out or place it in a deep crevasse. On steeper technical routes outside of the West Buttress, the bag can be tossed away from the climbing route or shovel feces off and away from the route.*

Climbing Tools

Power drills for climbing activities would be prohibited throughout the park additions and preserve.

The following guidance for fixed and removable anchors would be implemented:

Removable and fixed anchors, as well as other climbing equipment, must be used wisely and be closely managed in order to prevent the degradation of wilderness resources and character. When anchors are necessary for climber safety, removable anchors are desired and highly recommended. Fixed anchors should not be placed merely for convenience.

Fixed anchors (such as webbing, bolts, pitons, chains) currently in place may remain. They may be replaced or removed by individual climbers during a climb or by the National Park Service during park operations. Safety remains a responsibility of the climber. The National Park Service would not, as a policy or practice, monitor fixed anchors to evaluate their condition. When a climber determines the need for anchor placement or replacement, this must be accomplished in compliance with regulated and permitted standards (for example, power drills may not be used). If unable to do so, the route should remain unclimbed. New, bolt-intensive climbing routes, such as sport climbs and "bolt ladders," are not appropriate and would not be allowed.

Placement of new anchors may be allowed when necessary to enable a safe rappel when no other means of descent is possible; to enable emergency retreat; during self-rescue situations; and on new routes when ascending a route to connect terrain that is otherwise protected by removable anchors (for example, one crack system or other natural feature to another). Permanent bottom to top fixed anchor routes would not be allowed throughout the Denali backcountry, with the exception of the headwall (15,300-16,200 feet) on the West Buttress route of Mount McKinley.

COMMERCIAL SERVICES

The NPS Management Policies 10.2.2 mandates commercial visitor services planning for national parks and preserves. Commercial services may be authorized as concession contracts or commercial use authorizations. A decision to authorize a concession is to be based on a determination that the service:

- is necessary and appropriate for public use and enjoyment of the park in which it is located and identified needs are not, nor can they be, met outside park boundaries,
- will be provided in a manner that furthers the protection, conservation, and preservation of the environment and park resources and values, and
- will enhance visitor use and enjoyment without causing unacceptable impacts to park resources or values.

For the purposes of commercial visitor services planning in the Denali backcountry, these criteria would apply to all commercial visitor service authorizations. To be consistent with the purposes of the park and preserve and the objectives of this plan, the criteria would be interpreted for Denali as follows:

- Commercial services are necessary and/or appropriate in the Denali backcountry if they meet the following criteria:
 - They depend on the unique character and environment of the Denali backcountry, and the same experience cannot be found on nearby public lands.
 - They are consistent with the purposes of the park and preserve as described in chapter 1.
 - They do one of the following:
 - They provide access to remote areas of the park and preserve where the time or equipment necessary for the independent traveler to reach those locations would otherwise be prohibitively lengthy or expensive.
 - They provide education and inspiration related to wilderness resources and values.
 - They assist visitors in exploring the backcountry in areas or by means that require specialized knowledge (e.g., mountaineering, dog mushing).
- Commercial services are provided in a manner that furthers protection, conservation, and preservation when they do all of the following:
 - They teach and follow Leave-No-Trace principles for the sub-arctic wilderness environment.
 - They provide education relevant to preservation of wilderness resources and values.
 - They offer substantial benefits to the protection of the wilderness resources and values of the area.
- Commercial services do not cause unacceptable impacts to park resources or values when they do all of the following:
 - Group size, number of groups, and travel modes are consistent with management area designations and avoid impacts on vegetation, wildlife usage, and cultural resources of the area.
 - Groups follow Leave-No-Trace principles for the sub-arctic wilderness environment.
 - The activities are consistent with management area standards for solitude, natural sounds, and other wilderness characteristics for each management area.

In the park additions and preserve, if a guided commercial activity or non-commercial educational program takes place in an area where the numbers of visitors are limited, the allowable number of parties or visitors participating in the guided activity would be no more than 50% of the total potential use of the area during any visitor season (summer/winter) in order to allow for non-guided uses. In the Old Park, the number of parties or visitors participating in the guided activity would be no more than 25% of the total potential use of the area during any visitor season (summer/winter) where such use is allowed. Among commercial and educational programs, the programs provided directly by the National Park Service and the Murie Science and Learning Center would have priority for available capacity.

To avoid adverse affects to resources, the National Park Service would be conservative in making available guided activities and similar educational programs. When establishing new programs, the NPS would evaluate the impact of the new use before offering the program in additional locations or adding more programs to the same area.

All new commercial services, and both new and existing operators, would be required to meet the criteria listed above. Activities or services not described in this section could be considered only in the southern additions designated as Management Area A.

Commercial Airplane Landings

- Air taxi landings could occur throughout the park additions and preserve. To be considered an “air taxi” landing, the majority of passengers on the flight must either be dropped off or picked up from a day trip or overnight stay and passengers do not remain with their airplane while on the ground.
- “Scenic air tour landings” are distinguished by passengers remaining with their airplane while on the ground. Scenic air tour landings would be allowed on glaciers in all areas designated as Management Area A. Scenic air tour landings could also occur at the designated Portals on the Eldridge and Pika Glaciers; however, these areas would remain secondary and less used in accordance with their management area designation. Scenic air tour landings in these two areas would not occur when other landing locations are available and scenic air tour landings would be discouraged when climbers or mountaineers are present. These areas would be prioritized for monitoring and additional actions would be taken if management area standards are approached or exceeded. Scenic air tour landings could occur at Kahiltna Base Camp throughout the year. In all locations, landings for scenic air tours would be restricted to the hours between 9am and 9pm.

Guided Hiking

- Guided day-hiking in the Wonder Lake area and along the McKinley Bar trail would continue as described in the 1997 *Entrance Area and Road Corridor DCP*.
- Additional guided day-hiking could be continued in the western portion of the Old Park between Toklat River and Wonder Lake with access from Kantishna, limited to the same number of groups as at present (determined by average of last five years).
- Guided day-hiking in the Old Park east of Toklat River would be available only on the following entrance area trails:
 - The Rock Creek Trail and Roadside Trail between the Denali Visitor Center and Park Headquarters
 - The Bike Trail and Jonesville Trails between the Nenana River Bridge and the Denali Visitor Center

- The Nenana River and Triple Lakes trails when planned construction or rehabilitation is complete (see 1997 *Entrance Area and Road Corridor DCP*)
- The Savage Alpine Trail between Savage Campground and Savage River, only for those commercial groups staying at Savage Campground.
- In the portion of the Kantishna Hills where designated campsites are available, overnight camping by guided groups would be restricted to these campsites.
- Guided day-hiking and overnight backpacking could be considered throughout the park additions and preserve.

Guided Sport Hunting

The entire southwest Preserve would be divided into two sport-hunting guide areas with the dividing line between areas along the West Fork of the Yentna and through Shellabarger Pass. The change would take place immediately as an amendment to the existing sport-hunting concession contracts. See Map 5.

Other Activities

The following guided activities could continue to be authorized if the criteria described at the beginning of this Commercial Services section are met:

- Guided mountaineering on Mount McKinley and other peaks throughout the glaciated portions of the Alaska Range, (including lowland approaches), in the Old Park, park additions, and preserve
- Dog mushing expeditions in the Old Park, park additions, and preserve
- Winter day- or multi-day trips by ski or snowshoe in the park additions and preserve.

In addition, dog team freight hauling services in the Old Park, park additions, and preserve could continue to be authorized.

BACKCOUNTRY FACILITIES

Communication Facilities

Communications facilities would be considered on a case-by-case basis following the minimum requirement/minimum tool process. New structures would be attached to existing structures wherever possible. For administrative purposes, the National Park Service would phase in the use of satellite phones or similar technology in the backcountry to avoid the need for new temporary or permanent communication facilities in backcountry areas.

Trails

The National Park Service would designate Backcountry Hiker areas and (if needed) construct or improve the following trails:

- Some existing social trails within units 41, 42, and 43 in Kantishna, formalizing a trail system in this area
- From Eielson Visitor Center to Gorge Creek
- A loop from the water tower above Wonder Lake Campground up to the bench west of Wonder Lake and return
- From the Mount Healy overlook down a spur ridge to create a loop to the Taiga Trail
- From the west end of Thorofare Bluffs down to the Thorofare River bar.

No other new summer or winter trails would be added besides those identified in the 1997 *Entrance Area and Road Corridor DCP* and the 1997 *South Side Denali DCP*. Elsewhere in the park and preserve, the National Park Service would maintain a “no formal trails” policy.

Park Road

During winter months, snow on one lane of the park road would continue to be packed from the Headquarters gate to Mile 7 to allow maintenance activities that prevent the buildup of ice on the road in this section. Snow would not be removed from the road until necessary to prepare the road for summer season use. This section of the park road would be designated a Backcountry Hiker area during winter months.

