draft
general management plan/environmental assessment
land protection plan
wilderness suitability review

march 1985

GATES OF THE ARCTIC

NATIONAL PARK AND PRESERVE / ALASKA

Comments will be accepted until and should be sent to

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U.S. Department of the Interior / National Park Service

Draft
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GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE
ALASKA

ANILCA REQUIREMENTS

Section 1301 of the Alaska National Interest Lands Conservation Act (ANILCA: PL 96-487) requires the preparation of conservation and management plans for each unit of the national park system established or enlarged by ANILCA. These plans are to describe programs and methods for managing resources, proposed development for visitor services and facilities, proposed access and circulation routes and transportation facilities, programs and methods for protecting the culture of local residents, plans for acquiring land or modifying boundaries, methods for ensuring that uses of private lands are compatible with the purposes of the unit, and opportunities for mutually beneficial cooperation with other regional landowners.

NPS PLANNING DOCUMENTS

The National Park Service planning process for each park (preserve, monument, or other unit of the system) involves a number of stages, progressing from the formulation of broad objectives, through decisions about what general management direction should be followed to achieve the objectives, to formulation of detailed actions for implementing specific components of the general management plan.

The general management plan addresses topics of resource management, visitor use, park operations, and development in general terms. The goal of this plan is to establish a consensus among the National Park Service and interested agencies, groups, and individuals about the types and levels of visitor use, development, and resource protection that will occur. These decisions are based on the purpose of the park, its significant values, the activities occurring there now, and the resolution of any major issues surrounding possible land use conflicts within and adjacent to the park. The following kinds of detailed action plans are prepared concurrently with or after completion of the general management plan.

- Land protection plans present approaches to private or other non-NPS lands within the boundaries of NPS units, in order to attempt to have these lands managed in as compatible a manner as possible with the planned management objectives of the park unit.
- Resource management plans identify the actions that will be taken to preserve and protect natural and cultural resources. Where appropriate, one component of the environment (for example, fire management plan, river management plan, historic structure plan) may be further developed into an independent plan that becomes a part of the resource management plan.
- Development concept plans establish basic types and sizes of facilities for specific locations.
- Interpretive plans describe the themes and media that will be used to interpret the park's significant resources.
- Wilderness suitability reviews determine which lands are suitable for inclusion in the national wilderness preservation system.

Depending largely on the complexity of individual planning efforts, action plans may or may not be prepared simultaneously with the general management plan. If they are prepared after the general plan, the NPS public involvement and cooperative planning efforts are continued until all of the implementation plans are completed.

SUMMARY

The national park system comprises over 300 areas of special importance to the people of the United States--a system that includes superlative natural, historical, scientific, and recreational areas in every region of the country. All of these areas are set aside "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations," (Act of August 25, 1916).

Certain lands in Alaska containing nationally significant values were added to the national park system in 1980 for the benefit, use, education, and inspiration of present and future generations:

> It is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems. (Alaska National Interest Lands Conservation Act, section, 101(b))

Gates of the Arctic National Park and Preserve is a very special part of the system, with a purpose different than any other unit:

> The park and preserve shall be managed for the following purposes, among others: To maintain the wild and undeveloped character of the area, including opportunities for visitors to experience solitude, and the natural environmental integrity and scenic beauty of the mountains, forelands, rivers, lakes, and other natural features; to provide continued opportunities, including reasonable access, for mountain climbing, mountaineering, and other wilderness recreational activities; and to protect habitat for and the populations of fish and wildlife, including, but not limited to, caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds. (Alaska National Interest Lands Conservation Act, section 201(4)(a))

The importance of maintaining the wild and undeveloped character of the area was reemphasized as Congress further designated over 7 million of the 8 million acres as wilderness and six rivers as wild. Within the broad spectrum of resources and opportunities reserved in national parks, only

Gates of the Arctic was established with such special wilderness purposes.

This document proposes management actions addressing issues and problems facing Gates of the Arctic National Park and Preserve for the next 10 years. There are three major elements within this document. The first element is the draft general management plan, which includes proposals for managing wilderness, wild rivers, natural and cultural resources, subsistence and visitor uses, and determining National Park Service needs for operations and facilities. The draft general management plan also includes alternatives considered and environmental consequences of the proposal and alternatives. The second element is the land protection plan, which discusses nonfederal lands and other interests in and around the unit and methods to protect the purposes for which the unit was created. The third element is the wilderness suitability review, which evaluates the suitability of nonwilderness lands within the park and preserve for inclusion in wilderness.

The major direction of the proposals in this document is to maintain the wild and undeveloped character of the area. Proposed actions strive to maintain the area as it is today, and in some cases may erase the influence of modern man on the landscape, so that at the end of this 10-year planning period and beyond, this significant wilderness will not be diminished.

NATURAL RESOURCE MANAGEMENT (pages 59-66)

Gates of the Arctic National Park and Preserve in Alaska's Brooks Range encompasses a vast and essentially untouched area of outstanding natural beauty and exceptional scientific value. The "Natural Resource Management" section proposes to maintain natural features, environmental integrity, and the dynamics of natural processes operating within the park and preserve. Resources, conditions, and human uses will be monitored to determine if damage is occurring or is possible. Actions will primarily be aimed at managing uses for the purpose of protecting resources.

An issue of managing natural resources is how to determine and maintain natural and healthy populations of fish and wildlife, as directed by the Alaska National Interest Lands Conservation Act (ANILCA). The proposal is to focus research on the history of human use, presuming that other than traditional human use, man's effects on fish and wildlife are unnatural. Once unnatural effects are identified, they can be counteracted to maintain natural and healthy populations.

There is concern about the concentration of sportfishing in certain locations and the low productivity of arctic waters. The proposal is to minimize fish take by encouraging visitors to practice catch-and-release methods while studies are undertaken. To avoid adverse human-bear encounters, portable bear-proof food containers will be available, and the discharge of firearms by visitors in the park will be required to be reported. Vegetation in certain areas is damaged by mining activities, winter roads, snowmachines, camping, all-terrain vehicles (ATVs), and

foot travel. Areas of such use will be monitored and managed to prevent further damage, and affected areas will be reclaimed. To minimize the impacts of campfires on natural cycles, visitors will be encouraged to carry stoves, and campfires will be prohibited on tundra and in areas above tree line. Further effects of recreational visitors on wildlife and vegetation will be studied, and additional visitor use limits may be needed, as discussed in the "Visitor Use Management" section.

Some activities associated with research, particularly the use of helicopters, can disturb visitors, wildlife, and subsistence activities. Certain research activities will be allowed only as a minimum tool outside of critical times and areas of wildlife, subsistence,and visitor use.

CULTURAL RESOURCE MANAGEMENT (pages 67-70)

The Brooks Range has been occupied and traversed by people for at least 12,500 years, yet the land bears little visible evidence of their presence. Management of significant cultural resources will require understanding of long-term human use of the area and recognition of both physical remains and intangible resources. A selective sampling of cultural resources will be conducted parkwide. Archeological sites will be protected and monitored for impacts in high use areas. At this time historical sites include only a handful of standing cabins and some ruins. Significant sites will be recorded, and a known historic standing cabin on private land within the park will be maintained through cooperative agreements for future administrative use. To prevent the loss of local customs and traditions, native place names, and spiritual places, the collection of oral history from local elders will continue and be expanded. Where there is local initiative for museums, the National Park Service is interested in participating with technical assistance and display of artifacts.

SUBSISTENCE USE MANAGEMENT (pages 70-73)

The opportunity for rural residents engaged in a subsistence lifestyle to continue to do so is provided by ANILCA. In Gates of the Arctic, Congress directed that subsistence uses will be permitted within the park where such uses are traditional, and that they will be permitted in the preserve without this qualification. Subsistence uses in the park and preserve will be managed as directed by Title VIII of ANILCA and the implementing National Park Service and state of Alaska subsistence regulations and policies. Existing regulations and policies are reported here, and the general management plan does not propose any changes to this direction. The park's Subsistence Resource Commission has been established to devise and recommend a subsistence hunting program to the secretary of the interior with public involvement.

Those who are eligible for subsistence use in the park include residents of designated local communities (resident zones) and individuals with an established, historical pattern of use. Changing populations within resident zones result in subsistence use by those with no established, historical pattern of use. As NPS regulations direct, zones will be monitored for continued eligibility of users. The law directs that

subsistence use occur within traditional use areas, and based on recommendations of the Subsistence Resource Commission, maps will be developed with full public involvement to identify these areas. Access for subsistence is an important issue, as there are changing needs and pressures to use ATVs, which are not currently permitted on park lands. ATVs and their impacts will be studied and evaluated in relation to protecting park resources and values. Commercial trapping, which is not permitted, needs to be distinguished from trapping conducted as part of the subsistence way of life. Other uses, such as sport hunting and fishing, recreational use, research, and mining occasionally interfere with subsistence use. Reported conflicts will be monitored, and recreational users will be given information about subsistence use to minimize conflicts.

VISITOR USE MANAGEMENT (pages 73-90)

Gates of the Arctic protects vast wildlife habitat and the natural integrity of a large arctic area. It also offers visitors opportunities to experience solitude, self-reliance, challenge, and discovery. As visitors come to enjoy wilderness recreational activities, the natural environmental integrity and wilderness experience will change. While total visitation is small in number, there are areas of concentrated use that show wear on the fragile landscape and where solitude is difficult to find. Levels of use are expected to at least double during the next 10 years. Managers must contend with the question, "What degree of change is acceptable?"

The National Park Service will, as necessary, prescribe visitor behavior or use limitations to ensure that outstanding wilderness opportunities and natural resources remain undiminished. To establish visitor use limits (or carrying capacity), there is a need to clearly define the values to be protected. The general management plan invites the public to assist in making these judgments by proposing standards. Field data and research will be needed to determine if such standards are being met or need adjustment. Some proposed standards are currently exceeded and require management actions such as limiting group size and length of stay. Additional measures may be developed as needed with public involvement.

All visitors will be encouraged to register voluntarily for the purpose of giving and receiving information. Group size will be limited to 12 for river running or winter use and to 6 for backpacking. The maximum length of stay will be three nights per campsite, campsites must be at least one-half mile apart, and further limits will be placed on a zone around Arrigetch Peaks, an area of high use with visible impacts. Because of concern about the impact of hoofed pack animals on fragile permafrost soils and vegetation, they will be limited to eight animals per group and will be closely monitored.

At this time no limits will be placed on fixed-wing aircraft landings within the park, although minimum altitudes and routes will be recommended. Snowmachines will not be allowed for general recreational use, but will be allowed for local use on designated routes, subsistence use, and access for private property owners. The plan proposes that the recreational use of motorboats (limited to 10 horsepower) will only be allowed on Walker Lake, the only place where such use has regularly occurred. The

use of motorboats for subsistence and access to private land will continue to be guaranteed.

Special events are allowed in national parks only under certain conditions. Currently, the only requested special event has been a dog team race, which has been held in 1984 and 1985. While the event has much local interest, it has been a source of concern and public criticism. The plan proposes that such events may be allowed under strict conditions.

Opportunities for handicapped visitors will be identified, and one commercial operator will be required to provide services for handicapped visitors.

The level and type of commercial services needs to be determined. The plan proposes to limit guides and air-taxi operators to the present level through concession permits. The existing permanent commercial base camp is considered inconsistent with wilderness purposes and the Wilderness Act and will be discontinued.

Information is a useful tool for influencing the activities of people so that they are careful to protect park resources. However, information could also interfere with visitors' opportunities for discovery and self-reliance, and it may have the adverse effect of concentrating visitors in certain areas. To avoid these problems, information will be provided in a single, concise package that will be handed out during the voluntary visitor registration, in response to mail requests, or through commercial operators. Information will be provided about regulations, minimum-impact techniques, boundaries, private property, subsistence use, protection of cultural resources, travel and camping in bear country, weather, crossing streams, general terrain conditions, and general access. Visitors will be encouraged to rely on themselves to find out further information. Publicity can have adverse effects by promoting and concentrating visitor use. The National Park Service will provide publishers with information about resources, issues, park values, and make recommendations to minimize the adverse effects of publicity.

OPERATIONS (pages 90-96)

To minimize intrusions on visitors' wilderness experiences, NPS personnel will strive to maintain a low profile in the park. The focus of backcountry operations will be monitoring and protecting resources, monitoring use, and responding to emergencies. To accomplish the actions proposed in this plan, the staff is expected to increase to 17 permanent and 25 seasonal employees. The headquarters will remain in Fairbanks most of the year, but the superintendent and chief of field operations will move to Bettles from June through August, where they will be closer to the park and more available to residents of the region. Field stations will be operated year-round at Bettles, Coldfoot, and Anaktuvuk Pass. Seasonal field camps will operate in the Noatak River, Walker Lake, and Kobuk River areas.

To accomplish backcountry operations, field staff will generally gain access to the area by the same methods allowed for visitors, subsistence

users, and private landholders. Aircraft will be flown on routes and at altitudes that minimize disruption to visitors and wildlife. A communications system including radios, repeaters, and base stations will be developed to support field staff. The National Park Service will maintain basic search and rescue capabilities, and if made aware of any emergency, will respond with all available resources. However, because Gates of the Arctic is a large, remote, rugged, and inherently hazardous area, visitors will generally be expected to be responsible for themselves.

GENERAL DEVELOPMENT (pages 96-98)

No structures, other than possibly a cabin, and no roads or trails will be built within the park and preserve. Facilities for field stations will be constructed ouside the unit at Bettles, Coldfoot, and Anaktuvuk Pass. Each field station will include staff housing, offices, a visitor area, a garage, and a hangar. Headquarters facilities will continue to be leased in Fairbanks. Use of approximately 16 existing cabins are subject to valid claims within applicable regulations. To date, two of these cabins are currently used under valid permits for subsistence. Another two existing cabins will be maintained and used for intermittent NPS operations, and one new cabin may be leased or constructed along the Noatak. Remaining cabins will be left standing for overnight public use on a first-come, first-served basis. There will be no permanent camps or caches in Gates of the Arctic. Three portable camps will be seasonally set up for NPS operations.

To implement the proposal, it is estimated that construction costs for general development would total $5,624,000 and annual operating costs would be $1,369,000.

ALTERNATIVES CONSIDERED AND ENVIRONMENTAL CONSEQUENCES (pages 99-154)

Four alternatives, including the proposal, were developed. Alternative A contains the minimum actions necessary to comply with existing laws and policies. Most existing uses would be assumed to be acceptable and would not be limited. Under alternative B, known areas of high and concentrated use would be monitored. The National Park Service would respond to identified problems with specific actions intended to eliminate or mitigate the impacts, including hardening adversely affected areas to contain further damage. Alternative C is the proposal. Under alternative D, the Park Service would emphasize the anticipation and prevention of problems by collecting comprehensive baseline data on park resources and use and by intensive management of all park uses.

None of the alternatives proposed would have major adverse impacts, and in some cases would be beneficial and enhance park values. The process of selecting an alternative involved careful weighing of many factors, including ideas and concerns of the public, effectiveness, and cost. Alternative C was identified as the alternative that best balances these factors and protects the high public value and integrity of Gates of the Arctic National Park and Preserve.

LAND PROTECTION PLAN (pages 163-200)

Of the 8,472,845 acres of Gates of the Arctic National Park and Preserve, 323,760 acres are in private ownership and other interests. This plan discusses current or potential uses of these lands and their effects on the area. Methods to protect the purposes of the park from threats to resources are identified.

Several large tracts of native corporation lands have been examined for compatibility or threats from existing and future use, including oil and gas development, ATV use, commercial development, and access. The land protection plan proposes to seek cooperative agreements for compatible land management of 110,575 acres of Arctic Slope Regional Corporation and Anaktuvuk Pass Village corporation lands. Exchange is proposed for 87,555 acres of Doyon, Limited, lands and 35,073 acres of Arctic Slope Regional Corporation subsurface rights. Relinquishment will be sought for 21 14(h)(1) sites claimed by NANA, on which cultural resources and spiritual values will continue to be protected by the National Park Service.

There are 72 small tracts and native allotments totaling 6,275 acres. While most existing uses are compatible with park purposes, changes would diminish the wild and undeveloped character of the area and other resources. Incompatible uses include timber cutting, mechanized access, and new or increased commercial use. The minimum interest necessary to protect park purposes is fee simple acquisition of 55 tracts, primarily on an exchange, donation, or willing seller basis. For 18 small tracts within or contiguous with native corporation lands, cooperative agreements will be sought for compatible land management.

Some 250 mining claims threaten water quality, fish, vegetation, and the wild and undeveloped character of the area. Validity will be examined, and, if warranted, contested. Valid claims among some 213 undisturbed claims will be acquired. Valid claims among some 34 previously disturbed claims will be managed through existing regulations and plans of operation to minimize adverse effects.

Upon resolution of navigability, development and mining on state submerged lands could adversely affect park resources. The state will be requested to protect park values associated with riverbeds, waters, or adjacent lands.

The land protection plan also addresses lands outside the boundary and compatibility or threats from existing and future uses. Future concerns include transportation corridors, mineral developments, land disposals, residential and commercial developments, and oil and gas developments. A boundary adjustment that would add 23,000 acres along the Nigu River is proposed. Another boundary adjustment is proposed to protect the Reed River watershed (80,000 acres), which drains into the Kobuk River in the preserve. Administrative sites totaling 12 acres in Bettles, Anaktuvuk Pass, and Coldfoot have been identified for acquisition. State classification and zoning for compatible uses are recommended for the adjacent Schwatka Mountains, Killik and Itkillik rivers, and Alatna, John, and North Fork rivers. Cooperative planning is recommended for the trans-Alaska pipeline corridor and the Ambler mining district.

WILDERNESS SUITABILITY REVIEW (pages 203-207)

A review has been made of land within the park and preserve that is not designated as wilderness to determine its suitability or nonsuitability for preservation as wilderness. Of 1,210,030 acres of nonwilderness land, 986,550 acres are suitable for wilderness designation, 5,820 acres are suitable pending resolution of ownership, and 217,660 acres are not suitable for wilderness designation.

CONSULTATION AND COORDINATION (pages 211-215)

This plan has been developed in consultation and coordination with numerous agencies, organizations, and individuals. Issues were developed through the Statement for Management, of which over 600 copies were distributed for public comment. General scoping identified agencies and organizations who wished to be further involved. Open meetings were held in seven local communities and Fairbanks. Following the meetings a newsletter outlining four conceptual alternatives was distributed to over 600 individuals and organizations on the mailing list. Questionnaires were developed for commercial operators and their clients. A consultation committee composed of over 65 individuals representing various agencies and organizations has been involved in many of the details of the plan.

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MAINTAIN THE WILD AND UNDEVELOPED CHARACTER OF THE AREA

INTRODUCTION

SECURING THE BENEFITS OF WILDERNESS

Americans have always had opportunities for wilderness experiences, for adventure and discovery along a shifting frontier--first the Appalachians, then the Ohio Valley, the Missouri River, the Rocky Mountains, the far west, and now Alaska. Those opportunities have done much to mold the character and to temper the spirit of Americans. Now, however, as settlement and development tame Alaska, the frontier is closing. Our most significant remaining wilderness areas are being reserved as a lasting public trust so that future generations may also enjoy opportunities for adventuring.

In establishing Gates of the Arctic National Park and Preserve in Alaska's Brooks Range, Congress has reserved a vast and essentially untouched area of superlative natural beauty and exceptional scientific value--a maze of glaciated valleys and gaunt, rugged mountains covered with boreal forest and arctic tundra vegetation, cut by wild rivers, and inhabited by far-ranging populations of caribou, Dall sheep, wolves, and brown bears (barren-ground grizzlies). Congress has recognized a special value of the park and preserve to be its wild and undeveloped character and the opportunities it affords for solitude and wilderness travel and adventure.

Some of the most important aspects of wilderness are its intangible qualities. Space is critical--space for animals to roam freely and for people to wander and to find solitude. Another critical element is the dominance of the forces of nature, allowing almost no evidence of human activity. The most elusive benefits of wilderness are in the minds of people--the feelings of solitude, freedom, discovery, adventure, challenge, and self-reliance are essential products of the wilderness experience that has always been a part of American culture.

The national park system comprises over 300 areas of special importance to the people of the United States--a system that includes superlative natural, historical, scientific, and recreational areas in every region of the country. Within this broad spectrum of resources and opportunities, only Gates of the Arctic National Park and Preserve was established with such special wilderness purposes. Gates of the Arctic encompasses several congressionally recognized elements, including the national park, national preserve, wilderness, and six wild rivers. The National Park Service has been entrusted to manage this area to protect its physical resources and to maintain the intangible qualities of wilderness and the opportunity it provides people to learn and renew many values.

This general management plan is a guide to programs and actions that the National Park Service will undertake to meet park purposes and resolve issues facing the area over the next 10 years. It has been prepared as directed by Congress in ANILCA section 1301 (see summary of ANILCA provisions in appendix B). Significant issues and management objectives were developed in the Statement for Management approved in April 1984. The management objectives are included in appendix A.

ISSUES AND MANAGEMENT CONCERNS

Issues facing Gates of the Arctic National Park and Preserve were identified in the Statement for Management, publicly reviewed in 1982, revised to incorporate public comments, and approved in April 1984. They were further discussed and refined at open meetings and with the consultation committee (see "Consultation and Coordination" section). Through this process the following issues have emerged and are addressed by this general management plan.

Wilderness

Managing the park and preserve in accordance with the Wilderness Act of 1964, ANILCA, and the congressionally established wilderness purposes of the park and preserve

Wild Rivers

Managing the six designated wild rivers in accordance with the Wild and Scenic Rivers Act, ANILCA, and the wilderness purposes of the park and preserve

Natural Resources

Natural and healthy populations of fish and wildlife (park) and healthy populations (preserve)--maintaining populations while allowing authorized sporthunting, trapping, fishing, and subsistence use

Cooperation--refine the roles for fish and wildlife management of state of Alaska and National Park Service

Fishing--effects of unknown level and concentration of fishing on low productivity arctic waters

Human-bear encounters--adverse encounters that may increase with visitation; loss of property and human injury; needless destruction of bears

Vegetation impacts from use--current and increasing impacts, erosion from mines, winter roads, campsites, snowmachines, foot travel, ATVs

Firewood collecting and campfires--authorized consumptive use of slow-growing trees, visual impacts, fire rings

Subsistence timber cutting--authorized for trees greater than 3 inches in diameter, slow-growing trees, visual impacts

Water quality--impacts from mining, development

Research--identify priorities

Research management--impacts of research activities, particularly helicopters, on solitude, subsistence uses, wildlife

Cultural Resources

Identification and significance--eligibility for National Register of Historic Places

Tangible cultural resources--appropriate treatment consistent with wilderness

Intangible cultural resources--potential loss of customs and traditions, oral history, native place names, spiritual places

Subsistence Use

Resident zones--changing populations result in subsistence use by those with no established, historical pattern of use; increasing pressures on resources

Traditional use areas--need to identify

Access--changing technologies of users; pressure to expand ATV use (which damages vegetation)

Commercial trapping--not permitted; need to distinguish from trapping conducted as a part of the subsistence way of life

Other uses--conflicts between subsistence users and sporthunting, trapping, fishing, recreation, research, and mining

Visitor Use

Wilderness recreation--appropriate summer and winter activities

Visitor use limits (carrying capacity)--need to establish to meet park objectives

Solitude and wilderness character--impacts from concentrations of visitors, increasing use, Dalton Highway access, aircraft, motorized vehicles

Visitors' freedom of choice--challenge, self-reliance, and discovery are important aspects of wilderness recreation; could be impaired by regulation, NPS presence

Hoofed pack animals--impacts on vegetation, wildlife

Aircraft--key to access, concentrate or disperse visitors, impact on solitude

Recreational use of snowmachines and motorboats--provisions in law with limitations but impacts on solitude, resources

Special events--appropriateness of events such as dog team race, impact on solitude, consistency with wilderness purpose

Opportunities for handicapped visitors--provide in a manner consistent with the wilderness purpose

Commercial services--what type and how many are consistent, necessary, and appropriate to the wilderness purpose

Commercial base camps--consistency with wilderness purpose and impacts of concentrated use

Information--appropriate scope to protect resources and visitors without interfering with challenge, discovery, and self-reliance

Interpretation--what themes or messages should be conveyed to visitors

Methods and media--effectiveness, appropriateness, and enjoyment by visitors

Publicity--adverse effects by promoting and concentrating visitor use

Operations

Staff size--number and type of employees needed to accomplish plan

Staff location--location of headquarters, field stations in or around park

Access--appropriate and effective methods

Presence and visibility--effectively protect resources without interfering with solitude and visitors' freedom of movement

Communications--effective and unobtrusive

Search and rescue--provide adequate assistance without interfering with visitors' self-reliance

General Development

Operational and visitor facilities--need, size, location, lease, or construct

Cabins, caches, and camps--need and compatibility of individual, subsistence, visitor, commercial, or government use

AFFECTED ENVIRONMENT

REGIONAL SETTING

Gates of the Arctic National Park and Preserve is part of a vast region north of the Arctic Circle that has a scattered but growing population, diverse and changing economic bases, limited yet changing access, and a wide variety of landowners and political subdivisions.

Landownership and Political Subdivisions

The Alaska Native Claims Settlement Act (ANCSA) and ANILCA have defined much of the landownership of the region. The region contains two other national park system units, Noatak National Preserve and Kobuk Valley National Park, both west of Gates of the Arctic. The Bureau of Land Management manages the Alaska National Petroleum Reserve to the northwest and the trans-Alaska pipeline utility corridor to the east. The U.S. Fish and Wildlife Service manages four national wildlife refuges in the region: Selawik, Arctic, Kanuti, and Yukon Flats. State-selected lands border most of the southern boundary, and the northern boundary borders both state and native corporation lands.

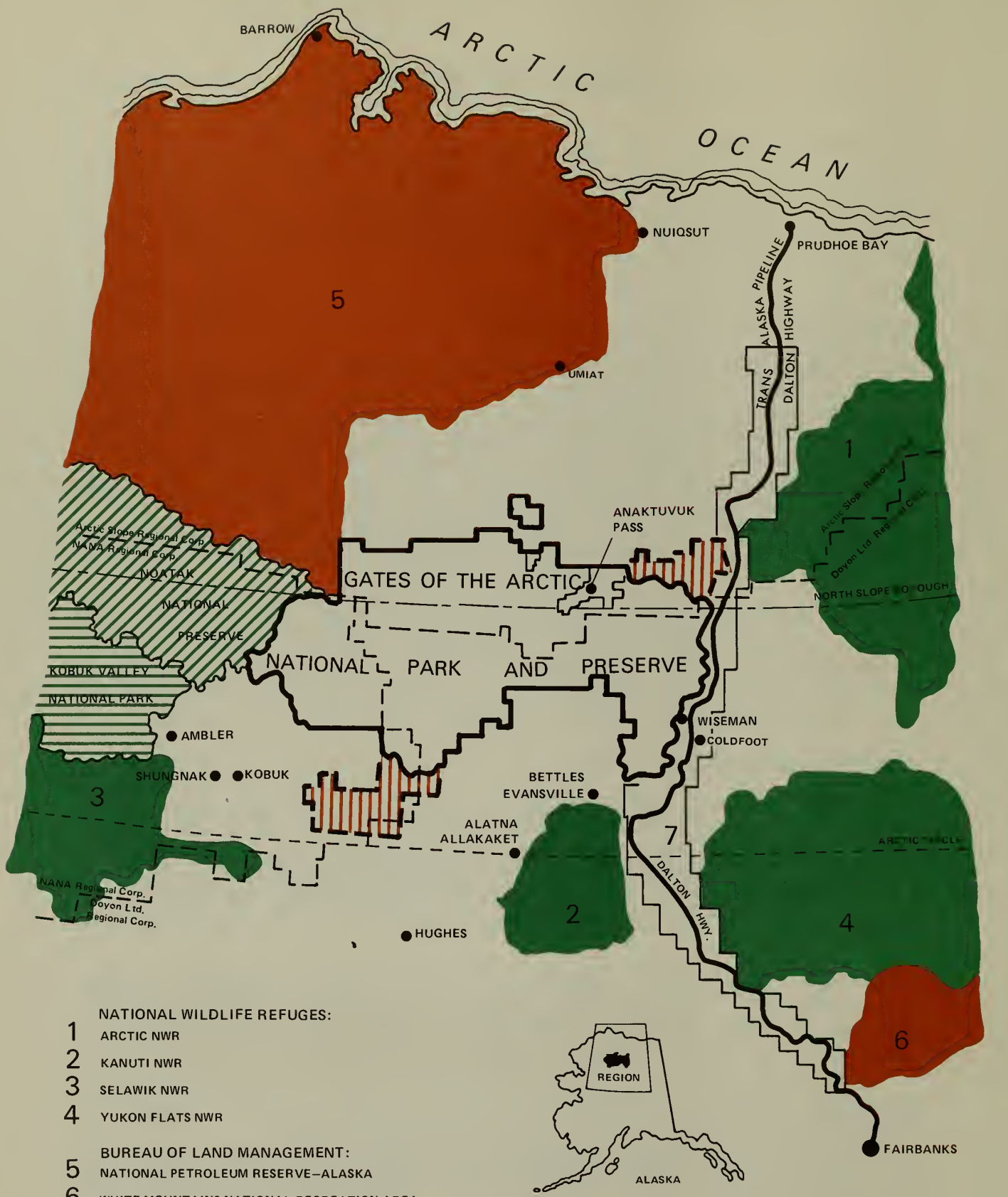
The boundaries of three native regional corporations meet in Gates of the Arctic: Arctic Slope Regional Corporation (ASRC), NANA Regional Corporation, and Doyon, Limited. The North Slope Borough's southern boundary crosses the northern third of the unit along the 68th parallel.

Access and Land Use

In northern Alaska access and land use, both present and future, are closely linked. Most of the region is isolated from year-round surface access, and most land uses are seasonal and transient, such as subsistence use, mineral and oil and gas exploration, sport hunting and fishing, and recreation. The way adjacent land uses may affect the park and preserve are discussed in more detail later in the land protection plan.

The primary access to the region is by air. Regularly scheduled flights are available from Fairbanks to Allakaket, Bettles, and Anaktuvuk Pass, and from Kotzebue to Ambler, Shungnak, and Kobuk. Aircraft may be chartered from Fairbanks, Bettles, Kotzebue, and Ambler.

The Dalton Highway is a new major source of access into the region. It was built as a service road for the trans-Alaska pipeline. In 1976 the right-of-way began to be maintained by the state of Alaska, and it was first opened to the public from the Yukon River crossing to the North Slope Borough boundary in 1981. In 1982 the Bureau of Land Management granted a concession for the truckstop at Coldfoot. While traffic on the road is largely industrial, a significant amount of light-vehicle, presumably recreational, use has developed. Table 1 lists



NATIONAL WILDLIFE REFUGES:

1 ARCTIC NWR
2 KANUTI NWR
3 SELAWIK NWR
4 YUKON FLATS NWR

BUREAU OF LAND MANAGEMENT:

5 NATIONAL PETROLEUM RESERVE–ALASKA
6 WHITE MOUNTAINS NATIONAL RECREATION AREA
7 UTILITY CORRIDOR

REGIONAL CORPORATION BOUNDARY
PARK BOUNDARY
PRESERVE BOUNDARY

NORTH

0 10 20 30 40 50 MILES
0 20 40 60 80 KILOMETERS

REGION

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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the preliminary state counts of use in the summer months. Tables 2 and 3 indicate recreational use and forecasts. While differences indicate a need for more data, recreational use is occurring and growing.

Table 1: Dalton Highway Traffic, 1981-1983

	Average Daily Traffic (ADT, no. of vehicles)			Percent Trucks			ADT, Vehicles Other Than Trucks (no. of vehicles)		
	1981	1982	1983	1981	1982	1983	1981	1982	1983
June	112	174	81	76	76	83	27	42	14
July	122	151	100	78	78	78	27	33	22
Aug.	139	137	104	75	75	77	35	34	24
Sept.	159	150	98	70	70	83	48	45	17

Source: Alaska Department of Transportation and Public Facilities (counted at Dietrich).

Table 2: Dalton Highway Tourist Traffic Forecast
(ADT, May 1 through September 30)

Scenario	1982	1985	1990	1995	2000	2005
Low	20	23	28	33	38	44
Medium	20	27	34	43	55	71
High	20	30	49	79	92	106

Source: Alaska Department of Transportation and Public Facilities, Interior Alaska Transportation Study, Vol. 3: Transportation Demand Forecasts, 1984.

Table 3: Dalton Highway Recreational Use, 1983

Recreational Vehicles	Time Period
27	7 days in June
87	10 days in July
40	7 days in September

Source: Observations of NPS ranger stationed on Dalton Highway, summer 1983.

The Dalton Highway may spur new development and further recreational access. The road is a factor in the residential growth of the Wiseman-Nolan-Coldfoot area. The current BLM management plan for the corridor emphasizes its national utility purpose and focuses development into nodes. The state of Alaska has requested that the corridor withdrawal be amended to allow state selection. Future development pressures may include mining claims, homesites, recreation, and new communities. The growth and development of the corridor will continue to increase recreational use and access.

Bettles is connected to Dalton Highway by a winter road. There is some local interest in making the 40-mile route an all-season road, but the Alaska Department of Transportation and Public Facilities has no plans for this in the foreseeable future. If a road is developed, Bettles and the surrounding area may be significantly changed by growth and increased tourism.

The Ambler mining district contains rich deposits of copper, gold, silver, lead, zinc, and other minerals. Several major mining companies hold claims. Its development is at least 7-10 years away, depending on market conditions and access. Alternate access routes to the mining district are being studied. Three routes would travel west from the district and terminate at Cape Krusenstern, Cape Darby, and Cape Nome, and one route would travel east, crossing the Kobuk River within Gates of the Arctic National Park and Preserve and connecting to Dalton Highway (provision for a right-of-way for this route was reserved by ANILCA section 201(4)(d)). Methods of access could be road or rail. Development of both the mining district and the access route may have a significant influence in the region.

Other mining claims along the southern boundary are relatively small. Oil and gas exploration are taking place north of the Brooks Range, but no production is occurring. If reserves are developed, it is anticipated that any transmission pipeline would be developed eastward to feed into the utility corridor.

Communities

The vast and rugged Brooks Range region has approximately 1,600 inhabitants, most of whom live in scattered, small communities. People depend on a mixture of subsistence and cash for their livelihoods. The mountains divide the region into four culturally distinct areas with different histories, lifestyles, and political boundaries. These areas are the upper Koyukuk River drainage, the Kobuk River Valley, the northern side of the Brooks Range, and the Dalton Highway vicinity. The regional population is shown on table 4.

The upper Koyukuk River area includes Bettles/Evansville, Alatna, Allakaket, and Hughes. The native inhabitants are largely Koyukon Athabascan Indians. Doyon is the native regional corporation for this area. The northernmost community of Bettles/Evansville is a small regional air hub with an improved, attended airstrip, classified as a "transport" airport by the state. The population is about one-third native. A winter road 40 miles to the Dalton Highway accommodates some transport of goods and materials. The local economy relies largely on government facilities, services to visitors, and mining. Government operations include an FAA flight service station, a BLM fire-fighting facility, an NPS field office, a state airfield maintenance operation, and a state fish and wildlife protection officer. Commercial operations include a lodge, a trading post, an air-taxi operation, and guiding services. Hunting, trapping, and a limited amount of fishing supplement cash incomes. The population has increased by two-thirds from 1970 to 1980, but growth has now leveled off. Facilities available in the community include a 5,200-foot airstrip, central electricity from a local utility, and a school. Wells and septic fields, individual and shared, are scattered throughout the community.

The other Koyukuk communities of Allakaket, Alatna, and Hughes are primarily native. These communities are not connected by any all-season roads, and are accessible only by air, snowmachine, and river. Hunting, trapping, and particularly fishing continue to be major contributors to their economy. Wage employment is largely dependent on government or native corporation services and projects, such as construction of school and community facilities, maintenance of public facilities, operation of airfields and post offices, provision of health and social services, teaching, and working for the village or regional corporation. A few go to Fairbanks and Anchorage seasonally to find employment. The population of these communities has remained fairly stable over the last several years. All of these communities have new schools (Alatna and Allakaket share a school), community electricity, and a central well. Hughes has water service to each home and septic system. Alatna and Allakaket use pit privies. Hughes has a 5,200-foot airstrip, and Allakaket has a 3,000-foot airstrip.

The Kobuk River communities of Ambler, Kobuk, and Shungnak are inhabited primarily by Kuuvanmiit Eskimos. NANA is the native regional corporation for this area. Access is by air, snowmachine, and barge from Kotzebue; there are a few short roads. Fishing and other

Table 4: Regional and State Population

Region	1970	1980	% Change 10 Years	% Native	1983	% Change 3 Years
Allakaket/Alatna	168[a]	163	- 3	97	175[d]	+ 7
Ambler	159[a]	192	+ 21	81	281[d]	+ 46
Anaktuvuk Pass	99	203	+105	94	228[d]	+ 12
Bettles/Evansville	57[b]	94[b]	+ 65	29	110[e]	+ 15
Coldfoot	(-)[b]	(-)[b]	--	--	23[e]	--
Hughes	85[a]	73	- 14	97	99[d]	+ 36
Kobuk	56[a]	62	+ 11	95	84[d]	+ 39
Nuiqsut	(b)	208	--	87	324[d]	+ 56
Shungnak	165	202[c]	+ 22	89	292[d]	+ 45
Wiseman	4	7[c]	+ 75	03	28[e]	+300
State						
Fairbanks City	14,771	22,645	53	--	27,103[d]	+ 20
Fairbanks North Star Borough	45,864	53,983	17	--	65,311[d]	+ 12
Anchorage	126,385	174,431	38	--	230,864[d]	+ 32
State of Alaska	302,583	401,851	33	--	NA	--

Source: Bureau of the Census, U.S. Department of Commerce, Census of Population, Number of Inhabitants, 1981.

NA = Not available.

a. University of Alaska, Arctic Environmental Information and Data Center, Alaska Department of Community and Regional Affairs, Community Profiles, 1976.

b. Not established.

c. National Park Service, U.S. Department of the Interior, Final Environmental Statement, Proposed Gates of the Arctic National Park and Preserve, 1974.

d. Alaska Department of Community and Regional Affairs, "Population data from FY84 State Revenue Sharing Program, Regional Education Attendance Areas Map," January 1984.

e. NPS estimate, 1984.

subsistence harvest of resources continues to be important. Employment opportunities are similar to those of the Koyukuk communities, and as described, the primary sources of cash are government or native corporation jobs. The nearby Bornite and Arctic mining camp is currently a small exploratory operation with little influence on the economy. In Ambler some residents craft baskets from local materials for sale throughout the state, offering another but small dimension to the local economy. A jade mine offers some seasonal employment. The population of these communities has increased during the past several years. All of these communities have airstrips and new school facilities. Shungnak and Kobuk take water from the Kobuk River and use pit privies and honeybuckets. Ambler has a well and distribution system that serves individual homes and a combination of septic fields, seepage pits, and chemical toilets. Ambler and Shungnak have community electrical generation, while Kobuk is served by Shungnak.