Campsites

Up to 5 designated camping areas of 1-3 sites each would be created in conjunction with the Corridor and Backcountry Hiker areas in units 41, 42, and 43 in the Kantishna Hills. These sites would be farther from the park road than the areas commonly used by day-hikers. Food storage and/or sanitation facilities could be placed in the designated campsites.

Shelters and Cabins

The National Park Service would add visitor facilities at Park Headquarters, such as restrooms, plug-ins, and a warming hut, to support winter use. Otherwise, there would be no new facilities besides those already in approved plans.

Information Facilities

The National Park Service, in cooperation with other land management agencies, would operate a visitor contact station in the Cantwell/Broad Pass area. This facility would provide information and registration/permitting for year-round use of the park and preserve’s backcountry, with a particular focus on serving the needs of winter recreational visitors on the south side of the Alaska Range.

ADMINISTRATIVE AND SCIENTIFIC ACTIVITIES

To establish greater accountability and minimize impact to wilderness resource values throughout the park and preserve, all NPS-authorized administrative and research activity throughout the entire park and preserve backcountry would be subject to the minimum requirement/minimum tool process. When the minimum requirement/minimum tool is used, the potential disruption of wilderness character and the physical resource would be considered and given more weight than economic efficiency and convenience. Appendix E provides a sample tool for determining the minimum requirement/minimum tool.

Information and Education

Consistent with the protection of the park and preserve's wilderness character, information about backcountry travel would generally be provided before visitors enter the backcountry. This would minimize or eliminate the need for signs or other markers in the backcountry itself. Trip planning and safety information would be available at park visitor centers, Alaska Public Lands Information Centers, and at visitor facilities in Denali State Park. This information would also be available through the Internet and print materials that could be distributed nationally and internationally.

The National Park Service and its educational partners would provide wilderness education to all park visitors to assist in their understanding of the wilderness resource values protected in the Denali backcountry. Education would focus on interpreting the wilderness resource values articulated in the Wilderness Management section of this plan. Wilderness education could involve non-personal means in park visitor centers and Alaska Public Lands Information Centers, and also remotely via the Internet and print materials. Wilderness education in the backcountry would be provided entirely through personal services by concession, non-profit, or NPS guides.

Day use and overnight educational programs offered by the National Park Service, the Murie Science and Learning Center, and accredited educational institutions and non-profit organizations operating under a cooperative agreement with the National Park Service could be offered throughout the Old Park, park additions, and preserve. All educational programs taking place in the backcountry would be required to meet the criteria identified under Commercial Services.

Aviation

Within three years, the National Park Service would complete a plan for administrative and research use of aircraft in the wilderness, park additions, and preserve, which includes goals and specific objectives for minimizing helicopter and airplane use; specifies a methodology for accounting for NPS administrative and research air traffic; and provides criteria for determining when the use of aircraft meets the minimum requirement/minimum tool test.

Research and Resource Management

All NPS and external research would require a research permit that would be granted only if the parameters of the project meet the management area standards in the location(s) where the project is proposed. Research and resource management activities of the Alaska Department of Fish and Game would require advance consultation under the Master Memorandum of Understanding between the Department of Fish and Game and the National Park Service.

Administrative Camps

The existing patrol structure and administrative camps on Mount McKinley would be retained. There would be no additional administrative camps in the backcountry.

EASEMENTS AND BOUNDARY CHANGES

Easements

The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to acquire an easement over private lands to gain public access to the existing 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek. The existing easement is 25 feet wide and allows travel by foot, dogsleds, animals, snowmachines, two- and three-wheeled vehicles, and small all-terrain vehicles. See Map 6.

Land Exchanges

The National Park Service would seek a land exchange with the State of Alaska (similar to a previously proposed exchange of land) that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers (see Map 7). As a result of the exchange, approximately 3,229 acres of Denali State Park land would be transferred to Denali National Park and Preserve, and approximately 2,822 acres of Denali National Park and Preserve land would be transferred to Denali State Park. Land to be transferred to the State of Alaska surrounds approximately 137 acres of privately owned inholdings.

An additional adjustment would be proposed for the area immediately north of Dutch Creek to provide a boundary that is more identifiable in the field and out of the potential placer mining in that floodplain. Completion of the exchanges and determination of actual boundaries and acreage would depend on the outcome of negotiations with the State of Alaska.

IMPLEMENTATION

The backcountry management plan would be implemented through regulations, step-down plans, commercial service authorizations, construction projects, and other means. Implementation actions and requirements are listed in Table 2-13. Public involvement and environmental compliance would be completed as necessary for all actions.

The plan would be implemented using adaptive management. Since the park recognizes the need to make decisions on the best available information, it would continue to gather new information, learn from previous efforts, and adapt the plan as necessary. The National Park Service would gather information from visitor registration and surveys, as well as from the monitoring of soundscapes, wildlife, and other resources. Adaptation and change to the plan can be expected as monitoring continues, new scientific data and information is obtained, new tools and equipment are developed, and new opportunities and circumstances arise.

An important part of adaptive management is ongoing monitoring associated with the resource and social conditions described under the Management Areas section above. The National Park Service would monitor for the general condition of the area not the exceptions. When monitoring shows that standards are exceeded or that trends indicate a risk that standards would be exceeded, the National Park Service would act to manage access and use employing the tools listed Table 2-11.

Another tool used in adaptive management would be the annual backcountry operational management plan, which would be implemented through existing regulations, the Superintendent's Compendium, or additional special regulations if necessary. This operational plan would provide specific guidance for the general actions authorized in the final backcountry management plan, and the guidance would be updated yearly to reflect current information and conditions. Topics addressed would include:

- Permit conditions
- Unit quotas
- Length-of-stay and other restrictions
- Closures
- Operation of registration and permit systems

Table 2-13: Implementation Actions

Backcountry Implementation Advisory Committee	Charter an advisory committee under the Federal Advisory Committee Act (FACA) to advise the NPS on plan implementation. Subcommittees would address specific issues including monitoring, aircraft overflights, and mitigation for hiking impacts as described in the plan.
Monitoring	Develop and implement a comprehensive monitoring plan for the indicators identified by the plan. The development of the monitoring plan would take place entirely or in part in conjunction with the development of the park's Resource Stewardship Plan and the development of monitoring protocols for the Central Alaska Network's Vital Signs Monitoring Plan.

Table 2-13: Implementation Actions, continued

Regulations	<p>Promulgate the following special regulations in 36 CFR 13.63:</p> <ul style="list-style-type: none"> • Establish group size limits of 6 and 12 where appropriate • Establish seasonal climbing limit on Mount McKinley • Require removal of human waste at certain locations in climbing and mountaineering areas • Prohibit use of power drills for mountaineering activities throughout the park additions and preserve <p>In addition, the NPS would document the need for management action and promulgate regulations if necessary for the following:</p> <ul style="list-style-type: none"> • Required registration for overnight use or winter day use in the southern park additions east of and including the Kahiltna Glacier • Closure of sensitive locations in the Old Park to motorized access
Commercial Services	<p>Issue prospectuses for commercial air taxi and scenic air tour glacier landing services that reflect plan provisions.</p> <p>Revise description for air taxi Incidental Business Permits (IBP) to reflect plan provisions, or use a Commercial Use Authorization when regulations are available.</p> <p>Issue prospectuses for commercial guided hiking in the Kantishna Hills that reflect plan provisions.</p> <p>Develop a commercial visitor service authorization for guided hiking on designated entrance area trails.</p> <p>Revise IBP area to produce individual maps for air taxi, guided day-hiking, guided overnight hiking, and guided mountaineering services per direction in the plan.</p> <p>Amend guided sport hunting operating plans to reflect approved areas.</p>
Backcountry Operations	<p>Obtain funding for additional patrol and visitor services staff to implement plan provisions.</p> <p>Develop backcountry operational plan and annual updates.</p> <p>Study and implement improvements to backcountry registration system, including advance registration procedure for overnight camping in the Kantishna Hills. Include a voluntary process for registering airplane landings in the Old Park.</p> <p>Identify and map winter corridors in the Dunkle Hills area.</p> <p>Purchase satellite phones and implement procedures for patrol use of phones.</p>
Facility Development	<p>Complete plan for Kantishna trail and backcountry campsite development. Obtain funding and construct.</p> <p>Plan and construct other trails identified in this plan.</p> <p>Add winter backcountry support facilities at Headquarters.</p> <p>Plan and construct Broad Pass visitor contact station. This item would require development of agency partnerships, specific definition of scope, and site selection prior to environmental compliance or other action.</p>
Implementation Plans	<p>Complete plan for NPS aviation management.</p> <p>Obtain easement for access to the Cantwell-Windy Creek 17(b) easement. As necessary, develop ancillary facilities such as trailhead and parking.</p>
Land Exchange	<p>Complete land exchange with the State of Alaska.</p>

ALTERNATIVES CONSIDERED BUT REJECTED

Access

- Limit the number of available permits for the West Buttress route, but do not restrict climbing on other routes. This option was considered but dismissed for safety reasons. There is a concern that if the West Buttress were at capacity, climbers who lack the necessary experience would be tempted to try a route beyond their ability. Also, the limit of 1,500 climbers per season was selected because that is the maximum number that mountaineering rangers believe they could manage with their existing program and facilities, based on several years of experience. The existing program and facilities presently serve all climbers on Mount McKinley, not just those on the West Buttress.
- Establish flight corridors or flight-free zones over the park. The National Park Service lacks the statutory authority to establish flight free zones or flight corridors. However, the backcountry management plan includes recognition that the National Park Service could work through the regulatory authorities of other agencies to manage access as needed to achieve management area standards if other mechanisms were inadequate.
- Employ snow coaches for winter access in the park additions instead of individual snowmachines. Snow coaches require well-groomed surfaces of heavily packed snow, and are typically used only on top of existing roadways. They are not suitable for cross-country travel in the park additions.
- Close the park additions to all snowmachine use. In ANILCA, Congress allowed for ongoing motorized access to the 1980 park additions for certain purposes as detailed in chapter 1. While there are unresolved differences in interpretation of the law, the National Park Service believes that there are valid legal purposes for using snowmachines in the park additions and preserve and that closing the park additions to all snowmachine use would be contrary to the intent of Congress.

Wilderness Management

- Require human waste removal requirement on the entire West Buttress. The National Park Service acknowledges that human waste is an issue along the entire West Buttress route. However, at 14,000 feet and below there are options for waste management (such as crevasse disposal and latrines) that make human waste removal less critical. The NPS mountaineering staff are concerned that the resources and logistics necessary for waste removal from the entire West Buttress would be substantial, would compete with other needs, and might be unachievable. For that reason, the plan specifies that waste removal below 14,000 feet would be encouraged but not required.

Commercial Services

- Provide for commercial airplane landings to support mountaineering activities on the north side of the Alaska Range. There is no need for airplane support for climbers on the north side of the Alaska Range, because the National Park Service already authorizes a concessioner to

deliver supplies to the base of Mount McKinley by dog team during winter months. Climbing parties hike or ski from the park road and retrieve their supplies before starting their climbs (see chapter 3, Visitor Use). This is a unique challenge and opportunity that is consistent with the wilderness values of the Old Park and also is consistent with historical mountaineering and exploration of the Old Park. Several climbing parties each year ascend Mount McKinley or other peaks from the north side.

Backcountry Facilities

- Extend existing hiking trail at Savage River north along the river to State land. This action was dismissed because it conflicts with the retained policy of not establishing formal trails in the backcountry in order to preserve the unique wilderness character and wilderness experience at Denali. Although exceptions have been made to provide visitor opportunities at major visitor nodes or to address resource damage, the suggested trail meets neither criterion.
- Construct public use cabins within the boundaries of the national park and preserve. ANILCA provides the option for constructing public use cabins within wilderness areas if necessary for public health and safety. During public scoping and public review of the original draft plan, no one identified public health and safety reasons for new public use cabins. Because construction of new structures otherwise conflicts with legal and policy mandates, they were not considered among the alternatives. The alternatives do explore the possibility of collaboration with the State of Alaska to construct public use cabins near, but outside of, park and preserve boundaries.

Table 2-14: Summary Table of Alternatives

OVERVIEW					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Overview	<p>The National Park Service would continue the present management direction, guided by the 1986 <i>General Management Plan</i>, the 1997 <i>Entrance Area Road Corridor Development Concept Plan</i>, the 1997 <i>South Side Denali Development Concept Plan</i>, and the 1997 <i>Strategic Plan</i>, and backcountry management plans from 1976 and 1982. Recreational use and access patterns would continue to develop and the agency would respond as necessary on a case-by-case basis. No new services or facilities would be developed to meet increased levels of use in the backcountry, except for those identified in the Entrance Area or South Side plans.</p>	<p>This alternative would distinguish a unique Denali experience based on dispersed use in a wilderness landscape with few sights or sounds of people or mechanized civilization. There would be few services, facilities, or signs of management presence. This alternative would most clearly distinguish the backcountry experience in Denali from the surrounding public lands, providing a place primarily for visitors who are very self-reliant, and including many opportunities for extended expeditions in very remote locations. Backcountry users seeking other experiences would find those opportunities on neighboring lands.</p>	<p>This alternative would provide a variety of wilderness recreational activities by establishing areas to serve those visitors who want to experience the wilderness resource values of the Denali backcountry but require services, assistance, or short time-commitments. The areas would be the minimum necessary to provide these experiences based on present demand and would be focused along the park road in the Old Park and Kantishna and at the existing high activity areas at the Ruth Glacier and Kahiltna Base Camp. The majority of the backcountry would be managed for dispersed, self-reliant travel and would include opportunities for extended expeditions in very remote locations.</p>	<p>This backcountry management plan would guide the National Park Service in providing opportunities for a variety of wilderness recreational activities and experiences while recognizing and protecting the premier wilderness resource values of the entire backcountry. Areas in the Dinkle Hills and around the Ruth and Tokositna Glaciers on the south side of the Alaska Range would be managed for those visitors who want to experience the wilderness resource values or other resource values of the Denali backcountry but require services or assistance, or who are unable to make a lengthy time commitment. Areas along the park road in the Old Park and the Kantishna Hills would provide accessible opportunities for short- or long-duration wilderness recreational activities with only limited options for guidance or assistance the farther one gets from the park road. The remainder of the backcountry would be managed for dispersed, self-reliant travel, and would include opportunities for extended expeditions in very remote locations.</p>	<p>This alternative would create two distinct geographic areas that provide different kinds of visitor experiences in the Denali backcountry. The Old Park and the Denali additions north of the Alaska Range would be primarily managed for dispersed, self-reliant travel although no areas would be managed specifically to preserve opportunities for extended expeditions in remote locations. Areas along the park road and in Kantishna that presently receive a relatively high volume of use and large parts of the additions south of the Alaska Range would be managed for a greater intensity and variety of appropriate recreational activities and would have more visible management presence and opportunities for more services and facilities.</p>

MANAGEMENT AREAS																																																																																																																																							
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5																																																																																																																																		
Management Areas	There would be no new management areas defined for the backcountry. The entire backcountry would continue to be designated as a “Natural Area” described by the 1986 <i>General Management Plan</i> .	Alternatives 2, 3, 4, and 5 would designate new management areas throughout the entire backcountry to accommodate different intensities of use as allowed by indicators and standards. Indicator categories include trail and campsite disturbance, evidence of modern human use, landscape modifications, litter and human waste, natural sound disturbance, encounters with other people, encounters with large groups, camping density, accessibility, and management presence. The NPS preferred alternative also includes an indicator for wildlife population, demographics, and distribution. See Maps 2-1, 2-2, 2-3, and 2-5 in the Revised Draft EIS and Map 2 in this Final EIS.																																																																																																																																					
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Corridors	No areas of the park and preserve would receive the Corridor designation.	<p>Year-round Corridor areas would be designated on the Kantishna and Muddy Rivers and the lower Tokositna River (61.5 miles).</p>	<p>Year-round Corridor areas would be designated on the Kantishna and Muddy Rivers (56 mi.).</p> <ul style="list-style-type: none">lower Tokositna River (4 mi.)Skyline and Moose Creek former mining access routes in Kantishna (10 mi.). <p>If demand is sufficient, the following winter season Corridor management areas could also be designated:</p> <ul style="list-style-type: none">3 Corridors from the southern park boundary to the Old Park boundary near West Fork Chulitna River, Bull River, and Cantwell Creek (12.5 mi.).lower Tokositna River (4 mi.)upper Tokositna River to the mouth of Wildhorse Creek (3 mi.). <p>See Map 3.</p>	<p>Year-round Corridor areas would be designated on the Kantishna and Muddy Rivers, the Tokositna River, and both the east and west forks of the Yentna River (114 miles). Summer season Corridor management areas would be designated on Skyline, Moose Creek, and Eldorado mining access routes within Management Area A in Kantishna (14 miles). Winter season corridors to the Old Park boundary would be established in the Broad Pass/Dunkle Hills area and to the toes of the Ruth, Tokositna, and Kanikula glaciers from the Tokositna River (21 miles). If demand is sufficient, the NPS would also establish a Corridor to Kantishna from the Sushana River (56 miles).</p>																																																																																																																																			

Special Use Areas	No new areas of the park and preserve would receive Special Use Area designation.	The West Buttress Special Use Area would be designated to include the entire West Buttress route on Mount McKinley from the Old Park boundary to the summit. The Ruth Glacier Special Use Area would be designated to include portions of the Ruth Amphitheater, Ruth Gorge, and West Fork Ruth Glacier.	The West Buttress Special Use Area would be designated to include the entire West Buttress route on Mount McKinley from the Old Park boundary to the summit.	
Portals	No areas of the park and preserve would receive the Portal designation.	Portals would be designated on the Pika Glacier, Coffee Glacier, Buckskin Glacier, Eldridge Glacier, and upper Tokositna Glacier. Major Landing Areas would be designated at Kahiltna Base Camp, southwest fork Kahiltna Glacier, and Ruth Amphitheater.	Portals would be designated on the Pika Glacier, Coffee Glacier, Buckskin Glacier, Eldridge Glacier, and upper Tokositna Glacier. Major Landing Areas would be designated at Kahiltna Base Camp and Ruth Amphitheater. See Map 4.	Portals would be designated on the Pika Glacier, Coffee Glacier, Buckskin Glacier, Eldridge Glacier, and upper Tokositna Glacier. Major Landing Areas would be designated at Kahiltna Base Camp, southwest fork Kahiltna Glacier, and Ruth Amphitheater.