The two communities north of the Brooks Range are Anaktuvuk Pass, which is inhabited largely by Nunamiut people, or inland Eskimos, and Nuiqsut, inhabited by Tareumiut people. Both communities are part of the ASRC and the North Slope Borough. Anaktuvuk Pass is accessible by air or snowmachine only, while Nuiqsut sometimes has a winter road from Barrow. Residents of both communities engage in subsistence--the people of Anaktuvuk harvest caribou, sheep, furbearers, and other mountain resources, and Nuiqsut people supplement these with fish and marine mammals. While direct consumption of resources is important to both communities, cash is also vital. Costs of living, particularly for homes and heating, are extremely high in these areas. The government is the source of most wage employment, and other than the post office all of the government jobs are associated with the North Slope Borough. A recent ambitious construction program by the borough provided numerous seasonal jobs directly and through contract. Although this program is nearing completion, some employment for maintaining these structures and providing services continues. There are also several jobs associated with the village and regional corporations. A few people choose to work outside their communities at Prudhoe Bay. Anaktuvuk Pass has a small commercial industry producing skin masks made of caribou hide and fur.

The populations of these communities are growing. Anaktuvuk Pass doubled between 1970 and 1980 and has been increasing slightly ever since. Nuiqsut was reestablished in 1973, had a 1980 population of 208, and had grown more than 50 percent by 1983. Both communities have new schools, airstrips, community wells with water distributed by truck, and community electricity. The schools are served by sewage lagoons, but most people still use honeybuckets at home.

The Dalton Highway communities of Wiseman, Nolan, and Coldfoot are primarily nonnative. Airstrips supplement the year-round road access. Wiseman and Nolan are oriented toward mining, and this income source is supplemented by trapping and guiding. Coldfoot has changed since 1980 from a pipeline construction camp to a state highway maintenance facility and 24-hour truck stop with motel, fuel, and restaurant. There are no schools or other community facilities in the highway corridor. The state highway facility and the truck stop each have their own electrical generators, wells, and septic systems. All three communities and the

surrounding area have a seasonal swell in population, largely because of summer mining activities.

The population of Alaska is growing rapidly, and most communities in the region are growing at similar or faster rates. The cash economy has substantially increased over the past decade and is expected to increase in the future, but this does not necessarily mean that subsistence use will decline. Subsistence remains a strong cultural and social need and will continue to be an integral part of the fabric of these communities.

NATURAL RESOURCES

Climate

The central Brooks Range has long severe winters and relatively short cool summers. There are no weather reporting stations within the park, and the nearest reporting station at Bettles is characteristic only of the southernmost edges of the park. The entire region receives continuous sunlight during the summer for at least 30 days.

The south side of the Brooks Range below 2,500 feet is generally a subarctic climate zone. Precipitation is low, averaging 12-18 inches in the west and 8-12 inches in the east. Snow falls 8 or 9 months of the year, averaging 60-80 inches. The average maximum and minimum July temperatures are 65° to 70°F and 42° to 47°F, respectively. Average maximum and minimum January temperatures are 0° to -10°F and -20° to -30°F. Thunderstorm activity is common during June and July, and generally June through September is the wettest time of year. Prevailing winds are out of the north.

The north side of the Brooks Range has an arctic climate. The influences of the Arctic Ocean and "north slope" weather patterns are more important, especially during the summer months. Mean annual temperatures are colder than on the south side. Average maximum and minimum February temperatures are -5° to -10°F. The warmest month, July, has a 55° to 65°F maximum and 35° to 45°F minimum. Precipitation is extremely light, about 5-10 inches a year, making this essentially an "arctic desert." Snow has been recorded in every month of the year, and the annual average is 35 to 50 inches. Prevailing winds from the east in summer and west in winter are greatly modified by local terrain.

Air Quality

While comprehensive data have not been collected in this region, the air quality of the park and preserve and surrounding area is generally considered excellent.

Geology

The central Brooks Range is a remote area of rugged, glaciated east-trending ridges that rise to elevations of 4,000 to 8,000 feet or

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNOARY

GATES OF THE ARCTIC NATIONAL PARK BOUNOARY

STRATIFIEO SEOIMENTARY SEQUENCE (MAINLY MARINE, INCLUOES SOME VOLCANIC ROCKS, IN PART METAMORPHOSEO)

MESOZOIC

PALEOZOIC

PRECAMBRIAN

CONTINENTAL DEPOSITS

VOLCANIC ROCKS

INTRUSIVE ROCKS

PALEONTOLOGICAL RESOURCES

SOURCE: AOAPTEO FROM USGS GEOLOGIC MAP OF ALASKA, 1980.

GEOLOGY AND PALEONTOLOGY

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITEO STATES OEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

STRATIFIED SEDIMENTARY SEQUENCE (MAINLY MARINE, INCLUDES SOME VOLCANIC ROCKS, IN PART METAMORPHOSED)

- MESOZOIC
- PALEOZOIC
- PRECAMBRIAN

CONTINENTAL DEPOSITS

VOLCANIC ROCKS

INTRUSIVE ROCKS

PALEONTOLOGICAL RESOURCES

SOURCE: ADAPTED FROM USGS GEOLOGIC MAP OF ALASKA, 1980.

GEOLOGY AND PALEONTOLOGY

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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more. This range is part of the Rocky Mountain system that stretches completely across the northern part of Alaska. Gates of the Arctic National Park and Preserve spreads across three physiographic provinces: Arctic Foothills, Arctic Mountain, and Western Alaska (NPS, USDI 1974a). Two primary mountain ranges make up the central Brooks Range--the Endicott and Schwatka mountains. Several episodes of uplift, deformation, and intrusion have produced complex patterns of folding, fracturing, and overlapping thrust fault blocks. Uplift, erosion, and heavy glaciation account for the rugged mountain profiles and U-shaped valleys evident today. Metamorphic rocks, primarily quartz mica schist and chloritic schists, belt the south flank of the range. There are also a few small bodies of marble and dolomites. Granitic intrusion created the rugged Arrigetch Peaks and Mt. Igikpak areas.

Four major glaciations have been recognized within this region of the Brooks Range. The first glaciation (Anaktuvuk River) took place more than one-half million years ago. The second (Sagavanirktok River) is thought to be broadly equivalent to the Illinoian glaciation of central North America. The last two glacial periods (Itkillik and Walker Lake) are thought to correlate with the Wisconsin advance in central North America (Geological Survey, USDI 1979b). Glaciers were generated at relatively high altitudes near the crest of the range during the more extensive glaciations. Ice flowed from these sources southward through the major valley systems to terminate at and beyond the south flank of the range. Terminal glacial moraines created dams that formed large lakes along the southern foothills.

The primary metallic minerals found within the region include copper, gold, lead, and zinc. The major known deposits of minerals occur in the southernmost belt of metamorphic rocks and generally lie south and west of the park in the Ambler mining district. The only known mineral produced in the park is gold. Placer mines operated historically in the Nolan-Hammond River areas near Wiseman, the North Fork (Glacier River), and Wild Lake. During the past five years gold has been recovered from mining claims on Mascot Creek. A trend of gold placer deposits extends from Wiseman southwestward across the North Fork of the Koyukuk River to Wild Lake (Bureau of Land Management, USDI n.d.). There has also been some limited gold production in the Noatak River drainage near Midas Creek.

The northern portion of the park includes parts of two provinces that are known to contain petroliferous rocks within drilling depths. An area north of the Brooks Range has been designated the Southern Foothills Potential Petroleum Province. The principal reservoir rock within this province is the upper Paleozoic Lisburne formation. There are some potentially large hydrocarbon-bearing structures north of the range front, and petroleum may also exist in Cretaceous or Devonian formations. Geochemical sampling indicates an ample source for petroleum and also a wide range of source rock richness. The current economic situation will not encourage a great deal of interest in this petroleum potential in the near future; however, in the future it may be more economically feasible to investigate further.

Paleontology

The paleontological resources of Gates of the Arctic National Park and Preserve consist of small fossils of invertebrates, shells, and corals found in the metamorphosed rocks of the Brooks Range. A few plant fossils have been found in sandstones near the divide. Most of these fossils are inconspicuous and difficult to identify.

The value of these fossils is largely scientific. They have been examined and collected by scientists, particularly by members of the U.S. Geological Survey, over the past 30 years. They provide information useful in dating rocks and establishing the geological sequence related to life forms.

Soils

Soils within the park are highly variable, depending on topography, drainage, aspect, fire history, permafrost, and parent material. The classification used by the U.S. Department of Agriculture, Soil Conservation Service (1979) indicates that most of the park lies within a zone characterized by rough mountainous land with thin, sandy soils on hilly to steep topography. The soils are often composed of poorly drained, very gravelly loam on hilly moraines and south-facing colluvial slopes. A thin peaty mat is underlain by sandy loams and occasional lenses of permafrost.

Lower elevation benches and rolling uplands are covered by a gray to brown silty loam overlaid by a peaty organic layer that varies in depth depending on the local environment. The soil surface is irregular, with many low mounds, solifluction lobes, and tussocks.

Soils in the park overlie thick continuous permafrost zones that are sometimes located within a few inches of the surface. These soils have been subjected to millions of years of gradual downslope creep by frost-shattered rock and to a constant seasonal pattern of freezing and thawing. Lower elevation sediments have combined over time with windblown silts, river and glacial deposits, and peat accumulations. The processes of frost heaving and sorting, ice lens or wedge formation, and stream erosion have worked these soils into a complex mosaic of roughly textured tundra polygons, pingos, oxbows, and terraces. Almost totally underlain by permafrost, the soils adjacent to the valley floodplains are highly susceptible to any kind of ground disturbance, since melting of the permafrost can result in subsequent soil collapse.

The northern area of the park, primarily the upper Noatak River drainage, contains poorly drained soils formed from very gravelly glaciofluvial material derived from limestone rock in the surrounding mountains. A few well-drained soils are found in very gravelly, nonacid and calcareous drift on hilly moraines. Fibrous peat soils are located in shallow depressions on terraces.

Lichens

Shooting Star

Blueberries

Boreal Forest

Ice Wedge

Hydrology

Permafrost, or ground that remains frozen for more than two years, lies under virtually all of the park and preserve. Atop the permafrost lies a thin layer of ground that thaws during the summer. This thin mantle, ranging from 6 inches to several feet in depth, supports plants that tend to hold the thawing soil in place, or at least slow and modify its movement. Solifluction (soil creep) is common, even on moderate slopes.

Alluvial deposits are the principal aquifers for groundwater, which is greatly restricted by permafrost. When under pressure from frost, groundwater bursts to the surface in places, forming conical hills of mud and debris called pingos. Examples of these can be seen in the upper valley of the North Fork of the Koyukuk and the upper Noatak River valley.

Tributaries of four major river systems originate in the park and preserve. To the north the Nigu, Killik, Chandler, Anaktuvuk, and Itkillik rivers drain to the Colville River. The Noatak River flows west and the Kobuk River southwest, both from the headwaters in the western part of the park. The John, Alatna, and North Fork of the Koyukuk rivers drain south to the Yukon. There are only a few small glaciers in the park, so the rivers normally run clear except after rains and during spring ice breakup. There are no water runoff gauges in the park, and water quality has been sampled only minimally. The U.S. Geological Survey found the quality of water in the Kobuk and Noatak rivers within the park to be unaffected from their natural state (GS, USDI 1981 and 1983), and most of the other surface waters in the park remain almost totally unaffected except for the John River, which may show some effects from the village of Anaktuvuk Pass, and the Middle Fork and North Fork of the Koyukuk, which may show some effects from placer mining.

Giardia lamblia, an intestinal parasite carried by mammals, has been reported in water from the park. The extent of occurrence is not known at this time.

Three warm springs are located within the park and preserve. The Reed River spring is located near the headwaters of the Reed and had a measured water temperature of 122°F at the warmest pool (NPS, USDI 1982). A warm spring is also located on the lower Kugrak River and another near the Alatna River.

Vegetation

Three major vegetation associations occur in the park and preserve--the taiga (boreal forest), tundra, and shrub thicket. Alpine and moist tundra are the most extensive vegetation types. The taiga reaches its northernmost limit along the southern flanks of the Brooks Range within the park.

Alpine tundra communities occur in mountainous areas and along well-drained rocky ridges. The soils tend to be coarse, rocky, and dry. A fell-field community of low, mat-forming heather vegetation is

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNOARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

TUNORA –ALPINE

TUNORA – MOIST OR WET

SHRUB THICKET – HIGH BRUSH

FOREST – UPLANO SPRUCE – HAROWOOO

FOREST – LOWLAND ANO BOTTOMLANO SPRUCE–HAROWOOO

WILD RIVER

NATIONAL NATURAL LANOMARK

GEOTHERMAL SPRING

SOURCE FOR VEGETATION: AOAPTEO FROM ALASKA OFFICE OF GOVERNOR ANO THE JOINT FEOERAL-STATE LANO USE PLANNING COMMISSION FOR ALASKA REGIONAL PROFILES, 1975.

VEGETATION AND OUTSTANDING NATURAL FEATURES

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES OEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

TUNORA –ALPINE

TUNDRA – MOIST OR WET

SHRUB THICKET – HIGH BRUSH

FOREST – UPLAND SPRUCE – HARDWOOD

FOREST – LOWLAND AND BOTTOMLAND SPRUCE–HARDWOOD

WILD RIVER

NATIONAL NATURAL LANDMARK

GEOTHERMAL SPRING

SOURCE FOR VEGETATION: ADAPTED FROM ALASKA OFFICE OF GOVERNOR AND THE JOINT FEDERAL STATE LAND USE PLANNING COMMISSION FOR ALASKA REGIONAL PROFILES, 1975.

VEGETATION AND OUTSTANDING NATURAL FEATURES

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characteristic of much of the area. Exposed outcrops of talus sustain sparse islands of cushion plants, such as moss campion and saxifrage, interspersed with lichens. The low-growth forms of these plants protect them from snow and sand abrasion in this windswept environment. Other important plants include mountain avens, willows, heather, and lichens, especially reindeer lichens. Grasses, sedges, and herbs are also present.

Moist tundra is found in the foothills and in pockets of moderately drained soils on hillsides and along river valleys. Cottongrass tussocks, 6-10 inches high, predominate the landscape. Tussocks form as a cottongrass clump which grows then dies back each year, accumulating dead leaves that decompose slowly in the cold temperatures. Mosses and lichens grow in the moist channels between the tussocks. Other plants include grasses, small shrubs (dwarf birch, willow, and Labrador tea), and a few herbs.

The taiga, or boreal forest, reaches its northern limit at about latitude 67°30'N along the river valleys of the south slope of the Brooks Range. The extensive forest cover found south of the mountains thins into scattered stands of spruce mixed with hardwoods that follow the river valleys north into the mountains to an elevation of about 2,100 feet. This spruce-hardwood forest takes two forms. White spruce usually in association with scattered birch or aspen is commonly found on moderate south-facing slopes. Heaths, such as bearberry, crowberry, Labrador tea, blueberry, and cranberry are common, as are willows. Lichens and mosses cover the forest floor along with a variety of herbs. Some large, purer stands of white spruce occur along rivers such as the Kobuk; balsam poplar are found with spruce in such areas. On the north-facing slopes and on poorly drained lowlands, black spruce is predominant. These trees, which grow very slowly, are usually stunted and often scattered. It is not uncommon to find a 2-inch diameter tree that is 100 years old. The understory in these areas is spongy moss and low brush.

As the tree line is approached, the forest thins out until spruce are scattered among the shrub thicket community. In one type of shrub thicket, dwarf and resin birch, willows, and alder may be extremely dense or open and interspersed with reindeer lichens, low heath-type shrubs, or patches of alpine tundra. Alder is usually found on moister sites and birch on drier sites. Such shrub thickets typically occur up to 3,000 feet in elevation. A second type of shrub thicket association occurs along the alluvial plains and gravel bars of braided or meandering streams. Willows and alders predominate and are associated with dwarf fireweed, horsetails, prickly rose, and other herbs and shrubs. These thickets develop rapidly in floodplains that are newly exposed after breakup and spring flooding.

Interior Alaska is a lightning fire region. Wildfire plays an important role in maintaining a variety of habitats. Successional plant communities, which are beneficial for wildlife habitat and diversity, are induced by fire. Fire also plays a role in recycling nutrients. The successional stages that follow a fire vary, depending primarily on topography, seed source, severity of the burn, and moisture. Studies during the next five years will detail fire histories and model post-fire successional stages for the park and preserve.

Generally, successional stages following a fire include pioneer species such as fireweed, Labrador tea, willows, and alders, followed by quaking aspen on upland, south-facing slopes, paper birch on east- or west-facing slopes, and balsam poplars on river plains. Eventually the white or black spruce association will invade and begin to dominate. The recovery rate of the boreal forest zone is relatively slow, and spruce and reindeer lichen may require 100-150 years to recover.

The forests within the park are not considered commercially valuable. Trees are occasionally harvested under permit for house logs, and firewood is cut by local residents.

There are no known threatened or endangered plant species within the park and preserve. The candidate plants Erigeron muirii and Oxtropis glaberrima have been reported from the Anaktuvuk Pass and the Kurupa Lake areas, respectively. Either or both may be present within the boundaries of the park.

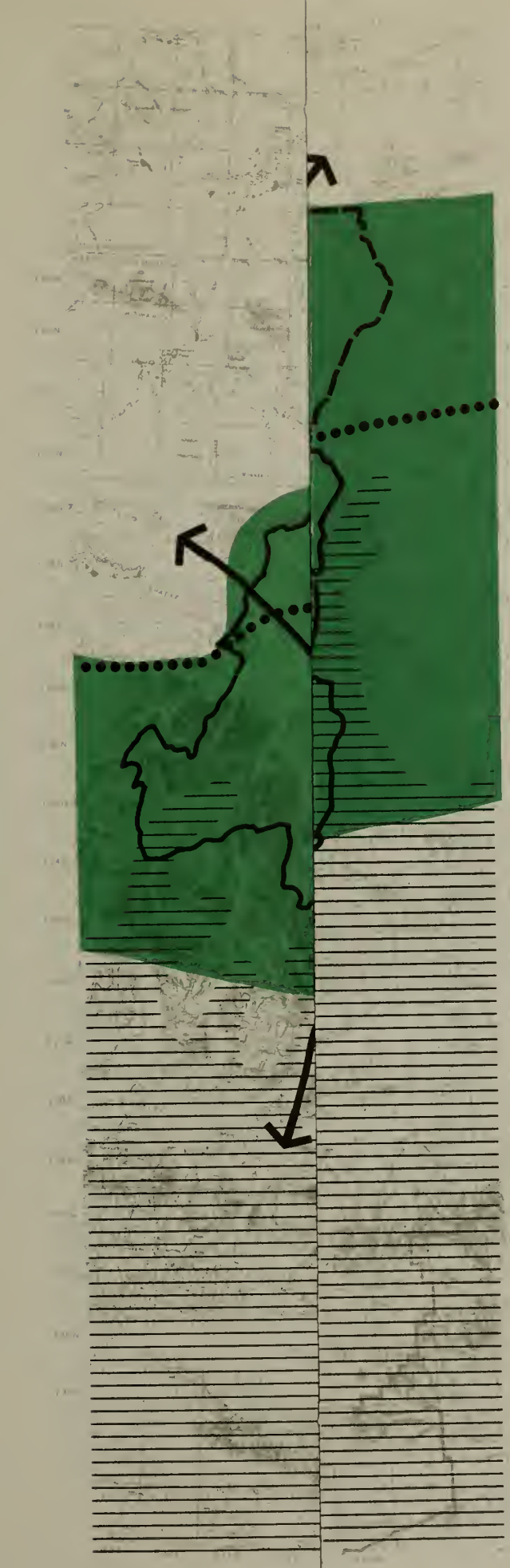
Adverse effects on vegetation from human use--bare areas, tree-cutting, fire marks--can be found at high visitor use areas, such as Arrigetch Peaks, and other human use sites, such as mines and ATV routes (see Existing Effects of Human Use map in the "Visitor Use" section). Tree-cutting for subsistence use occurs infrequently, less than one permit per year.

Wildlife

The wildlife of Gates of the Arctic National Park and Preserve is representative of northern Alaska and the Brooks Range. A variety of arctic habitat types are available, but species are relatively few, and their populations are frequently low compared to numbers in more temperate regions. Many populations, such as lynx and hare, are characterized by local, seasonal, or cyclic abundance.

Mammals. A total of 36 species of mammals occur within the park and preserve, ranging in size from voles and lemmings to brown bears. Small mammals form the base of the arctic food chain and are a critical element in the survival of many raptors and large mammals. Singing, tundra, and red-backed voles and brown and collared lemmings convert plant resources to flesh on which a variety of predators depend. Collectively, small rodents may have a profound localized effect on tundra vegetation. Larger rodents include the arctic ground squirrel and hoary marmot. Arctic ground squirrels occur primarily on well-drained soils along rivers or on slopes. They are commonly observed and can often be a problem at cabins, food caches, and camps.

The furbearers common to Alaska are present, although many, such as marten and lynx, are mostly limited to the forested areas in the southern half of the park. Beaver, mink, and otter are present but are limited by a scarcity of low-gradient aquatic habitats. Red foxes, including the silver, black, and cross fox color phases, occur throughout the area, and arctic foxes occur occasionally in the northernmost parts of the park and preserve. Wolverines are also present throughout. Very little



GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

CARIBOU, COMMON MIGRATION ROUTE

CARIBOU, INTERMITTENT MIGRATION ROUTE

CARIBOU, GENERAL DIVIDE BETWEEN SUMMER AND WINTER RANGES

DALL SHEEP, GENERAL DISTRIBUTION

BLACK BEAR HABITAT (IN FORESTED AREA)

BROWN BEAR, MOOSE, AND WOLF HABITAT THROUGHOUT PARK AND PRESERVE

FURBEARERS, INCLUDING MARTEN, LYNX, FOX, AND WOLVERINE THROUGHOUT PARK AND PRESERVE BUT PRIMARILY IN FORESTED AREA

SOURCE: ADAPTED FROM ALASKA DEPARTMENT OF FISH AND GAME, ALASKA'S WILDLIFE AND HABITAT, VOLUMES 1 AND 2, 1978.

WILDLIFE

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

CARIBOU, COMMON MIGRATION ROUTE

CARIBOU, INTERMITTENT MIGRATION ROUTE

CARIBOU, GENERAL DIVIDE BETWEEN SUMMER AND WINTER RANGES

DALL SHEEP, GENERAL DISTRIBUTION

BLACK BEAR HABITAT (IN FORESTED AREA)

BROWN BEAR, MOOSE, AND WOLF HABITAT THROUGHOUT PARK AND PRESERVE

FURBEARERS, INCLUDING MARTEN, LYNX, FOX, AND WOLVERINE THROUGHOUT PARK AND PRESERVE BUT PRIMARILY IN FORESTED AREA

SOURCE: ADAPTED FROM ALASKA DEPARTMENT OF FISH AND GAME, ALASKA'S WILDLIFE AND HABITAT, VOLUMES 1 AND 2, 1978.

WILDLIFE

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information is available on the status of furbearer populations. The most important species taken by subsistence trappers within the park are marten, lynx, wolverine, fox, and wolf. No assessment of the impacts of trapping on these populations has been made.

Wolves occur throughout the park and preserve, traveling in packs or family groups as they hunt. The main prey of wolves in the central Brooks Range and on the arctic slope is caribou; however, other prey species may be used extensively if caribou are not available, principally Dall sheep and small mammals in the north, and moose, snowshoe hare, and beaver in the southern forested areas. Denning usually occurs on dry, well-drained slopes where excavation of soils is not hindered by frozen ground. Litters average five or six pups.

Wolves are a source of income for the residents of Anaktuvuk Pass and other villages, who trap and hunt them from snowmachines. There is also aerial trapping (land and shoot) of wolves occurring legally in the preserves and illegally in the park. The combined harvest is probably affecting the status of wolf populations in the area, but good park baseline population distribution data are lacking. Management actions are currently limited to establishment and enforcement of areawide hunting and trapping regulations. Wolf control is considered an appropriate predator management tool by the Alaska Department of Fish and Game, and bounties have previously been offered. No control measures have been taken recently near the park and preserve, and none are currently being considered in conjunction with the management of the western arctic caribou herd (Alaska Department of Fish and Game 1984a).

Brown bears (barren-ground grizzlies) occur throughout the park and preserve. They are among the earth's great predators, but in the Brooks Range they feed mostly as vegetarians, eating berries, sedges, hedasarum, and other plants. They also feed on small mammals and may spend hours excavating ground squirrel burrows, locally disrupting much of the ground surface in the pursuit of their prey. The bears will kill moose calves and caribou fawns, and occasionally they kill adults. Some scavenging also occurs. Brown bear populations are concentrated along most of the major streams and rivers within the park and preserve, but especially the Chandler, North Fork, Anaktuvuk, John, Natuvuk, Killik, and Itkillik rivers in spring and fall. Average brown bear populations are estimated at one bear for each 100 square miles of habitat in the Arctic; however, the central Brooks Range may have higher populations than the average.

Although brown bears range through all habitat types, they are most commonly found in open alpine areas or tundra habitats. Black bears, which are more common in the southern forested regions, have similar food habitats and behavior. Both black and brown bears come into conflict with people in the park, and bear-human interactions are a future management concern. Currently, there are two to four incidents per year involving destruction of property by bears (no human injuries have been reported to date). Populations of both species are extremely difficult to count, and thus it is difficult to assess the impact of sport and subsistence hunting in the park and preserve. There are currently 20 registration permits available for subsistence harvest of brown bears in

the park within state game management units 24 and 26A. The southern preserve lies within units 23 and 24, where one bear is allowed every four regulatory years; nonresidents need a drawing permit to hunt. The northern preserve, in unit 26A and B, is drawing permit only. Sporthunting may be an important mortality factor in both bear populations. In addition, one to two bears are killed each year in defense of life and property. Firearms may be carried within Gates of the Arctic for personal protection.

Moose, Dall sheep, and caribou are the three ungulate mammals occurring in the area. Moose are most common in the forested regions south of the Brooks Range, but their range extends up mountain valleys and into the larger northern drainages wherever trees and shrubs provide food and critical winter habitat. In summer moose frequently move into alpine habitat, although they are uncommon at the crest of the range. The most important moose concentrations are found along the Alatna, John, North Fork of the Koyukuk, Killik, and Itkillik rivers.

Moose are an important subsistence resource for villages south and west of the park. Residents of Kobuk, Shungnak, Bettles, and Allakaket/ Alatna annually harvest an estimated total of 8 to 10 moose in the park and preserve. Sporthunting for moose along the Kobuk River in the preserve is becoming a more popular activity. Hunters gain access by air or boat.

Dall sheep are widespread throughout the mountainous alpine areas of the park and preserve. Rugged terrain with cliffs, steep slopes, and rocky outcrops is essential escape habitat. Mineral licks are seasonally very important, and the sheep may travel some distance to reach a lick site. An average of two licks have been identified in each sheep census unit in the area, which averaged 370 square miles per unit (NPS, USDI 1982). This is a high abundance of natural licks for Alaska. Sheep find critical winter forage on windblown ridges where the snow has been blown away, leaving the vegetation exposed. The current sheep population in the park and preserve is estimated at 12,000-14,000 animals.

Sheep are harvested by the people of Anaktuvuk Pass under a registration hunt established in 1981. The harvest quota is 50 sheep of either sex; 30-40 is the usual harvest. Sheep are usually taken when not enough caribou are available to feed the residents of the village. Sporthunting occurs in the northeastern part of the preserve, where two hunting guides have exclusive guide areas granted by the state.

Caribou of the western arctic herd today range over the entire region. The herd declined from a population of at least 242,000 animals in 1970 to an estimated 75,000 animals in 1976. Since that time the herd has increased in size, and in 1982 it was estimated at 171,699 animals (ADF&G 1984). In 1984 the herd size was projected to number approximately 200,000 (Davis, pers. comm. 1985). The herd migrates through the park and preserve as it moves from wintering grounds south and west of the park to calving areas northwest of the park and to summer range north of the park. Some of the animals use summer range along the northern reaches of the park, and some winter in the southern part of the park, especially in the Kobuk River valley.

The herd is most widely dispersed in midwinter, when bands are scattered throughout the forests on the south slopes of the Brooks Range and in the adjacent lowlands, and again in midsummer, when they are scattered over the arctic slope west of the Sagavanirktok River. Spring movement to summer ranges begins in March, when bands of females travel northward up the Alatna, John, and North Fork of the Koyukuk drainages and cross the summit of the Brooks Range into the valleys of such rivers as the Killik, Chandler, and Anaktuvuk, which they follow or cross in a generally westward movement to calving grounds at the head of the Utukok and Colville. Males and some yearlings begin moving somewhat later. After calving in late May, the animals join increasingly larger groups to move to higher country on the North Slope and in the foothills of the Brooks Range. Once there they gradually disperse, using summer range from the Arctic Ocean to the summits of the Brooks Range by late July. A leisurely southward drifting of caribou begins in August, and in the park it is directed toward the Anaktuvuk Pass and Killik River areas. Migration continues through the rut in October, until the wintering grounds are reached.

Caribou have historically played an important role in human survival in arctic regions, especially for the residents of Anaktuvuk Pass. Subsistence users still rely heavily on caribou. Since the range of the western arctic herd extends across many landownerships, management of the herd will require careful coordination between the Alaska Department of Fish and Game and the various landowners, as well as the hunters who harvest the herd.

Birds. A total of 133 species of birds have been observed in the park and preserve over the past 25-30 years (NPS, USDI 1973). Nearly half of those recorded are normally associated with aquatic habitats. A summary of birds can be found in the for Final Environmental Statement, Proposed Gates of the Arctic National Park and Preserve (NPS, USDI 1974a).

Raptors that inhabit the park, include species of eagles, hawks, falcons, and owls, three jaegers, and the northern shrike. Because of their place high in the food chain, raptors are more susceptible to environmental disturbance and population fluctuations. Arctic peregrine falcons, a threatened species that was only recently removed from the endangered list, nest north of the park in the Colville River drainage and probably pass through portions of the park or preserve during migration. Suitable nesting habitat occurs within the area, and although no active nests have been confirmed, the possibility of nesting falcons exists. If populations continue to increase and occupy new habitats, the area may play a more important role for nesting in the future.

Fish. The fish populations in arctic waters, although seemingly abundant, have very low growth rates and productivity, and are therefore highly susceptible to overfishing. The most widespread species in the park and preserve is the arctic grayling, which is found in nearly all the permanent watercourses and those lakes that have an outlet stream. Lake trout, northern pike, arctic char, whitefish, sheefish, salmon, long-nosed sucker, burbot, nine-spined stickleback, and slimy sculpin also occur.

The Kobuk and Koyukuk rivers are the major chum salmon spawning streams. Sheefish also spawn in the Kobuk. These fish, along with the whitefish, are the most important subsistence fishes. Some lake trout and arctic char are also taken from lakes for subsistence use. Recreational fishing is primarily for arctic grayling, arctic char, sheefish, and lake trout.

National Natural Landmarks

In 1962 the secretary of the interior established the national natural landmarks program as a natural areas survey to identify and encourage the preservation of features that best illustrate the natural heritage of the United States. Arrigetch Peaks and Walker Lake have been designated national natural landmarks, and 16 sites have been identified as potential landmarks (Detterman 1974; HCRS, USDI 1981). These include Kipmik Lake, Alatna-Nigu-Killik rivers headwaters, Kurupa-Cascade lakes, Fortress Mountain, Castle Mountain, Anaktuvuk Pass, Hickel Highway, Cocked Hat and Limestone mountains, Mt. Igikpak and the Noatak River headwaters, North Fork Koyukuk pingos, Redstar Mountain, Reed River Hot Springs, Wild Lake, Monotis Creek, Anaktuvuk River, and Sagavanirktok-Itkillik. The registered landmarks are among the most highly publicized and most frequently visited areas of the park and have some of the most visible impacts from that use. Further designations may result in more publicity and adverse impacts on these areas.

Biosphere Reserve

The entire Noatak River drainage, of which the headwaters are in Gates of the Arctic, is internationally recognized as a biosphere reserve in the United Nations Man in the Biosphere program.

CULTURAL RESOURCES

Although a number of studies have been conducted within the Gates of the Arctic National Park and Preserve, the extent and character of the cultural resources within the park are not yet fully documented. The several archeological investigations undertaken within the park and preserve have produced a basic outline of prehistory, but only a small fraction of the vast area has been studied. Similarly, a systematic inventory of the historic sites within the park has only recently begun. Additionally, intangible cultural resources, notably the oral histories of past human use of park lands, are only beginning to be assembled and recorded. Nevertheless, there is enough information about the cultural resources of the park to generally guide the future management and research for these resources.

Prehistory and Resources

Archeological investigations have been conducted in the Brooks Range for nearly 40 years. Many of these investigations have focused on areas

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

KING SALMON

CHUM SALMON

BURBOT

NORTHERN PIKE

SHEEFISH

DOLLY VARDEN/ARCTIC CHAR – DEFINITELY PRESENT IN WATERS NORTH AND WEST OF THE CONTINENTAL DIVIDE, OCCASIONALLY ELSEWHERE

GRAYLING/WHITEFISH – FOUND THROUGHOUT AREA

LAKE TROUT – FOUND IN SOME LAKES THROUGHOUT AREA

SOURCE: ALASKA DEPARTMENT OF FISH AND GAME, ALASKA'S FISHERIES ATLAS, VOLUMES 1 AND 2, 1978.

FISH

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

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CONTINENTAL DIVIDE

CONTINENTAL DIVIDE

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

KING SALMON

CHUM SALMON

BURBOT

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DOLLY VARDEN/ARCTIC CHAR – DEFINITELY PRESENT IN WATERS NORTH AND WEST OF THE CONTINENTAL DIVIDE, OCCASIONALLY ELSEWHERE

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FISH

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

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NORTH

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within park and preserve boundaries. To date nearly 600 archeological sites have been located within the boundaries, though less than 5 percent of the area has been investigated systematically. Nonetheless, an overall picture of the prehistory of the park and preserve is emerging. It is a picture consistent with, and a part of, the larger pattern of the prehistory of the Brooks Range as a whole and northern Alaska in general (see Archeological Cultural Sequence in Northern Alaska chart).

Northern Alaska is not the trackless wilderness that many people perceive it to be. Humans have continuously explored and lived in the region and used its resources for more than 12,500 years.

It has been well established (Hopkins 1967) that the great continental glaciers of the last ice age locked up vast amounts of water as ice, and consequently lowered sea levels, creating a large land mass between Alaska and Siberia, called the Bering Land Bridge or Beringia. This land mass, more than 1,000 miles wide at one point, was above sea level from 25,000 to 14,000 years ago. Even though the rising seas broke through this land mass about 14,000 years ago (Anderson 1981), the present sea levels were not reached until 4,500 years ago. It was across the Bering Land Bridge and later across the strait itself that cultural groups entered northwest Alaska. As successive waves of immigrants arrived in the Arctic, earlier immigrants moved southward across North America. Other groups stayed to explore, settle, and adapt to Alaska and the Arctic.

The earliest traces of human occupation in the central Brooks Range are still somewhat controversial. Artifacts from the Brooks Range, similar to those found in Paleo-Indian sites of temperate North America which contain the remains of extinct mammoths and bison, have led some to argue for an ancient Indian tradition over 12,000 years in age (Alexander 1973; Clark 1974). Other archeologists believe these finds to be later in time, or only about 8,000 years old. The Putu site, located just northeast of the park and estimated to be over 11,000 years old, may be an example of a Paleo-Indian site in the vicinity of the park and preserve.

This controversy aside, the first demonstrable use of the area is by people of the American Paleo-Arctic tradition, which probably has its origins in northern Asia (Anderson 1970). They were nomadic hunters and gatherers, living off the land and traveling in small groups. Unlike many later groups, these early people did not depend on sea mammal hunting for their subsistence, but hunted caribou and other land animals. Northern Alaskan examples of this tradition include the Akmak and Kobuk assemblages from the Onion Portage site on the Kobuk River that are between 7,800 and 9,600 years old (Anderson 1970, 1981), and an assemblage from the Gallagher Flint Station, just northeast of the park, that is 10,500 years old (Dixon 1971). Within the park and preserve, undated sites related to the American Paleo-Arctic tradition have been found in the vicinity of Itkillik Lake, the upper Kobuk River, Anaktuvuk Pass, Kurupa Lake, the upper Noatak River, and other areas.

The next wave of people apparently moved into northern Alaska from the forested regions to the south and east. These Northern Archaic people,

arriving about 6,500 years ago, had a distinctively different material culture, and apparently depended on caribou and fishing in rivers and streams for their livelihood, staying inland and near the trees most of the time. Many archeologists believe that these people represent an Indian culture rather than an Eskimo culture.

At Onion Portage the Northern Archaic tradition persists from 6,000 to 4,200 years ago. Within the park the Tuktu-Naiyuk site (near Anaktuvuk Pass), with radiocarbon dates from 6,500 years ago is a site from this time. Elsewhere within the unit, undated sites relating to the Northern Archaic tradition have been found along the upper Kobuk and the North Fork of the Koyukuk rivers, Kurupa Lake, and others.

About 4,200 years ago, arctic-oriented cultures again appeared in northern Alaska. Either a new wave of people or new ideas came into Alaska from Asia. The Arctic Small Tool tradition, so named because of their finely made stone tools, was a dynamic one, adapting to make efficient use of a wide range of arctic resources. The earliest culture of this tradition spread as far south as Bristol Bay and as far east as Greenland, occupying interior and coastal areas. These people moved throughout the Arctic over a long time span (the tradition lasted over 1,000 years). They were adept at the use of both the coast and the interior.

The earliest of these cultures, the Denbigh Flint complex, lasted at Onion Portage from 4,200 to 3,800 years ago (Anderson 1968), while at Mosquito Lake, just northeast of the park, it has been dated at about 2,200 years ago (Kunz 1977). The subsequent Choris and Norton complexes, which have pottery in addition to stone tools, are not well known from the park area. The Ipiutak complex, the last complex of the Arctic Small Tool tradition, is represented at sites at Itkillik Lake and near Anaktuvuk Pass (Campbell 1962) and continued until about 1,500 years ago.

By about 1,000 years ago, with the development of the Western Thule culture, the beginnings of modern Eskimo culture became visible in the archeological record. Over the centuries, these people learned to fully exploit both the resources of the coast and the interior. They spread across the Arctic, eventually reaching as far east as Greenland and Labrador and as far south as the Alaska Peninsula. Local specializations developed. The people who lived along the coast of the Arctic Ocean were the Northern Maritime culture, while those who lived along the Noatak and Kobuk rivers are named the Arctic Woodland culture (Giddings 1952). The group that lived mostly in the interior part of northern Alaska--in the Brooks Range and on the North Slope--are called the Arctic Tundra culture.

Within the park area, the historic Nunamiut Eskimos were the descendants of these groups. They spent most of their time in the mountains and on the tundra. However, they maintained cultural ties, through extensive travel and trading, with the other groups in northern Alaska.