ACCESS					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
General Concept	The National Park Service would continue to manage access in the national park and preserve using only existing guidance from management policies and general management plans. There would be no change in the management of motorized access into Denali by airplane, snowmachine, or motorboat. Airplanes could continue to land in the Old Park and the additions. Snowmachines could be used for traditional activities throughout the park additions and preserve, and no guidance would be provided on the definition of the term “traditional activities” for future regulation.	<p>Recreational access to the park and preserve would be by foot from the park road, designated Portals within park boundaries, and airplane landing areas or roads outside of park boundaries.</p> <p>The National Park Service would promulgate a special regulation that 1) defines “traditional activities” for all areas of the park and preserve and for all modes of access as “traditional activities” were defined in 2000 for snowmachine access in the Old Park; 2) modifies current regulations that permit airplane and motorboat use and other forms of nonmotorized transportation for any purpose to follow the language of Section 1110(a) which specifically restricts these modes of access, as well as snowmachines, to only traditional activities; 3) allows airplane landings at designated Portals and the McKinley Park and Kantishna airstrips.</p>	<p>Access to the Old Park would be by foot from the park road and roads and airplane landing areas outside the Old Park boundary. Recreational access to the park additions and preserve would be by foot, by airplane to glaciers and existing landing areas, by motorboat, and by snowmachine along designated access corridors.</p> <p>The National Park Service would seek legislation to exempt the “Old Park” from ANILCA 1110(a), returning motorized access to the level legally allowed before 1980. Existing regulations would be modified to remove the general allowance for airplane landings and motorboat use for any purpose at Denali. The National Park Service would close the park additions and preserve to recreational snowmachine access through a rule-making that defines “traditional activities” for snowmachine access in these areas similar to the way that it is defined for the Old Park. It would allow for recreational snowmachine access along the winter season Corridor management areas.</p>	<p>Recreational access to the Old Park would continue to be managed to emphasize non-motorized access, but this area would be accessible by airplane and motorboat.</p> <p>The National Park Service would actively identify locations in the Old Park that have ecological, wildlife, or other resource values that are at substantial risk of harm from airplane landings or motorboat use, and locations where these modes of access would cause unacceptable impacts to visitor safety. The NPS would close or otherwise manage motorized access to these areas as appropriate to alleviate the resource and safety concerns.</p> <p>In the park additions and preserve, airplane and motorboat access, and snowmachine access for traditional activities, would continue.</p>	<p>Recreational access to the Old Park would continue to be managed to emphasize non-motorized access, but this area would be accessible by airplane and motorboat.</p> <p>In the park additions and preserve, airplane and motorboat access, and snowmachine access for traditional activities, would continue.</p>
	Aircraft	The National Park Service would not form an advisory group to address resource concerns arising from aircraft overflights.	The National Park Service would establish an Aircraft Overflights Working Group to develop voluntary measures for assuring visitor safety and achieving management area standards.		

Cross-Country Travel	The National Park Service would not form an internal working group for addressing resource impacts of hiking in the backcountry.	The National Park Service would establish a working group to address vegetation damage and social trail formation resulting from backcountry hiking. NPS would institute a decision guide for addressing specific types of trail formation impacts and the working group would develop Leave-No-Trace guidelines specific to Denali.	The National Park Service would propose that accommodation be made as necessary for recreational snowmachine access along the winter season Corridor management areas.			To test the feasibility of advance backcountry registration, an experimental system for advance registration would be employed for dispersed camping and camping at designated campsites within the Corridor Management Areas and Management Area A within the Kantishna Hills.	
Access-Wilderness Proposal	If Congress considers additional wilderness designations for Denali, the National Park Service would not seek special accommodation for the continuation of snowmachine access for non-traditional activities.	If Congress considers additional wilderness designations for Denali, the National Park Service would not seek special accommodation for the continuation of snowmachine access for non-traditional activities.	Registration would be required for <ul style="list-style-type: none"> day-hiking outside of Backcountry Hiker areas in the Old Park during summer months day use in the southern park additions east of and including the Kahiltna Glacier during winter months all overnight camping in the park and preserve. <p>To test the feasibility of advance backcountry registration, an experimental system for advance registration would be employed for dispersed camping and camping at designated campsites within the Corridor Management Areas and Management Area A within the Kantishna Hills.</p>			The National Park Service would impose new registration requirements only in areas where use levels are sufficient that user conflicts and/or resource damage are occurring or would occur, and when other methods for obtaining accurate information on visitor use and conveying essential visitor safety and resource protection information are unlikely to be successful.	
Registration	There would be no new registration requirements, nor would the NPS provide for advanced registration in the Kantishna Hills.	Registration would be required for <ul style="list-style-type: none"> day-hiking in the Old Park outside of Backcountry Hiker areas during summer months day use in the southern park additions east of and including the Kahiltna Glacier during winter months all overnight camping in the park and preserve. <p>To test the feasibility of advance backcountry registration, an experimental system for advance registration would be employed for dispersed camping and camping at designated campsites within the Corridor Management Areas and Management Area A within the Kantishna Hills.</p>	The National Park Service would begin a system of voluntary registration for airplanes landing in the Old Park.			To test the feasibility of advance backcountry registration, an experimental system for advance registration would be employed for dispersed camping and camping at designated campsites in the Kantishna Hills.	
Climbing & Mountaineering	An unlimited number of climbers could continue to register to climb Mount McKinley in a season.	The number of available permits for climbers attempting Mount McKinley would be restricted to existing levels (1,300) for all routes during the main mountaineering season (April 1 - August 1).	The number of available permits for climbers attempting to climb Mount McKinley would be restricted to 1,500 during the main mountaineering season (April 1 - August 1). The limit of 1,500 would be reevaluated in 10 years after approval of the plan.			There would be no annual limits established for the number of climbers attempting to climb Mount McKinley while the National Park Service gathers additional information.	

WILDERNESS MANAGEMENT					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
General Guidance	The National Park Service would continue to manage wilderness using only existing service-wide policy and park plans.	The National Park Service would manage all backcountry areas of the national park to protect wilderness resource values and provide opportunities for wilderness recreational activities, consistent with the direction of law and policy, and would clarify the meaning of Wilderness Act terms for Denali.			
Group Size	Decisions about group size would continue to be made on a case-by-case basis for guided and educational groups. There would be no group size limit for private parties.	A group size limit of 12 (including guides) would be established for all users and all backcountry areas.	A group size limit of 12 (including guides) would be established for all users and all backcountry areas. In Management Areas OP2 and D the maximum group size would be 6. The park superintendent could make an exception to the group size limit if there would be a benefit to visitor safety or park resources.	A group size limit of 12 (including guides) would be established for all users and all backcountry areas.	
Human Waste	There would be no new requirement for carrying out human waste from the West Buttress route or around glacier landing areas.	Removal of human waste would be required in the following areas: <ul style="list-style-type: none">the West Buttress route on Mount McKinley above the 14,000 foot campcampsites within ½ mile of air taxi landing locations on glaciers unless pit latrines or other waste disposal facilities are provided.			
Climbing Tools	There would be no new prohibition on power drills as a climbing tool, nor a policy on fixed and removable anchors other than those provided for by national policy and regulation.	Power drills would be prohibited throughout the park additions and preserve. A policy on fixed and removable anchors would be implemented.			