The south side of the Brooks Range and central Alaska has been inhabited by Athabaskan peoples for at least a thousand years. Several times in those centuries Athabaskan groups have moved into the Brooks

ARCHEOLOGICAL CULTURAL SEQUENCE IN NORTHERN ALASKA

United States Department of the Interior
National Park Service

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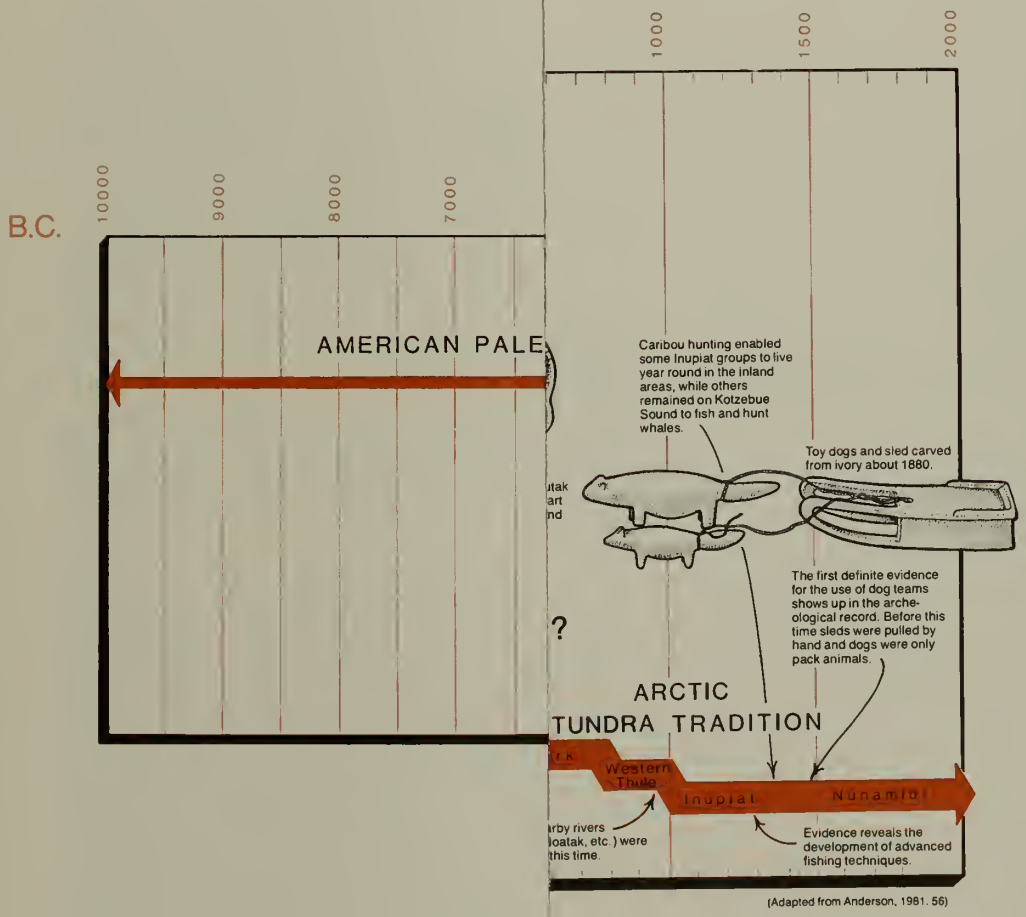

(Adapted from Anderson, 1981. 56)

ARCHEOLOGICAL CULTURAL SEQUENCE IN NORTHERN ALASKA

United States Department of the Interior
National Park Service

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B.C. 10000 9000 8000 7000 6000 5000 4500 4000 3500 3000 2500 2000 1500 1000 500 B.C. A.D. 500 1000 1500 2000

AMERICAN PALEO ARCTIC TRADITION

A tundra culture, these people used tiny stone blades inserted into slots of antler spear points

? At the present time, the later evolution of this culture is unknown

? ?

NORTHERN ARCHAIC TRADITION

Basically a woodland culture, the inhabitants used side and corner-notched spear points, knives and other tools Northern Archaic people appear to be related to interior (Indian) cultures of that time

? ?

This culture is named after the finely made small flaked stone tools and blades that characterize their sites

ARCTIC SMALL TOOL TRADITION

? Denbigh Flint People Choris People Norton People Ipiutak ?

Arctic Small Tool folk settled in Canada, Labrador, Newfoundland, and Greenland

EASTWARD MIGRANTS

Ivory carving from Ipiutak burial. Ipiutak carved art objects from antlers and ivory

Caribou hunting enabled some Inupiat groups to live year round in the inland areas, while others remained on Kotzebue Sound to fish and hunt whales

Toy dogs and sled carved from ivory about 1880

The first definite evidence for the use of dog teams shows up in the archeological record. Before this time sleds were pulled by hand and dogs were only pack animals

? ?

ARCTIC TUNDRA TRADITION

The origin of this culture is unknown at the present time

? Birnirk Western Thule Inupiat Eskimo ?

Some nearby rivers (Kobuk, Noatak, etc.) were settled at this time

Evidence reveals the development of advanced fishing techniques.

(Adapted from Anderson, 1981 56)

Range. The Kavik archeological site (Campbell 1962; Alexander 1968) probably represents such an occupation. In historic times, such groups as the Dihai Kutchin also lived in the central Brooks Range and on its southern flanks.

Thus, the park and preserve contain archeological sites representative of every cultural tradition known in northern Alaska. This important record will be expanded as cultural resource inventory and research programs progress in the coming years, providing a more complete understanding of the complicated history of human use of the region. The second year of a five-year cultural resources selective sample program has been completed. So far this inventory has resulted in the discovery of nearly 400 archeological sites in the valleys of the Kobuk, Itkillik, and North Fork of the Koyukuk rivers.

Based on ongoing inventory and evaluation, there are at least 50 archeological sites and districts that are potentially eligible for inclusion on the National Register of Historic Places, including the Bateman site on Itkillik Lake, the Kurupa Lake district (50 sites), and the Selby Lake site.

History and Resources

In 1850 the central Brooks Range was still largely isolated from influences from European and Euro-American culture. The core mountain fastness was lightly occupied by wandering bands of Nunamiut (inland Eskimo) hunters who entered the area from the upper Noatak and Colville/Itkillik drainages. Kobuk Eskimos, and Koyukon and Kutchin Athabaskans made seasonal journeys into the area from the Kobuk, Koyukuk, and Chandalar River basins. Principal native activities within the area were hunting and fishing, which followed the seasonal movement of game and fish concentrations. Trading among these and coastal people along extensive travel routes allowed cultural exchange and the balancing of inland and coastal products, particularly caribou skins and seal oil. What is now Gates of the Arctic National Park and Preserve was an area of shifting cultural boundaries and periodic migrations to richer riverine and coastal environments when game concentrations shifted.

In the mid-1880s American explorers began probing the central Brooks Range. In 1885 and 1886, Lt. G.M. Stoney's and the U.S. Navy's expedition ascended the Kobuk River and explored the western and central Brooks Range, traveling near Anaktuvuk Pass (Stoney 1899). Lt. John Cantwell's Revenue Marine Service expedition explored the region via the Kobuk and Noatak rivers at the same time. The first white men to enter the Koyukuk River drainage north of the Arctic Circle were Lt. Henry Allen and Pvt. Fred Fickett of the U.S. Army in 1885 (Allen 1887). In some cases, native people guided these explorers. Allen's expedition resulted in the beginning of prospecting on the upper Koyukuk River. Gold was discovered in paying quantities at Tramway Bar on the Middle Fork of the Koyukuk River in 1893. Trading posts and riverboats began to appear on the mid-reaches of the Koyukuk, and the stage was set for the gold rushes of 1898, which overflowed from the Klondike to the Kobuk and Koyukuk rivers. In sequence, "Old" Bettles, Coldfoot,

and Wiseman became established mining and trading camps. For the next three decades miners scoured the southern flanks of the central Brooks Range with varying success. A marginal lobe of mining activity centered around the North Fork of the Koyukuk and its tributary Glacier River within the southeastern sector of what is now the national park. These placer workings were relatively unimportant compared to those on the Middle and South Forks of the Koyukuk and the upper Chandalar just to the east.

Also, around the turn of the century, prospectors reached the area of the Noatak River headwaters. Records of miners are left in place names of the region, such as Midas and Lucky Six creeks. These names were based on hope rather than results because no worthwhile gold strikes were ever made in the area.

Cabins from the various waves of miners and the trappers who followed provide the few tangible historic resources of the park area. Most have been rendered to ruins by time and weather. They are being identified and evaluated by the ongoing cultural resource survey. To date, numerous ruins have been identified as well as two standing cabins, the Yale cabin on the Glacier River built by a prospector and the Vincent Knorr cabin on Mascot Creek, a carefully constructed early miner's cabin. Both are eligible for nomination to the National Register of Historic Places. A third historic cabin, Ernie Johnson's cabin on Ernie Lake, will be investigated as the survey continues. Historic studies of the Coldfoot and Wiseman mining area have been completed by Thompson (1972) and Will (1981) for the Bureau of Land Management. A historic resource study for the Gates of the Arctic National Park and Preserve will be produced at the conclusion of research currently underway. The location of historic cabins and sites may be found on the Existing Effects of Human Use map (see "Visitor Use" section).

The flurry of mining activity triggered a series of significant U.S. Geological Survey expeditions. Beginning with the F.C. Schrader and T.G. Gerdine expedition in the Chandalar/Koyukuk region in 1899, a heroic tradition of surface transits of the central Brooks Range was established by the leading field men of the Geological Survey. Mendenhall, Maddren, Mertie, and P.S. Smith are only a few of those who, with Schrader and Gerdine, mark this period of scientific exploration. Parallelling the geographic, geologic, and mineral studies and mapping of the Geological Survey, the work of noted biologists, such as the Murie brothers, and later anthropological studies furthered the scientific tradition in this vast mountain laboratory.

A profound event in the Brooks Range was the exploratory saga of Robert Marshall. Beginning in 1929 he joined some of the old hands in extensive explorations into the North Fork country and, at the mountain portal leading to the inner recesses of the range, bestowed the name Gates of the Arctic. He wrote popular books about his sojourns and about the social structures in this isolated region. More than this, Marshall established a philosophy and a literature of ultimate wilderness for the central Brooks Range. His work and perceptions over an intense decade before his early death influenced the development of wilderness preservation ideals in America and the creation of Gates of the Arctic National Park and Preserve.

Throughout the historic period, native and nonnative people mingled in cultural and social dynamics shaped by isolation and interdependence. Mining, transportation, trapping, and trading patterns were, in turn, shaped by this integration of people and economic interests in the evolving communities of the region. This is a major theme of social history on the brink of the Gates wilderness.

SUBSISTENCE USE

Gates of the Arctic National Park and Preserve is part of a broader area used by local residents for subsistence. A long history of subsistence use of the region has evolved with changing land use and technology. Subsistence use will continue to be an important cultural and economic force in the lives of rural residents.

History of Subsistence Use

The first European explorers of north-central Alaska found the area occupied by natives representing both the Eskimo and Athabascan cultures. The lands now encompassed by the Gates of the Arctic National Park and Preserve were and continue to be used for subsistence purposes by Koyukon Athabascan Indians residing in the upper drainages of the Koyukuk River, Kuuvanmiit Eskimos occupying the Kobuk River valley, and several subgroups of Nunamiut Eskimos inhabiting the continental divide highlands and major north-flowing streams. While the cultural groups tended to use resources within vaguely defined territories, boundaries were not distinct and contact between the groups occurred.

The native inhabitants used a host of resources within various portions of what is now the Gates of the Arctic National Park and Preserve, including fish, waterfowl, marmot, mountain sheep, bear, moose, ptarmigan, hare, furbearers, a variety of plant life, and even a few mineral deposits. However, the most important resource shared by all was caribou. Like the buffalo of the plains, the caribou provided the raw materials for food, clothing, shelter, and tools. Its numbers and tendency to seasonally gather into large herds provided the opportunity for native groups to obtain considerable stores of the essentials for survival. It was the movement and availability of caribou that largely determined the subsistence strategy of peoples within the central Brooks Range prior to contact by white men.

The latter 19th century and early 20th century saw profound changes taking place among the inhabitants of the central Brooks Range. European incursion into the area in the form of explorers, gold seekers, traders, missionaries, and government agents created a new reality to which the aboriginal inhabitants interacted. Modern technology, including firearms, made old cooperative hunting patterns obsolete. Emphasis shifted to harvesting furbearers to obtain the cash necessary to acquire imported goods. Disease decimated the aboriginal populations. Declining caribou numbers caused famine among the more remote groups forcing them to abandon traditional use territories and to seek a new life on the coast or to work for wages for miners and traders in the interior. The

free-roaming, seminomadic lifestyle gradually died out giving way to village-based living from which residents ranged into the surrounding lands for resources. Schools and other demands of modern living eventually reduced seasonal family camp life to brief summer outings.

The early nonnatives who moved into the central Brooks Range area were prospectors, suppliers, freighters, and others who swept into the area in search of riches. Camps sprang up wherever gold or the promise of gold was found. These men often harvested wildlife for food and as a cash source to supplement and/or support mining activities. By the mid-1940s the number of miners had declined significantly with only a few remaining year-round residents in Old Bettles and Wiseman. To varying degrees, these inhabitants continued to rely on wild, renewable resources to support their lifestyle.

A second major period of social and economic change for the central Brooks Range residents began in the mid-1960s and, to a certain degree, continues today. Efficient mechanical overland vehicles, snowmachines, became available and rapidly became the primary mode of winter surface travel. These machines revolutionized resource use, allowing rural residents to travel with speed and ease not previously available. The settlement of the Alaska Native Lands Claims Settlement Act and subsequent building of the trans-Alaska pipeline caused major political and economic developments in the area. The concept of private landownership forced rural residents to rethink traditional concepts of land and resource use. The pipeline construction and related statewide economic boom injected large amounts of money into rural Alaska resulting in new housing, community services, and other additions. Electricity, television, telephones, central heating, and other modern conveniences became commonplace in rural Alaska, further emphasizing the need for cash income. The all-weather road to Prudhoe Bay directly affected Wiseman by connecting it with urban centers and allowing more economic development of mining claims.

Current Subsistence Use and Access

Although the Gates of the Arctic is vast by conventional park standards, the total area that may be effectively and efficiently used for subsistence purposes is somewhat limited by rugged mountainous terrain. While sheep harvest is possible on the rocky slopes, most of the resource base, particularly in the northern half of the park, is thin and tends to be concentrated within narrow margins along valley floors.

The areas of resource use are largely determined by the physical geography, the distribution of resources, and capabilities and limitations of available technology, as well as by socioeconomic realities. The primary modes of travel for subsistence activities are outboard-powered riverboats during the summer (except for Anaktuvuk Pass) and early fall and snowmachines during the winters. The waterways within the Gates of the Arctic tend to be shallow, particularly during periods of limited rainfall. Waterways within the park used for subsistence include the Kobuk up to the lower canyon for hunting, fishing, and gathering; the Alatna to the mouth of the Unakserak River for hunting moose, sheep,

and bear; and the John to the mouth of Wolverine Creek for hunting moose and bear.

Winter is the time of greatest travel and resource use within the Gates of the Arctic. Usually by early November the waterways are sufficiently frozen, and snow cover has accumulated enough to allow for snowmachine travel. However, within the park a number of natural factors such as the rugged terrain and deep snow limit the use of this technology.

Surveys and observations made over the past seven years indicate that winter subsistence use occurs on a regular basis over some 500 linear miles of valleys within the park boundaries. The majority of this use occurs in the northern half of the park, where the land is treeless and has a shallow covering of wind-packed snow. With regards to distances covered, the greatest amount of travel takes place from late February through early April.

A third type of transportation has recently come into widespread use by the people of Anaktuvuk Pass. ATVs are used to travel overland when there is no snow on the ground. Their use is confined to designated easements or native and village corporation lands. These easements are further discussed in the land protection plan. Some residents of Anaktuvuk Pass travel by ATV to Chandler Lake on easements for the purposes of netting fish, gathering edible vegetation, and hunting sheep, caribou, bear, and marmot, and out toward Ernie Pass to hunt sheep and caribou.

VISITOR USE

Types of Activities

The park/preserve is a vast wilderness that naturally constrains the types of recreational activities. Primary activities are river float or canoe trips, backpacking, photography, mountaineering, wildlife viewing, and fishing. Sporthunting occurs in the two preserve areas.

Winter activities include cross-country skiing, snowshoeing, and dog sledding. While there are only a few such trips each year in the park, their popularity is expected to increase. The most attractive time for these winter activities is from late February to mid-April.

Levels and Season of Use

The pattern of use through the year is characterized by an extremely sharp peak in July and August, as shown on the Monthly Visitation chart. Approximately 64 percent of visitation occurs during those two months.

Yearly visitation for 1983 and 1984 averaged about 2,500 visits. The average group size from 1981-83 was 5.3 people per group, and the average number of groups was about 470 per year. Trips averaged 10.1 days in length. While the number of visitors is extremely low for an area

millions of acres in size, the group sizes and trip lengths are some of the largest recorded for any area in the national park system, including the large natural area parks. These statistics reflect the remote nature of the area which requires a greater time and financial commitment for expeditions into it.

To estimate future visitation trends for a newly designated park like Gates of the Arctic, one reasonable analysis that can be made is to examine the trends of an established northern, remote park. This assumes that there are enough similarities between the two parks that the trends observed at the established area will be reflected by Gates of the Arctic.

Kluane National Park in Canada has many similarities to Gates of the Arctic National Park. It has a road along one boundary, a northern and remote location, comparable distances from the region's major population centers (Fairbanks and Anchorage), wilderness and scenic attractions, and fish and wildlife resources. From 1979 to 1983 backcountry use in Kluane National Park increased an average of 7.3 percent a year. If visitation to Gates of the Arctic increased at this rate, there would be 4,550 visitors by 1990, 6,450 by 1995, and 9,200 by 2000.

This comparison with Kluane may be conservative. Visitation increases at Gates of the Arctic from 1982 to 1984 exceeded 14 percent per year. Thre are insufficient data to determine if this is a trend that will last, or simply a short-term observation that implies no trend. If the 14 percent increase per year holds and becomes the trend, there would be 6,150 visitors by 1990, 11,850 by 1995, and 22,850 by 2000.

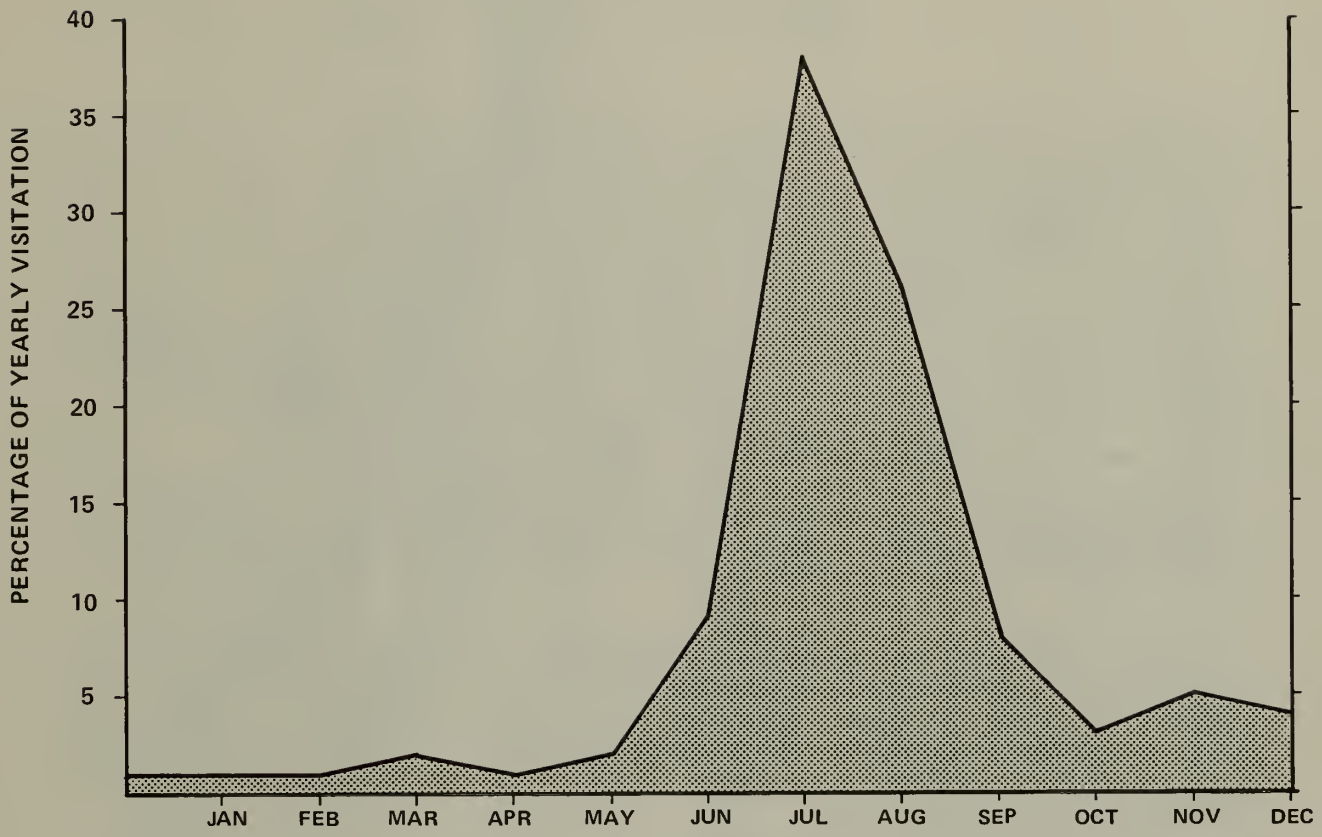
Future trends are dependent on the world, national, and state economies and social trends that are not easily predicted. Using the comparison with Kluane and the recent observations at Gates of the Arctic, during the expected 10-year life of the general management plan, visitation could easily double compared to existing levels and may triple.

Distribution and Access

Most visitors gain access to the park by light aircraft. Even those who fly into Anaktuvuk Pass on regularly scheduled flights are relying on aircraft for their access. Others backpack into the park from the Dalton Highway. Visitors must drive the narrow gravel highway for over 250 miles from Fairbanks.

Local residents may gain access by snowmobile, dogsled, foot, or boat while in pursuit of subsistence activities. They come primarily from Anaktuvuk Pass, Bettles, Coldfoot/Wiseman, and Allakaket and concentrate their use in areas of the park near their communities.

Once in the park, most recreational visitors travel on rivers by raft, canoe, or kayak (see table 5). Most other visitors travel by foot or a combination of float and foot travel. A very small percentage enter on horseback from the Dalton Highway. During winter dogsled or cross-country ski trips allow access.



MONTHLY VISITATION

SOURCE: NPS Monthly Use Reports

Table 5: Primary Mode of Recreational Access
(averaged for 1981-1983)

Float	42%
Foot	36%
Float/foot	19%
Dogsled/ski	2%
Horse	1%

Visitation is distributed unevenly throughout the park. Availability of small plane landing sites for light aircraft affects distribution, as does the selection of areas used frequently by commercial guides for their trips. Transportation costs vary with destination and group size, and may in turn influence visitor choices. Based on the summer of 1984, a float trip to the Noatak with three people may cost $770 per person in transportation costs from Fairbanks, while a backpacking trip from the Dalton Highway with five people may cost $50 per person for transportation. Commercial airfare to Anaktuvuk Pass from Fairbanks is $230. From Fairbanks, commercial fare plus air charter costs into the park generally range from $250 to $600 per person. However, another significant factor that influences where visitors go within the park is information and reputation. Books, magazine articles, and suggestions from a friend, air-taxi operator, or ranger all influence where visitors decide to go.

The most heavily used areas for recreational activities are around Walker Lake and Anaktuvuk Pass (see Summer Recreational Use and Access map). Other heavily used areas are float trip routes or traversable corridors near the Dalton Highway. They include Walker Lake/Kobuk River, Upper Noatak River, Summit Lake/North Fork of the Koyukuk River, and Arrigetch Peaks areas.

The amount of use these areas receive is very low compared to most other backcountry areas managed in the national park system, especially considering the large acreages involved. However, resource damage is already occurring. This damage occurs because the tundra and boreal forest ecosystems are sensitive to repeated, concentrated use and take exceptionally long periods for visible recovery. Visitors tend to concentrate in certain areas of the park, as previously described, and within those areas they concentrate even further along easily traversable valley bottoms, at aircraft landing sites, primary campsites, etc. Accordingly, a high percentage of use is concentrated in a very small acreage out of the park total. Known problem areas are noted on the Existing Effects of Human Use map.

Visitor Survey

In 1984 a voluntary questionnaire was distributed to people who had visited Gates of the Arctic (see appendix C for sample). All 56 respondents had gained access to the park by small aircraft, and 95

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNOARY

GATES OF THE ARCTIC NATIONAL PARK BOUNOARY

HIGH (30+ GROUPS PER YEAR)

MOOERATE (15–30 GROUPS PER YEAR)

LOW (5–15 GROUPS PER YEAR)

REGULARLY USEO AIRCRAFT CORRIOORS

SURFACE ACCESS FROM OALTON HIGHWAY

OEVELOPED AIR STRIP

UNOEVELOPED AIR ACCESS
(SUBJECT TO CONOITIONS, AIRCRAFT TYPES)

UPPERMOST RIVER TRIP ACCESS (AIR)

ELSEWHERE – LESS THAN 5 GROUPS PER YEAR
GROUP SIZE = 5.3 PEOPLE PER YEAR

SOURCES: NPS MONTHLY USE REPORTS, COMMERCIAL OPERATOR REPORTS.

SUMMER RECREATIONAL USE AND ACCESS

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITEO STATES OEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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0 5 10 15 20 25 30 KILOMETERS

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GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

HIGH (30+ GROUPS PER YEAR)

MODERATE (15–30 GROUPS PER YEAR)

LOW (5–15 GROUPS PER YEAR)

REGULARLY USED AIRCRAFT CORRIDORS

SURFACE ACCESS FROM DALTON HIGHWAY

DEVELOPED AIR STRIP

UNDEVELOPED AIR ACCESS
(SUBJECT TO CONDITIONS, AIRCRAFT TYPES)

UPPERMOST RIVER TRIP ACCESS (AIR)

ELSEWHERE – LESS THAN 5 GROUPS PER YEAR
GROUP SIZE = 5.3 PEOPLE PER YEAR

SOURCES: NPS MONTHLY USE REPORTS, COMMERCIAL OPERATOR REPORTS.

SUMMER RECREATIONAL USE AND ACCESS

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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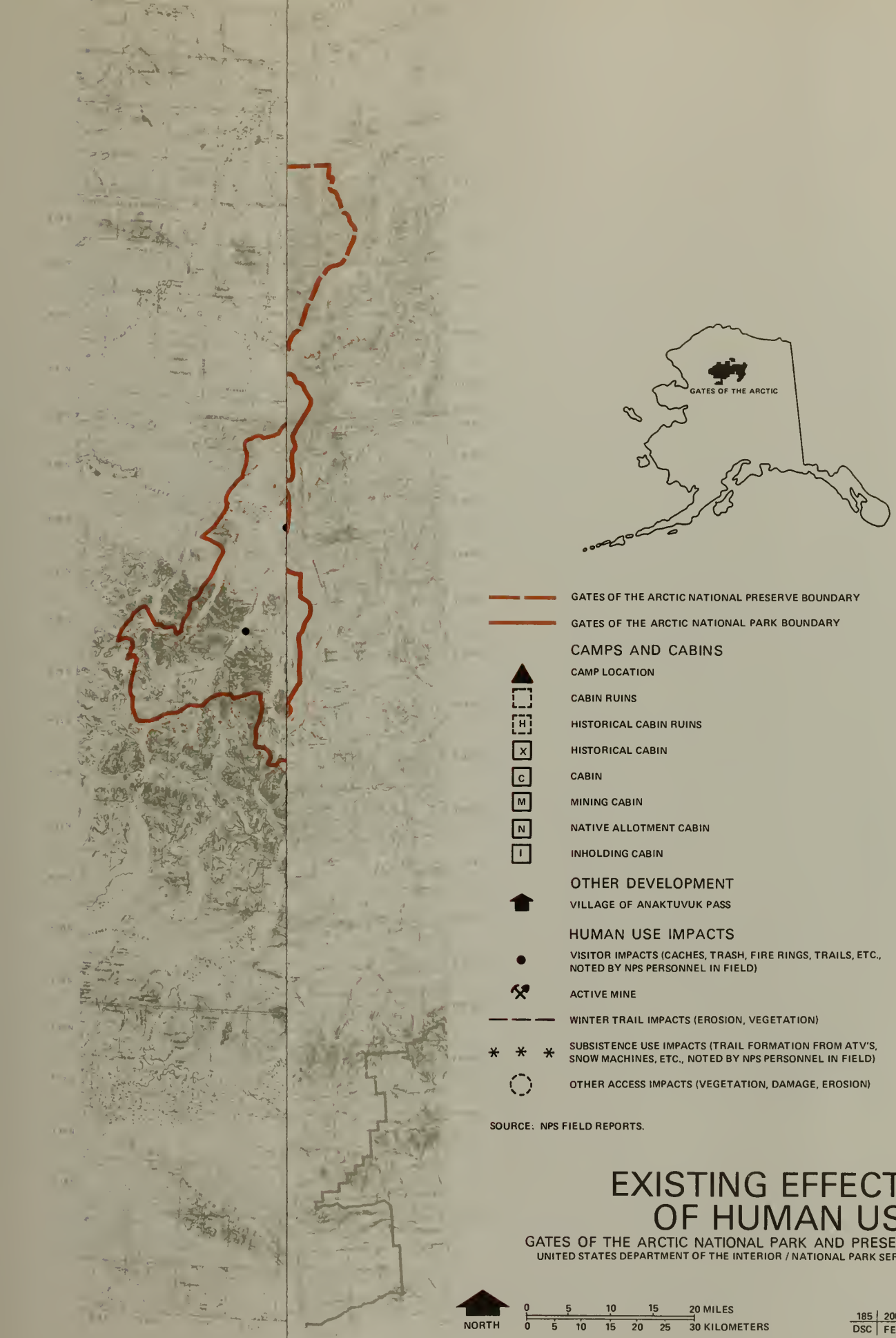

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

CAMPS AND CABINS

CAMP LOCATION

CABIN RUINS

HISTORICAL CABIN RUINS

HISTORICAL CABIN

CABIN

MINING CABIN

NATIVE ALLOTMENT CABIN

INHOLDING CABIN

OTHER DEVELOPMENT

VILLAGE OF ANAKTUVUK PASS

HUMAN USE IMPACTS

VISITOR IMPACTS (CACHES, TRASH, FIRE RINGS, TRAILS, ETC., NOTED BY NPS PERSONNEL IN FIELD)

ACTIVE MINE

WINTER TRAIL IMPACTS (EROSION, VEGETATION)

SUBSISTENCE USE IMPACTS (TRAIL FORMATION FROM ATV'S, SNOW MACHINES, ETC., NOTED BY NPS PERSONNEL IN FIELD)

OTHER ACCESS IMPACTS (VEGETATION, DAMAGE, EROSION)

SOURCE: NPS FIELD REPORTS.

EXISTING EFFECTS OF HUMAN USE

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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SUBSISTENCE PERMIT

USE AND OCCUPANCY PERMIT

SUMMER CAMP, CONCESSION PERMIT

COMMERCIAL USE PERMIT, WINTER ONLY

TEMPORARY CAMP PERMIT FOR SUBSISTENCE

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

CAMPS AND CABINS

CAMP LOCATION

CABIN RUINS

HISTORICAL CABIN RUINS

HISTORICAL CABIN

CABIN

MINING CABIN

NATIVE ALLOTMENT CABIN

INHOLDING CABIN

OTHER DEVELOPMENT

VILLAGE OF ANAKTUVUK PASS

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ACTIVE MINE

WINTER TRAIL IMPACTS (EROSION, VEGETATION)

SUBSISTENCE USE IMPACTS (TRAIL FORMATION FROM ATV'S, SNOW MACHINES, ETC., NOTED BY NPS PERSONNEL IN FIELD)

OTHER ACCESS IMPACTS (VEGETATION, DAMAGE, EROSION)

SOURCE. NPS FIELD REPORTS.

EXISTING EFFECTS OF HUMAN USE

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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percent visited in July or August. Most were led by a guide (78 percent), and 22 percent were on an independently led trip. Their length of stay ranged from 1 to 41 days, with an average stay of 14 days. Average group size was 7.8. Both group size and length are larger than the same figures for 1981-83 mentioned earlier (5.3 people/group and 10 days), which was calculated from air-taxi and guide use reports. The reason for these differences is unknown.

Other results of the survey follow on tables 6 through 12. Some are discussed, while other straightforward ones are simply displayed without comment.

Table 6: Primary Methods of Travel

	Percentage
Boat/raft/kayak/canoe	41
Backpacking/hiking	27
Both of the above	31
	100

Table 7: Participation in Activities
(Other than floating or hiking)

	Percentage
Photography	98
Wildlife viewing	91
Fishing	66
Mountaineering	20

Table 8: Trip Location

	Percentage
Arrigetch Peaks/Alatna River	29
Walker Lake/Kobuk River	22
North Fork Koyukuk River	18
Noatak River	15
John River	11
Other	5
	100

The trip locations on table 8 are representative except that surveys were not distributed to visitors at Anaktuvuk Pass or on the Dalton Highway, and those two areas are not represented.

The average number of other groups encountered was 2.1 (see table 9). The average number of groups encountered was much larger for the group of respondents who indicated they saw "too many" other groups, than for the respondents who indicated "just right." Clearly, these visitors' experiences were affected by the number of other groups encountered. However, it would take extensive research to determine how significant the effect of encounters with other groups are on visitors' overall experience. Their expectations upon entering this "ultimate wilderness" may be more demanding than for other backcountry areas.

Table 9: Reaction to Number of Groups Encountered

	Percentage	Average Number of Groups Encountered
Too many	18	4.6
In between	13	2.9
Just right	67	1.4
Too few	2	1.0
Total	100	2.7

Table 10: Perceived Threats to Wilderness Character of Park

	None	Minor	Major
Other people seen	13	61	26 = 100%
Fire rings	6	51	43 = 100%
Bare spots on tundra	4	37	59 = 100%
Trails	10	35	55 = 100%
Aircraft	10	68	22 = 100%
Cabins/permanent camps	4	14	82 = 100%

An overwhelming proportion of the respondents felt that all of the perceived threats in table 10 could jeopardize the park's wilderness character. Bare spots in the tundra (from campsites), trails, and cabins/camps were perceived as major threats by a majority of respondents. These visitors were extremely sensitive to physical intrusions that could degrade the park's wilderness character. Seventy percent of the respondents reported encountering trash, cabins/camps, or other signs of man's activities.

This concern is further emphasized by the fact that 87 percent preferred regulations, and only 13 percent preferred minor facilities as means of controlling use, if use levels ever threatened the wilderness character of the park. When asked about specific regulations or facilities that might be used to control impacts from visitor use, the overwhelming preference for regulations is again obvious.

Table 11: Minor Facilities as a Management Tool
(If minor facilities had to be used to control impacts from increasing visitor use, which best represents your feelings)

	Approve	Neutral	Disapprove
Trails	39	24	37 = 100%
Campsites	23	31	46 = 100%
Cabins	8	14	78 = 100%

Trails and campsites that are traditionally used to manage visitor use in wilderness were more acceptable, but most responses were still neutral or disapproved. Cabins were overwhelmingly disapproved (table 11).

Table 12: Regulations as a Management Tool
(If regulations had to be used to control impacts from increasing visitor use, which best represents your feelings)

	Approve	Neutral	Disapprove
Inform and educate users by requiring free permit	92	6	2 = 100%
Limit number of people or groups that can start from a given access point	87	8	5 = 100%
Use temporary zone closures	70	20	10 = 100%
Limit number of people or groups by zone	80	10	10 = 100%
Limit commercial guide operations	60	33	7 = 100%
Eliminate selected public cabins where use problems have accumulated	90	6	4 = 100%
Limit group size	87	9	4 = 100%
Limit types of uses	73	23	4 = 100%

A substantial majority favored each of the specific regulatory options listed in table 12.

COMMERCIAL VISITOR SERVICES

A total of 34 companies are currently authorized to provide visitor services within Gates of the Arctic National Park and Preserve. Most of these companies are authorized to provide more than one type of service. These services are summarized below.

Air-Taxi Services

There are five air-taxi services authorized to drop off and pick up clients within Gates of the Arctic. These companies, in order of the amount of business they have conducted within Gates of the Arctic, are located in Bettles, Ambler, Fairbanks (2), and Kotzebue.

Air-taxi services provide the majority of access to both the guided and unguided visitor. Also, through their particular knowledge of the area in combination with the limitations of their aircraft, air-taxi operators and pilots contribute greatly to the overall use patterns of the area.

River Runners

A total of 11 companies are now authorized to conduct guided river float trips. Although the rivers within Gates of the Arctic are not characterized by significant whitewater, inflatable rafts carrying three to six passengers are used almost exclusively since all boats and equipment must fit into air-taxi service airplanes having capacities of three to five passengers. It is likely that commercial river running will continue to be considered a demanded service due to the high costs associated with transporting private equipment to the Gates of the Arctic for a single trip.

River trips tend to have four to seven clients and are of six- to ten-days' duration with one or two guides accompanying each trip. River trips are the most popular of guided activities in the Gates.

While there are innumerable rivers that are technically "runnable," the majority of guided trips occur on the Noatak, Kobuk, North Fork of the Koyukuk, John, and Alatna rivers. Many river trips, especially those on the North Fork of the Koyukuk, are in combination with extended backpacking trips to the put-in point at which rafts and equipment have been previously staged. The put-in points have been identified by licensees as the areas having the most significant concentrations of visitors and related impacts.

Because of the substantial equipment involved, the majority of river running companies are Alaskan or conduct enough business in Alaska to have seasonal Alaska bases.

Hunting Guide Service

Three state-recognized guide services offer commercially guided sport hunting trips in the preserve. The state recognizes hunting guide

services through the State Guide Licensing and Control Board. The board issues a guide a license for particular game management units. The guide must then request either exclusive or joint use of specific guide areas within each game management unit.

The National Park Service has recognized the actions of the board by issuing commercial use licenses to guides who have been assigned guide areas and licenses by the state. The Park Service's reliance on the actions of the board is particularly important because Congress specifically excluded hunting and fishing guide services from the grandfather provision of ANILCA section 1307.

The state requires nonresidents to hire a guide to hunt Dall sheep or brown/grizzly bear. Further, nonresidents must hire a guide to hunt any big game animals. Species hunted in Gates of the Arctic National Preserve include grizzly bear, caribou, Dall sheep, wolf, and moose. In 1983 guides reported having 10 clients who stayed an average of seven days.

It should be noted that an undetermined number of unguided sport hunters are brought into the preserve by air-taxi operators.

Fishing Guide Service

Unlike most other NPS-administered areas in Alaska, there are no companies offering fishing guide services exclusively. However, fishing is an important part of other guided activities, especially river float trips, hunting, and backpacking. Air-taxi operators also drop off clients whose primary purpose is to fish. The guided fishing that does occur seems to be centered primarily around Walker Lake, the upper Alatna, and in conjunction with river float trips in the upper Noatak, Kobuk, and Alatna rivers.

Two "lodges"--one at the headwaters of the Alatna River and the other on Walker Lake--specifically advertise fishing as one of the primary activities to be enjoyed.

Guided Backpacking

Guided backpacking rivals river running as the most popular way to tour Gates of the Arctic National Park and Preserve. In 1983 eight companies led guided backpacking in the Gates that were not associated with float trips. Eight companies (six of which are the same companies) conducted guided backpacking in association with float trips. Trips are similar in makeup to river trips with an average of five clients and one guide. Trips tend to be 7-14 days in length.