COMMERCIAL SERVICES				
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)
General Guidance	Existing regulation and policy described in chapter 1 would guide commercial services decisions in the backcountry. The National Park Service would not clarify the interpretation of criteria for providing commercial services at Denali. There would be no guidance on the allocation of capacity in the backcountry between independent travelers, educational programs, and guided activities.	<p>The National Park Service would clarify the definitions of commercial services criteria and apply to both concession contracts and commercial use authorizations.</p> <p>In the park additions and preserve, if a guided activity or educational program takes place in an area where the numbers of visitors are limited, the allowable number of parties or visitors participating in the guided or educational activity generally would be less than a majority of the total potential use of the area in order to allow for non-guided uses. In the Old Park, the number of parties or visitors participating in the guided or educational activity would generally be less than 25% of the total potential use of the area in all alternatives where such use is allowed.</p> <p>The National Park Service would prioritize available capacity for guided activities and educational programs in the following priority order:</p> <ol style="list-style-type: none"> 1. Ranger-led programs offered by the National Park Service 2. Educational programs of the Murie Science and Learning Center 3. Accredited educational programs and programs of non-profit educational organizations that operate in the park under a cooperative agreement 4. The programs of other entities, including other non-profit organizations, schools, and for-profit businesses. 	<p>The National Park Service would clarify the definitions of commercial services criteria and apply to both concession contracts and commercial use authorizations.</p> <p>In the park additions and preserve, if a guided commercial activity or non-commercial educational program takes place in an area where the numbers of visitors are limited, the allowable number of parties or visitors participating in the guided activity would be no more than 50% of the total potential use of the area in order to allow for non-guided uses. In the Old Park, the number of parties or visitors participating in the guided or educational activity would be no more than 25% of the total potential use of the area in all alternatives where such use is allowed.</p> <p>Programs provided directly by the NPS and Murie Science and Learning Center would have priority for available capacity.</p>	Same as alternatives 2 and 3.
		<p>Taken as a whole, commercial services would be limited to the same volume of use that occurred in 2004, as measured by the number of trips into the park backcountry. No guided or commercial use would be allowed in management zone OP2 in the Old Park or west of the Toklat River and north of the Alaska Range in the park additions and preserve, except for the present level of concession activity in the Kantishna Hills units designated as Management Area B. Only existing commercial services and those specified above would be permitted in the park and preserve backcountry.</p>	<p>Activities or services not described in this Commercial Services section could be considered only in the southern additions designated as Management Area A.</p>	<p>Activities or services not described in this Commercial Services section could be considered only in areas designated as Management Area A.</p>

COMMERCIAL SERVICES continued					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Ongoing Activities			In the park additions and preserve, excluding the Kantishna Hills between the Toklat and McKinley Rivers, additional commercial authorizations could be awarded to operators for the following activities: <ul style="list-style-type: none">• Air taxi operator, including big game transport, except on glaciers covered by existing concessions contracts• Guided mountaineering• Winter day- or multi-day trips by ski, snowshoe, or dog team.	The following guided activities could continue to be authorized: <ul style="list-style-type: none">• Guided mountaineering on Mount McKinley and other peaks throughout the glaciated portions of the Alaska Range, including lowland approaches, in the Old Park, park additions, and preserve• Dog mushing expeditions in the Old Park, park additions, and preserve• Winter day- or multi-day trips by ski or snowshoe in the park additions and preserve. In addition, dog team freight hauling services in the Old Park, park additions, and preserve could continue to be authorized.	In the park additions and preserve additional commercial authorizations could be awarded to operators for the following activities: <ul style="list-style-type: none">• Air taxi operator, including big game transport, except on glaciers covered by existing concessions contracts• Guided mountaineering• Winter day- or multi-day trips by ski, snowshoe, or dog team.
Commercial Airplane Landings	There would continue to be no limits on the number of commercial airplane landings nor additional limits on where landings can occur in the park additions and preserve.	Commercial air taxi landings would be allowed at all designated Portals for the purpose of dropping off or picking up backcountry visitors who remain in the park overnight. Scenic air tour landings would be allowed only at the Ruth Amphitheater and at Kahiltna Base Camp after July 1, but the number of landings would be limited to 2001 numbers: 1,900 in the Ruth Amphitheater and 200 at Kahiltna Base Camp. Landings would be restricted to the hours of 9am to 9pm.	Air taxi landings could occur throughout the park additions and preserve. Scenic air tour landings would be allowed only on glaciers within Management Area A. Landings would be restricted to the hours of 9am to 9pm.	Air taxi landings could occur throughout the park additions and preserve. Scenic air tour landings would be allowed on glaciers in all areas designated as Management Area A. Scenic air tour landings could also occur at designated landing areas on the Eldridge and Pika Glaciers, however these areas would remain secondary and less-used in accordance with their management area designation. In all locations, landings for scenic air tours would be restricted to the hours between 9am and 9pm. Scenic air tour landings could occur at Kahiltna Base Camp throughout the year.	Air taxi landings could occur throughout the park additions and preserve. Scenic air tour landings would be allowed on glaciers in all areas designated as Management Area A. There would be no prohibition on landing at Kahiltna Base Camp prior to July 1.

Guided Hiking	<p>Guided hiking in the Old Park would stay at the existing levels. There would be no guided backpacking in the Kantishna Hills area. No guided hiking would be allowed on entrance area trails.</p>	<p>In the Old Park, there would be no guided day-hiking or overnight backpacking. Existing concession-operated guided hiking opportunities would be phased out at the time of contract reauthorizations.</p> <p>There would be no concession-operated guided day-hiking or overnight backpacking in the park additions and preserve north of the Alaska Range and west of the Toklat River. An exception is the Kantishna Hills units designated as Management Area B, where the same level of guided day-hiking activity with would be allowed as at present. Guided day-hiking and overnight backpacking could be authorized in areas of the park additions and preserve south of the Alaska Range.</p>	<p>Guided day-hiking could be offered throughout the park additions and preserve. Guided day-hiking could be offered in the Old Park with no more than the current number of guided groups each season and using a similar proportion of off-trail to on-trail (McKinley Bar Trail, Thorofare Ridge) hikes.</p> <p>Only educational programs could use the entrance area trails.</p> <p>Overnight backpacking could be offered in the park additions and preserve. In the portion of the Kantishna Hills designated as Management Area A, camping by guided groups would be restricted to the designated campsites and all day and overnight guided hiking would be restricted to the developed trails identified under “Backcountry Facilities,” below.</p>	<p>Guided day-hiking in the Wonder Lake area and along the McKinley Bar trail would continue as described in the 1997 <i>Entrance Area and Road Corridor DCP</i>.</p> <p>Additional guided day-hiking could be continued in the western portion of the Old Park between Toklat River and Wonder Lake with access from Kantishna, limited to the same number of groups as at present.</p> <p>Guided day-hiking in the Old Park east of Toklat River would be available only on the following entrance area trails: the Rock Creek Trail and Roadside Trail between the Denali Visitor Center and Park Headquarters, the Bike Trail and Jonesville Trails between the Nenana River Bridge and the Denali Visitor Center, the Nenana River and Triple Lakes trails when planned construction or rehabilitation is complete, and the Savage Alpine Trail between Savage Campground and Savage River, only for those commercial groups staying at Savage Campground.</p> <p>Guided day-hiking and overnight backpacking could be considered throughout the park additions and preserve.</p>	<p>Guided day-hiking and overnight backpacking could be offered throughout the Old Park, park additions, and preserve including day-hiking on entrance area trails.</p> <p>In the portion of the Kantishna Hills designated as Management Area A, camping by guided groups would be restricted to the designated campsites and hiking would be restricted to the developed trails identified under “Backcountry Facilities,” below.</p>	Guided Sport Hunting	<p>The two guided sport hunting areas would continue as at present.</p>	<p>When current concession contracts expire, the entire southwest Preserve would be divided into two sport-hunting guide areas with the dividing line between areas along the West Fork of the Yentna and through Shellabarger Pass.</p>	<p>Effective immediately, the entire southwest Preserve would be divided into two sport-hunting guide areas with the dividing line between areas along the West Fork of the Yentna and through Shellabarger Pass. See Map 5.</p>	<p>When current concession contracts expire, the NPS would allow for two additional guide areas. A total of three guide areas would be evenly proportioned across the entire southwest preserve. One guide area would be added in the southern portion of the northwest preserve.</p>
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BACKCOUNTRY FACILITIES					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Trails	No new trails would be constructed. The NPS would continue its policy of generally not constructing trails in the Old Park and the northern additions.	No new trails would be constructed. A “no formal trails” policy would be maintained for the entire backcountry.	The National Park Service would designate Backcountry Hiker areas and (if needed) improve some social trails presently used by guided hiking concessions within Management Area A in Kantishna. Elsewhere in the park and preserve, the National Park Service would maintain a “no formal trails” policy.	The National Park Service would designate Backcountry Hiker areas and (if needed) construct or improve the following trails: <ul style="list-style-type: none">Some existing social trails within units 41, 42, and 43 in Kantishna, formalizing a trail system in this areaFrom Eielson Visitor Center to Gorge CreekA loop from the water tower above Wonder Lake Campground up to the bench west of Wonder Lake and returnFrom the Mount Healy overlook down a spur ridge to create a loop to the Taiga TrailFrom the west end of Thorofare Bluffs down to the Thorofare River bar <p>No other new summer or winter trails would be added besides those identified in the <i>1997 Entrance Area and Road Corridor DCP</i> and the <i>1997 South Side Denali DCP</i>. Elsewhere in the park and preserve, the National Park Service would maintain a “no formal trails” policy.</p>	The National Park Service would designate Backcountry Hiker areas and (if necessary) construct or improve the following trails: <ul style="list-style-type: none">some existing social trails within Management Area A in Kantishna;from Eielson Visitor Center to Gorge Creek;from the water tower above Wonder Lake Campground to the bench west of Wonder Lake from the west end of Thorofare Bluffs down to the Thorofare River barfrom the Mount Healy overlook down a spur ridge to create a loop to the Taiga Trail;along Wildhorse Creek connecting to trails associated with the South Denali visitor facilities development. <p>The spring multi-use trail would be upgraded to make it usable in early winter low snow conditions and it would be extended from Mile 7 to Savage Campground.</p> <p>Additional trails could be constructed within Management Area A in the lowland areas surrounding the lower Kahiltna, Tokositna, and Ruth glaciers. In other areas designated Management Area A trails could be established only if necessary to prevent resource damage. Elsewhere in the park and preserve, the NPS would maintain a “no formal trails” policy.</p>