While backpacking provides much greater flexibility in dispersing visitors than river running, there are areas according to licensees that are receiving the predominant amount of use (and showing impacts such as trail formation, campfire rings, litter). These areas are Walker Lake, Arrigetch Peaks, and Summit Lake.

Overnight Facilities

Several limited facilities for overnight accommodations exist both inside the boundaries and within reasonable proximity outside the boundaries of Gates of the Arctic.

Concession Permit. Located on the North Fork of the Koyukuk just above the Gates of the Arctic (Frigid Crags and Boreal Mountain) near the confluence of Kackwona Creek is a small semipermanent base camp consisting of three Coleman-type tents and a limited cache used solely as a staging area for backpacking and river float trips on the Koyukuk. As a condition of a concession permit, its existence may not be advertised by the operator.

Private Land and Accommodations Within the Boundaries. At the headwaters of the Alatna there is a cabin that is used as a secondary base for clients of the main lodge at Iniakuk Lake. Clients enjoy activities on park land--fishing, hiking, and river float trips on the Alatna River. This cabin was used as a base for guided sporthunting activities prior to the lands being designated a national monument in 1979.

One main lodge building exists on the southeast end of Walker Lake. The lake is popular as the put-in point for river float trips on the Kobuk River. This lodge will likely continue to be used primarily for fishing clients and float trips into the park.

Accommodations Outside the Boundaries. There is a lodge at Bettles with approximately 10 rooms. Small lodges with a few rooms are found at Kobuk, Shungnak, and Ambler. At Coldfoot over 50 rooms and associated facilities accommodate Dalton Highway users. A lodge facility at Iniakuk Lake offers fishing, floatings, and backpacking as the primary activities.

Other Services Available to Visitors

A scheduled shuttle service has operated on the Dalton Highway providing drop-off and pick-up services for those wishing to gain access to the western portion of the park, but it was not operating in 1984. There are two companies--one in Kotzebue and one in Bettles--that provide equipment including canoes and raft (outfitting). One company now conducts trips into Gates of the Arctic for the primary purpose of birding. While several companies are authorized to conduct commercially guided mountaineering, there appears to have been only one or two trips over the last three years that have provided this service.

OPERATIONS

NPS administration of Gates of the Arctic National Park and Preserve began in the summer of 1980. Ten permanent staff members are currently employed--eight in Fairbanks and two in Bettles. Three employees are primarily responsible for field operations and visitor services; four are responsible for lands, natural resources, and cultural resources; and the other three include the superintendent and administrative positions. The

summer 1984 seasonal staff consisted of nine employees, eight of which were involved in field operations and visitor services and one responsible for maintenance of facilities. Three of these seasonals were employed through the local hire provision of ANILCA section 1308.

Field operations are conducted primarily to collect information about park resources and use. Seasonal employees worked primarily along the Dalton Highway and access points, North Fork of the Koyukuk, Anaktuvuk Pass, and Walker Lake. Bettles is the staging area for placing employees in the field. Two NPS piloted and owned aircraft provide most of the access. A helicopter on contract provides access for the ongoing archeology and history study, sheep counting, and other NPS activities. Other forms of transportation used include a truck on the Dalton Highway, a small motorized boat on Walker Lake, rafts, and hiking. Field communication is via high-frequency radio to Walker Lake (intermittent at best), air-to-ground radios, and emergency signaling devices.

Jurisdiction is proprietary, which means both the National Park Service and the state of Alaska have law enforcement authority.

The management and operation of many aspects of the unit depend on cooperation with other agencies. The following cooperative agreements (among others) have been developed and implemented for certain aspects of park management.

There is a statewide master memorandum of understanding between the National Park Service and the Alaska Department of Fish and Game (see appendix D). The Park Service also agreed to consult with the Department of Fish and Game before entering into any cooperative land management agreement.

A cooperative agreement exists between the National Park Service and the Rescue Coordination Center (Alaska Air Command) regarding high altitude search and rescue operations.

The National Park Service has secured a cooperative agreement with the Alaska State Troopers (Alaska Department of Public Safety) for search and rescue operations.

The Departmental Manual (910 DM 3.1) provides for the Bureau of Land Management to conduct wildland and fire suppression activities on all Interior lands in Alaska. Suppression activities will be conducted within the framework of approved fire suppression plans. An approved fire suppression plan (Alaska Interagency Fire Management Plan: Kobuk Planning Area) exists between Gates of the Arctic National Park and Preserve and the Bureau of Land Management, Bureau of Indian Affairs, NANA Regional Corporation, Doyon Regional Corporation, Alaska Department of Fish and Game, Alaska Department of Natural Resources, U.S. Fish and Wildlife Service, and the Arctic Slope Regional Corporation.

An interagency agreement between the National Park Service, U.S. Fish and Wildlife Service, and Federal Aviation Administration was established in 1984 concerning aircraft overflights. While the

agreement does not mandate any restrictions on overflights, it provides a framework for identifying and resolving conflicts between low-flying aircraft and resource values of area.

There is a cooperative agreement between the National Park Service and the Alaska Natural History Association that provides support to interpretive programs. The association, a nonprofit organization, produces and sells books and other publications about national parks in Alaska.

GENERAL DEVELOPMENT

Major NPS facilities are located outside the park and preserve and are a combination of leased and NPS-owned structures.

Headquarters facilities in Fairbanks are leased from Doyon, Limited, and include a conference room, a visitor contact area, 12 offices, and storage. Bulk storage space is also leased.

The Bettles ranger station is locally leased from the Bettles Lodge. It includes a shop, two offices, a visitor contact area, and bunk space. Two duplexes were recently acquired in Bettles from the Federal Aviation Administration and provide permanent and seasonal employee housing.

Two structures are leased in Anaktuvuk Pass. The Naval Arctic Research Laboratory is used as a visitor contact station, and a home leased from an individual provides seasonal employee housing.

At Coldfoot, the National Park Service has a right-of-way reservation from the Bureau of Land Management for two parcels of land, 2.3 acres and 4.6 acres, for administrative sites. The Park Service has purchased a small precut structure to be placed on the smaller site for visitor information and temporary ranger quarters in the summer of 1985.

There are over 30 standing cabins within Gates of the Arctic National Park and Preserve, of which half are privately owned on native allotments or inholdings. About 16 cabins on federal lands are governed by regulations currently under revision (36 CFR 13.17). Two of these cabins are currently under valid use and occupancy and subsistence permits, and two are authorized for commercial winter use for dog team trips. One of the latter has also been used intermittently to house a seasonal ranger. One cabin is used by a valid operating miner and has been determined to have historical value, as well as one cabin on Doyon land (see "Cultural Resources" section). There are at least another 30 cabin sites, locations of ruins and unusable structures, some of historical significance.

There are about eight camps or remains of camps throughout the park, including a semipermanent base camp of a commercial operator on the North Fork of the Koyukuk (see "Commercial Visitor Services" section).

No roads, trails, or airstrips are maintained in the unit except for Anaktuvuk Pass and those associated with the operating mine. Three abandoned roads or winter trails are highly visible along the John River (Hickel Highway), Middle Fork of the Koyukuk, and access to the Glacier River. There are several abandoned airstrips within the unit.

PROPOSAL

The following discussion represents the alternative selected from those considered. It proposes management actions for wilderness, wild rivers, natural and cultural resources, subsistence, visitor use, commercial services, operations, and general development for the next 10 years. Though the use of future tense "will" has been used, the public review process may result in changes to the proposal and incorporate elements of the other alternatives (see "Alternatives Considered" section) into the final plan.

WILDERNESS MANAGEMENT

The clear wilderness preservation mandate of Gates of the Arctic is reinforced by the designation of approximately 7,052,000 acres, the entire park unit, as wilderness. ANILCA section 701 directs that this wilderness be managed in accordance with the Wilderness Act of 1964 (78 Stat. 890) except as otherwise expressly provided for in ANILCA.

The Wilderness Act states that wilderness areas "shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness." The act prohibits commercial enterprise and permanent roads, and it generally prohibits temporary roads, use of motor vehicles, motorized equipment or motorboats, landing of aircraft, and development of structures unless they are deemed essential for the management of the area.

ANILCA makes certain exceptions to the Wilderness Act that apply only to management of wilderness areas in Alaska. Section 1315 permits the continuation of existing public use cabins and the construction of a limited number of new public use cabins or shelters if appropriate and under certain restrictions. Section 1310 allows for navigation aids and research facilities. Section 1110 permits the use of motorboats and airplanes for traditional activities in wilderness study areas, and federal regulations allow the continuation of established uses of aircraft and motorboats in all areas unless specifically restricted by the superintendent. Section 1316 states that wilderness designation will not prohibit or otherwise restrict sport hunting, fishing, trapping, or traditional subsistence activities permitted by section 203. These exceptions to the Wilderness Act are summarized in appendix E.

Because the vast majority of Gates of the Arctic is designated wilderness and has wilderness purposes, this general management plan for the park is, in many aspects, a wilderness management plan. Accordingly, the details of wilderness management are covered throughout the plan.

WILD RIVER MANAGEMENT

Six rivers within Gates of the Arctic National Park and Preserve are designated as units of the national wild and scenic rivers system by section 601 of ANILCA: the Alatna, John, Kobuk, Noatak, North Fork of

the Koyukuk, and Tinayguk. These rivers are to be administered as wild rivers pursuant to the Wild and Scenic Rivers Act, as amended (16 USC 1274(a)), which establishes the following direction for management:

> Certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and . . . they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

Section 605(d) of ANILCA calls for the establishment of boundaries for each river and for the preparation of river management plans in accordance with the provisions of the Wild and Scenic Rivers Act. However, because the mandates for management of Gates of the Arctic National Park and Preserve and for designated wilderness within the park meet and are compatible with the management standards established by the Wild and Scenic Rivers Act, the purpose of river corridor boundaries has been provided for. Similarly, no separate management plans will be prepared at this time. The river management proposals have been fully integrated with other aspects of visitor use and resource management in subsequent sections of this plan. Management of the rivers will also follow guidelines developed in "The Synopsis for Guiding Management of Wild, Scenic, and Recreational River Areas in Alaska," which was adopted by the Alaska Land Use Council in November 1982.

Because Congress gave special recognition to the Alatna, John, Kobuk, Noatak, North Fork of the Koyukuk, and Tinayguk rivers, their outstandingly remarkable values are acknowledged and will be monitored and protected (see table 13). As use increases and impacts are found, more detailed river management plans may be developed. Management of the Noatak and Kobuk rivers will continue to be coordinated with Noatak National Preserve and Kobuk Valley National Park.

NATURAL RESOURCE MANAGEMENT

The natural and wilderness values of Gates of the Arctic National Park and Preserve are virtually unimpaired. Pursuant to ANILCA section 201(4)(a), Congress directed that this unit be managed for the following purposes, among others:

> To maintain the wild and undeveloped character of the area, . . . and the natural environmental integrity and scenic beauty of the mountains, forelands, rivers, lakes, and other natural features; . . . and to protect habitat for and the populations of, fish and wildlife, including, but not limited to, caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds.

The overall natural resource management objective is to maintain natural features, environmental integrity, and the dynamics of natural processes operating within the park and preserve.

Table 13: Outstandingly Remarkable Values of Designated Wild Rivers

River	Approx. Length (miles)	Scenic Quality	Recreational Opportunities	Geologic Features	Fish, Wildlife, and Plants	Cultural Resources
Alatna	83	High; variety from snowcapped mountains to spruce-hardwood forest	Plentiful sightseeing, nature study, hiking, photography, fishing, and floating	Rugged mountains of central Brooks Range, including Arrigetch Peaks	Easily observed, variety of large and small mammals, migration route for arctic caribou herd	*
John	52	Outstanding; high relief, vegetative variety, exposed rock, cliffs, and outcroppings	Numerous, family float stream, excellent hiking and backpacking in upper river area	Wide glacial valleys dissecting central Brooks Range	Variety of large and small mammals, important migration route for arctic caribou herd, unique habitat for William's milk vetch	*
Kobuk	110	Wide valley with sweeping vistas of nearby hills and low mountains, Walker Lake, two canyons	Exceptional float river, several stretches of extremely rugged rapids (up to class V), good opportunities for sport hunting (in the preserve only), wildlife observation, and backpacking	Endicott Mountains of central Brooks Range, upper and lower Kobuk canyons	Variety of fish and wildlife, one of largest concentrations of sheefish, wintering grounds for western arctic caribou herd, one of the largest continuous spruce forest areas in the Brooks Range	Highly significant potential for archeology because of continuous occupation and links between inland Eskimo people
Noatak	65**	Glacial valley with snowcapped peaks	One of longest designated wild rivers in Alaska, good floating, sightseeing, and wildlife viewing opportunities	Mount Igikpak and Schwatka Mountains of west-central Brooks Range, narrow glacial valley	Plentiful caribou, Dall sheep, grizzly, several species of raptors	Transportation route by natives for thousands of years
North Fork of the Koyukuk	102	Glacial valleys bordered by rugged peaks of Endicott Mountains in central Brooks Range, Frigid Crags, and Boreal Mountain (Gates of the Arctic)	Access at headwaters, outstanding wilderness backpacking, clear water and challenging whitewater	South flank of the arctic Continental Divide through glacial valleys bordered by Endicott Mountains	Variety of wildlife, major caribou migration route	*
Tinayguk (tributary of the North Fork of the Koyukuk)	44	Broad, glacial valley bordered by rugged peaks of Endicott Mountains	High potential for hiking and backpacking, access more difficult than North Fork	South flank of the arctic Continental Divide, glacial valleys bordered by Endicott Mountains	Variety of wildlife	*

* Unidentified at the time of designation.
** The designation continues for approximately 265 miles in Noatak National Preserve.

The direction of management will be to monitor resources and conditions, gather baseline data, and monitor human uses to determine if damage to resources is occurring or possible. Actions will primarily be aimed at managing uses for the purpose of protecting resources. The only direct management of natural resources will be to restore natural conditions to damaged areas, not to improve or enhance resources for ongoing consumptive uses such as hunting or fishing.

This plan outlines in general terms a set of management strategies and research programs that will be refined in a separate, more detailed natural resource management plan following approval of this plan. The resource management plan will be updated yearly, or as necessary, to reflect changing resource needs and management priorities. There will be opportunities for public involvement.

Fish and Wildlife

Management will strive to maintain the natural abundance, diversity, behavior, and ecological integrity of native animal populations, recognizing them as integral parts of natural ecosystems. Factors that can affect the natural condition of fish and wildlife include subsistence use, sporthunting in the preserve, and recreational use (including sportfishing) throughout the park and preserve.

Subsistence resources will be protected, and subsistence harvests of fish and wildlife are authorized in the park where such uses are traditional. Sporthunting is authorized in the preserve. Congress directed that the level of subsistence uses of fish and wildlife within the national park be consistent with the conservation of natural and healthy populations of fish and wildlife and healthy populations within the preserve (ANILCA section 815(1)). To achieve this, the approach will be to study all of the human uses of fish and wildlife and to establish the baseline data necessary to identify and counteract unnatural effects.

Customary and traditional subsistence use is considered to be a natural human role, as indicated by the legislative history:

> It is contrary to the National Park Service concept to manipulate habitat or populations to achieve maximum utilization of natural resources. Rather, the National Park System concept requires implementation of management policies which strive to maintain the natural abundance behavior, diversity, and ecological integrity of native animals as part of their ecosystem, and the Committee intends that this concept be maintained. The National Park Service recognizes, and the Committee agrees, that subsistence uses by local rural residents have been, and are now, a natural part of the ecosystem serving as a primary consumer in the natural food chain. The Committee expects the National Park Service to take appropriate steps when necessary to insure that consumptive uses of fish and wildlife populations within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years (Senate Report 96-413, p. 171).

Studies of human use will include a compilation of past and current regulations and harvests, which will also be correlated with histories of the use and sale of furs, trapping, impacts on wildlife, access routes and means, impacts of offroad vehicles, general use areas, primary resource sites, subsistence customs and traditions, recreational use, and mining. Many of the studies related to subsistence will be done in cooperation with the Subsistence Division of the Alaska Department of Fish and Game.

Along with the study of human uses, selected samples of fish and wildlife species, habitats, and ecological relationships will be studied to establish baseline data. The wildlife species to be studied will include caribou, black bear, wolf, brown bear, Dall sheep, moose, various raptors, and small mammals. Findings may result in recommendations of seasons and bag limits to the Alaska Boards of Fisheries and Game.

In a manner consistent with ANILCA and in cooperation with the National Park Service, the state of Alaska may establish fishing and hunting regulations for maintaining natural and healthy fish and wildlife populations within the park and healthy populations within the preserve. Consistent with the purposes of the park, preserve, and wilderness, the Alaska Boards of Fisheries and Game may determine fishing and hunting seasons and bag limits for both sport and subsistence uses. A master memorandum of understanding signed by the National Park Service and the Alaska Department of Fish and Game calls for timely consultation and coordination of resource planning and management by these two agencies (see appendix D).

Because of the low productivity of arctic waters, slow growth rate, and the concentration of fishing in certain locations, the goal in managing sportfishing will be to minimize fish take. While state fishing regulations will still apply, visitors will be advised and encouraged to practice catch-and-release methods. If they really want to keep fish to eat, they will be encouraged to keep only younger and smaller ones of more abundant species of fish. Visitors will be given information on careful handling techniques to increase survivability. In cooperation with the Alaska Department of Fish and Game, a selected sample of lakes and streams will be studied to establish baseline data on populations, ecology, age, growth, production, and harvest. If the research indicates that management is warranted, seasons and bag limits specific to species or areas will be recommended to the Alaska Board of Fisheries.

The goal in managing bears will be to avoid adverse human-bear encounters for public safety and to prevent the needless destruction of bears. A past solution in many parks has been to relocate problem bears; however, this procedure has two flaws. First, it does not remedy the situation that caused the bear to become a problem, and the bear remains a problem somewhere else. Second, removal of bears alters the genetic and social integrity of the natural bear population. Unhunted and unmanipulated natural bear populations are almost unavailable elsewhere, and the population in Gates of the Arctic is a valuable control group for studies of other populations. Removal of bears disrupts the natural social diversity of a population and in time leads to a population where only the shy and reclusive are unnaturally selected.

Information will be provided to visitors about bears and bear behavior, and portable bear-proof food storage containers will be available at field stations, perhaps through private vendors, and may be required for travel in certain areas. In addition to authorized hunting in the preserve and subsistence use, people are permitted to use firearms in defense of life and property, as allowed by state law. Visitors will be informed that the choice to carry a weapon may lead to needless destruction of a false-charging bear. They will be required to report such discharge of firearms to park personnel. Black and grizzly bear-human interactions will continue to be monitored at selected locations. New technologies to minimize human-bear encounters will be applied. Recreational use may be further managed if adverse encounters persist--see discussion of visitor use limits (carrying capacity) in "Visitor Use Management" section.

Another concern is the effects of recreational visitors on wildlife, particularly at critical times of nesting, lambing, denning, or calving. These effects will be studied and monitored, and recreational use may be further managed if there is disturbance (see discussion of visitor use limits in "Visitor Use Management" section).

Fish and game regulations will continue to be enforced within the park and preserve by the Alaska State Troopers Division of Wildlife Protection and the National Park Service. The Park Service will routinely patrol the park and preserve to prevent the unauthorized taking of fish and wildlife. Rangers will be stationed in known and suspected problem areas at certain times of the year.

Vegetation

Management will strive to maintain the natural diversity, dynamics, and ecological integrity of the native plant mosaic as part of the complete ecosystem. Factors that affect the natural condition of vegetation include hiking, camping, campfires, snowmachines, offroad vehicles, winter roads, mines, suppression of wildfire, and subsistence use.

An overall baseline inventory will be established with satellite imagery. Primary areas of human use and impact will be monitored with vegetation transects. Research will be initiated to determine the relationship between levels of use and the formation of trails and campsites. Recreational use may be further managed as a result of these studies to prevent new or additional damage to vegetation (see visitor use limits discussion in "Visitor Use Management" section).

Areas such as mines, winter roads, campsites, foot and ATV trails, and areas damaged by snowmachines, will be reclaimed by controlling erosion and transplanting or seeding hardy local native species. Future mining activities are discussed in the land protection plan. Existing regulations allow the use of dead or downed wood and driftwood for campfires. However, in some areas there is a scarcity of burnable wood, and fire rings, stumps, and stripped dead trees have an adverse visual impact on the wild and undeveloped character of the area. Campfires disrupt delicate nutrient cycles. A 2-inch diameter dead tree in the Arctic may represent 100 years of acquiring nutrients and a process of decomposition

over future centuries, a natural cycle that is altered in only a few minutes when it is used in a campfire. Driftwood and leaf-litter decomposition are important to aquatic ecosystems. Heat generated by campfires may be sufficient to sterilize soils, and the nutrients released are concentrated in one small area. To protect natural cycles, campfires will be prohibited on tundra and in areas above tree line. Campfires will be allowed on gravel bars in forested areas, but visitors will be encouraged to carry stoves throughout the park and preserve.

Wildfire has been recognized as a natural phenomenon that must be permitted if natural systems are to be perpetuated, but also as a threat to private properties managed for residential or economic use. To accommodate both of these concerns, the National Park Service adopted a limited fire suppression policy as part of the recently completed interagency fire plan. This plan is accompanied by a detailed analysis of impacts (environmental assessment) from the implementation of the interagency fire plan (Alaska Interagency Fire Planning Team 1982). Only fires that threaten human life or private property, or that will enter another suppression zone, will be suppressed to the degree necessary according to the plan. Some prescribed burns may be developed in cooperation with landowners and the Alaska Fire Service to protect private property.

Fruits, berries, and mushrooms may be collected for personal or subsistence use. A specific regulation allows subsistence users to sell baskets made from birch bark collected along the Kobuk River (36 CFR 13.64).

Live trees and dead wood may be taken by subsistence users for noncommercial subsistence uses in areas where such uses are allowed, under the following conditions: The cutting of live trees greater than 3 inches in diameter will require a permit from the superintendent; the cutting of live trees less than 3 inches in diameter or the gathering of dead or downed wood for firewood will not require a permit. Because of the slow growth of trees and the impacts of cutting on the wild and undeveloped character of the area, permits for the cutting of live trees greater than 3 inches in diameter will be granted only when there are no alternative sources outside the unit and limited to the amount necessary for basic subsistence needs. Permits will require selective cutting, flush cutting, scattering of slash, and setbacks to avoid scenic impacts on rivers and lakes. These requirements will apply to all subsistence users cutting live trees over 3 inches in diameter.

Threatened or Endangered Species

Threatened or endangered species will be identified and protected in accordance with the Endangered Species Act of 1973, as amended (16 USC 1531 et seq.). No threatened or endangered species are known to occur within the Gates of the Arctic National Park and Preserve (FWS, USDI 1984). The current list of threatened or endangered species will be continually checked against known species within the unit. The park and preserve will be surveyed for threatened or endangered species found within the region.

National Natural Landmarks

Existing national natural landmarks will be monitored for impacts and their condition included in an annual report to Congress. Managed to the same standards afforded all park resources in this wilderness, their nationally significant features will be protected.

Air and Water Quality

To establish baseline data, air quality will be monitored at several locations in the unit, particularly adjacent to areas with development potential, such as the Ambler mining district. The park and preserve are designated class 2 areas for the purpose of implementing the Clean Air Act and amendments (42 USC 7401 et seq.), and the National Park Service will work with the Alaska Department of Environmental Conservation and the Environmental Protection Agency to ensure compliance with class 2 air quality standards. The National Park Service will also seek to participate in regional plans for development that might affect the air quality of the park and preserve and in the review of the effects of wildfire smoke on regional air quality.

Water quality will be monitored on all major lakes, rivers, and other water bodies that receive relatively heavy use or are otherwise of concern. The National Park Service will work with the Alaska Department of Environmental Conservation and the Environmental Protection Agency to ensure compliance with standards. The highest state and EPA water quality classifications will be maintained for all the waters within the park and preserve boundaries and sought for all waters flowing into the park and preserve.

Paleontological Resources

Paleontological resources will be protected primarily by their inherent inaccessibility and their inconspicuous nature. Research involving disturbance or collections of these resources will require a permit, as described in the "Research Management" section of this plan, and will be in accordance with regulations concerning the "Preservation of American Antiquities" (43 CFR 3).

Natural Resource Research Needs

The following list of natural resource research needs are not in order of priority:

Vegetation reclamation for high use visitor areas, mining claims, ATV trails, and winter/summer trails

Consumptive use studies to establish criteria for maintaining natural and healthy populations of fish and wildlife

Baseline population and distribution data and behavioral information for wolves, moose, brown bear, black bear, raptors, furbearers, Dall sheep, and caribou.

Baseline data for resident fish populations in major lakes and rivers

Baseline water quality data (heavy metals, turbidity, coliform); mitigations for point sources of pollution (in cooperation with the landowner at the source)

Natural resource assessment of Ambler right-of-way

Visitor use limits (carrying capacity) studies (discussed in the "Visitor Use Management" section)

Baseline air quality data

Research Management

The National Park Service will conduct all priority research that is not accomplished by others; however, the Park Service will actively seek the assistance of universities, state and federal agencies, and other organizations to conduct or cooperatively supplement this research.

General research, not specifically called for in the resource management plan, will be allowed only if all of the activities involved are allowed for visitors. The Park Service is interested in all research that adds to the body of knowledge about the Brooks Range; however, certain research activities are only allowed with an approved permit, such as landing a helicopter, collecting specimens, exceeding visitor group size or length of stay, and other public use requirements. A permit will generally be approved under the following conditions: The research must be within the scope of the park's resource management plan, be a part of another federally mandated program (such as the Alaska mineral resource assessment program of USGS required by ANILCA section 1010) or be legitimate scientific or educational research that cannot be conducted at another location. The requested activities must also be the minimum necessary to accomplish the research and be confined to the minimum time and area necessary. Requested activities may be limited or denied in high public use or critical resource and subsistence areas. The annual deadline for applications will be April 15 of each year for the following summer season (June 1-September 30), 45 days in advance of the activity for other times of the year. This will allow coordination with planned priority research. The permit will require follow-up information, including a summary of the number of people involved, the places visited, and the period of research, and either a reprint of what is published or a copy of the raw data.

A study repository will be provided at headquarters for research results. Preliminary data may be made available to qualified researchers and governmental agencies. Some data will be summarized for use by the public. Materials collected will be cataloged into the park collection in accordance with established regulations and guidelines.

CULTURAL RESOURCE MANAGEMENT

The Brooks Range has been occupied and traversed by people for at least 12,500 years, yet the land bears little visible evidence of their presence. Gates of the Arctic has survived as a wild and undeveloped area because its rugged, remote geography and limited productivity landscape have kept human activity transient. Native people moved within and through the mountains and valleys, following the seasonal rhythms of their prey and staying no one place very long. Evidence of their occupation is usually detected usually only by archeologists. Explorers, scientists, and natural philosophers harvesting the intangibles of knowledge and inspiration similarly have traversed the landscape and left little behind. Miners, trappers, and guides have left the most visible remnants, but they are thinly scattered. Within the context of this legacy, tangible cultural resources represent only a small part of the full story of people in the Brooks Range.

A major purpose of Gates of the Arctic is to maintain the wild and undeveloped character of the area. But the National Park Service is also mandated to identify, record, and evaluate cultural resources and to preserve those of significance, integrity, and exemplary value. The overall objective for the management of cultural resources is to understand the long-term human use of the area, recognizing the importance of both physical remains and intangible associations in the story of the Gates of the Arctic wilderness.

All management actions will be in compliance with appropriate federal laws and NPS policies, including the "Cultural Resource Management Guidelines" (NPS-28) and other applicable standards. Specific plans and actions will be described in a separate cultural resource management plan, which will be updated yearly or as necessary to reflect changing preservation needs and management priorities. There will be opportunities for public involvement.

Though some areas of the park have been the subject of intensive archeological research, overall the park is not well known archeologically. There is also no complete historical overview. To provide the needed data, a five-year program has been undertaken to conduct a selective sampling of cultural resources throughout the park and preserve. This project, now in its second year, consists of historical and archeological components, with reconnaissance level surveys in different areas of the unit each year. All historic and prehistoric sites identified will be evaluated for possible inclusion on the National Register of Historic Places and the Alaska Heritage Resource Survey. A cultural resource base map will be developed from this information to guide management.

Based on the results of the parkwide cultural resource selective sampling, specific in-depth research needs and protective measures will be identified. The National Park Service will actively seek other organizations to conduct or cooperatively accomplish research. Research results will be available at a study repository at park headquarters.

Archeological Sites

The ongoing cultural resource selective sampling of Gates of the Arctic will provide more detail about locations, contents, and significance of historic and prehistoric period archeological sites, including their eligibility for nomination to the National Register of Historic Places.

Many known archeological sites and very probably many undiscovered sites occur in areas of concentrated visitor use. These high use areas will be monitored for baseline conditions and changes. Any impacts or changes will be evaluated by professional archeologists who will make recommendations to protect the sites.

Archeological research by others will be managed according to NPS management policies and applicable federal laws and regulations, which recognize archeological resources as irreplaceable resources that cannot be duplicated elsewhere. Archeological research that involves excavating or collecting will be allowed only if it is essential to visitor understanding of the area, or essential to understanding anthropological or historical concerns that cannot be resolved outside the boundary. Field techniques must have the least possible impact on natural and cultural resources. Research that involves activities not generally allowed for visitors, such as using helicopters or exceeding visitor group size or length of stay, will be subject to the stipulations described for research management in the "Natural Resource Management" section of this plan.

Copies of documents, records, maps, and photographs incident to archeological projects will be filed at park headquarters. Artifacts and materials recovered from excavations will be treated and preserved at an appropriate institution, where provisions will be made for their additional scientific study. To the greatest extent possible, artifacts will be made available for display in appropriate local museums with adequate protection.

Historic Sites

The ongoing selective sampling of cultural resources is identifying and evaluating historic sites, artifacts, and structures. Historic structures in Gates of the Arctic consist primarily of cabins and other structures associated with mining, trapping, and recent guiding activities. Few structures or artifacts identified so far remain intact enough to warrant physical preservation efforts. Time and harsh weather have taken their toll on those that have survived. Another factor to weigh in the evaluation and treatment of these resources is that they represent only a segment of the area's history; most historic and prehistoric events did not result in structural remains. In addition, the remote locations of many sites place them beyond feasible preservation and protection limits.

All historic structures will be professionally evaluated for their integrity, significance, and eligibility for nomination to the National Register of Historic Places. To date, two structures have been identified as eligible for nomination to the National Register: the Yale cabin on Glacier River and the Vincent Knorr cabin on Mascot Creek. Neither is owned by the

National Park Service. The Yale cabin is on Doyon land within the park, and the Knorr cabin is associated with the mining operation on Mascot Creek. Additional sites will be surveyed and evaluated.

The historic Yale cabin is in a useful location for administering the area and will be maintained. The National Park Service will seek a cooperative agreement with Doyon offering technical assistance to protect the cabin, and it will seek a land exchange to obtain the land and cabin. If the cabin is transferred to NPS ownership, it will be maintained to preserve original work, materials, and character consistent with the recommendations that will be developed in a historic structure report and maintenance preservation guide.

The National Park Service will encourage the owners of the Mascot mine to protect the Vincent Knorr cabin.

All historic structures, sites, and remains that are determined by qualified professionals to be infeasible for preservation will be recorded by photographs, site plans, and measured drawings. Those sites not preserved will have value as "discovery sites" until they eventually revert to a natural condition. In the historic site investigation process, the archeological deposits (historic archeology) will be clearly identified and protected.

Selective collection of exemplary artifacts relating to ways-of-life, mining technology, and other themes will occur during surveys according to criteria such as vulnerability to theft or natural destruction, significance, and interpretive value. Collection will be limited by the policy and principle that artifacts have highest value in historical and archeological context.

The park has an approved "Scope of Collection Statement" that gives direction for the collection and preservation of museum objects. All collected artifacts will be treated, cataloged, and protected by qualified professionals in accordance with NPS guidelines. Artifacts will be maintained at headquarters or deposited at appropriate institutions, where they will be available for future study. Interest in developing local museums has been expressed in Anaktuvuk Pass, Bettles, and Wiseman. The National Park Service is interested in actively participating in the planning and development of any facilities and, provided these facilities offer adequate protection, may lend artifacts for display.

Intangible Cultural Resources

The National Park Service will strive to preserve the area's numerous intangible cultural resources through sensitive management policies and practices. Native customs and traditions, including the ways they related to the land in previous generations, are in danger of being lost to rushing change. These resources, place names, spiritual associations, and customs and traditions can be obtained from the memories of elders. Similarly, more information about the other intangible themes of the park, such as mining and trapping methods, bush culture, scientific exploration, the wilderness philosophy and ethic of Robert Marshall and

others, transportation, and development of the park, are being collected from the memories of people who were directly involved or from their descendants.

The National Park Service will continue to expand the collection of park-related documentary and oral history in cooperation with government, native, and private organizations. Collected data and research reports will be available at park headquarters.

Native place names have frequently been left off maps or changed to English names on USGS maps. This represents a loss of significant cultural resources because native place names often provide detailed descriptions of the landscape and insight into man's relationship with, and use of, the land. They may also identify spiritual values and special places. The National Park Service will request that the U.S. Board of Geographic Place Names leave any currently nameless features unnamed and consider changing the names of important traditional features to native names.

Through the active participation of local native American groups, sacred resources within the park and its general vicinity will be identified and protected. To the extent possible, visitor and management activities will be scheduled to avoid conflicts with ceremonial or shrine activities. To assist management in this realm, an ethnohistorical summary, based on existing data, is required. This is in accordance with the American Indian Religious Freedom Act of 1978.

Historic and Cemetery Areas

Until native land selections and conveyances have been completed, the National Park Service will protect, preserve, and manage all Alaska native historic sites identified under the provisions of section 14(h)(1) of ANCSA as properties eligible for the National Register of Historic Places.

SUBSISTENCE USE MANAGEMENT

Many Alaska native people continue to live a subsistence way of life similar to that pursued by their forefathers. In addition, there are also a number of nonnatives living in rural Alaska who maintain a subsistence lifestyle. To protect the cultural values of a way of life and to minimize adverse impacts on rural residents who depend on subsistence use, ANILCA provides the opportunity for rural residents engaged in a subsistence lifestyle to continue to do so. The National Park Service has subsistence management regulations in place, which are reported here and a Subsistence Resource Commission has been established to devise and recommend a subsistence hunting program.

In establishing Gates of the Arctic, Congress has directed that subsistence uses will be permitted in the park where such uses are traditional (section 201(4)(a)), and that they will be permitted in the preserve without this qualification (section 203). Subsistence uses in the park and preserve will be managed as directed by Title VIII of ANILCA

and the implementing NPS and state of Alaska subsistence regulations and policies. The park's Subsistence Resource Commission, the Regional Fish and Game Advisory Council and local advisory committees, the Alaska Boards of Fisheries and Game, and the Alaska Department of Fish and Game will provide consultation and guidance in the further development of these regulations and policies.

State laws and regulations governing the taking of fish and game apply within the park and preserve where they do not conflict with federal law or regulation. The regulation of subsistence uses, including seasons and bag limits, eligibility, areas open, and access, must be consistent with park purposes and subsistence mandates. The National Park Service desires that subsistence seasons, bag limits, methods, and means be regulated by the state of Alaska in a manner consistent with ANILCA and park purposes, rather than by direct federal regulation.

Gates of the Arctic National Park has a Subsistence Resource Commission composed of nine members appointed by two regional advisory councils, the governor of Alaska, and the secretary of the interior. They are charged with devising and recommending a program for subsistence hunting within the park. Their recommendations will be reviewed at public hearings in the vicinity of the park, and they will be reviewed by the governor, who may then submit his comments to the secretary of the interior. The recommendations must be accepted by the secretary of the interior unless he finds in writing that they violate recognized principles for the conservation of natural and healthy populations of wildlife, are contrary to the purposes for which the park was established, or would be detrimental to the satisfaction of the subsistence needs of local residents (ANILCA section 808). Upon finding of consistency and acceptance by the secretary of the interior, the recommendations will be promptly implemented. The Subsistence Resource Commission for Gates of the Arctic National Park held its first meeting in May 1984 and met again in August and November 1984 and in January 1985. The commission is scheduled to meet several more times in local communities while developing their initial recommendations, which are expected to be forwarded to the secretary of the interior in approximately one year. Follow-up recommendations regarding the program or its implementation are to be made annually thereafter.

Local rural residents who have customarily and traditionally engaged in subsistence uses of the park are eligible to continue those activities. To spare the expense and inconvenience of an extensive permit system, "resident zone communities," where significant concentrations of qualified local residents have been identified, they are collectively allowed to continue to engage in subsistence uses of the park without permits. These communities include Alatna, Allakaket, Ambler, Anaktuvuk Pass, Bettles/Evansville, Hughes, Kobuk, Nuiqsut, Shungnak, and Wiseman. Individuals who do not reside in the park or in one of these communities must obtain a subsistence permit by documenting their established, historical subsistence use of the park and their permanent local residency.

Some resident zone communities are changing, and some individuals with no established, historical pattern of use within the park are engaging in

subsistence uses of park resources. Increasing consumption and competition for park resources will make it difficult to minimize adverse effects on local residents. Eventually the establishment of user priorities may be required to prevent the disruption of the natural ecological balance. The National Park Service is charged with monitoring the resident zone communities for their continued eligibility. If a designated community no longer appears to meet the criteria, a process of public notice, hearing, and consultation with the Subsistence Resource Commission will be initiated to consider deleting the community from the designated resident zone. If this occurs, individuals within the community who can demonstrate an established or historical pattern of park use prior to 1980 by themselves or their immediate families will be issued permits to continue subsistence use.

ANILCA limits subsistence use in Gates of the Arctic National Park to those areas where it has traditionally occurred. The National Park Service regulations reiterate this limitation and provide for the delineation of these traditional use areas when necessary to ensure public understanding and compliance (36 CFR 13.41). Based on recommendations from the Subsistence Resource Commission, the National Park Service will propose the designation of traditional use areas for resident zone communities, for review and comment by the affected communities and the general public.

ANILCA section 811 provides for reasonable access for qualified subsistence users, including the use of snowmachines, motorboats, dog teams, and other means of surface transportation traditionally employed for such purposes. This is not intended to foreclose the use of new, as yet unidentified, means of surface transportation so long as such means are subject to reasonable regulation necessary to prevent a waste or damage to fish, wildlife, or terrain. If a means of surface access other than snowmachine, motorboat, or dog team is shown to have been traditionally employed in the park for subsistence uses, it will be categorically permitted subject only to reasonable limitations to minimize adverse impacts on park resources. If such a means of access was not traditionally employed, it may still be permitted under circumstances that prevent resource waste or damage to fish, wildlife, or terrain. In addition, such use may be discontinued if it cannot protect other park values. The use of aircraft as a means of access to areas within the park for subsistence taking of fish and wildlife is prohibited except in cases of extraordinary hardship, when a permit may be granted by the park superintendent. It is already recognized that the people of Anaktuvuk Pass periodically experience conditions warranting the issuance of such permits.

The use of plant materials and trees are also allowed for subsistence purposes. Any cutting of live trees greater than 3 inches in diameter requires a permit from the park superintendent, which will be issued if alternate resources do not exist outside the park. Timber-cutting permits require selective cutting, flush cutting, scattering of slash, and river and lakeshore setbacks to avoid unnecessary scenic and resource impacts.