Park Road	During winter months, snow on one lane of the park road would continue to be packed from the Headquarters gate to Mile 7 to allow maintenance activities that prevent the buildup of ice on the road in this section while still allowing it to be used for winter recreational activities such as skiing and dog mushing. Snow would not be removed from the road until necessary to prepare the road for summer season use.	The park road would remain unplowed west of park Headquarters until necessary for summer season use.	During winter months, snow on one lane of the park road would continue to be packed from the Headquarters gate to Mile 7 to allow maintenance activities that prevent the buildup of ice on the road in this section while still allowing it to be used for winter recreational activities such as skiing and dog mushing. Snow would not be removed from the road until necessary to prepare the road for summer season use.	During winter months, snow on one lane of the park road would continue to be packed from the Headquarters gate to Mile 7 to allow maintenance activities that prevent the buildup of ice on the road in this section. Snow would not be removed from the road until necessary to prepare the road for summer season use. This section of the park road would be designated as a Backcountry Hiker area during winter months.	The park road would be kept open to the Savage Campground area throughout the year, and that would become the base for winter activities in that part of the Old Park.
Campsites	There would be no designated campsites.	There would be no designated campsites.	Up to five designated campsites would be created in conjunction with the Corridor areas in the Kantishna Hills.	Up to five designated camping areas of 1-3 sites each would be created in conjunction with the Corridor and Backcountry Hiker areas in units 41, 42, and 43 in the Kantishna Hills.	Up to five designated campsites could be developed in conjunction with the Corridor areas in the Kantishna Hills, and up to three sites in conjunction with the Corridor area in the Wildhorse Creek drainage.
Shelters & Cabins	There would be no new backcountry shelters or cabins.	There would be no new backcountry shelters or cabins.	The National Park Service would add visitor facilities at park headquarters such as restrooms, plug-ins, and a warming hut to support winter use.	The National Park Service would add visitor facilities at park headquarters such as restrooms, plug-ins, and a warming hut to support winter use. A plowed parking area and warming hut would be provided at Savage Campground. Up to 5 public use cabins would be constructed near the southern park boundary in cooperation with Alaska State Parks.	The National Park Service would add visitor facilities at park headquarters such as restrooms, plug-ins, and a warming hut to support winter use. A plowed parking area and warming hut would be provided at Savage Campground. Up to 5 public use cabins would be constructed near the southern park boundary in cooperation with Alaska State Parks.
Info Facilities	There would be no new information facilities.	There would be no new information facilities.	The National Park Service, in cooperation with other land management agencies, would operate a visitor contact station in the Cantwell/Broad Pass area.		

ADMINISTRATIVE AND SCIENTIFIC ACTIVITIES					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Information & Education	There would be no criteria established for offering educational programs in the backcountry.	In the Old Park, hikes and educational programs led by the National Park Service, Murie Science and Learning Center, and other educational partners would be phased out over two years except on entrance area trails, where existing levels of hikes and activities could continue. All of the park additions and preserve would be available for the educational programs of the National Park Service, Murie Science and Learning Center, accredited educational institutions, and non-profit organizations operating under a cooperative agreement with the NPS.	Day-use educational programs offered by the National Park Service, Murie Science and Learning Center, accredited educational institutions, and non-profit organizations operating under a cooperative agreement with the National Park Service could be offered throughout the Old Park, park additions, and preserve. Educational programs that include an overnight stay in the backcountry could be offered in the park additions and preserve. In the portion of the Kantishna Hills designated as Management Area A, camping by educational programs would be restricted to the designated campsites.	Day use and overnight educational programs offered by the National Park Service, the Murie Science and Learning Center, and accredited educational institutions and non-profit organizations operating under a cooperative agreement with the National Park Service could be offered throughout the Old Park (including entrance area trails), park additions, and preserve. All educational programs taking place in the park and preserve backcountry would be required to meet the criteria identified under Commercial Services.	Day-use and overnight educational programs by the National Park Service, Murie Science and Learning Center, accredited educational institutions, and non-profit organizations operating under a cooperative agreement with the National Park Service could be offered throughout the Old Park, park additions, and preserve. In the portion of the Kantishna Hills designated as Management Area A, overnight camping by educational programs would be restricted to the designated campsites.
Aviation	The NPS would not complete a plan for minimizing and accounting for administrative and research use of aircraft.	The National Park Service would complete a plan for administrative and research use of aircraft in the Wilderness, park additions, and preserve that includes goals and specific objectives for minimizing helicopter and airplane use, specifies a methodology for accounting for NPS administrative and research air traffic, and provides for criteria for determining when the use of aircraft meets the “minimum requirement” test.			
Research & Resource Management	There would be no establishment of management-area-specific criteria for determining appropriate kinds of research activity.	The National Park Service would establish management-area-specific criteria for research and resource management projects taking place within the Denali backcountry.	All NPS and external research would require a research permit that would be granted only if the parameters of the project meet the management area standards in the location(s) where the project is proposed. Research and resource management activities of the Alaska Department of Fish and Game would require advance consultation under the Master Memorandum of Understanding between the Department of Fish and Game and the NPS.		

EASEMENTS AND BOUNDARY CHANGES					
Topic	Alternative 1 (no-action)	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Easements	The National Park Service would not seek to establish public access the existing 17(b) easement between Cantwell and the park boundary at Windy Creek.	The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to acquire an easement over private lands to gain public access to the existing 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek. See Map 6.			
Land Exchanges	The National Park Service would not seek to adjust park boundaries.	The National Park Service would seek a land exchange similar to a previously proposed exchange of land with the State of Alaska that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers (see Map 7). As a result of the exchange approximately 2,432 acres of Denali State Park land would be transferred to Denali National Park and Preserve and approximately 3,229 acres of national park and preserve land would be transferred to Denali State Park. Land to be transferred to the state surrounds approximately 137 acres of privately owned inholdings. An additional adjustment would be proposed for the area immediately north of Dutch Creek to provide a boundary that is more identifiable in the field and out of the potential placer mining in that floodplain. Completion of the exchanges and determination of actual boundaries and acreage would depend on the outcome of negotiations with the State of Alaska.			

Table 2-15: Summary Table of Environmental Consequences

Topic	Alternative 1 No Action	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Ice-Rich Permafrost Soils	Impacts to ice-rich permafrost soils under would be moderate because this alternative allows for substantial increases in use of snowmachines and dog sleds. Repeated passes of snowmachines and dog sleds over ice-rich permafrost soils would damage these soils. Impacts would be of medium intensity, long-term duration, and would affect an important park resource. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.	Impacts to ice-rich permafrost soils would be negligible because use of snowmachines would be reduced and use of dog sleds would be managed to minimize negative impacts. There would be few repeated passes of snowmachines and dog sleds over ice-rich permafrost soils. Under this alternative, recreational and administrative activities would be reduced from current levels, and recreational users may be subject to additional conditions on use. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be moderate.	There would be negligible adverse impacts to ice-rich permafrost soils. Use of snowmachines and dog sleds would increase slightly above current levels, and repeated passes of snowmachines and dog sleds over ice-rich permafrost soils would damage these soils. However, use would be mitigated or restricted if standards outlined for Management Areas D, E, OPI, and OP2 are approached or exceeded. The cumulative adverse impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be moderate.	Impacts to ice-rich permafrost soils would be minor. Use of snowmachines and dog sleds would increase above current levels, and repeated passes of snowmachines and dog sleds over ice-rich permafrost soils would damage these soils. However, use would be mitigated or restricted if standards are approached or exceeded. There would be moderate adverse cumulative impacts of this alternative plus the aforementioned past, present, and reasonably foreseeable actions.	Moderate adverse impacts to ice-rich permafrost soils would occur. Use of snowmachines and dog sleds would increase above current levels, and repeated passes of snowmachines and dog sleds over ice-rich permafrost soils would damage these soils. A high-use corridor would be established in an area with abundant ice-rich permafrost soils. In other locations in the northern additions, use would be mitigated or restricted if standards outlined for Management Area B or D are approached or exceeded. The cumulative adverse impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.
Vegetation	Major adverse impacts to vegetation would result from substantial increases in types and levels of use; without management area indicators, standards, and monitoring, the park would have no formal process to determine when impact levels become severe enough to warrant management action. More people recreating in the backcountry would create more impacts to vegetation because there would be more potential for physical trauma to sensitive plants and more potential for the introduction of exotic and invasive species. The cumulative adverse impact of this alternative plus past, present, and reasonably foreseeable actions would be major.	Impacts to vegetation would be negligible because very little trampling would occur only in small areas, and the introduction of exotic species would be unlikely. Recreational and administrative activities would be reduced from current levels, and recreational users could be subject to additional conditions on use. Reducing use would reduce physical trauma to vegetation and would reduce the risk of exotic species spreading into and throughout the park. There would still be a moderate adverse cumulative impact to vegetation resources.	Impacts to vegetation would be minor because very little trampling would occur only in small areas, and the potential for introduction of exotic species would exist but would not be high. Reductions in snowmachine use and management of guided hiking would have a beneficial effect on vegetation compared to the current condition. However, establishing higher use corridors and zoning the park to accommodate higher use levels in some areas would increase the potential for trampling of vegetation and introduction of exotic species. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be moderate.	Impacts to vegetation would be moderate because some vegetation would be lost, trampling would occur in various areas throughout roughly 6% of the park, and the potential for introduction of exotic species from airplane access and new trail construction is considerable. Increases in use would be expected to increase parkwide; however, use would be curtailed or mitigated if impacts to vegetation approach or exceed standards outlined in chapter 2. The cumulative adverse impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.	Impacts to vegetation would be major because some vegetation would be lost, trampling would occur in various areas throughout roughly 18% percent of the park, and most importantly, the potential for introduction of exotic species from new trail construction and increased use levels is very high. Increases in both winter and summer recreational activities across the entire park and preserve would cause adverse impacts to vegetation. New trail construction would lead to loss of vegetation. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.

Topic	Alternative 1 No Action	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Wildlife	Wildlife would be adversely affected in some areas of the park during summer from noise generated by aircraft operations and by human activities in the park such as hiking and camping. During winter, wildlife would be affected primarily by snowmachine use and to a much lesser extent by non-motorized activities. These impacts would not be uniformly distributed across the park but would affect wildlife in areas such as under flight corridors between Healy, Talkeetna, and Mount McKinley, at landing sites, and at access points and routes and areas heavily used by snowmachines on the south side. The overall level of adverse impact would therefore be moderate.	The impacts to wildlife populations and habitats would generally be negligible because of limits on numbers and types of backcountry uses. Minor adverse impacts are possible from some activities, but even then would be limited to short-term effects that would be very localized in scope.	There would be minor adverse impacts to wildlife populations and habitats because limits on numbers and types of backcountry uses would result in only low-intensity, non-permanent disturbances to wildlife.	There would be minor to moderate adverse impacts to wildlife populations and habitats because of the effects of increased snowmachine and motorboat use on various wildlife species.	There would generally be moderate adverse impacts to the populations and habitats of various wildlife species because of increased snowmachine and motorboat use. Although most impacts would be limited to short-term effects, there would be some persistent population-level effects in higher use areas such as Broad Pass, Dunkle Hills, Kantishna Hills, and lower elevations on the south side of the Alaska Range.
Natural Soundscapes	This alternative would result in major adverse impacts to the natural soundscape of Denali because of increases in high intensity, long-term motorized noise – primarily from airplanes and snowmachines – across large portions of the park and preserve. Assuming present trends continue the cumulative impact of this action combined with the impacts of previous actions could result in impairment of this important park resource that fulfills specific purposes specified by legislation.	This alternative would provide a major benefit to the natural sound resource at Denali by mitigating the adverse impacts caused by past actions, particularly by reducing existing snowmachine noise, the noise from scenic air tour landings other than at the Ruth Amphitheater and Kahiltna Base Camp, and the noise of scenic air tours over the Old Park and southern glaciers. However, there would still be minor cumulative adverse impacts to the natural soundscape of the park and preserve primarily because of low-intensity, long-term noise from air traffic over much of the eastern and southern park with higher concentrations around Kahiltna Base Camp and the Ruth Amphitheater.	This alternative would provide a moderate benefit to the natural sound resource at Denali by mitigating the adverse impacts caused by past actions, resulting in low to medium intensity, long-term reductions in noise levels over the Old Park and parts of the southern park additions. However, there would be additional temporary noise associated with construction and maintenance of trails in Kantishna along with increased backcountry monitoring. There would still be moderate adverse cumulative impacts to the natural soundscape of the park and preserve because of high intensity noise on Corridors, at Portals, and over the Ruth Glacier and medium intensity noise across much of the rest of the southern additions.	Alternative 4 would have negligible overall impacts on the natural sound environment of the Denali backcountry. Although the amount of motorized noise would substantially decline in the Old Park, this alternative would allow medium to high intensity, long-term increases in motorized noise in other locations. Some temporary noise would be added because of trail and campsite construction. There would still be major cumulative adverse impacts because of the high intensity airplane noise in the Ruth Amphitheater, over the southern glaciers, lowland areas between the Kahiltna and Ruth Glaciers, and in the Dunkle Hills area.	There would be moderate adverse impacts to the natural soundscape of the park and preserve under this alternative because of medium intensity, long-term increases in motorized noise over broad portions of the park and preserve, particularly the southern additions east of and including the Kahiltna Glacier during summer months and the Dunkle Hills/Broad Pass and Tokositna areas during late winter. There would continue to be major adverse cumulative impacts because of high intensity airplane and snowmachine access in the southern park additions and airplane overflights above the Old Park. The actions do not mitigate the increased motorized noise from previous actions, but do prevent impairment of the natural sound resource.

Topic	Alternative 1 No Action	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Wilderness	Major adverse impacts to wilderness resources of the Denali backcountry would occur because of long-term, high-intensity increases in motorized access in accessible regions. These would compromise wilderness qualities including absence of motorized noise, privacy and isolation, and absence of evidence of modern human use. For some areas, such as portions of the southern glaciers between the Kahiltina and Eldridge Glaciers, the level of motorized noise and evidence of modern human use could reach a level during the summer visitor season that the area would no longer be suitable for wilderness designation. This condition would constitute impairment of a park resource that fulfills a specific purpose identified in legislation.	There would be a moderate benefit to the wilderness resource of the Denali backcountry primarily because of long-term, substantial reductions in motorized access that translates into increased opportunity for solitude. The proposed standards for encounters with other parties, encounters with large groups, ability to camp out of sight and sound, and evidence of modern human use would protect wilderness resource values as visitation grows. A cumulative minor adverse impact to the wilderness resource of the Denali backcountry would occur, primarily because of ongoing absence of opportunities for solitude on the West Buttress route of Mount McKinley, and localized high levels of noise and motorized equipment at Kahiltina Base Camp, the Ruth Amphitheater landing area, and to a lesser degree at other Portals.	There would be a moderate benefit to the wilderness resource of the Denali backcountry, primarily because of long-term, substantial reductions in motorized access that translate into increased opportunity for solitude. The proposed standards for encounters with other parties, encounters with large groups, ability to camp out of sight and sound of others, and evidence of wilderness resource values as visitation grows. There is a long-term but low-intensity loss of unconfined recreation opportunities because of new registration requirements and climbing limits on Mount McKinley. There would still be a moderate adverse cumulative impact primarily because of ongoing high levels of motorized noise and equipment associated with aircraft use during summer months and with some corridors in the southern additions during winter months.	There would be negligible new impacts to the wilderness resources of the Denali backcountry. Positive changes would occur in some locations, such as in the designated wilderness of the Old Park, but other areas that have wilderness qualities would likely lose some opportunities for solitude. The proposed standards for encounters with other parties, encounters with large groups, ability to camp out of sight and sound of others, and evidence of modern human use would protect wilderness resource values in much of the park as visitation grows. There would be minor adverse impacts from the construction of new trails and campsites and very limited restrictions on freedom of movement. However, there would still be major adverse cumulative impacts because of the ongoing absence of solitude on the West Buttress route of Mount McKinley during the primary climbing season and high levels of encounters, noise, and motorized transport in some areas.	There would be moderate adverse impacts to wilderness resources at Denali. Opportunities for solitude would remain stable in the Old Park but would decline in other locations in the southern park additions and potentially the northern park additions with increases of motorized access, support facilities such as trails, and numbers of visitors. The proposed standards for encounters with other parties, encounters with large groups, ability to camp out of sight and sound of others, and evidence of modern human use would allow higher levels of impacts than presently occur throughout the park additions and preserve. There is, however, no loss of opportunities for unconfined recreation since there would be no new registration requirements or quotas. The existing major cumulative impacts would worsen under this alternative.
Cultural Resources	There is the potential for minor to major adverse impacts on cultural resources because of unmanaged increases in the number of visitors in areas where cultural resources exist.	Impacts to cultural resources under this alternative would be negligible because actions are not proposed that would facilitate or encourage more people to visit areas where cultural resources exist.	Proposed actions could result in minor to major adverse impacts on cultural resources because of the expected increase in use in some areas where cultural sites are found, although determining specific impacts would require site-specific information.	Proposed actions could result in minor to major adverse impacts on cultural resources because of the likelihood of increased visitation to cultural resource sites in the backcountry, although determining specific impacts would require site-specific information.	Proposed actions could result in minor to major adverse impacts on cultural resources because of the likelihood of increased visitation to cultural resource sites in the backcountry, although determining specific impacts would require site-specific information.