Permits may also be issued for the temporary use, occupancy, construction, or maintenance of new or existing cabins and other

structures. However, it must be determined that such a requested use is reasonably necessary to accommodate subsistence. Each request will be evaluated on its individual merits.

Subsistence primarily involves rural Alaska residents' customary and traditional uses of wild renewable resources for personal consumption; however, barter and customary trade are also recognized as being an incidental part of the subsistence lifestyle. Customary trade largely centers around the sale of furs. Thus, fur trapping is understood and expected to occur as one of the many subsidiary activities that make up an individual's subsistence lifestyle, providing the cash to purchase the basic tools necessary to maintain that lifestyle. It is not intended, however, that trapping ever become a commercial activity, especially resulting in impacts on wildlife populations in the park. The history of the use and sale of fur will be studied. The Subsistence Resource Commission will be asked for recommendations consistent with ANILCA, which further clarify the difference between commercial and subsistence trapping as part of their hunting recommendations. Customary trade at Gates of the Arctic also includes the sale of baskets made from plant materials collected along the Kobuk River.

The National Park Service recognizes subsistence uses by local rural residents as a natural part of the ecosystem that has been in balance with all other parts for thousands of years. The National Park Service is directed to take appropriate steps when necessary, in consultation with the state of Alaska, the park's Subsistence Resource Commission, and affected users, to ensure that continued consumptive uses of fish and wildlife populations within Gates of the Arctic National Park and Preserve do not disrupt the natural balance. Accordingly, neither habitat manipulation nor control of other species will be undertaken for the purpose of maintaining subsistence uses within the park and preserve.

There have been reports of conflicts between subsistence use and hunters, fishermen, commercial operations, floaters, aircraft, and helicopters. If it is ever necessary to limit consumption of fish and wildlife, nonwasteful subsistence use has priority over other consumptive uses such as sporthunting, sportfishing, and trapping (see ANILCA section 804). Other conflicts will be minimized by proposals in this plan. Visitors will be encouraged to register at field stations, where they will be given information about subsistence users and asked to avoid critical times and places of subsistence activities. Air-taxi operators and others operating fixed-wing aircraft will be advised to fly at a minimum altitude and to avoid subsistence use areas at critical times. The National Park Service will similarly adhere to these recommendations and will not allow unnecessary or disruptive helicopter use (see "Research Management").

VISITOR USE MANAGEMENT

People fortunate enough to enter the Gates of the Arctic National Park and Preserve find it a vast, beautiful, and wild place. It offers visitors opportunities that are rare in the modern world. The natural integrity of a large arctic area and the scenic beauty of glacier-cut lands are features protected in the Gates of the Arctic. Even rarer is the opportunity for

boundless solitude. Mountain climbing and wilderness recreation attract some visitors; others are local residents who, by tradition, use the park for subsistence. Wildlife habitat is protected and, with it, the opportunity for visitors to view raptors, caribou, grizzly bears, Dall sheep, moose, and wolves in the wild. Gates of the Arctic is destined to be America's premier wilderness, and it will remain a wild, undeveloped land.

Visitors can tame a wild place. Just as shy animals flee when a person intrudes, less obvious elements of wilderness also slip away as people prevail on the landscape. Visitor use will change the wilderness experience and the natural environmental integrity. Thus, managers must contend with the question, "What degree of change is acceptable?"

Visitor Use Limits (Carrying Capacity)

The National Park Service will, as necessary, prescribe visitor behavior or use limitations to ensure that the outstanding wilderness opportunities and natural systems available at Gates of the Arctic remain undiminished now and in the future. This is a difficult task. The Park Service invites the public to offer suggestions in designing the best approach. There is a need to clearly define the values to be protected, and there are many ways to protect them. There are probably as many reasons why people value wilderness as there are people who value wilderness. For example, some people wish to blend unobtrusively into a wholly natural environment, while others are enticed by the challenge of self-reliance. For still others, freedom from routines and worldly concerns is all important. From each unique perspective on the value of wilderness, a different standard for limiting use might emerge, a different degree of tolerance for other people and the traces they leave behind.

There are many possible ways the Park Service could protect visitor and resource values. And park managers are not unaware that intrusive regulations can impair the experience for the visitor. The Park Service might limit the number of hiking starts from more popular starting places or the number of put-ins for river floats. Also, it could limit commercial operators, perhaps by rationing the number of trips per year per outfitter. Another way of protecting park values could be to modify visitor behavior in such ways as providing minimum-impact camping information or requiring the use of camp stoves.

Current visitor use causes few problems and does not approach levels that demand restriction except in a few areas where use is most concentrated. In the Arrigetch Peaks, human impact is reflected by vegetation damage, fire rings, trails, and litter and are beginning to alter the wilderness.

Management Objectives and Proposed Standards. Management objectives and standards describe what the park and preserve should be like. They are based on the directions of Congress. The management objectives that follow were identified in the park's Statement for Management, which was publicly reviewed in 1982, revised to incorporate public comments, and approved in April 1984. Specific standards are also proposed for

comments. These are intended to provide clear measures for evaluating management needs and making management decisions.

Goals and standards for resource and visitor use management are proposed below. A few of the standards are already being exceeded and would, if adopted in the final plan, result in some forms of visitor behavior or use limits. These are indicated with an asterisk. Other standards would be monitored, and when exceeded, require additional management steps with further public involvement.

These standards are judgment calls, a product of experience, limited research data, basic inventory information, and common sense. The Park Service will be working to increase the body of information on which these judgments are based, and managers anticipate that the public will add to our limited knowledge by commenting now and as concerns develop in the future.

Natural Resources

Maintain the wild and undeveloped character of the park and preserve.

Determine and only allow levels of human use that park resources can withstand without impairing their integrity or condition.

Proposed Standards:

Maximum of 1 disturbed/impacted campsite occurs per 5 miles of lakeshore or river/hiking corridor. *

Undesignated trail is not discernible as a distinctly human-caused trail. *

Maintain free-flowing rivers and water quality.

Proposed Standards:

Degradation of water quality from Alaska Department of Environmental Conservation drinking water standards is not measurable.

Establish clear standards and maintain natural and healthy populations of fish and wildlife and their associated habitats within the park.

Proposed Standards:

Critical areas for caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds are not disturbed by visitors during times of nesting/calving/denning/lambing.

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*Standard currently exceeded in some areas; would require management action.

Identify and protect threatened or endangered species.

Proposed Standards:

Disturbance to any threatened or endangered species or their habitats is not reported or observed.

Promote human understanding and behavior which minimizes hazardous or destructive encounters with wildlife.

Proposed Standards:

Maximum of 1 wildlife encounter occurs which results in the death of an animal per year; no encounters occur which result in serious human injury or death; and maximum of 2 threatening encounters are reported or observed in each of the two management districts per season.

Cultural Resources

Protect significant cultural resources on park land with methods that are compatible with the wilderness purposes of the area.

Proposed Standards:

Known significant cultural resources are not damaged by visitors.

Subsistence Use

Minimize conflicts between subsistence activities and recreational uses.

Proposed Standards:

Conflicts between subsistence and recreational users are identified less frequently than 1 year in 5 in any given subsistence locale (Kobuk/Koyukuk/Anaktuvuk regions).

Visitor Use

Provide for park purposes and wilderness recreational activities by maximizing a visitor's opportunity to experience solitude, self-reliance, challenge, wilderness discovery, and freedom of movement through the use of the park, without intrusive regulation or unreasonable jeopardy.

Proposed Standards:

Visitors encounter a maximum average of 1 other group per week during each trip (Note: different rivers/hiking corridors could be assigned different standards).

Visitors encounter a maximum of 6 people per backpacking group, 12 per river running group. *

Maximum of 2 verbal complaints at field stations in 1 week or 3 letters in 1 season about unwanted encounters with other groups.

Visitors encounter a maximum of 1 littered site per 10 miles of lakeshore or river/hiking corridor (littered site = 5 or more items of human refuse).

Visitors encounter a maximum of 1 item of human garbage/litter per mile.

Visitors encounter no recreational use of snowmachines or motorboats. *

Monitor aircraft operations (including access planes, commercial, military, and private overflights) and mitigate visual and audible intrusions on visitors' wilderness experience.

Proposed Standards:

Visitors hear/see average of 1 low aircraft (below 2,000 feet above ground level) per week once they are away from access points and out of regularly used aircraft corridors shown on the Summer Recreational Use and Access map.

Land Protection

Recognize fully the rights of private inholders and promote understanding among inholders and neighbors of compatible use, development, and access.

Proposed Standards:

Problems of private landowners within the park caused by visitors are identified less frequently than 2 years in 5 in each of the 2 management districts.

Administration

Keep park management activities, requirements, and regulations form unnecessarily interfering with valid recreation, subsistence, and private property uses.

Proposed Standards:

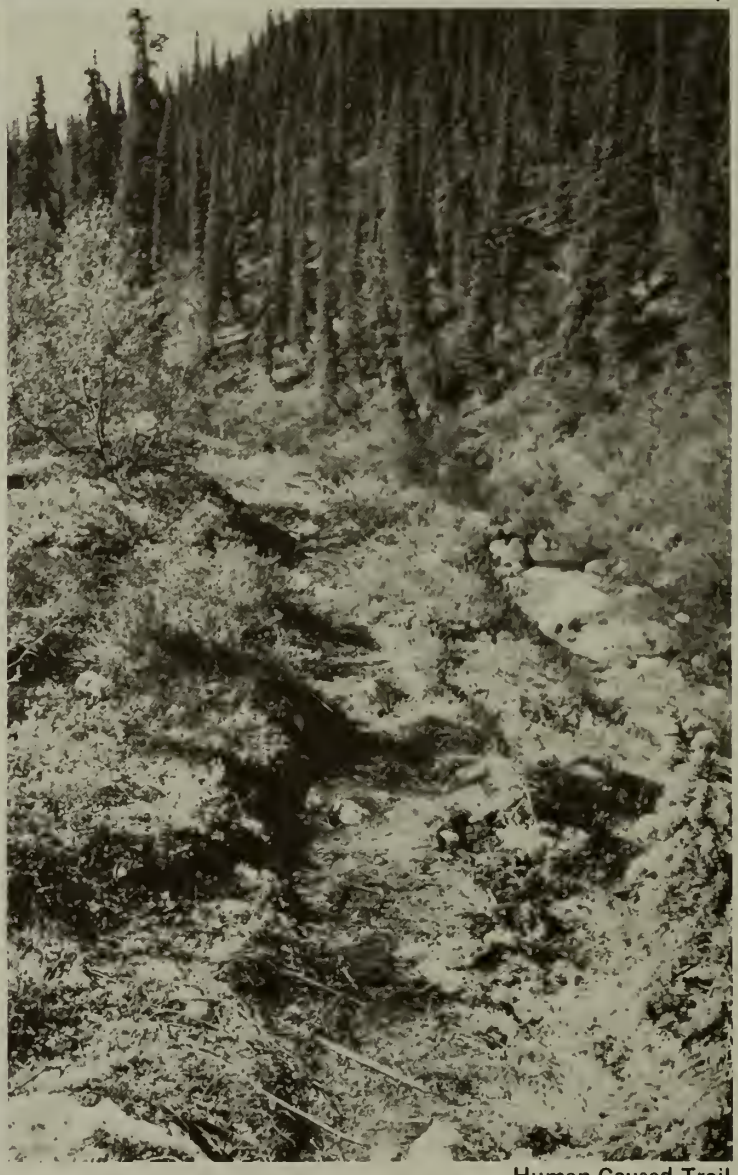
Unnecessary interference between visitors and NPS operations is identified less frequently than 2 per year in each of the 2 management districts.

ATV Tracks

Abandoned Airstrip

Campsite

Cache



Human-Caused Trail

IMPACTS OF HUMAN USE

Field Data and Information. Field data and information will be needed to determine existing conditions and places where standards are not being met. Collection of this data will include monitoring and inventory of use areas, systematic recordation of field reports, and research.

Monitoring and Inventory. Areas of visitor use, notably those shown on the Summer Recreational Use and Access map, will be inventoried and monitored for the following conditions identified in the standards:

campsites - condition, location, number, and distribution

human-caused trails - condition, location, and length

water quality - deterioration from human use

significant cultural resources - condition and impact from human use

littered sites - sites with five or more items of refuse, number extent, location, distribution, and individual litter

Systematic Recordation. Much information is currently collected by NPS staff in the field and at ranger stations, and will be recorded by location and date for evaluation with respect to the standards:

adverse wildlife encounters - human injury or death, destruction of wildlife

identifiable conflicts between subsistence and recreational users

identifiable conflicts between private landholders and recreational users

complaints of overcrowding by visitors

identifiable unnecessary interference between NPS operations and recreational users

Research. More extensive research will be needed to monitor and adjust standards and prescribe management. Research will be conducted in a statistically and scientifically sound manner. Some research requires visitor opinions, and its collection will respect visitor desires for no interference. The following areas have been identified:

critical times and areas of nesting/calving/lambing/denning of caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds; effects of visitors

threatened or endangered species and habitats

critical times and areas of subsistence use

number of other groups encountered by visitors, visitor reactions, expectations, and satisfaction

number of aircraft encountered by visitors, height, noise, visitor reactions, expectations, and satisfaction

relationship between levels of use and campsites, trail formation, water quality degradation, cultural resource impacts, and littered sites

evaluation of management actions, effectiveness, and acceptance

Management Actions. Several initial steps will be taken in Gates of the Arctic to ensure that the standards are met. These are discussed in the remainder of this section. As visitor use is monitored and effects are evaluated, there may be need for adjustments or further management actions.

Small actions such as modified camping regulations or an additional use-limit zone would be published for public comment through the regulatory process. When field data and research indicate major management measures are needed, such as a parkwide zone system with use limits, further management plans will be developed with public involvement.

Voluntary Visitor Registration

All visitors will be encouraged to register voluntarily for the purpose of giving and receiving information. All commercial operators will be requested to similarly give and collect information. Each person who registers will receive basic information about minimum-impact behavior, safety, group size limits and other regulations, boundaries, private property, and subsistence use. Visitors will be asked to avoid areas and actions that would be disruptive to private landowners and subsistence users. In addition, visitors will be asked the size of their parties and where and how long they will be in the park. This information will be used to keep track of the levels of use in various areas and will be available to visitors to help them find the level of solitude they are seeking. Visitors will also be asked to volunteer information on the condition of the park that relates to the proposed standards discussed previously.

Summer Recreation

Backpacking, hiking, mountaineering, river running (nonmotorized boats only; see later discussion on motorized boats), scenery and wildlife viewing, fishing, photography, and camping are common summer activities and clearly appropriate wilderness recreational activities.

Group sizes will be limited to 12 for river runners and 6 for backpackers. Campsites must be at least one-half mile apart, and the length of stay will be limited to no more than three nights at any campsite.

To prevent further resource damage to a high use area of about 9,000 acres around Arrigetch Peaks, the Arrigetch Creek valley, and Circle Lake, use will be limited to three groups at any one time, on a first-come, first-served basis, and the length of stay will be limited to 10 days. Similar limitations may be applied to other high use areas if resource impacts are observed or if solitude is threatened. The limited use zone is shown on the Plan - Visitor Use Management map.

Winter Recreation

Snowshoeing, cross-country skiing, dogsledding, and camping are appropriate wintertime wilderness recreational activities. Because participation in these activities is minimal and because vegetation is usually covered well with snow when they occur, there are few existing problems. To protect solitude and wilderness values, group size will be limited to 12.

Pack Animals

Federal regulations (36 CFR 13.12) permit the use of domestic dogs, horses, and other pack or saddle animals subject to restrictions or closures by the superintendent to avoid any use that is determined to be incompatible with the purposes of the park. At Gates of the Arctic, horses, llamas, mules, and other hoofed pack animals will be allowed for personal use only and will be limited to eight animals per group. Access for subsistence use will not be affected. Visitors using pack or saddle stock must comply with all other backcountry regulations. Use will be closely monitored for impacts on the fragile arctic vegetation and soil structure, the introduction of nonnative plant seeds through feed or fecal matter, the attraction of bears to visitors, the possibility of pack animals escaping and becoming feral, and the transmission of diseases to native wildlife. Any evidence of these problems will result in further limitations.

Harnessed dog teams and restrained pack dogs will be the only dogs allowed in the park.

Motorized Vehicles

Under specific conditions, certain methods of motorized access are permitted within the unit. ANILCA section 1110(a) states that "Such use . . . shall not be prohibited unless . . . the Secretary finds that such use would be detrimental to the resource values of the unit or area." Charged with protecting park areas in a manner that will leave them unimpaired for future generations, the National Park Service can apply available knowledge and tools to prevent predicted damage, not wait until demonstrated damage has occurred.

Aircraft. Federal regulations (36 CFR 13.13 and 13.45) allow the use of fixed-wing aircraft for access to the park and preserve except for the subsistence taking of fish and wildlife in the park, unless prohibited by

the superintendent because it would be incompatible with the purpose of the unit. Fixed-wing aircraft remain the primary means of access into the area, and most visitors charter with an air-taxi operator. There are no designated or maintained landing strips, and no alteration of vegetation or terrain to improve a landing area is allowed. Aviation fuel caches will not be allowed except under extraordinary circumstances and with the written permission of the superintendent.

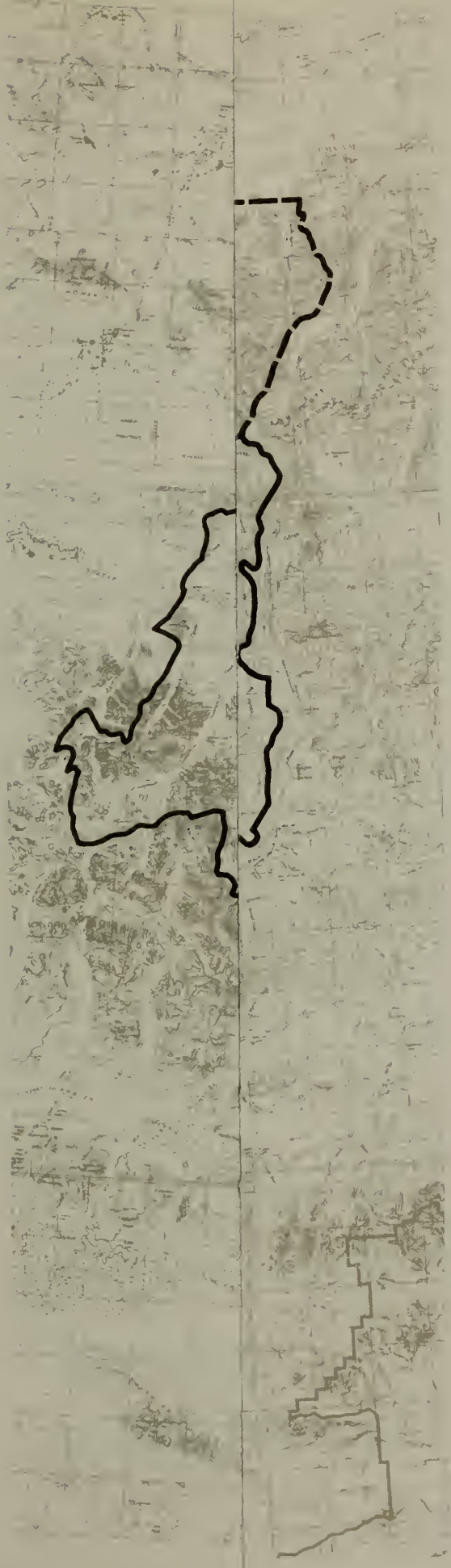
At this time no limits will be placed on fixed-wing aircraft landings within the park. Aircraft will be allowed to land at any location where they can take off again safely. Management of group sizes and camping locations and techniques is expected to adequately control impacts on resources that will otherwise result from unconstrained fixed-wing aircraft access. However, the National Park Service will monitor for adverse effects of aircraft use, such as damage to vegetation caused by concentrated use of particular areas, and if problems are identified, the issue will be reevaluated with the public.

To minimize the intrusion of aircraft on the experience of visitors on the ground and possible wildlife disturbance, minimum altitude recommendations will be published, and air-taxi operators and other pilots will be encouraged to comply. Pilots will be asked to avoid flying over high use areas and generally fly 2,000 feet above ground level. Information about the locations of regularly used air corridors will be available to visitors who are concerned about the opportunities for solitude. Plane camping will be subject to all parkwide backcountry regulations. The National Park Service will work with air-taxi operators to develop and implement guidelines to avoid visitor or subsistence conflicts and concentrations of use. The Park Service will also work with the Federal Aviation Administration through an interagency agreement (1984) to mitigate adverse effects of overflights.

Ultralights are not allowed, and recreational use of helicopters will not be permitted.

Snowmachines. The use of snowmachines is currently allowed on adequate snow cover or frozen rivers, for subsistence, other traditional activities, and for travel to and from villages and homesites (36 CFR 13.10). At Gates of the Arctic, the use of snowmachines by subsistence users and private property owners will be guaranteed. Specific routes that have been regularly used for point-to-point travel between villages will be designated for continued use by local residents. Those designated in this proposal include about 325 miles of snowmachine routes on the John, Middle Fork, and Kobuk rivers and a northern route between Anaktuvuk Pass and the Noatak River (see Plan - Visitor Use Management map). Additional routes may be designated through further local input.

Snowmachines will not be permitted for other public uses in the park and preserve since the proliferation of this type of mechanized access where it has not previously occurred will not be consistent with maintaining the wild and undeveloped character of the area, will infringe on solitude, and can disturb wildlife, increase poaching, and damage fragile vegetation.



GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

LIMITED VISITOR USE ZONE AT ARRIGETCH PEAKS

DESIGNATED SNOWMACHINE ROUTES FOR POINT-TO-POINT TRAVEL FOR LOCAL RESIDENTS

PLAN
VISITOR USE MANAGEMENT
GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

185 | 20042A

DSC | FEB 85

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

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UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES
0 5 10 15 20 25 30 KILOMETERS

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Motorboats. Motorboat use is currently allowed on park waters (36 CFR 13.11). General public use of motorboats for recreation has not been widely established on most rivers and lakes in Gates of the Arctic. The only notable exception is on Walker Lake, where recreational use has regularly occurred. It is proposed that the existing pattern of regular use be continued, allowing motorboat use on Walker Lake, but limiting motor size to 10 horsepower to protect solitude and wilderness values. The recreational use of motorboats on other park waters will be prohibited because the development of this use will diminish opportunities for solitude (lakes and rivers usable for motorboats coincide with high visitor use areas for floating, kayaking, and canoeing). Further, the establishment of regular use could disturb wildlife in the river valleys, increase poaching, and cause riverbank erosion. The use of motorboats for subsistence use and access to private land will continue to be guaranteed.

Offroad Vehicles. Regulations and policies (36 CFR 4.19 and 13.14, Executive Order 11644) prohibit the use of offroad vehicles unless routes or areas are designated by the superintendent outside of wilderness or unless the use is specified by valid permits for access to private lands. Outside of wilderness, designation must not adversely affect natural, aesthetic, or scenic values. Because this use is generally prohibited in wilderness and because these vehicles are generally destructive of terrain features, particularly wet tundra, they will not be allowed for public use within Gates of the Arctic National Park and Preserve.

Other uses of motorized access may be requested in the future as technologies and ideas change. Each request will be evaluated by the superintendent for consistency with laws, regulations, NPS management policies, the wilderness designation and the purposes of the area, and for its effect on park resources, and each will be managed accordingly.

Special Events

Special events are allowed in national parks provided there is a meaningful association between the park and the event, the observance contributes to visitor understanding of the area, and a permit has been issued by the superintendent (36 CFR 2.50). However, a permit will be denied if such activities would

cause injury or damage to park resources

be contrary to the purposes for which the natural, historic, development, and special use zones were established; or unreasonably impair the atmosphere of peace and tranquility maintained in wilderness, natural, historic, or commemorative zones

ureasonably interfere with interpretive, visitor service, or other program activities, or with the administrative activities of the National Park Service

substantially impair the operation of public use facilities or services of NPS concessioners or contractors

present a clear and present danger to the public health and safety

result in significant conflict with other existing uses

Further, NPS management policies do not permit use of park lands or facilities for competitive recreational events that are characterized as public spectator attractions. Certain recreational activities that do not necessarily depend on park resources for their realization and that do not constitute traditional or customary park uses will not take the form of special events or be provided primarily for the benefit of spectators. They will not be practiced for material or financial gain by the participants, either directly or indirectly, and there will be no commercialization, advertising, or publicity by the participants.

Currently, the only requested special event has been the "Coldfoot Classic" dog team race, which has been allowed in 1984 and 1985. While the use of dogs has a meaningful association with the area and the event has much local interest, other aspects of the race marginally meet the criteria and have been a source of NPS concern and significant public criticism. One concern is the appropriateness of the organized, competitive nature of this event in a park with wilderness purposes. Another concern is that the race could become a public spectator attraction because of the publicity, promotion, and support services surrounding the event.

Because of these concerns, it is proposed that this event only be allowed in the future under controlled conditions. Only one event of this type will be allowed per year. The race must be locally organized and occur on traditional winter routes of village-to-village travel to ensure its meaningful relationship to the historical use of dogs in the area. The routes include designated snowmachine routes along the John, Middle Fork, and Kobuk rivers. To protect the wilderness character of the area, no checkpoints or trail markers may be used inside the park and preserve. The size will be limited to 25 participants, and the race must not interfere with other public uses. To minimize publicity, promotion, and the spectator attraction aspects, no commercial advertisement will be permitted, and only a modest purse will be allowed. The sponsor must assume responsibility for all support of the race, including search and rescue. The sponsor must also post a performance bond to cover NPS search and rescue and clean-up costs, must carry suitable public liability insurance, and will be held responsible for any resource damage.

Requests for future special events will be evaluated with the existing criteria and public comment on any application.

Opportunities for Handicapped Visitors

It is the policy of the National Park Service to recognize disabled people as members of the visitors at large and to provide for their access to existing facilities and programs to the greatest degree possible and feasible. Separate access or special assistance may be provided when access to existing programs is not reasonable or feasible. The determination of what is possible or feasible must consider the obligation

to protect park resources. This policy is in compliance with the intent of the Architectural Barriers Act of 1968 (PL 90-480) and with Title V of the Rehabilitation Act of 1973, as amended (PL 93-112).

In Gates of the Arctic National Park and Preserve, opportunities for visitors to experience solitude and wilderness recreational activities extend to all people. In accordance with the strong wilderness mandate of Congress, the area is to be experienced on its own terms, and it will not maintain the wild and undeveloped character of the area to physically modify the park with paved trails or other special facilities for the accommodation of handicapped visitors. Nevertheless, many types of access and activities are suitable for less able-bodied visitors, including the elderly, blind, and wheelchair-bound people. Information will be available upon request about the opportunities and the basic skills needed to enjoy them. Activities include river trips, camping, hiking, flight-seeing, plane camping, dogsled trips, sporthunting in the preserve, sportfishing, and commercially guided activities. Information and technical assistance related to the accommodation of handicapped visitors will be provided to commercial operators, and at least one operator will be required to provide special services for the handicapped.

Commercial Services

Any service made available for a fee or charge to any persons visiting a conservation system unit is considered a commercial visitor service. ANILCA provides for the continuation of visitor services that existed prior to January 1, 1979, if they are consistent with the purposes of the area. The Concessions Policy Act of 1965 (16 USC 20 et seq.) establishes guidelines the National Park Service will follow:

> To permit concessions (commercial services) in park areas only under carefully controlled safe-guards against unregulated and indiscriminate use so that heavy visitation will not unduly impair park values and resources. Concession activities in park areas shall be limited to those that are necessary and appropriate for public use and enjoyment of the park areas in which they are located and that are consistent to the highest practical degree with the preservation and conservation of the park areas.

To ensure that commercial operations are consistent to the highest practical degree with park purposes, certain terms and conditions will be required. Operators must first meet the minimum licensing requirements of liability insurance, Alaska state business license, hunting guide license, air-taxi certificate, and compliance with federal regulations (36 CFR). Guides and air-taxis will be required to provide information to clients concerning safety and environmental ethics, submit advertising literature for review, and collect statistical information. Guides will further be required to receive prior approval of trips and schedules. The National Park Service will work with air-taxi operators to develop and implement guidelines to avoid visitor or subsistence conflicts and concentrations of use. Applications to operate will be due prior to April 15 for the following season.

In return for these additional requirements, which are beyond the normal practices of these businesses, the existing commercial license system will be converted to a concession permit system, which will tend to limit the amount of future competition. The concession permit system will also allow the National Park Service more direct management of commercial services to assure public enjoyment and safety and protect park resources.

The number of companies licensed to provide commercial visitor guide services is currently 30, and the goal is to maintain that level of service. However, to provide fair opportunity to all guides, the total number of guides will not be limited until January 1, 1987. At that time, all the guides who have valid commercial licenses may exchange them for concession permits. It is expected that the number of companies providing services will have grown to slightly more than 30. To get back to the desired level, permits that are not used for two consecutive years or do not meet permit terms and conditions will be rescinded. No new permits will be issued until attrition has reduced the number of permits to less than 30. New permits will then be available on a lottery basis to qualified guides interested in taking clients into Gates of the Arctic. Pursuant to ANILCA section 1307, preference will be given to native corporations and local residents.

The same procedure will be followed to convert air-taxi operators to a concession permit system. There are currently five licensed air-taxi operators, which represent eight different operators in the last few years. The goal is to allow up to eight air-taxi operators at Gates of the Arctic.

The National Park Service will continue to recognize state-assigned hunting guide areas in the preserve. No other assignments of lands or exclusive use of structures on lands administered by the National Park Service are currently considered necessary and appropriate.

In recognition of the special wilderness purpose for which Gates of the Arctic National Park and Preserve was established, the National Park Service will discourage guides from relying on a few highly structured and repetitive trip packages for a substantial portion of their incomes. Instead the Park Service will encourage guides to fit their routes and services to their clients' choices of what they want to see and do. In this manner, the Park Service will attempt to reduce the perception of "processed" or "canned" trips. At the same time guides will be ecouraged to provide their clients with a truly unique experience.

The existing permanent camp and land assignment for a commercial operator on the North Fork of the Koyukuk will be discontinued upon approval of this plan. The Wilderness Act of 1964 prohibits commercial enterprise within wilderness. The National Park Service has adopted management policies that do not permit structures and facilities in support of commercial services in wilderness, while guide services are permissible. For similar reasons, existing public use cabins may be used by commercial guides on an unscheduled, unadvertised, first-come, first-served basis along with the general public.

Guides who provide air transportation to clients that is incidental to their service are not required to obtain an air-taxi certificate from the Federal Aviation Administration. The certificate has higher standards of pilot certification, aircraft maintenance, and liability insurance. Visitors are often unaware of the difference between guides providing incidental air service and air-taxi operators. The National Park Service is concerned that park visitors receive services of a uniform and high degree of safety and liability protection. It is also concerned that the public be fully informed of these standards prior to making use of a licensed commercial operator to access the park by air. The Park Service proposes to work closely with licensed operators and federal and state authorities to resolve both of these concerns in an effective manner.

Information and Interpretation

The National Park Service traditionally provides information and resource interpretation in the form of literature, audiovisual programs, ranger-guided walks, exhibits, museums, etc., for the enjoyment and enrichment of people visiting the national parks. Information and interpretation are useful tools for influencing the activities of people so that they are careful to protect park resources. In a park with a wilderness mandate, however, a traditional approach may interefere with visitors' opportunities for discovery and self-reliance, and it may have the adverse effect of concentrating visitors in certain areas.

To avoid or mitigate these problems, information will be provided in a single concise package that will be handed out during the voluntary visitor registration or through commercial operators. The park brochure will be straightforward and informative, describing the purposes and values of the area and basic information, with no promotional message. Information will be provided about regulations, minimum-impact techniques, boundaries, private property, subsistence use, protecting cultural resources, traveling and camping in bear country, weather, crossing streams, general terrain conditions, and general access, to help visitors who are unfamiliar with the area to plan a safe trip.

In response to people's desire for discovery and self-reliance, visitors will be encouraged to find out further information on their own. In response to questions, park personnel will provide general information about the full range of opportunities, routes, heavily used areas, access, field conditions, wildlife, opportunities for handicapped visitors, and commercial operators. For specific route selection, access selection, and detailed resource information, visitors will be encouraged to explore maps and other sources of information. People who inquire about activities not available in Gates of the Arctic will be informed of what is available in other conservation system units.

Limited interpretation will be provided with the information packages. The principal theme of interpretation will be the Gates of the Arctic wilderness: the history of the wilderness movement in the United States, the work of Robert Marshall, the Wilderness Act of 1964, and the wilderness purposes of Gates of the Arctic National Park and Preserve. The intent of this message will be to foster an understanding and

appreciation of wilderness values. Audiovisual programs may be developed for presentation at the field offices, headquarters, schools, and other public facilities. Exhibits and displays containing basic information on topics described for the park brochure may be installed at field offices and headquarters. A study repository of research conducted in Gates of the Arctic will be available at headquarters and so will the Hans van der Laan Brooks Range Library, a memorial collection of books, upon approval by the Hans van der Laan Committee.

Displays of prehistoric and historic artifacts may become available if local communities develop museums in cooperation with the National Park Service (see "Cultural Resource Management" section).

Certain areas of Gates of the Arctic--those that receive the most publicity--attract enough visitors that trail information and campfire rings are visible and the solitude is periodically disrupted. There is concern that future guidebooks developed by others could result in concentrating use and impacts in highlighted areas. The National Park Service will encourage anyone developing a publication or program to be sensitive to the potential impacts of publicity by providing information about the purpose and the values of the park, its resource problems, and recommendations to minimize adverse effects.

The National Park Service will notify organizations, communities, and the media about what NPS administrative and management activities will be occurring in specific locations within the park and preserve so that interested or affected persons can plan accordingly or notify the National Park Service of any potential conflicts.

OPERATIONS

To minimize intrusions on people's wilderness experiences, NPS personnel will strive to maintain a low profile in the park. The focus of backcountry operations will be on monitoring and protecting resources, monitoring use, and responding to emergencies. While contacting visitors inside the park will not be a goal of staff field work, some contacts will be made while protecting resources and monitoring use. Interpretive conversations with visitors will normally be initiated at field stations outside the park and preserve. The methods of operation will be based on what will be least disruptive to resources and visitors as well as cost and effectiveness. Inside the park and preserve the staff will strive to minimize the impacts of their activities, just as visitors will be expected to do.

Staffing Plan

Staff increases will be required over the next 10 years to implement proposed monitoring and resource protection, issue permits, provide visitor information, and maintain facilities. The total staff at the end of 10 years is envisioned to be 17 permanent and 25 seasonal employees. The distribution of staff by function is shown in table 14.

Table 14: Ten-Year Staffing Plan

	Permanent	Seasonal
Resource management and visitor services	5	20
Lands, research, and permits	5	2
Management and administration	5	--
Maintenance	2	3

The headquarters will remain in Fairbanks for most of the year, but the superintendent and chief of field operations and visitor services will move to Bettles from June through August, where they will be closer to the park and more available to the residents of the region. The headquarters may eventually be moved closer to the park on a year-round basis, pending the resolution of a number of regional planning issues and the development of the needed infrastructure. Such a move is probably beyond the life of this plan, however. For now field stations will be operated year-round at Bettles, Coldfoot, and Anaktuvuk Pass. Seasonal camps for backcountry field operations will be used in the Noatak River, Walker Lake, and Kobuk River area. The staffing proposed for each area is shown in table 15.

Table 15: Staff Locations

	Headquarters	Permanent	Seasonal
Fairbanks	3 (winters)	7	3
Bettles	3 (summers)	5	3
Coldfoot		1	2
Anaktuvuk Pass		1	2
Backcountry		--	15

The number of seasonal employees will increase from 9 to 25. Most of the increase (from 4 to 15) will be for backcountry seasonals needed to increase monitoring and protection of resources and monitoring of use. One new permanent employee each in Coldfoot, Anaktuvuk Pass, and Bettles will provide visitor information and year-round community relations. A maintenance staff will be developed to include 2 permanent employees at Bettles and 3 seasonal laborers to maintain proposed operational facilities. Remaining staff increases are planned for headquarters, where the permanent staff will be increased from 8½ to 10 positions to provide for managing land status and mining issues, permits, administration, and associated clerical needs. Two seasonal natural resource researchers will be added.

The park will be administered in two districts--an east and a west district, each managed from Bettles. Several subdistricts will be

established as shown on the Plan - Operations and General Development map. Northwest areas' employees assigned to Ambler and Kotzebue will also provide information for Gates of the Arctic. The staff distribution is shown on the Plan - Operations and General Development map.

The National Park Service has authority to hire local individuals who have special knowledge or expertise concerning the resources of the unit without regard to civil service requirements or other personnel limitations, according to section 1308 of ANILCA. The Park Service will continue to recruit and develop such local individuals for seasonal and permanent staff positions. To date, the program has had limited success. It has been difficult to recruit local people because of comparatively low pay scales and seasonal work requirements. The Park Service will work toward improving the attractiveness of positions offered through flexibility of seasons and by providing training and cooperative education opportunities for advancement.

Methods of Access

Where possible, NPS employees will walk, snowshoe, ski, raft, or kayak to travel to destinations inside the park and preserve. Dog teams may be borrowed or leased when their use would be advantageous, but no NPS team will be developed and maintained. Motorboats and snowmachines will generally be used only in areas where they are allowed for subsistence, access into inholdings, or on designated routes. Fixed-wing aircraft will be used to place staff in the field and to conduct research or law enforcement; they will be flown on routes and at altitudes that minimize disruption to visitors and wildlife (minimum of 2,000 feet above ground level). Helicopters will be used only in emergencies or when they are the minimum tool necessary to accomplish priority activities.

Communications

A communications system will be developed employing emergency signaling devices, air-to-ground and portable radios, and repeaters. A system of permanent base stations will be developed and installed outside the park to establish a basic pattern of radio coverage in conjunction with this other equipment to support field personnel.

Search and Rescue

It is the policy of the National Park Service to develop and execute a public safety program with search and rescue assistance for visitors. Gates of the Arctic is a large, remote, rugged, and inherently hazardous area. Visitors will generally be expected to be responsible for themselves. Information will be a key tool for safe visitor trips and reduce the potential for life-threatening emergencies. The information provided to visitors will include known hazards and safety techniques.

The Park Service will maintain basic first-aid and search and rescue equipment. All NPS personnel will receive first-aid and safety training,

Fairbanks

STAFF

WINTER ASSIGNMENT
- P SUPERINTENDENT
- P CHIEF RANGER
- P SECRETARY

YEAR-ROUND ASSIGNMENT
- P MANAGEMENT ASSISTANT
- P NATURAL RESOURCE MANAGER
- S 2 BIOLOGISTS
- P CULTURAL RESOURCE MANAGER
- P PERMITS CLERK
- P CLERK-TYPIST
- P ADMINISTRATIVE OFFICER
- P PROCUREMENT AGENT
- S CLERK-TYPIST

FACILITIES
- E OFFICES FOR 16 (LEASE)
- E VISITOR INFORMATION AREA (LEASE)
- E BULK STORAGE (LEASE)
- N HANGAR – 2 BAYS (LEASE)
- N RESEARCH REPOSITORY/LIBRARY (LEASE)

- GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY
- GATES OF THE ARCTIC NATIONAL PARK BOUNDARY
- MANAGEMENT DISTRICT BOUNDARY
- MANAGEMENT SUBDISTRICT BOUNDARY
- HEADQUARTERS
- DISTRICT RANGER STATION – EAST AND WEST DISTRICTS
- SUBDISTRICT RANGER STATION
- SUBDISTRICT SEASONAL CAMP – NPS STAFF
- NPS — EXISTING CABIN TO BE USED FOR INTERMITTENT NPS OPERATIONS (WINTER VISITOR OVERNIGHT USE ALLOWED BY PERMIT)
- NEW CABIN USED FOR INTERMITTENT NPS OPERATIONS
- REMOVE COMMERCIAL OPERATOR PERMANENT CAMP
- E — EXISTING FACILITY
- N — NEW FACILITY
- P — PERMANENT EMPLOYEE
- S — SEASONAL EMPLOYEE

PLAN

OPERATIONS AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

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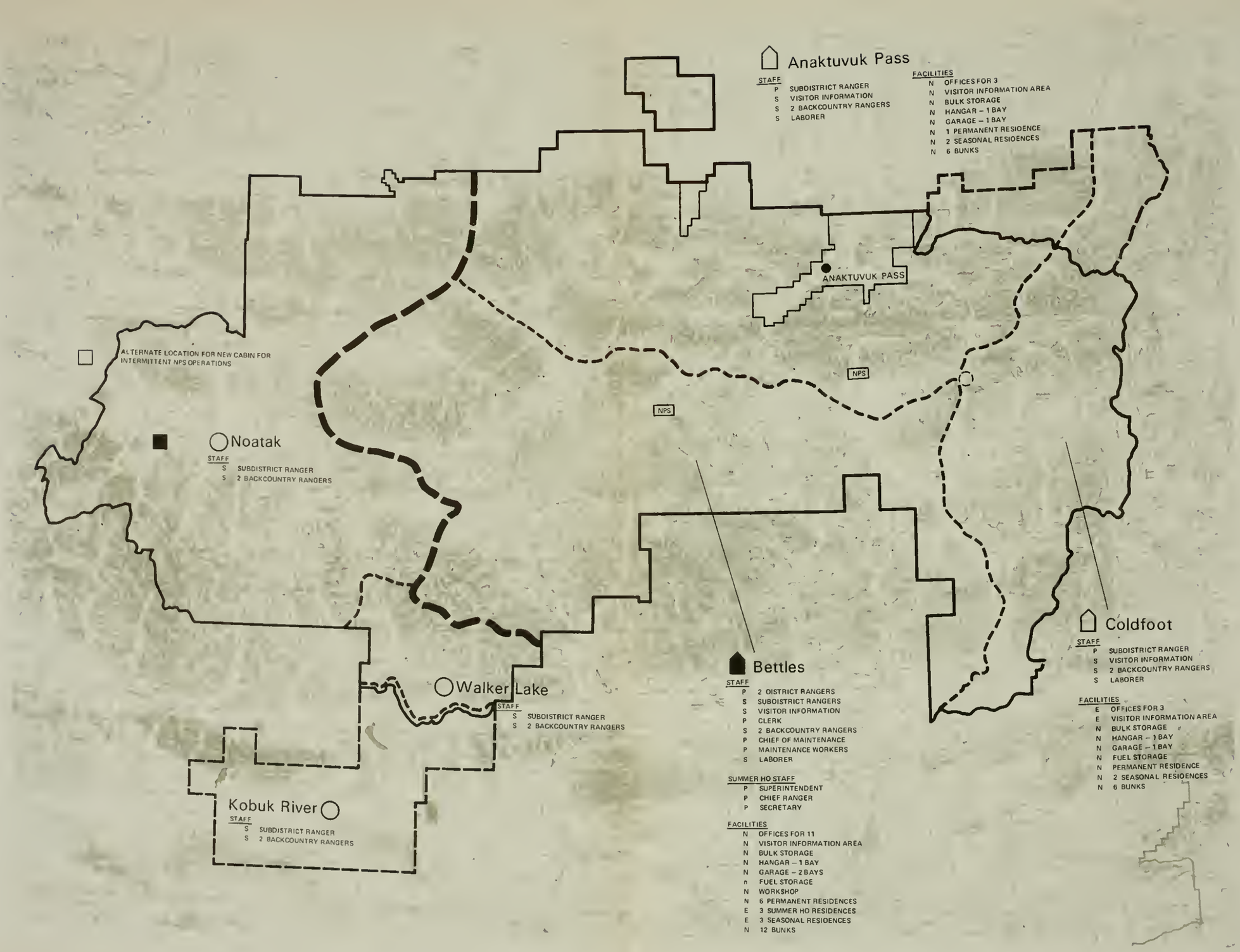
DSC | FEB 85



PLAN

OPERATIONS AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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and some employees will be trained in advanced emergency medical skills. The Park Service will not routinely attempt to keep track of visitors throughout the park. Visitors who are concerned about emergency assistance will be encouraged to leave an itinerary with a friend or relative who can contact help if they are overdue. If made aware of any emergency situation, the Park Service will respond with all available resources as well as notify the Rescue Coordination Center, the Alaska State Troopers, and the Civil Air Patrol.

Jurisdiction

PL 94-458, section 6, states the following: "The Secretary shall diligently pursue the consummation of arrangements with each state, commonwealth, territory, or possession within which a unit of the National Park System is located to the end that insofar as practicable the United States shall exercise concurrent legislative jurisdiction within the units of the National Park System." Pursuant to this legislation, the Park Service will seek concurrent legislative jurisdiction with the state of Alaska regarding national park units in Alaska.

Under proprietary jurisdiction both the National Park Service and the state of Alaska have law enforcement authority on federal lands, but the burden of most felony investigations, arrests, and prosecutions rests with the state. Concurrent jurisdiction represents a partnership between the United States and the state in the administration and management of federal lands.

Fees

No fees will be charged for entrance or admission to Gates of the Arctic, as directed by ANILCA section 203. Fees in park areas can be considered for specialized recreation sites, facilities, equipment, or services furnished at federal expense, or for recreation permits such as special events. At this time, only some services may be considered. For example, if the Park Service directly provides portable bear-proof food containers for visitors, a fee will be considered. Criteria include cost to the government, benefit to the user, public benefit, and feasibility. Establishment of such fees will be in accordance with regulations (71 CFR).

Cooperative Agreements

The National Park Service will seek cooperative agreements with several agencies for the purpose of undertaking mutually beneficial programs. Typical examples of agreements are indicated below. The Park Service will seek agreements with the village of Anaktuvuk Pass, the North Slope Borough, and the Arctic Slope Regional Corporation for the purpose of developing a museum or museums for the preservation and display of regional artifacts.

Cooperative agreements will be sought with the Alaska Department of Fish and Game to conduct biological and subsistence research in the park. A cooperative agreement will be sought with the U.S. Fish and Wildlife Service, the Bureau of Land Management, and the Alaska Department of Transportation and Public Facilities regarding the possible joint development and operation of sites and facilities.

A cooperative agreement will be sought with the NANA corporation for the analysis and management of sites established under section 14(h)(1) of ANCSA.

A cooperative agreement will be sought with the Doyon, Ltd. corporation to protect the Yale cabin.

GENERAL DEVELOPMENT

No structures, other than possibly a cabin, and no roads or trails will be built within the park and preserve. As allowed by ANILCA section 1306, most facilities needed to support visitor services and park operations will be developed outside the park and preserve (to the extent practicable and desirable on native lands), where they will not interfere with maintaining the wild and undeveloped character of the area. These facilities are described below, and the estimated costs and the implementation schedule are listed in the "Implementation" section of this plan.

Operational and Visitor Facilities

Space for offices and a visitor information area will continue to be leased in Fairbanks. Additional space will be needed for four more offices and a research repository and library. Bulk storage will continue to be leased, and a two-bay hangar will be leased.

At Bettles, the existing housing acquired from the Federal Aviation Administration will be used to house seasonals and the summer headquarters staff. Five new housing units for permanent employees will be constructed, along with a 12-person bunkhouse, 11 offices, a visitor information area, a workshop, bulk storage, a one-bay hangar, a two-bay garage, and fuel storage area. To the greatest extent possible, the National Park Service will coordinate its facility needs with the needs of the U.S. Fish and Wildlife Service and the Alaska Fire Service (BLM), which will also be developing new facilities.

At Coldfoot, a new shelter scheduled for construction during the summer of 1985 will initially be used as an office, visitor information area, and quarters for one seasonal employee. Eventually that structure will be used for a visitor information area and three offices, and the following new housing will be constructed: one permanent residence, two seasonal residences, and a bunkhouse for six backcountry and transient employees. Bulk storage, a one-bay garage, a one-bay hangar, and fuel storage will also be built. To the greatest extent possible, new facilities will be coordinated with the facilities needed by the U.S. Fish and Wildlife Service, Bureau of Land Management, and state of Alaska.

Facilities at Anaktuvuk Pass will include one permanent residence, two seasonal residences, a bunkhouse for six backcountry and transient employees, four offices, a visitor information area, bulk storage, a one-bay hangar, and a one-bay garage. Fuel is available from the village corporation, so NPS storage facilities will not be needed.

Cabins, Caches, and Camps

The use of cabins within Gates of the Arctic National Park is governed by regulations currently under revision (36 CFR 13.17). The proposed regulations allow the issuance of permits for continuation of valid uses of existing cabins; use and occupancy of existing cabins by qualified individuals; use of existing cabins or construction of new cabins necessary for subsistence purposes, use of existing cabins or construction of new cabins for authorized commercial activities, general public use, or government business; and use of existing or construction of new temporary facilities for hunting and fishing (applicable only to the preserve).

There are approximately 16 standing cabins on federal land that are currently available for emergency public use. They will be inventoried for historical significance. The National Park Service will actively seek to identify any valid claims for cabins within applicable regulations. If otherwise available, two selected cabins will be maintained for intermittent NPS field operations and emergency use. To date it has been determined that two cabins are needed for subsistence use (these cabins are currently used under valid permits). All other cabins will be left standing and unattended for overnight public use (including commercial guides as described under "Visitor Use" section) on a first-come, first-served basis or for emergency use. Cabins will be periodically evaluated for adverse effects on park resources or other valid uses. If problems arise, such cabins may be proposed for removal in accordance with ANILCA section 1315(d).

It will be a general park policy to not allow the construction of any new cabins because new development will detract from the wild and undeveloped character of the area. New cabins will be considered only if they are essential for subsistence use or a priority management activity that cannot be accomplished in any other way. No new public use cabins or shelters will be constructed.

A cabin in the upper Noatak River drainage is proposed as necessary to support intermittent NPS winter field operations in both Gates of the Arctic National Park and Noatak National Preserve. The first preference is to lease or acquire an existing structure on private land in one of the units. If such a structure is not available, the National Park Service may construct a small cabin in a location not visible from the river.

Three subdistrict seasonal camps for NPS field operations will be used in the Noatak River, Walker Lake, and Kobuk River areas. Their configuration and season of use will remain flexible. At the maximum, they will consist of several tents and equipment caches that may be at one location for up to three months, or camps may be moved regularly. All equipment will be removed at the end of an operation.

In accordance with NPS management policies, no fuel caches or other permanent caches will be allowed in the park or preserve except under extraordinary circumstances with the written permission of the superintendent. Commercial operators may be allowed to establish temporary caches of food and stove fuel under specific terms of their concession permits. Visitors will also be allowed personal, temporary caches of food and stove fuel in approved containers for up to one month. A permit will be required for leaving unattended property at highly used visitor destinations (Walker Lake and Arrigetch Peaks zone).

There will be no permanent camps within Gates of the Arctic. Without specified clearance, visitors, researchers, and commercial guides will not be allowed to remain longer than three days in any camp. The existing commercial base camp will be discontinued (see "Visitor Use" section).

In accordance with section 1316(b) of ANILCA, the National Park Service proposes not to allow the establishement on public lands of any ". . . tent platforms, shelters, and other temporary facilities and equipment directly and necessarily related to . . ." the nonsubsistence taking of fish and wildlife in Gates of the Arctic National Preserve. Such new facilities or equipment will constitute a significant expansion of existing facilities or uses that will be detrimental to the purposes for which the preserve was established. Temporary structures found necessary to support subsistence activities will be authorized under section 1303 of ANILCA and existing regulations (36 CFR 13.17).

During preparation of the general management plan, four alternatives for management were identified as being both feasible and reasonable for meeting the various mandates and requirements for management of Gates of the Arctic National Park and Preserve. These alternatives were based on ideas and concerns expressed by organizations, state and local governments, other federal agencies, and the general public. The alternatives vary in the degree of management intensity that would be applied to the park by the National Park Service while still addressing applicable laws and policies. Individual elements of the alternatives can be interchanged.

The process of selecting an alternative involved careful weighing of many factors. One factor considered was the ideas and concerns of the public, which were gathered by various methods as discussed in the "Consultation and Coordination" section. Another factor was the overall effectiveness of the alternative in meeting congressional mandates and management objectives in relation to the cost. While all alternatives basically meet applicable laws and policies, they do not fully protect the high public value and integrity standard established in PL 95-250 as follows:

> The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.

Alternative C was identified as the alternative that best balances these factors and protects the high public value and integrity of Gates of the Arctic National Park and Preserve and was selected as the proposal. Following public review of this document, elements of these alternatives may be incorporated into the final plan.

ALTERNATIVE A

As described in this alternative, the National Park Service would undertake only the minimum actions necessary to comply with existing laws and policies. Most existing uses would be assumed to be acceptable and would not be limited.

Natural Resource Management

Natural and Healthy Populations. The Alaska Department of Fish and Game would be encouraged to develop management criteria acceptable to the National Park Service.

Hunting and Trapping. Present levels of hunting and trapping would be considered acceptable unless problems become evident, and state seasons and limits would be accepted.

Fishing. Present levels of fishing would be considered acceptable, and state seasons and limits would be accepted.

Bear Encounters. Firearms would be allowed in accordance with applicable state and federal laws.

Vegetation Management and Research. Present levels of impacts would be accepted as negligible when viewed in the context of the entire park. Monitoring of mining operations (two current plans of operations) to ensure compliance with approved plans would be minimal because of staffing constraints. There would be limited cleanup of fire rings and trash. Natural processes would be allowed to reclaim all other scars.

Campfires. Minimum impact camping information would be provided to visitors upon request.

Subsistence Tree Cutting and Collection of Dead or Downed Wood. Permits would be required to harvest trees greater than 3 inches in diameter. Requests are expected to continue at the current level of less than one permit per year. All requests for permits that meet minimum requirements would be filled. Permits would require flush cutting, selective cutting, and scattering of slash. The cutting of trees smaller than 3 inches in diameter and the collection of dead or downed wood would continue to be subject to existing federal regulations (36 CFR 13.49).

Air and Water Quality. The Alaska Department of Environmental Conservation and the U.S. Environmental Protection Agency would be relied upon to monitor and enforce air and water quality standards.

Research Management. Natural resource research would be limited to highest priority problems. Research would be conducted primarily by other organizations on an opportunity and interest basis. Permits would be required only for collection of specimens or use of helicopters. Collection of specimens would be allowed within reason, and helicopters would be allowed under the terms of individual permits.

Cultural Resource Management

Archeological Sites. Once the ongoing selective sampling of cultural resources was completed, no further research would be undertaken unless required by law.

Historic Structures. Known sites would be recorded with photographs, measured drawings, and other records. Cabins, artifacts, and other remains would be allowed to deteriorate and their sites would eventually revert to natural conditions.

Intangible Cultural Resources. The existing oral history program of interviewing elders regarding place names and traditions would be continued. Areas identified as having sacred traditional importance to local native Americans would be protected.

Subsistence Use Management

The discussion of subsistence use management in the "Proposal" section encompasses application of existing laws and regulations, and no reasonable alternatives were identified or considered. Alternatives may be recommended in the future by the Subsistence Resource Commission.

Visitor Use Management

Recreation. No limitations would be placed on summer or winter recreational use at this time. Present levels of trail formation and campsite visibility would be accepted as unavoidable intrusions. Information about safety and minimum-impact practices would be provided to visitors upon request. High use areas (shown on Summer Recreational Use and Access map) would be reevaluated in five years to determine if additional management was required.

Domestic Animals. Personal use of pack animals would be allowed without restriction. Commercial operators would be authorized to use up to eight horses, llamas, or mules per party. Packers would be requested to practice minimum-impact techniques regarding feed and routes. Dogs would be allowed but would have to be kept under restraint.

Aircraft. Use and landing of fixed-wing aircraft would be unrestricted. Plane camping, flight-seeing, landing on abandoned airstrips, overflights, and caching of fuel would be allowed. No recreational use of helicopters would be allowed.

Snowmachines. Snowmachine travel would be allowed without limitiations.

Motorboats. There would be no limitations on the use of motorboats or sailboats or on waterskiing. Commercial operators would be allowed to provide for these activities if they met the minimum operator requirements.

Special Events. Appropriate special events would be allowed under permit. Appropriateness would be determined by the criteria in existing regulations and by consistency with the purposes of the area. An event such as the 1984 dogsled race would be considered appropriate if the problems associated with the first race, including cleanup, damage to vegetation, publicity, and purse, could be resolved. Future requirements would limit the event to 25 entries, limit the purse, prohibit publicity, and allow the sponsor to use snowmachines to set the route and clean up after the race. Bond and liability insurance would continue to be required.

Opportunities for Handicapped Visitors. Activities suitable for handicapped visitors could include river trips, camping, hiking, horseback/pack trips, llama pack trips, flight-seeing, plane camping, dogsled trips, sporthunting in the preserve, sportfishing, snowmachine trips, and commercially guided activities. Information would be available upon request.

Commercial Services. Licenses would continue to be required for all guides and air-taxi operators (about 35) providing visitor services inside the park and preserve. There would be no limitation on the number of operators who could be licensed, but all operators would have to meet the minimum licensing requirements of liability insurance, Alaska state business license, hunting guide license, air-taxi certificate, and compliance with federal regulations (36 CFR). A processing fee would be charged for the license. Licensed operators would not be allowed to maintain new bases of operations inside the park, and no money transactions would be allowed on park lands.

The existing commercial operator base camp on the North Fork of the Koyukuk is not compatible with the wilderness purpose of the area, but would be allowed to continue for the life of the owner. It could not be sold or transferred to heirs. No other commercial base camps would be allowed within the park unit.

Information and Interpretation. Basic information about safety, regulations, minimum-impact camping, boundaries, private property, and subsistence would be available upon request. Visitors would be referred to other sources for additional information. Maps showing the park and preserve boundaries, land status, and subsistence use zones would be available at all the NPS offices.

Interpretation would be limited to a brief statement in the park brochure about the opportunities for challenge, self-discovery, and freedom of movement that are available in Gates of the Arctic and the assumption that any further interpretation would interfere with these opportunities. There would be no staff position solely for information or interpretation.

Operations

Staff. The National Park Service would maintain a very low profile. Most field operations would be based outside the park, and the few personnel operating inside the park would not wear uniforms, which would require a change in NPS policy. The staff would consist of 10 permanent and 9 seasonal employees. The park and preserve would be managed as one district. Staff positions and locations are shown in table 16 (also see Alternative A - Operations and General Development map).

Table 16: Alternative A - Staff Positions and Locations

	Permanent	Seasonal
Position		
Resource management and visitor services	3	8
Lands, research, and permits	4	-
Superintendent and administration	3	-
Maintenance	-	1
Location		
Fairbanks	8½	-
Bettles	1½	2
Coldfoot	-	1
Anaktuvuk Pass	-	2
Backcountry	-	4

Access. Fixed-wing aircraft and helicopters would be used to place staff in the field, conduct law enforcement, and overfly the area. Snowmachines would be used when snow cover was adequate; motorboats would also be used. To the extent possible, management activities would be accomplished using rafts, kayaks, and foot travel. Motorized vehicles would be used with sensitivity to visitor solitude and wilderness values.

Communications. Personnel in the field would communicate in emergencies only with signaling devices.

Search and Rescue. Responsibility for emergency assistance within the park would rest with the state and the Civil Air Patrol. The National Park Service would respond with people and aircraft only when requested to participate. No visitor itineraries would be kept. No flights would be initiated for overdue people unless specific information or requests were received.

General Development

Operational and Visitor Facilities. Under alternative A, facilities would be as follows:

Fairbanks
- Continue to lease
  - 12 offices
  - visitor information area
  - bulk storage

Bettles
- Continue to lease lodge building for
  - 3 offices
  - visitor information area
  - storage (2 bays)
  - bunk space (4 bunks)

Maintain two existing duplexes for
2 permanent employees
2 seasonal employees

Seek to lease or build additional space for
4 offices
bulk storage
bunk space (2 bunks)

Coldfoot

Use shelter under construction for
1 office
visitor information area
housing for 1 seasonal employee

Anaktuvuk Pass

Continue to lease structures for
3 offices
visitor information area
housing for 2 seasonal employees

Seek to lease or build additional space for
bulk storage
bunk space (2 bunks)

Cabins, Caches, and Camps. Standing cabins (about 16) would be maintained for emergency use, and their locations would be publicized. Four selected cabins would be used for NPS operations year-round (see Alternative A map). Public and commercial use of other cabins would be allowed year-round by permit or through commercial use license. Caches would also be allowed.

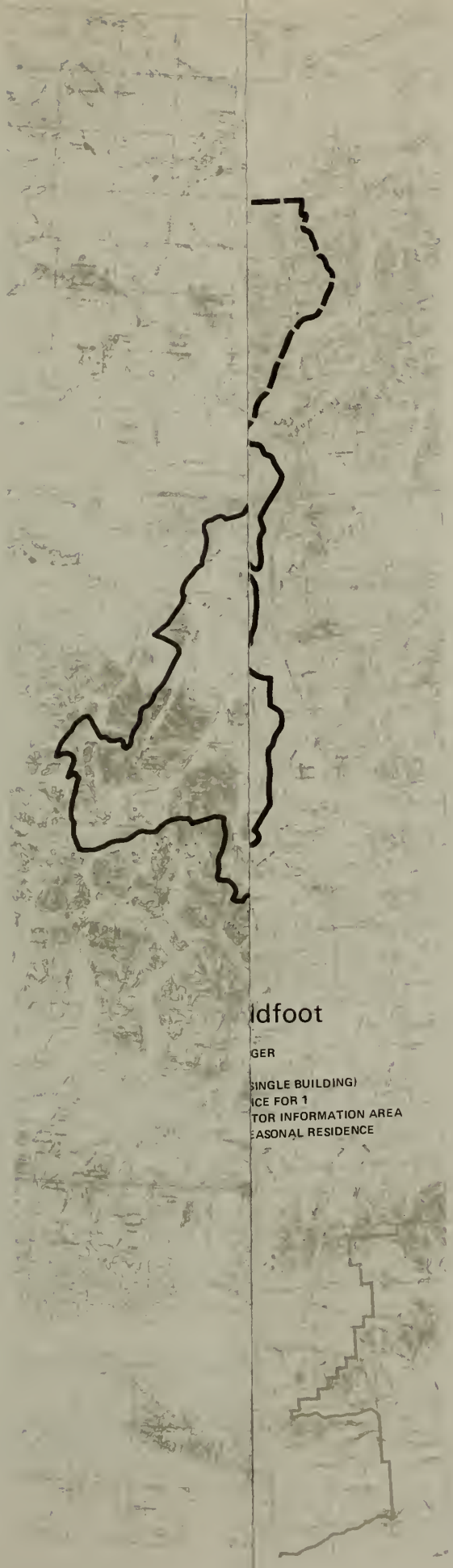
The existing commercial operator base camp on the North Fork of the Koyukuk would be discontinued as discussed under "Commercial Services."

ALTERNATIVE B

In this alternative, known areas of high and concentrated use would be monitored. The National Park Service would respond to identified problems with specific actions intended to eliminate or mitigate the impacts, including hardening impacted sites to contain and prevent further damage.

Natural Resource Management

Natural and Healthy Populations. Research programs and management criteria for maintaining natural and healthy populations would be developed by focusing research on species that are hunted and trapped and for fish species that inhabit high use fishing areas.



Fairbanks

STAFF

- P SUPERINTENDENT
- P CHIEF RANGER
- P MANAGEMENT ASSISTANT
- P NATURAL RESOURCE MANAGER
- P RANGER – VISITOR SERVICE
- P ADMINISTRATIVE ASSISTANT
- P SECRETARY
- P INFORMATION CLERK
- 1/2 CO-OP STUDENT

FACILITIES

- E OFFICES FOR 12 (LEASE)
- E VISITOR INFORMATION AREA (LEASE)
- E BULK STORAGE (LEASE)

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

HEADQUARTERS

DISTRICT RANGER STATION

SEASONAL RANGER STATION

SEASONAL CAMP FOR NPS STAFF

COMMERCIAL OPERATOR CAMP

NPS — EXISTING CABIN USED FOR INTERMITTENT NPS OPERATIONS

C — WINTER USE BY COMMERCIAL OPERATORS

E — EXISTING FACILITY

N — NEW FACILITY

P — PERMANENT EMPLOYEE

S — SEASONAL EMPLOYEE

ldfoot

GER

SINGLE BUILDING)
ICE FOR 1
TOR INFORMATION AREA
EASONAL RESIDENCE

ALTERNATIVE A

OPERATIONS AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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Anaktuvuk Pass

STAFF
- S 2 RANGERS

FACILITIES
- E OFFICES FOR 3 (LEASE)
- E VISITOR INFORMATION AREA (LEASE)
- N BULK STORAGE

LEASE HOUSING
- E 2 SEASONAL RESIDENCES
- N 2 BUNKS

ANAKTUVUK PASS

NPS

NPS

North Fork

C

S BACKCOUNTRY RANGER

C

Coldfoot

STAFF
- S RANGER

FACILITIES (SINGLE BUILDING)
- E OFFICE FOR 1
- E VISITOR INFORMATION AREA
- E 1 SEASONAL RESIDENCE

Walker Lake

S 2 BACKCOUNTRY RANGERS

Bettles

STAFF
- P DISTRICT RANGER
- P 1/2 CULTURAL RESOURCE SPECIALIST
- S BACKCOUNTRY RANGER
- S INFORMATION CLERK
- S MAINTENANCE WORKER

FACILITIES
- E OFFICES FOR 3 (LEASE)
- N OFFICES FOR 4
- E VISITOR INFORMATION AREA (LEASE)
- N BULK STORAGE
- E GARAGE – 2 BAYS (LEASE)
- E WORKSHOP (LEASE)
- E 2 PERMANENT RESIDENCES
- E 2 SEASONAL RESIDENCES
- E 2 BUNKS

Fairbanks

STAFF
- P SUPERINTENDENT
- P CHIEF RANGER
- P MANAGEMENT ASSISTANT
- P NATURAL RESOURCE MANAGER
- P RANGER – VISITOR SERVICE
- P ADMINISTRATIVE ASSISTANT
- P SECRETARY
- P INFORMATION CLERK
- 1/2 CO-OP STUDENT

FACILITIES
- E OFFICES FOR 12 (LEASE)
- E VISITOR INFORMATION AREA (LEASE)
- E BULK STORAGE (LEASE)

- GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY
- GATES OF THE ARCTIC NATIONAL PARK BOUNDARY
- HEADQUARTERS
- DISTRICT RANGER STATION
- SEASONAL RANGER STATION
- SEASONAL CAMP FOR NPS STAFF
- COMMERCIAL OPERATOR CAMP
- NPS — EXISTING CABIN USED FOR INTERMITTENT NPS OPERATIONS
- C — WINTER USE BY COMMERCIAL OPERATORS
- E EXISTING FACILITY
- N NEW FACILITY
- P PERMANENT EMPLOYEE
- S SEASONAL EMPLOYEE

ALTERNATIVE A

OPERATIONS AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

185 | 20039A
OSC | FEB 85

Hunting and Trapping. The actions proposed would be the same as for the proposal.

Fishing. The actions proposed would be the same as for the proposal, plus the National Park Service would prohibit commercially guided fishing.

Bear Encounters. Bear-proof food storage cans would be provided at high use areas (see Alternative B map). Only approved types of weapons such as rifles, 12-gauge shotguns, or .44 magnum pistols would be allowed for visitors in the park.

Vegetation Management and Research. The actions proposed would be the same as those of the proposal, plus high use areas would be hardened with bog bridges, soil hardenings, and other measures to contain and prevent further damage (see Alternative B map).

Campfires. Portable fire pans would be made available to prevent fire rings, small grills would be provided at high use areas, and only use of driftwood or downed wood would be allowed.

Subsistence Tree Cutting and Collection of Dead or Downed Wood. Actions proposed would be the same as in the proposal with one additional provision; that is, permits would delineate zones in which 3-inch diameter or greater trees could be cut, and only one permit per zone would be granted every 20 years.

Air Quality. The actions proposed would be the same as for the proposal.

Water Quality. The National Park Service would work with the Alaska Department of Environmental Quality and the U.S. Environmental Protection Agency to ensure protection of high water quality. Field checks would be conducted on reported water quality problems, and the findings would be reported to the state and federal regulatory agencies; the National Park Service would work with these agencies to mitigate impacts. Approved mining operations would be monitored for impacts on water quality.

Research Management. The National Park Service would actively seek qualified organizations to conduct needed research, and it would allow them to conduct other research on an opportunity basis. Permits, to be obtained in advance, would specify methods of research and access and require that results be given to the National Park Service in a reasonable time period. Consumptive research would be discouraged and allowed only when an alternate site outside the park was not available. Helicopter use would be allowed from June 1 to July 15, when visitor and subsistence use is lighter and the ground is generally bare.

Cultural Resource Management

Archeological Sites. The ongoing selective sampling of cultural resources would be completed. In addition, sites in high use areas would be monitored for baseline conditions and changes. Impacts and changes

would be evaluated by professional archeologists, and actions would be recommended to preserve the site.

Historic Structures. Two historic cabins would be maintained to protect their integrity. Artifacts would be left in place. Other sites and remains would be recorded according to accepted procedures.

Intangible Cultural Resources. The actions proposed would be the same as for the proposal with one exception. Instead of requesting that no new place names be officially adopted by the U.S. Board of Geographic Place Names, the National Park Service would request that any new names adopted be native place names.

Subsistence Use Management

The discussion of subsistence use management in the "Proposal" section encompasses application of existing laws and regulations, and no reasonable alternatives were identified or considered. Alternatives may be recommended in the future by the Subsistence Resource Commission.

Visitor Use Management

Recreation. All visitors would be required to check in and receive information prior to entering the park. High use areas would be hardened and maintained to absorb existing and increased use, instead of dispersing use elsewhere. Existing trails and campsites at Circle Lake/Arrigetch Peaks, Bombardment Creek, and Walker Lake would be stabilized as follows: Minor trail construction would be undertaken to stop erosion and to provide drainage; bog bridges would be placed through wet areas to prevent further trail braiding; small grills would be placed at campsites to replace messy fire pits; food storage cans would be installed to prevent human-bear problems and the wearing out of trees where many packs would otherwise be hung; and tent platforms would be provided in areas of fragile vegetation (see Alternative B map for locations). Such measures would be taken in other areas of the park as well if indicated by monitoring studies.

Domestic Animals. The use of pack horses or dogs would be allowed under permit. Use of llamas would not be allowed, since these animals have not traditionally been used. Commercial use of pack animals would be prohibited. Dogs would be allowed if they were restrained. Information would be provided to owners.

Option Considered. The use of dogs and llamas would be allowed only under the same terms as described above. The use of horses would not be allowed because their impact on soil and vegetation is considered too great, far greater than that of llamas. Commercial use would be prohibited.

Aircraft. Use of fixed-wing aircraft would be regulated. A no-landing zone would be established between the North Fork of the Koyukuk and the Dalton Highway. This zone would be accessible to visitors from the

Dog Team

Cross-Country Skiing

Floating

Sportfishing

Access

Sporthunting (In the Preserve)

RECREATIONAL USE

Dalton Highway. Outside this zone landings at any landing area would be limited to four per day--one for hikers and three for river runners. Plane camping would be limited to one night per location within the numbers of planes allowed above and in accordance with camping regulations. Use of existing abandoned airstrips would be allowed; these sites would be monitored to identify erosion or vegetation loss, and they would be stabilized if necessary.

Recreational helicopter use would be allowed under permit at established aircraft landing areas between June 1 and July 15 to provide access to little-used areas and to increase opportunities for handicapped visitors. Some caching of fuel would be allowed under the terms of the permits.

Snowmachines. Permits would be required for snowmachine users entering from access points adjacent to the Dalton Highway. Group size would be limited to 10, and routes and minimum-impact techniques would be specified in the permit. High use areas would be monitored for resource problems and compliance. Caching of fuel would be allowed.

Motorboats. Permits would be required for recreational uses of motorboats. Jetboats, airboats, outboards over 10 horsepower, and boats over 20 feet in length would be prohibited. Waterskiing would be curtailed by the horsepower limit. Minimum-impact and safety information would be provided to users. Sailboats would be allowed.

Special Events. These would be the same as in the proposal.

Opportunities for Handicapped Visitors. Suitable activities for handicapped visitors could include river trips, camping, pack animal trips, flight-seeing, plane camping, dogsled trips, sporthunting in the preserve, sportfishing, snowmachine trips, commercially guided activities, and helicopter access in designated zones. Information would be available upon request. Information and technical assistance regarding the accommodation of handicapped visitors would be provided to commercial operators; however, it would not be feasible to require all operators to provide this special service as a licensing requirement, and it would be illegal to require more of one operator than another under the business licensing system.

Commercial Services. Licenses would be required for guides and other services determined to be appropriate. In addition to the minimum licensing requirements in alternative A, the following stipulations would be included as needed to protect park values:

prior notification of trips
trip reports from operators
controls on cabin use
safety procedures
limitations on group size
controls on destinations--to disperse use
controls on the frequency and locations of drop-offs
restrictions on advertising
minimum-impact camping standards/wilderness ethic

guide qualifications
information to be provided to clients
regulations on the use of pack animals
closures to commercial use without rule making
controls on the use of caches
rescue bond
quality and type of equipment
sanitary procedures
flight restrictions

Information and Interpretation. Basic information about safety, regulations, minimum-impact camping, boundaries, private property, and subsistence would be included in the park brochure, which would be given to all visitors when they checked in with the park staff. Route information, a transportation and commercial operator list, and information about opportunities for handicapped visitors would be available upon request.

Some interpretation would be provided at headquarters. The main interpretive theme would be skills for wilderness--techniques, minimum-impact activities, safety, weapons, and equipment. The park brochure would address the wilderness purpose of the park and the concept of ultimate wilderness. This concept would also be discussed in an audiovisual program and exhibits at the park headquarters. Other programs would be developed for use outside the park (shown by NPS employees or available to groups upon request).

Information and interpretation specialists would be available year-round at headquarters and Bettles. Staff would provide programs for communities, schools, and groups and to participate in fairs, classes, and workshops.

Alaska Natural History Association and other selected publications would be available for sale at headquarters and field offices, and visitors would also have access to reference libraries at these locations. The National Park Service would encourage publication of all research and its availability at headquarters.

Publicity. Public notices about specific problems or regulations would be issued to organizations, communities, and media. The National Park Service would assist others in further publishing this kind of information, but it would discourage other types of publicity and inform others of its potential adverse effects.

Operations

Staff. The staff would consist of 16 permanent and 16 seasonal employees. The park and preserve would be divided into east and west management districts. Staff positions and locations are shown in table 17 (also see Alternative B - Oeprations and General Development map).

Table 17: Alternative B - Staff Positions and Locations

	Permanent	Seasonal
Position		
Resource management and visitor services	7	12
Lands, research, and permits	4	2
Superintendent and administration	4	-
Maintenance	1	2
Location		
Fairbanks	10	3
Bettles	4	3
Wiseman	1	2
Anaktuvuk Pass	1	1
Kobuk River	-	1
Backcountry	-	6

Access. Fixed-wing aircraft would be used as described in the proposal. Use of helicopters would be limited to the period from June 1 to July 15 (lighter period of visitor and subsistence use) except for emergencies. Snowmachines and motorboats would be used in areas where they are allowed for public and other uses. Rafts, kayaks, and foot travel would be used to accomplish most management activities.

Communications. These actions would be the same as in the proposal.

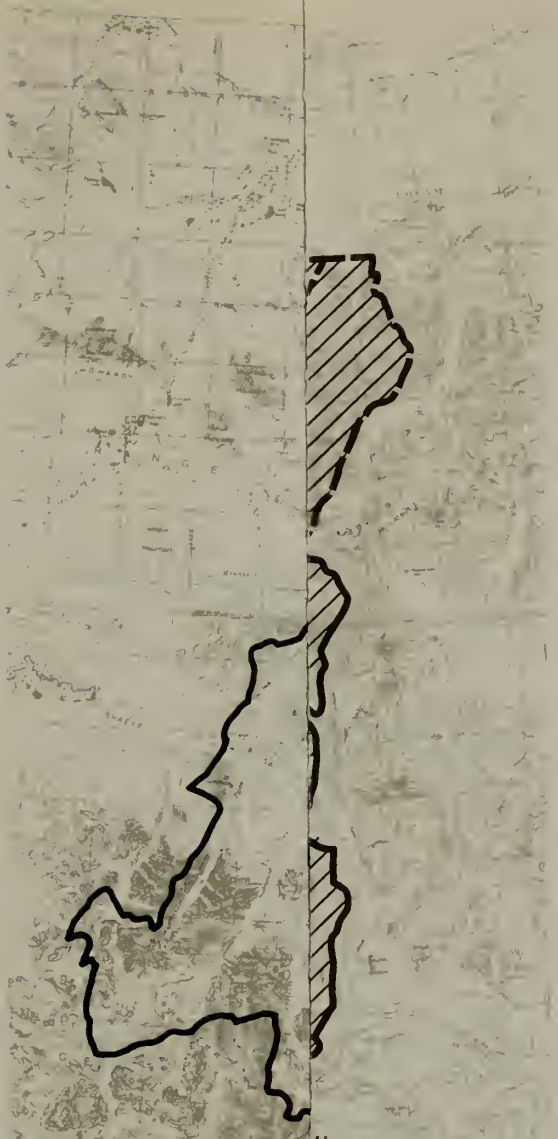
Search and Rescue. These actions would be the same as in the proposal.