Topic	Alternative 1 No Action	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Substance	There impacts to subsistence resources and opportunities because of the potential for high levels of widespread use of the park, particularly non-subsistence snowmachine use. Dramatic increases in park use would create unfavorable conditions for subsistence wildlife populations. These impacts on subsistence resources and opportunities in the park and preserve additions would persist beyond the life of this plan. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.	The impacts to subsistence resources would be negligible because recreational and administrative activities would be reduced from current levels, and recreational users may be subject to additional conditions on use. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.	There would be minor adverse impacts to subsistence resources and opportunities because of the potential for conflicts along the winter snowmachine corridors and the year-round river corridors, and the increased visitation in the Kantishna area. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.	This alternative would have minor to moderate adverse impacts on subsistence resources and opportunities because it would result in increases in incompatible recreational activities, primarily on trails and corridors in the Cantwell, Kantishna, and Minchumina areas. These activities, including non-subsistence use of snowmachines, would create unfavorable conditions for subsistence wildlife populations and increase conflicts between recreational and subsistence users. The severity of the impact from this alternative would be mitigated by restricting high intensity uses to narrow trails and corridors. There would still be a cumulative major adverse impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions.	This alternative could have major impacts on subsistence resources and opportunities because of substantial increases in recreational activities – including non-subsistence snowmachine access – in both the Kantishna and Cantwell areas, which could create conflicts between recreational and subsistence users and unfavorable conditions for subsistence wildlife populations. The cumulative impact of this alternative plus the aforementioned past, present, and reasonably foreseeable actions would be major.
Socioeconomics	Impacts to economic values of the park and preserve would be minor over the next several years but effects would likely increase over the next 20 years. There would be a moderate reduction in the current rural quality of life in communities near the park and preserve. Impacts to existence values would increase, while use values would tend to increase over the next several years with some reduction likely in the long term. Impacts to the value of Denali National Park and Preserve for ecosystem services would be minor initially and increase to moderate as higher levels of use occur at popular destinations. Overall impacts on social and economic values would be moderate.	Impacts to economic values of the park and preserve would be minor over the life of the plan. The existing rural quality of life in communities near the park and preserve could be expected to continue. Existence values would be protected and could increase eventually, as would use values for most activities. A moderate increase in the value of ecosystem services contributed by Denali National Park and Preserve could be expected throughout the life of the plan. Overall impacts on social and economic values from the management actions would be minor.	Impacts to economic values of the park and preserve would be minor over the life of the plan. The existing rural quality of life in communities near the park and preserve could be expected to continue. Existence values would be protected and could increase eventually, as would use values for most activities. A moderate increase in the value of ecosystem services possibly contributed by Denali National Park and Preserve could be expected throughout the life of the plan. Overall impacts on social and economic values from the management actions would be minor.	There would be increases in economic activity. Minor impacts to the rural quality of life in communities near the park and preserve could be expected over the life span of the plan. Existence values would be protected and could increase eventually, as would use values for most activities. A moderate increase in the value of ecosystem services contributed by Denali National Park and Preserve could be expected throughout the life of the plan. Overall impacts on social and economic values from the management actions would be minor over the short term (next several years) and moderate over the life of the plan.	There would be increases in economic activity. Moderate impacts to the rural quality of life in communities near the park and preserve could be expected over the life of the plan. There would be a mix of minor positive and negative effects on existence values over the life of the plan, with a slight increase in the Old Park and a slight decrease in the park additions and preserve areas. Use values would tend to increase in the short term and decrease slightly over the next 20 years. A minor increase in the value of ecosystem services contributed by Denali National Park and Preserve could be expected throughout the life of the plan. Overall impacts on social and economic values from the management would be moderate over the life of the plan.

Topic	Alternative 1 No Action	Alternative 2	Alternative 3	Alternative 4 - Modified (NPS preferred)	Alternative 5
Recreational Opportunity & Visitor Safety	<p>Although the amount of visitor use would increase under this alternative, the types of recreational opportunities would shrink, particularly for wilderness-dependent recreational activities sought by non-motorized users in accessible areas. This would cause major adverse impacts to recreational opportunities. There would be moderate adverse impacts to visitor safety from declining drinking water quality in some glaciated areas.</p>	<p>This alternative would have a moderate adverse impact on recreational opportunities at Denali. Although it would protect wilderness-dependent activities, it would exclude many opportunities for individuals who require assistance with access, facilities, and services over most of the park and preserve and constrain some opportunities even for those seeking wilderness-dependent activities. Those visitors seeking appropriate but not wilderness-dependent sightseeing activities would have limited options. There would be a moderate benefit to visitor safety because of education associated with new registration requirements.</p>	<p>This alternative would have a moderate beneficial impact on recreational opportunities at Denali because it would allow for a carefully managed set of appropriate backcountry activities to serve individuals who need more assistance with access, facilities, and services, while still protecting the recreational activities that are dependent upon Denali's wilderness resources and which the NPS is legislatively obligated to provide. There would be opportunity for wilderness-dependent activities to expand in accessible areas. Visitor safety would have a minor benefit from education associated with required registration for some common activities, while adverse impacts to drinking water quality would be minimized.</p>	<p>This alternative would have a minor beneficial impact on recreational opportunities at Denali because it would allow for a carefully managed set of appropriate backcountry activities to serve individuals who need more assistance with access, facilities, and services, while still protecting the recreational activities that are dependent upon Denali's wilderness resources and which the NPS is legislatively obligated to provide. However, there would be limited opportunities for some wilderness-dependent activities to expand in accessible areas. Visitor safety would be improved by education associated with required registration for some common activities, while adverse impacts to water quality would be minimized.</p>	<p>This alternative would have moderate adverse impacts on recreational opportunities because some wilderness-dependent opportunities would become difficult to find. In particular, non-motorized mountaineering and wilderness recreational activities in accessible areas of the park additions on the south side of the Alaska Range would become areas used more for visitors seeking motorized access opportunities. There would be no area of the backcountry that would preserve opportunities to encounter no other people, although some of these opportunities might incidentally remain over time. There would be minimal adverse impacts on visitor safety from declining drinking water quality.</p>
Park Management & Operations	<p>Without a comprehensive backcountry management plan, crisis management will take away from effective resource protection in other park programs. The no-action alternative would therefore result in major adverse impacts to park operations and management over the next 20 years and creates a situation where park management could not prevent impairment of park resource values.</p>	<p>There would be some requirements for additional staff, but most proposals could be implemented by reallocating funding, reassigning existing staff, and changing management emphasis or priorities during the first 5 years of plan implementation. Impacts that have been identified would be mitigated to the degree that the overall impacts to park management would be minor.</p>	<p>Proactive management would negate the need for a reactive approach to management. Implementing actions under this alternative would cause moderate impacts to park operations and management in some areas during 5-10 years of plan implementation, but other actions reduce impacts and even provide beneficial effects that would occur throughout the life of the plan. Therefore, overall impacts to park management would still be minor.</p>	<p>Despite the fact that proactive management would negate the need for a reactive approach to management, major impacts to park operations and management would still occur in several important aspects of park operations during 5-10 years of plan implementation. The required staffing and funding are of a magnitude that would trigger the need for major secondary responses in support services such as administration, (particularly human resources), support facilities and equipment such as office space and vehicles, and facility maintenance activities. Without staffing and funding increases it would not be possible to prevent impairment of park resource values given increases in visitor use.</p>	<p>Implementing this alternative would require a substantial increase in staffing. In some cases, proactive management would negate the need for a reactive approach to management. Moderate to major impacts to park operations and management would be realized in many areas during the 5-10 years of plan implementation and throughout the life of the plan. The required staffing and funding would trigger the need for secondary responses in support services such as administration, particularly human resources, as well as facility maintenance activities. Without the staffing and funding increases described above, it would not be possible to prevent impairment of park resource values given the use increases called for by this alternative.</p>