General Development

Operational and Visitor Facilities. The facilities for alternative B would be as follows:

Fairbanks
- Continue to lease
  - 14 offices
  - visitor information area
  - bulk storage
  - hangar (1 bay)

Bettles
- Continue new facilities for
  - 6 offices
  - visitor information area
  - bulk storage
  - garage (1 bay)



Fairbanks

STAFF

- P SUPERINTENDENT
- P ASSISTANT SUPERINTENDENT
- P SECRETARY
- P CHIEF RANGER
- P NATURAL RESOURCE MANAGER
- P CULTURAL RESOURCE MANAGER
- P PERMITS CLERK
- P ADMINISTRATIVE ASSISTANT
- P CLERK-TYPIST
- P INFORMATION CLERK
- S 2 RESEARCHERS
- S VISITOR INFORMATION CLERK

FACILITIES

- E OFFICES FOR 14 (LEASE)
- E VISITOR INFORMATION AREA (LEASE)
- E BULK STORAGE (LEASE)
- E HANGAR – 1 BAY (LEASE)

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

MANAGEMENT DISTRICT BOUNDARY

SUBDISTRICT BOUNDARY

HEADQUARTERS

DISTRICT RANGER STATION

SUBDISTRICT RANGER STATION

SEASONAL CAMP FOR NPS STAFF

COMMERCIAL OPERATOR CAMP

NPS — EXISTING CABIN USED FOR INTERMITTENT NPS OPERATIONS

NEW CABIN USED FOR INTERMITTENT NPS OPERATIONS

C — WINTER USE BY COMMERCIAL OPERATORS

HARDENED VISITOR CAMPSITE AND FOOD CACHE

E — EXISTING FACILITY

N — NEW FACILITY

P — PERMANENT EMPLOYEES

S — SEASONAL EMPLOYEES

LIMITED AIRCRAFT LANDING ZONE

Viseman

ISTRICT RANGER
ITOR INFORMATION CLERK
NGER

FICES FOR 4
SITOR INFORMATION AREA
LK STORAGE
RAGE - 1 BAY
PERMANENT RESIDENCES
SEASONAL RESIDENCES
BUNKS

Kobuk R

STAFF

S SUBDISTRICT RAN

FACILITIES

- N OFFICES FOR 2
- N VISITOR INFORMA
- N BULK STORAGE
- N SEASONAL RESIDE
- N 4 BUNKS

ALTERNATIVE B

VISITOR USE, OPERATIONS, AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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0 5 10 15 20 25 30 KILOMETERS

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Anaktuvuk Pass

STAFF
- P SUBDISTRICT RANGER
- S VISITOR INFORMATION

FACILITIES
- N OFFICES FOR 3
- N VISITOR INFORMATION AREA
- N BULK STORAGE
- N GARAGE – 1 BAY
- N 1 PERMANENT RESIDENCE
- N 1 SEASONAL RESIDENCE
- N 4 BUNKS

ANAKTUVUK PASS

NPS

NPS

NOATAK RIVER
S BACKCOUNTRY RANGER

ARRIGETCH PEAKS
S BACKCOUNTRY RANGER

NPS

WALKER LAKE
S BACKCOUNTRY RANGER

Kobuk River

STAFF
- S SUBDISTRICT RANGER

FACILITIES
- N OFFICES FOR 2
- N VISITOR INFORMATION AREA
- N BULK STORAGE
- N SEASONAL RESIDENCE
- N 4 BUNKS

KOBUK RIVER
S BACKCOUNTRY RANGER

BOMBARDMENT CREEK
S BACKCOUNTRY RANGER

NPS

NORTH FORK
S BACKCOUNTRY RANGER

NPS

C

C

NPS

Wiseman

STAFF
- P SUBDISTRICT RANGER
- S VISITOR INFORMATION CLERK
- S RANGER

FACILITIES
- E OFFICES FOR 4
- E VISITOR INFORMATION AREA
- N BULK STORAGE
- GARAGE - 1 BAY
- N 9 PERMANENT RESIDENCES
- N 2 SEASONAL RESIDENCES
- N 4 BUNKS

Bettles

STAFF
- P 2 DISTRICT RANGERS
- P CLERK
- P MAINTENANCE WORKER
- S VISITOR INFORMATION CLERK
- S 2 LABORERS

FACILITIES
- N OFFICES FOR 6
- N VISITOR INFORMATION AREA
- N BULK STORAGE
- N GARAGE – 1 BAY
- N HANGAR – 2 BAYS
- N FUEL STORAGE
- N WORKSHOP
- N 3 PERMANENT RESIDENCES
- E 3 SEASONAL RESIDENCES
- E 8 BUNKS

Fairbanks

STAFF
- P SUPERINTENDENT
- P ASSISTANT SUPERINTENDENT
- P SECRETARY
- P CHIEF RANGER
- P NATURAL RESOURCE MANAGER
- P CULTURAL RESOURCE MANAGER
- P PERMITS CLERK
- P ADMINISTRATIVE ASSISTANT
- P CLERK-TYPIST
- P INFORMATION CLERK
- S 2 RESEARCHERS
- S VISITOR INFORMATION CLERK

FACILITIES
- E OFFICES FOR 14 (LEASE)
- E VISITOR INFORMATION AREA (LEASE)
- E BULK STORAGE (LEASE)
- E HANGAR – 1 BAY (LEASE)

- GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY
- GATES OF THE ARCTIC NATIONAL PARK BOUNDARY
- MANAGEMENT DISTRICT BOUNDARY
- SUBDISTRICT BOUNDARY
- HEADQUARTERS
- DISTRICT RANGER STATION
- SUBDISTRICT RANGER STATION
- SEASONAL CAMP FOR NPS STAFF
- COMMERCIAL OPERATOR CAMP
- NPS EXISTING CABIN USED FOR INTERMITTENT NPS OPERATIONS
- NEW CABIN USED FOR INTERMITTENT NPS OPERATIONS
- C WINTER USE BY COMMERCIAL OPERATORS
- HARDENED VISITOR CAMPSITE AND FOOD CACHE
- E EXISTING FACILITY
- N NEW FACILITY
- P PERMANENT EMPLOYEES
- S SEASONAL EMPLOYEES
- //// LIMITED AIRCRAFT LANDING ZONE

ALTERNATIVE B

VISITOR USE, OPERATIONS, AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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hangar (1 bay)
workshop
fuel storage
housing for 3 permanent employess

Wiseman
Construct, lease, or acquire
4 offices
visitor information area
bulk storage
garage (1 bay)
housing for 1 permanent and 2 seasonal employees
bunk space (4 bunks)

Anaktuvuk Pass
Construct new facilities for
3 offices
visitor information area
bulk storage
garage (1 bay)
housing for 1 permanent and 1 seasonal employee
bunk space (4 bunks)

Kobuk River Community
Construct new facilities for
2 offices
visitor information area
bulk storage
housing for 1 seasonal employee
bunk space (4 bunks)

Cabins, Caches, and Camps. Standing cabins would be maintained for emergency use; however, their locations would not be publicized. Four selected cabins would be used for NPS operations in winter only. The existing two cabins used by commercial operators for winter dog team trips could remain. Winter public use of those six cabins would be allowed by permit. Two existing cabins on private land would be leased for seasonal NPS operations at Walker Lake and the upper Noatak. If existing cabins were not available, new cabins would be constructed. Public or commercial use of caches would be allowed by permit or commercial use license with stipulations on method and length of time. Seasonal base camps for NPS operations would be established at two high use areas--Arrigetch Peaks and Bombardment Creek. The existing commercial operator base camp would be eliminated as in the proposal. No other commercial base camps would be allowed within the park.

ALTERNATIVE C

This alternative was selected as the proposal. Please refer to "Proposal" section for description of proposed actions.

ALTERNATIVE D

In this alternative, the National Park Service would emphasize the anticipation and prevention of problems by collecting comprehensive baseline data on park resources and use and by intensive management of all park uses.

Natural Resource Management

Natural and Healthy Populations. The National Park Service would thoroughly research complete ecosystems and establish criteria for maintaining natural and healthy populations of individual species. Routine sampling would be conducted to monitor conditions and prevent deviation from the natural and healthy criteria.

Hunting and Trapping. Based on natural and healthy population studies, hunting and trapping would be directly managed by the National Park Service through regulations, restrictions, or closures.

Fishing. All lakes and streams would be studied as part of natural and healthy population studies. High use areas would be closed to sportfishing, and other sportfishing would be limited to catch-and-release only until the studies were completed. The National Park Service would directly manage all fishing through regulations, restrictions, or closures. Commercially guided fishing would be prohibited.

Bear Encounters. Information and bear-proof containers would be provided as described under the proposal. Use of portable bear-proof food containers would be required. In addition, weapons would be allowed only with proof of proficiency and orientation to bear behavior.

Vegetation Management and Research. The National Park Service would initiate parkwide ecosystem research with emphasis on how use and damage interrelate. Carrying capacities would be developed. Restoration and reclamation activities would be the same as in the proposal.

Campfires. Campfires would be prohibited.

Subsistence Tree Cutting and Collection of Dead or Downed Wood. Actions proposed would be the same as in the proposal except that permits for cutting 3-inch diameter or greater trees would be issued only if the timber was to be used inside the park and preserve boundary.

Water Quality. Water quality would be monitored parkwide to establish baseline data, and water data would be related to other components of the comprehensive ecosystem studies. Special water quality standards would be established to reflect the wilderness values of the park. The National Park Service would work with mining operators and other users to help them comply with the standards.

Research Management. The National Park Service would actively encourage all research and would seek joint research with universities, state agencies, and other federal agencies. A study repository would be provided at headquarters for all research conducted in the area. Helicopter landings for research would be prohibited within the park from Memorial Day to Labor Day.

Cultural Resource Management

Archeological Sites and Historic Structures. In-depth studies would be initiated following the completion of the selective sampling. Management would be the same as described under the proposal except two known historic cabins would be recorded and left for discovery.

Intangible Cultural Resources. Actions proposed would be the same as in the proposal, plus in-depth studies would be initiated upon completion of the selective sampling.

Subsistence Use Management

The discussion of subsistence use management in the "Proposal" section encompasses application of existing laws and regulations, and no reasonable alternatives were identified or considered. Alternatives may be recommended in the future by the Subsistence Resource Commission.

Visitor Use Management

Recreation. Summer visitor use would be placed on a permit system to limit use within each river drainage. Initially, limits would be set at one group for every 10 linear miles of a drainage. Other parkwide regulations would limit group size to 6 in summer and 12 in winter, length of stay at any campsite to 3 days, and campsites to at least one-half mile apart and 100 feet back from any lake. Quantified standards for acceptable levels of camping impacts would be established. The levels and techniques of camping would be regulated as necessary to ensure that standards were met. These visitor use limits (carrying capacity) would continually be adjusted with further monitoring and research.

Domestic Animals. No hoofed pack animals would be allowed. Personal use of pack dogs and dog teams would be the only dogs allowed.

Aircraft. A plan would be developed to limit the locations, numbers, and times of aircraft landings, and designated landing areas would possibly be closed on a rotating basis. The plan would be closely monitored for effectiveness and maintenance of solitude with regulations and would be adjusted as indicated by further study. Fuel caches and plane camping would be prohibited. The Federal Aviation Administration would be requested to set mandatory altitude and flight corridor restrictions for periods when VFR (visual flight rules) conditions are good in the airspace above Gates of the Arctic National Park and

Preserve. The National Park Service would seek to develop a cooperative agreement for enforcement. No recreational use of helicopters would be allowed.

Snowmachines. These actions would be the same as for the proposal.

Motorboats. Recreational use of motorboats would be prohibited.

Special Events. A specific example of a special event is the Coldfoot Classic dog team race held in 1984, which went through Gates of the Arctic. The use of dogs does have a meaningful association with the area, but there are concerns about injury and damage to park resources, impairment of the peace and tranquility of wilderness, and that the event may become a public spectator attraction. The 1984 event did have some minor incidents of vegetation damage in areas of inadequate snow cover and unrecovered trail markers. Publicity, promotion, and support services surrounding the race invited public spectators, and the flurry of activity during the days of the event impaired peace and tranquility.

Because of the clear and special wilderness purpose of Gates of the Arctic, activities should be measured strictly within regulations and policies. Special events such as the dog team race would not be allowed in the future, as they cannot meet the highest standards of wilderness values.

Opportunities for Handicapped Visitors. Suitable activities for handicapped visitors could include river trips, camping, sporthunting in the preserve, sportfishing, and dogsled trips. Information would be available upon request. In addition, extensive information and interpretation would be developed for off-site use to seek support for the concept that wilderness and park values provide enjoyment for those who cannot come to the area.

Commercial Services. In this alternative, the guiding services would be prohibited because it would impede opportunities for visitors to experience challenge, freedom of movement, discovery, and self-reliance. Air-taxi operators would be allowed under concession permits.

Information and Interpretation. Informational services would be the same as in alternative B. However, a more comprehensive interpretive program would be offered. The park brochure and the audiovisual programs and exhibits at the park headquarters would be operated at Anaktuvuk Pass, Bettles, Kobuk River community, and either Coldfoot or Wiseman. The overriding interpretive theme would present the Brooks Range as a rugged and remote area, shaped by a harsh climate and inhabited by tenacious plants, animals, and people. This message would be intended to foster an understanding and appreciation of the area, ensuring careful and considerate behavior by visitors. The National Park Service would pursue cooperative development and operation of museums at Anaktuvuk Pass, Bettles, and Coldfoot or Wiseman. Different subthemes could be developed at the three museums as follows:

Anaktuvuk Pass - prehistoric, historic, and present native culture
Bettles - Koyukuk River drainage: natural history, people, transportation (river and air), trade
Coldfoot/Wiseman - native/white contact, Robert Marshall, mining, and energy development

Information and interpretation specialists would be available year-round at headquarters and the museums. Programs for off-site use would be the same as described for alternative B.

Publicity. To develop a widespread consistency for the concept of wilderness and for park values, supportive publicity would be sought. The National Park Service would hold annual community meetings; develop TV and radio spots on wilderness, park values, and resource problems; and encourage and sponsor publications on resources, wilderness, fragility, and other park issues. Similar publicity by others would be encouraged. However, any publicity that would promote uses contrary to the wilderness purpose of the park and preserve would be discouraged. The National Park Service would pursue cases of misrepresentation.

Operations

Staff. The staff would consist of 25 permanent and 39 seasonal employees. Uniformed personnel would be stationed in the park on a routine basis for law enforcement, resource protection, and research. The park and preserve would be divided into three management districts (north, east, and west). Staff positions and locations are shown in table 18 (also see Alternative D - Operations and General Development map).

Table 18: Alternative D - Staff Positions and Locations

	Permanent	Seasonal
Position		
Resource management and visitor services	10	26
Lands, research, and permits	7	8
Superintendent and administration	6	-
Maintenance	2	5
Location		
Coldfoot/Dalton Highway	19	11
Bettles	2	2
Anaktuvuk Pass	2	2
Kobuk River	2	4
Backcountry	-	20

Access. The National Park Service would use fixed-wing aircraft as outlined in the proposal. Helicopters, snowmachines, and motorboats would not be used except for emergencies. Most management activities

would be accomplished using rafts, kayaks, canoes, and foot travel. The National Park Service would maintain a dog team for winter management activities.

Communications. A communications system would include air-to-ground and portable radios and permanent base stations and repeaters outside the park. Portable repeaters would be used inside the park for specific or routine operations and removed upon completion of the task.

Search and Rescue. The National Park Service would take the lead on emergency assistance in the park. Visitor itineraries would be kept and monitored. Searches for overdue visitors would be initiated. The National Park Service would maintain a helicopter, first-aid, and search and rescue equipment. One permanent and one additional seasonal employee stationed in Bettles would be qualified emergency medical technicians. Additional assistance as needed would be requested from the state and the Civil Air Patrol.

General Development

Operational and Visitor Facilities. Under alternative D, new facilities would be constructed as follows:

Headquarters Along Dalton Highway
- 34 offices
- visitor information area
- warehouse
- hangar (2 bay)
- garage (8 bay)
- workshop
- fuel storage
- housing for 19 permanent and 11 seasonal employees
- bunk space (8 bunks)

Bettles
- 9 offices
- visitor information area
- bulk storage
- hangar (1 bay)
- garage (1 bay)
- fuel storage
- dog kennel
- housing for 2 permanent employees
- use existing duplex for 2 seasonal employees
- use existing bunk space (10 bunks)

Anaktuvuk Pass
- 7 offices
- visitor information area
- bulk storage
- hangar (1 bay)
- garage (1 bay)
- housing for 2 permanent and 2 seasonal employees
- bunk space (8 bunks)

Headquarters

STAFF		FACILITIES	
P	SUPERINTENDENT	N	OFFICES FOR 34
P	CHIEF RANGER	N	VISITOR INFORMATION AREA
P	SECRETARY	N	WAREHOUSE
P	MANAGEMENT ASSISTANT	N	HANGAR – 2 BAYS
P	NATURAL RESOURCE SPECIALIST	N	GARAGE – 8 BAYS
S	4 RESEARCHERS	N	WORKSHOP
P	CULTURAL RESOURCE SPECIALIST	N	FUEL STORAGE
S	4 RESEARCHERS	N	10 PERMANENT EMPLOYEES
P	LANDS AND MINING	N	11 SEASONAL EMPLOYEES
P	PERMITS CLERK	N	8 BUNK SPACES
P	2 CLERK-TYPISTS		
P	ADMINISTRATIVE OFFICER		
P	PROCUREMENT AGENT		
P	PAYROLL – TRAVEL CLERK		
P	CLERK-TYPIST		
P	CHIEF OF MAINTENANCE		
P	MAINTENANCE WORKER		
P	EAST DISTRICT RANGER		
P	SUBDISTRICT RANGER		
P	CLERK		
S	VISITOR INFORMATION CLERK		
S	4 BACKCOUNTRY RANGER/BIOTECHS		
S	2 LABORERS		

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

MANAGEMENT DISTRICT BOUNDARY

SUBDISTRICT BOUNDARY

HEADQUARTERS

DISTRICT RANGER STATION

SUBDISTRICT RANGER STATION

REMOVE COMMERCIAL OPERATOR PERMANENT CAMP

E EXISTING FACILITY

N NEW FACILITY

P PERMANENT EMPLOYEE

S SEASONAL EMPLOYEE

Kobuk River

STAFF	
P	WEST DISTRICT RANGER
P	CLERK
S	2 SUBDISTRICT RANGERS
S	6 BACKCOUNTRY RANGER
S	VISITOR INFORMATION CLE
S	LABORER

FACILITIES	
N	OFFICES FOR 15
N	VISITOR INFORMATION ARE
N	BULK STORAGE
N	HANGAR – 1 BAY
N	GARAGE – 1 BAY
N	FUEL STORAGE
N	2 PERMANENT RESIDENCES
N	4 SEASONAL RESIDENCES
N	10 BUNKS

ALTERNATIVE D

OPERATIONS AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

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Anaktuvuk Pass

STAFF	
P	NORTH DISTRICT RANGER
P	CLERK
S	4 BACKCOUNTRY RANGER/BIOTECHS
S	LABORER
S	VISITOR INFORMATION

FACILITIES	
N	OFFICES FOR 7
N	VISITOR INFORMATION AREA
N	BULK STORAGE
N	HANGAR – 1 BAY
N	GARAGE – 1 BAY
N	2 PERMANENT RESIDENCES
N	2 SEASONAL RESIDENCES
N	8 BUNKS

ANAKTUVUK PASS

Kobuk River

STAFF	
P	WEST DISTRICT RANGER
P	CLERK
S	2 SUBDISTRICT RANGERS
S	6 BACKCOUNTRY RANGER/BIOTECHS
S	VISITOR INFORMATION CLERK
S	LABORER

FACILITIES	
N	OFFICES FOR 15
N	VISITOR INFORMATION AREA
N	BULK STORAGE
N	HANGAR – 1 BAY
N	GARAGE – 1 BAY
N	FUEL STORAGE
N	2 PERMANENT RESIDENCES
N	4 SEASONAL RESIDENCES
N	10 BUNKS

Bettles

STAFF	
P	SUBDISTRICT RANGER
P	CLERK
S	VISITOR INFORMATION CLERK
S	6 BACKCOUNTRY RANGER/BIOTECHS
S	LABORER

FACILITIES	
N	OFFICES FOR 8
N	VISITOR INFORMATION AREA
N	BULK STORAGE
N	HANGAR – 1 BAY
N	GARAGE – 1 BAY
N	FUEL STORAGE
N	DOG KENNEL
N	2 PERMANENT RESIDENCES
E	2 SEASONAL RESIDENCES
E	10 BUNKS

Headquarters

STAFF	
P	SUPERINTENDENT
P	CHIEF RANGER
P	SECRETARY
P	MANAGEMENT ASSISTANT
P	NATURAL RESOURCE SPECIALIST
S	4 RESEARCHERS
P	CULTURAL RESOURCE SPECIALIST
S	4 RESEARCHERS
P	LANDS AND MINING
P	PERMITS CLERK
P	2 CLERK-TYPISTS
P	ADMINISTRATIVE OFFICER
P	PROCUREMENT AGENT
P	PAYROLL – TRAVEL CLERK
P	CLERK-TYPIST
P	CHIEF OF MAINTENANCE
P	MAINTENANCE WORKER
P	EAST DISTRICT RANGER
P	SUBDISTRICT RANGER
P	CLERK
S	VISITOR INFORMATION CLERK
S	4 BACKCOUNTRY RANGER/BIOTECHS
S	2 LABORERS

FACILITIES	
N	OFFICES FOR 34
N	VISITOR INFORMATION AREA
N	WAREHOUSE
N	HANGAR – 2 BAYS
N	GARAGE - 8 BAYS
N	WORKSHOP
N	FUEL STORAGE
N	10 PERMANENT EMPLOYEES
N	11 SEASONAL EMPLOYEES
N	8 BUNK SPACES

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

MANAGEMENT DISTRICT BOUNDARY

SUBDISTRICT BOUNDARY

HEADQUARTERS

DISTRICT RANGER STATION

SUBDISTRICT RANGER STATION

REMOVE COMMERCIAL OPERATOR PERMANENT CAMP

E EXISTING FACILITY

N NEW FACILITY

P PERMANENT EMPLOYEE

S SEASONAL EMPLOYEE

LOCATION ALONG DALTON HIGHWAY SUBJECT TO FUTURE LAND USES

ALTERNATIVE D

OPERATIONS AND GENERAL DEVELOPMENT

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

185 | 20041A

OSC | FEB 85

Kobuk River Community
- 15 offices
- visitor information area
- bulk storage
- hangar (1 bay)
- garage (1 bay)
- fuel storage
- housing for 2 permanent and 4 seasonal employees
- bunk space (10 bunks)

Cabins, Caches, and Camps. No cabins would be maintained or used in support of public recreation, commercial activities, or NPS operations. Cabins that are not historic or needed for other uses would be dismantled. No caches would be permitted. The existing commercial operator base camp would not be consistent with the purposes of the area and would be removed subject to applicable laws and regulations.

ALTERNATIVES CONSIDERED AND DISMISSED

An alternative considered during the planning process was to place administrative and visitor facilities in Old Bettles, particularly in light of an offer to donate 7 acres with old, possibly historic, structures to the National Park Service. Because of the location across the river, downstream, and away from the airfield, the location was considered impractical.

ENVIRONMENTAL CONSEQUENCES OF THE PROPOSAL AND ALTERNATIVES

The environmental consequences of the proposal and alternatives have been evaluated to identify any significant impacts on natural and cultural resources, subsistence, visitors, commercial operators, private landowners, the local socioeconomy, or the wild and undeveloped character of the area. Table 19 gives a summary of these environmental consequences.

Acquisition of the Reed River watershed is the one proposed action in the land protection plan that requires an environmental assessment, and the analysis of its impacts are included in the "Impacts of the Proposal" section.

IMPACTS OF THE PROPOSAL

Impacts on Fish

The gathering of baseline data on fish populations, productivity, and take would increase the knowledge of resource managers about fish resources and thus enhance their ability to maintain natural and healthy populations. Currently there is not enough information to know how consumptive uses are affecting fish populations. Consumptive uses would be managed (e.g., visitor information, recommended seasons and bag limits, law enforcement) as necessary to minimize the taking of fish and to maintain productivity. Maintenance of existing water quality would protect habitat including spawning, rearing, feeding, and overwintering areas. Increased visitor use (double or more in the next 10 years) could result in a proportional increase in fishing pressure in high use areas but would be mitigated by encouraging catch-and-release methods, recommended seasons and bag limits, limits on length of stay at campsites, and law enforcement.

The Reed River flows out of Gates of the Arctic National Park, through state land and mineral claims, then flows into the preserve unit. As a tributary to the Kobuk River, NPS acquisition of the Reed River watershed would protect water quality and fish from extensive mineral development. The Kobuk River contains northern pike and burbot and is important for the spawning of sheefish and chum salmon.

Conclusion: Implementation of the proposal would have an overall beneficial impact on fisheries by gathering scientific data, protecting habitat, and reducing consumptive uses to ensure natural and healthy populations.

Impacts on Wildlife

The gathering of scientific information would increase the knowledge of resource managers about wildlife resources and thus enhance their ability to maintain natural and healthy populations. Uses would be managed

Table 19: Summary of Environmental Impacts

Impact on:	Proposal (C)	Alternative A	Alternative B	Alternative D
Fish	Benefit from research, reducing consumption	Moderately adverse effects from increasing sportfishing and no monitoring system	Similar to proposal	Benefits from stringent management and research
Wildlife	Benefits from research, managing disruptive uses	Moderately adverse effects from increasing use and no monitoring system	Benefits to monitored species, minor adverse effects on species not monitored	Benefits from stringent management and research
Vegetation and soils	Benefits from monitoring; total disturbed 1,500 acres reduced by 70 acres (total 0.016% of unit)	Disturbed 1,500 acres increased by 100 acres (total 0.018% of unit)	Benefits from monitoring; total disturbed 1,500 acres remain same (total 0.017% of unit)	Benefits from research; total disturbed 1,500 reduced to 900 by reclamation (total 0.011% of unit)
Water quality	Remain stable	Some isolated deterioration from lack of monitoring	Similar to proposal	Prevent any deterioration
Cultural resources	Benefits from inventory records, potential protection of two historic sites, loss of other historic sites to weather	Similar to proposal, except loss of two known historic sites to weather	Similar to proposal	Similar to alternative A, except benefits from in-depth research
Subsistence	Retard imminent changes by protecting subsistence; some increase in NPS presence and increased protection of resources	Less NPS interference with subsistence and less protection of resources	Same as proposal	Same as proposal, with increased protection of resources
Visitors' freedom of choice	Minor effect on choices of 15% of visitors	No effect	Minor effect on choices of 20% of visitors	Moderate effect on choices of 15% of visitors
Visitors' experience of solitude	Maintain or enhance for all visitors	Slightly decline as visitation increases	About 15% decline from hardened sites	Assure all visitors opportunity in all areas
Opportunities for handicapped visitors	Guarantee guided services, overall increase in opportunties	No change	Possible guided services, helicopter access, overall increase in opportunities	No guided services reduce opportunities; mitigated by offsite programs
Commercial operators	Minor extra operating costs to meet extra requirements; permanent camp eliminated; some reduction of competition; overall minor effect on existing operators	No effect	Permanent camp eliminated, little other effect	Adverse effect on 30 guides no longer operating in Gates; loss of $750,000 per year; permanent camp eliminated
Private landholders	Remain unchanged	Little change except slight increase in trespass as visitation increases	Little change except slight increase in permit requirements per 10-12 landowners	More restrictive to mine operators; improved solitude and minimized trespass for 12 landholders
Socioeconomy	Small social effect from increased staff; some flow of money from salaries and construction into Bettles, Coldfoot, and Anaktuvuk Pass	No change	Small social effect from increased staff; some flow of money from salaries and construction into Bettles, Wiseman, Anaktuvuk Pass, and a Kobuk River community	Small social effect from increased staff; flow of money from salaries and construction into Bettles, Anaktuvuk Pass, and a Kobuk River community; major "new town" effect along Dalton Highway from new headquarters
Wild and undeveloped character	Maintain	Slightly diminish	Maintain	Slightly increase

(e.g., visitor information, law enforcement) as necessary to maintain natural and healthy populations.

Increased visitor use (double or more) could result in proportionally more human-bear encounters, causing the needless destruction of bears. Currently there are two to four incidents per year involving destruction of property by bears (no human injuries), and one to two bears are destroyed each year in defense of life and property. This could be reduced by providing better visitor information and bear-proof food storage containers.

New diseases could possibly be introduced as a result of pack animals in the park. Horses, llamas, and dogs are not known to be carriers of diseases that would be detrimental to wildlife. Thus, the likelihood of such a problem arising is extremely low. Wildlife in any known area of pack animal use would be sampled for exotic diseases, and pack animal use would be immediately discontinued if problems were discovered.

Some low level flights and helicopters could disturb individual animals under stress at critical times such as calving (moose), lambing (sheep), or denning (wolves). These adverse incidents would be minimized by limiting helicopters and encouraging aircraft operators to disperse use and maintain minimum altitudes. There is also a potential for harassment or poaching of wildlife from snowmachines and motorboats during critical times, but this would be reduced by proposed limitations.

The Reed River watershed provides habitat for moose, black bear, and furbearers. Following the river valley, these animals move through several boundaries that offer variable levels of protection. They could be disturbed by extensive mining activities, but would be more protected by acquisition of this watershed.

Conclusion: Implementation of the proposal would have an overall beneficial impact on wildlife by gathering scientific data, protecting habitat, and managing disruptive uses.

Impacts on Vegetation and Soils

Beneficial impacts of the proposed management include protection of the naturally occurring plant mosaics and reestablishment of vegetation and soils in affected areas. An active research and monitoring program would enable the National Park Service to better identify impacts and implement preventive and restorative measures. Currently there are about 1,500 acres or 0.017 percent of the park that are altered by developed or repeated human use. Over 100 sites totaling about 25 acres that have been disturbed by repeated use would be restored. Mat excelsior sprinkled with pellets of fertilizer have been used successfully to reclaim alpine tundra and subalpine forests in other national parks and would be tried at Gates of the Arctic. Another 50 acres around camps and cabin ruins would be reclaimed. About 5 percent of the area currently disturbed would be reclaimed. Special surveys for threatened and endangered species would not be undertaken since none have been identified. If their presence is indicated from any source, they would be

studied and protected. Visitor information on low impact camping, limiting campfires, and encouraging the use of stoves would serve to reduce consumptive use of vegetation and return vital nutrients to the soil. How effective this program would be cannot be determined.

Adverse impacts on vegetation and soils could occur around public use cabins and other areas of concentrated and regular use. Vegetation may continue to be worn off and soil erosion may continue to occur. These impacts would be localized (usually less than ¼ acre per use site at over 100 locations and 1 acre per public use cabin at 16 locations) and would be mitigated by monitoring vegetation conditions and undertaking vegetation restoration measures.

Trail formation by hoofed animals may occur along with trampling and browsing of vegetation along travelways at campsites. How much area would be damaged by hoofed animals cannot be estimated until use patterns are better defined. Under existing levels of use (less than one horse/llama group per year), the damage would be negligible. However, the arctic tundra and boreal forest is extremely sensitive to such disturbance, and a few groups per year traveling the same route could destroy vegetation, create a trail, and cause soil erosion.

Nonnative species of plants could possibly be introduced through scattering of feed on the ground or through fecal matter. Any such impacts should be minor because of low use of pack animals and because the arctic environment makes its vegetative communities relatively resistant to the invasion of exotics; however, such use would be closely monitored to identify any impacts. Some vegetation and soil disturbance could occur at administrative and temporary communications sites. Exact communication sites have not been identified, but about 1 acre would be disturbed. These impacts would be limited to the minimum necessary for the facility or operation and reclaimed as necessary.

Additional damage could result along snowmachine routes during periods of inadequate snow cover; however, snowmachines are only permitted during adequate snow cover. ATV use along easements would continue to destroy vegetation and soils. Discontinuing the expansion of future motorboat use may prevent riverbank erosion problems.

Conclusion: Overall, this alternative would have a beneficial impact on vegetation and soils because about 75 acres would be reclaimed compared to 4 acres directly disturbed. However, because the gross acreage involved is about 0.016 percent of the park/preserve, the overall impact would be negligible. Through active research and monitoring, the National Park Service would be in a better position to identify adverse impacts and take corrective measures.

Impacts on Water Quality

Water quality could be threatened by concentrations of use in areas such as Arrigetch Peaks/Circle Lake and Walker Lake. While water quality data do not exist for these frequently visited areas, there have not been any cases of human illness that could conclusively be linked to water

containing human disease organisms. Even with increasing levels of use expected to double or more than double during the next 10 years, water quality problems related to human use and health are not expected to be observed. These impacts would be mitigated by the proposed monitoring of use areas, visitor use limits, and emphasis on low impact camping. Giardia would continue to be spread as a result of continued human use; however, visitors would be informed of techniques to minimize interaction of human fecal matter within park waters. Potential impacts from mining operations would be mitigated by working closely with miners to prevent degradation of the park's waters. Currently, there are two approved plans of operation for mining claims. The operation of these and other claims in and adjacent to the park is dependent on economic factors, but no dramatic change is expected.

The Reed River flows out of Gates of the Arctic National Park, through state land and mineral claims, then flows into the preserve unit. As a tributary to the Kobuk River, NPS acquisition of the Reed River watershed would protect water quality from extensive mineral development.

Conclusion: The park's water quality should remain stable under the proposed plan unless outside activities beyond NPS control are developed.

Impacts on Cultural Resources

The gathering of information would increase the knowledge of park managers about cultural resources and thus enhance their ability to protect significant resources. Two known historic cabins may be protected. Time and weather would continue to deteriorate the unmaintained historic sites, and numerous ruins would ultimately be lost and would be considered archeological sites. This would be mitigated by recordation.

Beneficial impacts could result from the oral history program and other educational programs by increasing awareness and appreciation of cultural resources and reducing potential vandalism.

Although no site-specific investigations have taken place on the proposed Reed River parcel, adjacent land surveyed in 1983 yielded over 200 prehistoric and historic sites (NPS, USDI 1984). NPS acquisition of the Reed River watershed would protect potential cultural resources from damage or loss because of extensive mining activities.

Conclusion: Implementation of the proposal would have an overall beneficial impact on cultural resources through the gathering of scientific data, thus enhancing the Park Service's ability to protect significant resources. Adverse impacts resulting from not maintaining historic sites would be adequately mitigated.

Impacts on Subsistence

Subsistence use of the park and preserve is authorized by ANILCA. Policies and regulations implementing the subsistence-related provisions of

ANILCA are already in place, and no changes in the management of subsistence activities are proposed in the plan. However, the Subsistence Resource Commission is developing recommendations for a subsistence hunting program that may be implemented in whole or in part upon completion. The impacts of existing regulations were analyzed in an environmental assessment that was prepared at the time the regulations were proposed and thus will not be discussed further in this document. Any future modifications in current subsistence management will be evaluated for effects on subsistence (as required by section 810 of ANILCA) and will comply with all applicable laws, regulations, and policies.

The proposed plan would have a variety of impacts on subsistence activities. The gathering of scientific information would increase the knowledge of park managers, the Subsistence Resource Commission, and subsistence users about fish, wildlife, and vegetation, thus enhancing their ability to maintain natural and healthy populations. This would have long-term beneficial impacts by maintaining the subsistence resource base and protecting traditional opportunities. Short-term impacts could occur from future constraints (none are proposed at the present time) that are found necessary as a result of ongoing research programs to maintain natural and healthy populations. There could also be short-term decreases in the resource base as a result of allowing natural cycles in the populations to occur. It is not known at this time what future limits may be needed or what wildlife population cycles may occur. Maintenance of existing water quality would protect fish habitat.

The stipulations on cutting live trees over 3 inches in diameter would require additional effort on the part of subsistence users, but would not limit the availability of trees. Currently, only one or two permits a year are requested.

Continuation of the ongoing oral history program would enable the National Park Service, the Subsistence Resource Commission, and others to better identify traditional use areas and thus clarify the subsistence uses protected by ANILCA.

The proposed visitor information program would sensitize recreational users and commercial guides and outfitters to seasons and locations of subsistence activities and thus minimize conflict between various user groups. Although subsistence conflicts with visitors have been discussed at public meetings, there are currently no figures on numbers of incidents.

The ban on permanent facilities for commercial operations would eliminate the use of three fixed locations. The camp is summer use only and is in an area used for subsistence generally in the winter so there would be no change. The cabins are in a generally summer subsistence use area and have been used for winter commercial trips. Thus, elimination of this activity would also have no effect.

The use of pack animals in the park could result in disturbance to wildlife and subsistence activities; however, the probable time of use would be summer and the location would be within 30 miles of the Dalton

Subsistence Hunting

Anaktuvuk Mask

Caribou

Fish

SUBSISTENCE USE

Highway, an area generally used only for winter subsistence. While little direct effect would occur, there could be future impacts on wildlife parkwide through the introduction of disease, but the probability is unknown at this time. Any possible adverse effects would be mitigated by close monitoring, and any indication of disease or other problems would result in a total prohibition on the use of stock animals in the park.

The unrestricted use of fixed-wing aircraft would result in the increase of air traffic within the park (double or more) and thus increase the potential for disturbance to wildlife and subsistence users. These potential adverse impacts may be mitigated by the proposed information program, which would encourage avoidance of subsistence areas and advise minimum altitude. Currently, regularly used aircraft corridors coincide with about 50 percent of summer subsistence use areas. Air-taxi operators are primary users of these corridors, and recommendations for minimizing conflicts would be developed by working closely with the National Park Service. Although the present number of conflicts is unknown at this time, they would be minimized.

Some disturbance from the use of helicopters for management and research would occur, but helicopter use would be limited to essential activities and controlled to avoid subsistence areas during critical times.

The proposed restrictions on use of motorboats and snowmachines by recreational users would minimize disturbance to wildlife and subsistence activities from other recreational users. While there is little such recreational use at this time, it would probably increase from the Dalton Highway and could affect 20 percent of the subsistence use areas if uncontrolled.

The mere presence of NPS personnel in the park area can be considered adverse to subsistence users because that presence would be regular and routine (increase from 4 to 15 backcountry seasonals) where it has not been before. These impacts would be mitigated by the intent to maintain a low profile and limit in-park operations to essential activities. Adverse impacts would also be offset by improvements in the data base on which the Park Service and the Subsistence Resource Commission would recommend actions affecting subsistence hunting. An NPS law enforcement presence would also prevent unauthorized consumptive uses and thus protect the availability of subsistence resources. The Park Service would also be in a better position to monitor and resolve conflicts between subsistence users and other users. The NPS use of certain cabins would result in fixed location of operations that would increase activity in those four areas, but this would be mitigated by the intermittent use of cabins. Having NPS personnel living in communities within and adjacent to the park would improve access to the Park Service for information and guidance on current regulations, other users, and overall park management. The continuance of cooperative agreements with the Alaska Department of Fish and Game would result in coordinated research programs, data comparability, and more comprehensive research related to subsistence.

Sheefish within the preserve segment of the Kobuk River are important subsistence resources for local residents. Acquisition of the Reed River watershed would provide additional protection of these resources.

There would continue to be a change in the subsistence lifestyle within and surrounding the park because of increased recreational use. This increase in recreational use is primarily a result of the creation of the park and would occur whether a management plan was implemented or not. The proposed plan would slow down this change by placing constraints on recreation and other nonsubsistence uses.

Conclusion: Because most future changes in subsistence are not directly attributable to the proposed management and can only be partially controlled by NPS management, the proposed plan would not have a significant adverse impact on subsistence activities and in many instances would serve to protect subsistence opportunities and resources.

Impacts on Visitors' Freedom of Choice

The freedom of choice of most visitors would not be affected by most of the proposals. Less than 5 percent of existing river trips and winter trips are composed of groups larger than 12 people, the proposed group size for these activities. Hoofed pack animals are rarely used in the park/preserve (on the average less than one group per year) and limiting them to 8 animals per party would have little effect. Virtually all snowmachine use, except for subsistence activities (allowed to continue unaffected by the proposal), occurs along the routes that would be designated by the proposal, and there is little recreational use. Regular use of motorboats occurs only at Walker Lake, where it would be allowed to continue, so users would be unaffected by the proposal. Overall, less than 1 percent of visitors would have their freedom of choice restricted by these proposals.

A greater proportion of visitors would be affected by the limit of six people per backpack group and the Arrigetch Creek use zone limits. About 4 percent (150 people per year) of all park/preserve visitors backpack in the Arrigetch Peaks area, and most of them use the Arrigetch Creek/Circle Lake area. The zone covers .0005 percent of the total park/preserve area. The zone's limits would allow the same number or more visitors to use the area, but they would be more evenly spread throughout the season. About 10 to 20 percent of the visitors choosing to visit the Arrigetch Creek area could be forced to select another trip location or wait until a group came out before they could enter.

The average group size is greater than five people. Restricting backpack group size to six could limit the freedom of choice of about 40 percent of backpack groups. These groups would have to divide into two or reorganize their trip plans before entering the park.

Thus, the backpack group size and Arrigetch Creek use limits could restrict the freedom of choice of up to 80 to 100 groups per year or about 15 percent of the visitors per year. To mitigate this impact, the park would distribute information about these regulations on use so that

most visitors would be able to adjust their trips in advance. All of these visitors would still be able to experience the park/preserve, just not exactly in the manner, time frame, or location of their choice. Only a very small percentage (probably 1 percent or less) of visitors would arrive and be forced to change their plans at the last minute.

Conclusion: The use regulations that are part of the proposed plan would have a minor effect on the choices of about 15 percent of the visitors. The regulations would have a more dramatic effect on the very small percentage of visitors that are forced to change their plans at the last minute. These visitors would feel their freedom of choice has been limited, but because there would be so few of them the overall impact would be minor.

Impacts on Visitors' Experience of Solitude

The cumulative impact of the proposed plan would be to maintain or enhance opportunities for solitude. Signs of contemporary man's use of the area, such as bare ground at popular campsites, fire rings, and trail formation, would be minimized by monitoring, restoration, and prevention through visitor use limits (see discussion on "Impacts on Vegetation and Soils"). Disruption of solitude due to large groups of visitors and motorized vehicle activity would be minimized by limits on group size and limits on motorboats, snowmachines, and helicopters.

While the cumulative impact would be increased opportunities for solitude parkwide, the area most affected would be the Arrigetch Creek/Circle Lake area. It amounts to about .0005 percent of the park/preserve but has about 4 percent (150 people per year) of visitation. The 8,000-acre zone in the Arrigetch Creek area would be limited to three groups at any one time, and each group's length of stay would be limited to 10 days. The zone's limits would allow the same number or more visitors to use the area, but they would be more evenly spread throughout the season. These visitors would encounter fewer other groups and smaller groups than visitors today. The use limitations would make it less likely for visitors to encounter other groups in about 10 miles of valley routes (about 8 percent of the routes/rivers where encounters are likely). The existing signs of man's use (over 6 miles of trails and less than 1 acre of bare soil from repeated camping) would remain or be reduced as revegetation took hold.

Restricting the use of snowmachines and motorboats and recommendations for airplane and helicopter use would increase solitude. Use of ATVs along easements would continue to disrupt solitude. On most park waters, motorboats or motorized rafts have been infrequently used for recreational purposes. These uses would no longer be permitted (except on Walker Lake), and the opportunity for solitude would be increased along about 75 miles of river corridor or lakeshore. This is about 30 percent of the river corridors or lakeshores where boating or rafting takes place in the park/preserve. These river corridors and lakeshores receive about 40 percent of the park/preserve's visitation.

The intermittent NPS winter operations would have little effect on solitude, but the presence of summer camps for NPS operations could affect solitude at Walker Lake and on Noatak and Kobuk rivers, all moderate to high use areas. This would be mitigated by the method of operation, by which staff would generally not be initiating visitor contacts, and camps would be moved each season or more often to avoid long-term fixed patterns. The 16 cabins available for overnight public use may attract and concentrate use, which would affect solitude at these locations.

While increased monitoring and research would benefit and protect resources, the mere fact that these activities are taking place can detract from solitude. More stringent controls on helicopter use should minimize conflicts with visitors by avoiding times and places of high use, even if total flight hours remain the same or increase.

Conclusion: The proposed plan would maintain or enhance opportunities for solitude for all visitors in all parts of the park/preserve. This would be a significant change from existing conditions for several small areas that receive relatively heavy visitation.

Impacts on Opportunities for Handicapped Visitors

The proposed plan will guarantee opportunities and services for handicapped visitors through requiring one guide to provide these services, an opportunity that does not exist now. Recreational motorboat and snowmachine use make up less than 2 percent of all recreation, and limiting these activities would have little effect on handicapped visitors.

Conclusion: Opportunities for handicapped visitors would overall be slightly enhanced.

Impacts on Commercial Operators

Additional guides and air-taxis wishing to operate in Gates of the Arctic in the future may not be able to do so because of conversion to concession permits and an eventual limit of 30 guides and 8 air-taxis. This would be mitigated by allowing additional operators until January 1, 1987, and by allowing replacements when the total number drops below the ceiling. A benefit to those operating within the limit may be a slight reduction in the amount of competition because of the concession permit system.

The removal of the permanent camp would adversely affect that operator, particularly if the operator does not relocate to private land. The concession permit issued for the camp does not guarantee continued business. The operator does have the option to modify visitor services to bring clients into the park and move camp, as other operators do. There would be an initial loss of clients who prefer the base camp.

Although the operator who uses two cabins for winter trips would no longer have exclusive use, the operator would be able to use the cabins

on a first-come, first-served basis, but would have to modify these trips to include winter tents if the cabins were in use by others.

The additional concession permit requirements and visitor use limits (particularly group sizes of 12 for river and winter trips and 6 for backpacking trips) would affect operators in varying degrees. Less than 5 percent of existing river trips and winter trips are composed of groups larger than 12 people. About 40 percent of backpack trips are larger than 6 people. For those trips that are larger (18 percent of all trips), costs would be higher per person for operators and may make some of those trips uneconomical. The requirements to give and collect information may also incur some additional costs.

Conclusion: The proposed plan would pose some extra operating costs to commercial operators, but it would not jeopardize or eliminate any businesses other than the permanent base camp. The cumulative effect would be minimal to all commercial operators except the adverse effect on the one permanent camp operator.

Impacts on Private Landowners (Within the Park Boundaries)

For those private landowners seeking to continue a wilderness-based lifestyle, the proposed plan would protect that opportunity. For those seeking to develop private lands, the proposed management may present impediments to those plans in terms of restrictions, perceived or real, on the surrounding park lands. Currently, less than three landowners (other than Anaktuvuk Pass) reside within the park; however, others use their tracts seasonally. Access to private lands, the major concern of private landowners, is guaranteed by ANILCA subject to reasonable regulations to protect park values. All currently authorized methods of access would continue to be allowed; however, use of offroad vehicles on park lands would be restricted to specified access routes. These routes currently include about 56 miles of offroad vehicle easements on park lands in the Anaktuvuk Pass and Chandler Lake area.

The proposed visitor information program and increased NPS presence within the park (from 4 to 15 backcountry seasonals) would increase visitors' awareness of private property and minimize unintentional trespass by park users, which includes 71 individual parcels plus village and native corporation lands totaling 3.5 percent of the park.

The proposed Reed River watershed acquisition is in the uppermost reaches of the Ambler mining district. Whether or not mining claims are included, or how many, depends on negotiation of the exchange for state lands. If mining claims were included in the exchange, valid existing rights would be recognized. Operators of valid existing claims within the parcel would be subject to the Mining in the Parks Act in addition to existing state and federal regulations. This may result in higher costs to the operator.

Conclusion: The proposed plan essentially maintains the status quo with regard to private lands within and adjacent to the park. All legal rights of private landowners are recognized, and only minor additional restrictions are proposed where necessary to protect park values.

Impacts on Socioeconomy

The monitoring of air and water quality would seek to ensure compliance with existing laws and would not affect regional development or development of mines any more than at present. The encouragement of local museums may result in local expenditures and may also help attract matching funds from other outside participants. Construction and operating jobs would be created. Once in place the museums may slightly increase tourism, length of stay, and spending by visitors.

The limit on commercial operators restricts the number of businesses, not the number of clients. Thus, existing businesses can continue to grow. Those currently thinking about starting a business have the opportunity to do so before January 1, 1987. Only future businesses desiring to start after the cut-off date would be affected. This would be mitigated by the provision to replace unused slots, and preference for these slots would be extended to native corporations and local residents by section 1307 of ANILCA.

Permanent staff located in communities may bring along families, so an assumption of an average of three additional people per permanent staff is added to each projected population increase. New employees in Bettles (from 2 to 5 permanent and from 2 to 8 seasonals) will increase the population by 5 percent year-round and 11 percent in the summer. This would be mitigated by the phased reduction of about 10 FAA staff planned in the next several years and the summer increase in the local population. Combined salaries total about $205,000 per year, part of which would cycle into the local economy. The construction of new facilities would total about $3 million in Bettles, and the National Park Service will discontinue renting facilities. The amount that would cycle into the local economy and provide local jobs would depend on how and where contracts for construction are awarded, which is undetermined at this time. If the successful bidder was from out of the region or state, little construction money could be added to the local economy, but if the successful bidder was local, much of the money would remain in the local economy. Facilities would also occupy about 6 acres of land jointly with other agency facilities. The social effect of government presence would not be much different than at present. There would be no effect on the local infrastructure.

The population of Anaktuvuk Pass (proposed for 1 new permanent, 2 seasonal employees) would be increased by 1 percent year-round, or 2 percent seasonally. Combined salaries total about $63,000 annually, part of which would cycle into the local economy. Construction would total about $1.2 million in Anaktuvuk Pass and occupy about 2 acres of land in the village. Existing leases would be discontinued. There would be some social effect by NPS presence year-round in this predominantly native village. The effect could be negative from the intrusion of outsiders and the federal government, balanced by increased communication and NPS responsiveness. There would be no effect on the local infrastructure.

The population of Coldfoot (proposed for one permanent, two seasonal employees) would be increased by 11 percent year-round and 25 percent in the summer. The summer increase would be occur at the same time as

the seasonal increase in the population of the area. Combined salaries would total about $62,000 per year and construction of facilities about $1.2 million. The National Park Service already has a 7-acre right-of-way and will need 1 more acre near the airstrip. There would be small social effects of NPS presence in this community, similar to what was described for Anaktuvuk Pass, and there would be no effect on the local infrastructure.

The proposed Reed River watershed acquisition is in the uppermost reaches of the Ambler mining district. Whether or not mining claims are included, or how many, depends on negotiation of the exchange for state lands. If mining claims were included in the exchange, valid existing rights would be recognized. The parcel would be closed to further mineral activities. There is currently little mining activity on this edge of the Ambler mining district, and limiting mining on the Reed River parcel would not affect the local socioeconomy.

Conclusion: There would be a few social effects on local communities from increased staff. This would be mitigated by using local hires, maintaining good communication with the community, and training employees to be senstive to local needs. Overall, there would be an increased flow of money from the salary and construction funds, partially cycled into the local economy. There would be few effects from other actions in the proposal, and cumulative effects would be relatively minor.

Impacts on Wild and Undeveloped Character

The National Park Service is directed by Congress to protect the wild and undeveloped character of the area. Because of the special importance of this character, it is considered here as an impact topic. Individual aspects of wild and undeveloped character have been discussed previously in the impacts on fish, wildlife, vegetation and soils, water quality, and visitors' experience of solitude. Yet, wild and undeveloped character is more than the sum of the parts and impossible to quantify. This impact topic is used as a general summary discussion to consider the cumulative effect of each alternative.

It is inevitable that as the last frontier of Alaska is settled, even the rugged, remote wilderness of the Brooks Range would slightly diminish. While designation of Gates of the Arctic National Park and Preserve was intended to protect wilderness, its designation is also a magnet that will attract an increasing number of visitors. Future land use changes around the park and preserve will delineate the now indistinguishable boundaries. These pressures necessitate active management by the National Park Service, although it is recognized that NPS actions can also diminish wilderness. Many major factors are beyond the control of the National Park Service; thus, the proposal and alternatives vary only slightly in the future scenarios of the wild and undeveloped character of the area.

The proposed plan would actively protect natural and healthy populations of fish and wildlife through research and establishing criteria based on human use. Existing effects of human use would have a net reclamation

of 70 of the 1,500 acres, which leaves 0.016 percent of the park and preserve disturbed. Water quality would be monitored and remain stable. There would be a minor effect on visitors' freedom of choice, a trade for maintaining and enhancing solitude.

Conclusion: The proposal would protect the present condition of the wilderness, neither significantly improving it nor allowing it to deteriorate.

IMPACTS OF ALTERNATIVE A

Impacts on Fish

Using current management assumptions and information with only limited research and monitoring could lead to adverse impacts such as declines in fish populations and loss of habitat, but the extent is unknown at this time. The National Park Service would rely on the state and the Environmental Protection Agency to monitor water quality. Decline in water quality could occur due to a lack of state personnel to adequately monitor and enforce water quality standards. This would be especially important for the spawning areas of king and chum salmon in the North Fork and Middle Fork of the Koyukuk River. Both of these areas are subject to activities on mining claims within the drainages, two approved operations within the park, and two outside the park. Increased fishing pressure would result from allowing motorboat use throughout the park and because visitation is expected to double or more than double in the next 10 years.

Conclusion: This alternative would adversely affect the fishery resource by not providing for active management to research or monitor the current situation and to detect early degradation of resource and habitat. Adverse impacts would go undetected until they reached a more serious or obvious stage. Then the damage would already have occurred, and it could take a fairly long time for these effects to be corrected because of the fragile nature of the environment. The overall impact on fish and fish habitat would be moderately adverse.

Impacts on Wildlife

Using current management assumptions and information with only limited research and monitoring could lead to adverse impacts such as declines in wildlife populations and loss of habitat. The limited NPS ranger patrols could also result in less protection of wildlife because of less enforcement and monitoring of use. Increased visitor use could result in more human-bear encounters and the needless destruction of bears because of inadequate information and practices (e.g., food storage). Currently there are two to four human-bear incidents involving destruction of property (no injuries), and one to two bears per year are destroyed in defense of life and property. This figure could double in the next 10 years.

New diseases could possibly be introduced because of pack animals in the park and no accompanying studies to determine the effects on the park's ecosystem.

Some low level airplanes and helicopters (both by the Park Service and air-taxi operators) could disturb individual animals at critical times such as calving (moose), lambing (sheep), or denning (wolves). Increased or concentrated use of snowmachines and motorboats could result in harassment or poaching of wildlife during critical times.

Conclusion: This alternative would adversely affect wildlife by not providing for active management to research and monitor populations and habitat and to detect any resource and habitat degradation early. Problems would go undetected until they reached a more serious or obvious stage. Once adverse effects have occurred, it could take a fairly long time for them to be corrected because of the fragile nature of the environment. Adverse effects from consumptive and disruptive uses would not be adequately mitigated to minimize or eliminate the adverse effects. The overall impact would be moderately adverse to wildlife.

Impacts on Vegetation and Soils

With increasing visitor use (double or more), no active restoration of vegetation, and continuation of mining and other activities, adverse impacts would include continued deterioration and erosion of natural vegetation at human use sites. Subsistence tree cutting within existing regulations could be concentrated in selected areas such as along the Kobuk River. Currently only one or two tree-cutting permits are issued per year. The two mines with current plans of operation may continue. Previously disturbed mining sites may erode and show little recovery, and about 300 acres would remain disturbed. Public use of 16 cabins under permit would continue to concentrate use. While these are localized impacts, the reliance on natural processes for reclamation may mean the sites would never be restored unless use is banned. The use of snowmachines during periods of inadequate snow cover may damage vegetation and soils, even though use is supposed to occur during adequate snow cover. The use of ATVs along easements would continue to damage vegetation and soils along those routes. The potential for adverse impacts from hoofed pack animals could increase if a commercial use were to become substantial. Impacts would include trail formation, trampling of vegetation at campsites, and introduction of nonnative plant species through scattering of feed or through fecal matter. Some vegetation may be destroyed by unrestricted landing of fixed-wing aircraft and unauthorized brush clearing to accommodate landings. These sites would usually be less than one-half acre but would occur throughout the park. Trail formation could occur in regularly used areas within 30 miles of the Dalton Highway where recreational snowmachine use is likely to increase, possibly affecting 50 acres along corridors. Cabin use would increase damage at these already affected sites by about 16 acres. Other visitor-impacted sites could double the number of acres affected, adding another 30 acres of disturbance. The NPS use of four cabins would affect about 4 acres that have already been disturbed by human activity.

Conclusion: Overall, this alternative would adversely affect vegetation and soils by not providing active management to research and monitor existing resource conditions. Few actions would be initiated to prevent further degradation or restore affected sites. The lack of active management is considered to be moderately adverse to vegetation and soils as use, especially in areas already affected. Impacts are expected to continue to increase and spread into new areas, affecting about 100 additional acres, leaving about 0.018 percent of the area disturbed.

Impacts on Water Quality

Management of water quality would rest primarily with the state of Alaska and the Environmental Protection Agency. The National Park Service would rely on these agencies to monitor and enforce water quality standards.

Due to a lack of adequate resources on the part of the state and the Environmental Protection Agency to monitor and enforce water quality standards, some degradation could go undetected (e.g., mining operations within the park). Based on current and projected levels of activity within the park, this impact would be considered to be minor. Outside development could affect the park's water quality. There are two plans of operation for mining claims. The operation of these and other claims in and adjacent to the park is dependent on economic changes, but no dramatic change is expected.

Conclusion: The park's water quality would probably remain the same, although minor changes could occur leading to long-term problems if undetected for the next 10 years.

Impacts on Cultural Resources

The actions and impacts of this alternative would be similar to those of the proposal. The only difference is that no cabins or historic sites would be preserved, and weather would continue to erode the two known historic cabins.

Impacts on Subsistence

The management actions and impacts under this alternative would be similar to current management. The small staff (10 permanent and 9 seasonal employees) and low profile management approach would include few contacts and thus little disturbance from NPS personnel operating in the field. Additional constraints on existing subsistence activities would be less likely in the short-term because there would be no comprehensive research program directed towards maintaining natural and healthy populations of fish and wildlife. No additional effort would be required for subsistence use of live trees over 3 inches in diameter under the existing permit system.

Because research and corrective programs would not be initiated until problems were detected after they were well developed. Adverse impacts would include a greater potential for resource degradation. This could lead to long-term declines in populations, which would have long-term effects on the availability of the subsistence resource base and lead to long-term restrictions on subsistence uses in order to restore natural and healthy populations. As recreational use doubles or more in the next 10 years, the possibility of conflict (unintentional and intentional) with subsistence uses and activities would increase proportionately due to lack of awareness of subsistence activities and limited NPS presence to monitor use and prevent unauthorized taking of subsistence resources. Unrestricted recreational use of motorboats and snowmachines may increase interference with subsistence uses. Increased use of pack stock would increase their use and thus the possibility of interference with subsistence activities and introduction of diseases.

Conclusion: In this alternative there would be less interference with subsistence activities from park operations, but the possibility of disturbance from recreation and other activities would be greater as would be the potential for long-term degradation of subsistence resources.

Impacts on Visitors' Freedom of Choice

Alternative A does not propose any regulations or actions beyond those already established, thus there would be no effect on visitors' freedom of choice.

Conclusion: Visitors' freedom of choice would not be affected by this alternative.

Impacts on Visitors' Experience of Solitude

Without any use limits and as use doubles or more than doubles in the next 10 years, visitors would encounter other visitors at heavily used areas more frequently than now. Almost one-third of park visitors already perceive problems with encountering too many other visitors.

Aircraft use would increase with visitor use, and helicopter use would continue or increase. There would be some increase in the present level of complaints about aircraft and helicopters disrupting solitude. Visitor use may concentrate around the 16 cabins disrupting solitude on about 16 acres.

Conclusion: The present level of visitors' opportunities to experience solitude would largely continue, slightly decreasing as use increased. Opportunities to experience solitude would be affected by more frequently encountering other groups at high use areas.

Impacts on Opportunities for Handicapped Visitors

Although there are no records of how many handicapped visitors now visit the park, the level of visitation is expected to increase.

Conclusion: There would be no change in opportunities for handicapped visitors.

Impacts on Commercial Operators

There would be no change from existing conditions for current operators, except the existing commercial base camp would be discontinued. The operator would be allowed lifetime term of use and occupancy. Although the operator could not sell or transfer the business, this was not guaranteed in the concession permit.

Conclusion: Alternative A would have no effect on commercial operators.

Impacts on Private Landowners

The impacts of this alternative are similar to those of the proposal except only minimum visitor information would be provided, and the National Park Service would have limited staff. As use increased, incidents of intentional and unintentional trespass would increase because many visitors would not be made aware of private property boundaries, either through visitor information or contact with NPS field personnel. This situation is the same as currently exists, and the number of such incidents would be expected to increase in proportion to increased visitation. Thus, these incidents could double over the next 10 years.

Conclusion: The status quo would be maintained with regard to restrictions on use of adjoining park lands; however, the number of trespass incidents would increase in proportion to increased visitation. There would be no active NPS efforts to minimize these incidents.

Impacts on Socioeconomy

There would be little change to the local or regional economy. Under the existing licensing system, commercial operators would continue to grow at the same rate, and helicopters would continue to purchase local fuel. The same level of staff would continue the same level of local spending, with a slight increase in money expended for leases at Bettles and Anaktuvuk Pass.

Conclusion: This alternative would not influence or change the local socioeconomy.

Impacts on Wild and Undeveloped Character

Factors that are beyond the control of the National Park Service would continue to slightly diminish the wild and undeveloped character of the area. Under alternative A, NPS management would only be able to discover major problems concerning fish, wildlife, and vegetation as there would be no active monitoring, and remedies would be after-the-fact. Increasing use would result in an additional 100 acres of vegetation and

soil damage, leaving 0.018 percent of the unit disturbed. Water quality may decline at isolated locations. Visitors' freedom of choice would not be impaired, but opportunities for solitude would decline as use doubles or more than doubles in the next 10 years.

Conclusion: Increasing use and outside pressures would slightly diminish the wild and undeveloped character of the area.

IMPACTS OF ALTERNATIVE B

Impacts on Fish

The impacts of this alternative concerning fish populations would be similar to those described for the proposal, except for the prohibition of commercially guided fishing. This would further reduce consumptive pressures and protect natural and healthy populations of fish.

Impacts on Wildlife

The actions and impacts of this alternative would be similar to those of the proposal with some differences. Research and monitoring would be limited to hunted and trapped species, which would limit knowledge of other species. The study of wildlife populations would require many years to establish natural and healthy cycles, whereas the study of human uses as in the proposal could be done sooner. The interim lack of criteria in this alternative would result in an interim inability to manage natural and healthy populations.

Disturbance and harassment of wildlife would increase because the recreational use of helicopters would be allowed throughout the area from June 1 to July 15; however, landings would be restricted to established landing areas. Low level flights or flight-seeing would be especially disruptive and could cause stress on female wildlife with young.

Disturbance and harassment of wildlife, degradation of habitat, and human-bear encounters could increase in high-use areas because bears may become habituated by fixed visitor camps. This would be mitigated by bear-proof food storage containers at fixed camps. Thus, the result would remain at about the present level--two to four encounters per year involving property damage (no injuries) and destruction of one to two bears per year in defense of life and property.

Conclusion: Implementation of this alternative would result in adverse impacts on those species not subject to research and monitoring and in high use areas where increased use would be accommodated rather than limited. Overall, this alternative would have the potential for minor adverse impacts on wildlife.

Impacts on Vegetation and Soils

The impacts of this alternative would be similar to those of the proposed plan with some differences. Human uses would be directed to existing

use sites, which would be hardened to absorb existing and increased use. Vegetation and soils would not recover at these sites, which total about 25 acres, but the creation of new sites would be reduced.

Impacts from campfires and proliferation of fire rings would be reduced by encouraging the use of fire pans; however, use of wood for fire would continue and increase, thus interrupting the delicate nutrient cycle.

Limiting subsistence tree cutting by zones would prevent overcutting in any one area. The current level is about one permit per year. Those areas most susceptible to overcutting are adjacent to inholdings, native allotments, and below Anaktuvuk Pass.

Prohibiting either use of llamas or horses would prevent impacts associated with these particular animals. Llamas are considered to be less detrimental to vegetation and soils than horses, so prohibiting horses would provide a greater degree of protection from trail formation and grazing around campsites.

By eliminating aircraft landings between the Dalton Highway and the North Fork, three undeveloped airstrips would be eliminated. Further disturbance of approximately 3 acres would be prevented, and the sites would be allowed to return to a natural condition in the long term.

Some deterioration of vegetation and soils could occur around the two historic cabins, four administrative cabins, and two camps because of restoration work and increased use. This would continue to affect 8 acres of vegetation and soils around these areas. The sites would be monitored and restored as necessary.

Conclusion: The conditions of both vegetation and soils would remain stable under this alternative. Adverse impacts would be minimized by controlling and directing use and mitigated by hardening high use areas to absorb increased use. A total of about 1,500 acres, or 0.017 percent of the total park area, would be affected.

Impacts on Water Quality

The impacts of this alternative would be similar to those of the proposal except that by relying on the state and the Environmental Protection Agency for monitoring and enforcement, water quality problems could go undetected until they reached a more serious or obvious state.

Conclusion: Serious adverse effects would already have occurred before corrective actions could be initiated, resulting in a longer time for these effects to be corrected because of the fragile nature of the environment.

Impacts on Cultural Resources

Under this alternative, the actions and impacts related to cultural resources would be similar to those described for the proposal.

Impacts on Subsistence

The actions and impacts of this alternative related to subsistence use would be the same as those described for the proposed plan.

Impacts on Visitors' Freedom of Choice

All visitors would be required to write in advance or stop at a ranger station or headquarters to obtain an informational permit before they used the park/preserve. This might make most visitors feel like their freedom of choice had been affected.

There would be limitations on plane landings in the Dalton Highway zone. About 20 percent of all areas currently used for airplane landings in the park/preserve, and about 20 percent of the total park/preserve acreage would be placed in the no-landing zone between the North Fork of the Koyukuk and the Dalton Highway. This action would force visitors (approximately 15 to 20 percent of all park/preserve visitors) to gain access to that zone from the Dalton Highway or to change their trip to another location.

Permits would be required for snowmachine and motorboat use. There is currently little established recreational snowmachine or motorboat use, so few visitors would be affected.

Conclusion: Alternative B would affect how visitors choose to gain access to the eastern 20 percent of the park/preserve. About 15 to 20 percent of park/preserve visitors would be directly affected, resulting in a minor impact on visitors' freedom of choice.

Impacts on Visitors' Experience of Solitude

Over 12 miles of trail and over 12 hardened campsites would be constructed. None exist currently. They would contrast the natural scene in the Arrigetch Creek area and around Walker Lake. Those areas comprise about .003 percent of the park/preserve, but contain about 12 to 15 percent of the visitation. Visitation could increase in those areas because some people would be attracted by facilities. Increased visitation would result in more airplane activity. All of these factors would reduce the opportunities for solitude.

NPS operational use of six cabins and two camps could affect visitor solitude, mostly the same areas where campsites are being hardened.

About 20 percent of all areas currently used for airplane landing in the park/preserve and about 20 percent of the park/preserve's acreage would be placed in the no-landing zone. This zone would reduce visitation and increase the opportunity for solitude in the popular North Fork of the Koyukuk drainage, but the visitation would shift to other parts of the park/preserve and reduce the opportunities for solitude. Allowing recreational use of helicopters from June 1 to July 15 would potentially disrupt solitude during the time when 21 percent of park visitation

occurs. This adverse effect on opportunities for solitude would be offset by almost no helicopter use the rest of the year for 79 percent of park visitors, and by dispersing use and reducing the likelihood of encountering other groups.

Conclusion: The net effect on solitude would probably not be significant.

Impacts on Opportunities for Handicapped Visitors

Although there are no records of how many handicapped visitors now visit the park, the level would be not expected to increase from only encouraging commercial operators to provide services. However, more opportunities for access would result from allowing helicopters.

Conclusion: Opportunities for handicapped visitors would be slightly enhanced.

Impacts on Commercial Operators

The additional stipulations on commercial use licenses may cause some minor increase in operating costs of operators. The requirement for visitors to register with the National Park Service before their trip may inconvenience some guided trips. This would be mitigated by advance registration by mail or training and authorizing operators to register clients. The no-landing zone would affect air-taxi operators. Some visitors may be discouraged from visiting Gates; however, most would simply choose other areas of the park, and it should not affect the level of business for air-taxi operators or guides. The commercial base camp operator would need to relocate outside the park to continue business. Prohibiting commercial use of hoofed pack animals would not affect present commercial operators, as none are currently used.

The prohibition of commercially guided fishing would not eliminate any businesses, as no operator solely provides guided fishing. The activities of some guides would be affected, particularly those operating at Walker Lake and the Alatna, Kobuk, and Noatak rivers.

Conclusion: The only adverse effect of this alternative on commercial operators would be on the commercial base camp, which could be mitigated by relocation.

Impacts on Private Landowners

The impacts of this alternative are similar to those of the proposal with a few exceptions. Recreational use of helicopters would be allowed, but all helicopter use would be limited to June 1 through July 15. Allowing recreational use of helicopters would result in increased air traffic during the specified period and thus could be more disruptive to those using private inholdings.

Seasonal permits would be required for use of snowmachines from Dalton Highway for access to inholdings. This would represent additional regulation and administrative requirements (i.e., paperwork) for private inholders, affecting approximately 10 tracts (14 percent) in the eastern portion of the park. These tracts would also receive less disturbance from aircraft in the no-landing zone of this alternative.

Conclusion: This alternative would require a little more effort from 10-12 landowners to get permits for snowmachine use, but activities would not otherwise be restricted.

Impacts on Socioeconomy

The restriction of helicopter use to half of the summer would not necessarily reduce helicopter use by half. Use will be concentrated into a shorter time period and may increase because of allowed recreational use and result in the sale of more fuel from local communities. Commercial operations should continue to grow, some based in local communities.

The staff increases would affect local communities. With the increase from two to four permanent employees and two to six seasonal and backcountry employees, the population of Bettles would increase 5 percent year-round and 9 percent in the summer. This would not create much change in light of the phased reduction of FAA staff over the next few years and the general seasonal increase in the population. Combined salaries would total about $161,000 per year, part of which would cycle into the local economy. The construction of new facilities would total about $1.7 million in Bettles, and the National Park Service would discontinue leasing facilities. The amount of money that would cycle into the local economy and provide jobs depends on how much and where contracts for construction are awarded, which is undetermined at this time. Facilities would occupy about 6 acres of land jointly with other agency facilities. The social effect of government presence would not be much different than at present, and the community infrastructure would not be affected.

With the addition of one permanent employee and continuation of one seasonal employee, the population of Anaktuvuk Pass would be increased by 1 percent year-round. Combined annual salaries would total about $35,000, and construction would total about $900,000. Leases would be discontinued. About 2 acres of land would be needed in the village. There would be a slight social effect of year-round NPS presence in this predominantly native community. Presence of outsiders and government would be adverse, but would balanced by improved community relations and NPS responsiveness. There would be no effect on the local infrastructure.

One new permanent employee and two seasonal employees would be stationed at Wiseman. The population of Wiseman would be increased by 4 percent year-round and 11 percent seasonally. The summer increase would coincide with the seasonal increase in the population of the area. Combined salaries would total about $45,000 per year, and the cost of new facilities, if constructed, would total about $800,000 (existing structures may be leased or purchased). About 2 acres of land would be needed.

There would be a social effect of NPS presence in this small community because of no previous government presence; the presence of visitors could be disruptive. Because of self-contained facilities, there would be no effect on the local infrastructure other than increased use of the access road, which may require more frequent maintenance.

A community in the Kobuk would receive one seasonal and three backcountry employees. The effect of increased population on a Kobuk River community would depend on which community is chosen. If it were Ambler, the increase would be 1 percent seasonally; Kobuk 5 percent seasonally; and Shungnak 1 percent seasonally. This increase would only be in the summer months. Combined salaries would total about $30,000 per season, construction would total about $500,000, and about 2 acres of land would be needed. There would be some social effect in the summer due to NPS presence in these predominantly native communities similar to what is described for Anaktuvuk Pass. There would be no effect on the local infrastructure.

Conclusion: There would be a few social effects on local communities. This would be mitigated by hiring local people through the local hire provision, maintaining good communications with the communities, and training staff to be sensitive to local needs. Overall, there would be an increased flow of money into the local communities from salaries and construction. There would be few effects from other actions of alternative B. The cumulative effects would be minimal.

Impacts on Wild and Undeveloped Character

Alternative B would protect natural and healthy populations of fish and wildlife through research on certain species. Vegetation and soils affected by human use would remain about the same, 1,500 acres, or about 0.017 percent of the unit. Water quality would be monitored and remain stable. There would be a minor effect on visitors' freedom of choice and opportunity for solitude.

Conclusion: This alternative would be similar to the proposal, with no significant change in the wild and undeveloped character of the area.

IMPACTS OF ALTERNATIVE D

Impacts on Fish

The impacts of this alternative would be similar to those of the proposal; however, NPS management would be more active and controls would be more stringent, resulting in a higher level of protection. Actions would include research on complete ecosystems, closing high use areas to sportfishing, limiting other sportfishing to catch-and-release, prohibiting commercially guided fishing, and setting and maintaining high water quality standards. This management would allow natural cycles to occur in fish populations, including buildups and declines.

Conclusion: This alternative would have an overall beneficial impact on fish by the implementation of a thorough ecosystem-based research program and stringent management to maintain natural and healthy populations.

Impacts on Wildlife

The impacts of this alternative would be similar to those of the proposal; however, NPS management would be more active and controls would be more stringent, resulting in higher levels of protection for wildlife populations and habitats. Actions would include complete ecosystem research, direct management of hunting and trapping, prohibiting commercially guided hunting, and visitor use limits. This management would allow natural cycles to occur in wildlife populations, including buildups and declines.

Conclusion: This alternative would have an overall beneficial impact on wildlife by the implementation of a thorough ecosystem-based research program and stringent management to maintain natural and healthy populations.

Impacts on Vegetation and Soils

The impacts of this alternative would be similar to those of the proposal with the following exceptions.

Because of thorough research on ecosystems and the relationship of damage and use, active reclamation of disturbed areas, and visitor use limits, maximum recovery and protection of vegetation and soils would occur under this alternative. As a result of rehabilitation, about 600 acres of land would be returned to a natural condition, reducing 1,500 disturbed acres to about 900 acres, or 0.011 percent of the park area.

The impacts of subsistence tree cutting would be minimized by additional requirements.

Less damage would occur at use sites because of strict controls on zones, group size, campfires, and aircraft landing.

Adverse impacts from pack animals would be prevented by prohibiting their use.

Adverse impacts from aircraft landings, motorboats, and snowmachines would be minimized due to strict controls.

Conclusion: This alternative would have beneficial impacts because of the parkwide research and monitoring programs, stringent management of use, and active reclamation projects.

Impacts on Water Quality

Development and enforcement of higher water quality standards would minimize degradation of the park's existing excellent water quality.

Impacts on Cultural Resources

The actions and impacts of this alternative related to cultural resources are the same as those described for the proposal, except no cabins or historic sites would be maintained, resulting in the loss of two known historic cabins to weather. This would be mitigated by recording them.

Impacts on Subsistence

The impacts of alternative D related to subsistence use would be similar to those described for the proposal, except that the potential for interference from NPS operations would be higher because of greater NPS presence under this alternative (staff increase from 10 to 25 permanent and 9 to 39 seasonal employees). However, interferences from other activities would be less because of visitor use limits, commercial guiding would be prohibited, and unauthorized taking of subsistence resources would be minimized by a greater law enforcement presence. The parkwide research and monitoring programs and probable resultant management actions could cause greater interferences with subsistence users, but would provide the greatest degree of protection to the resource base and thus long-term subsistence opportunities.

Impacts on Visitors' Freedom of Choice

The parkwide zoning scheme and permit system would require visitors to stop at a ranger station or headquarters and obtain a permit, which might make most of them feel like their freedom of choice had been affected. However, the real effect on freedom of choice would occur when a visitor was not able to use the zone(s) desired or where otherwise forced to change trip plans. Instituting zoning limits could affect 10 to 20 percent of the visitors by forcing them to change their plans. The average group size is greater than five people, and limiting it to six people could directly restrict the freedom of choice of about 40 percent of park/preserve visitors. Elimination of guides would force those visitors to go elsewhere or make their own arrangements.

Thus, 50 to 60 percent of all visitors could be affected. To mitigate this impact, the park would distribute information about the use regulations so that most visitors would be able to adjust their trips in advance. All visitors would be able to experience the park/preserve, just not in the exact manner, time frame, or location of their choice. Overall, about 10 to 15 percent of visitors would arrive and be forced to change their plans at the last minute.

Prohibiting llamas and horses would not affect the freedom of choice of very many visitors because they are currently used in the park/preserve

on the average of less than one group per year. Likewise, the route designation for snowmachine use would not affect very many park/preserve users because virtually all snowmachine use (except for subsistence activities which would be allowed to continue) occurs along routes that would be designated. Prohibiting motorboats would affect Walker Lake users, the only area with regular, established motorboat use for recreation.

Conclusion: The use regulations proposed by alternative D would have a minor effect on the choices of about 50 percent of the visitors and a more dramatic effect on about 15 percent of the visitors, who would have to change their plans at the last minute. These visitors would feel their freedom of choice had been affected. The overall impact on visitors' freedom of choice is moderate.

Impacts on Visitors' Experience of Solitude

The zoning scheme and permit system would disperse visitors so they would be unlikely to encounter each other. Currently, about 30 percent of visitors feel they encounter too many other visitors. The physical impacts on vegetation and soils would be maintained or reduced. About 70 percent of visitors encounter such signs of man's use of the area. Airplane activity for access would be dispersed more evenly throughout the park/preserve. Overall, the opportunity to experience solitude would be much greater than with existing conditions.

Restricting the use of snowmachines, motorboats, and airplane access would increase solitude. On the Kobuk River and North Fork of the Koyukuk, motorboats or motorized rafts have been infrequently used for recreational purposes. There has been some recreational use of motorboats on Walker Lake. These uses would no longer be permitted, and opportunities for solitude would be increased along about 105 miles of river corridor or lakeshore. This is about 45 percent of the river corridor or lakeshore where boating or rafting regularly takes place in the park/preserve. The river corridors and lakeshores receive about 60 percent of the park/preserve's visitation.

Banning helicopter use from June 1 through August 30 would coincide with the primary recreational use season, thus eliminating disturbances to solitude. Not using fixed locations for park operations would disperse park personnel throughout the park. This would eliminate regular use at certain areas but increase the chance of encountering park personnel in remote locations.

Eliminating the dog team race and other special events would ensure greater opportunities for solitude throughout the winter.

Conclusion: Alternative D would ensure that all visitors have an opportunity to experience solitude in all areas of the park/preserve. This would be a significant change from existing conditions and would enhance the purposes for which the park/preserve was established.

Impacts on Opportunities for Handicapped Visitors

Although there are no records of how many handicapped people now visit the park and preserve, opportunities for activities would be reduced in this alternative by eliminating commercial guides and prohibiting recreational use of motorboats and snowmachines. However, this would be slightly mitigated by the offsite interpretive programs developed.

Conclusion: Opportunities for handicapped visitors in the park would be slightly reduced.

Impacts on Commercial Operators

Commercial guides would be eliminated but air taxi operators would continue. There are at least six companies providing commercial visitor services within Gates of the Arctic, which generate a substantial portion of the companies' total revenue through use of Gates. An additional 16 companies use Gates on a more infrequent basis. The total lost revenue for both groups may total $750,000 per year. The operator with the base camp would also be out of business as it would be discontinued.

Air-taxi operators take in most guided groups and may lose this business. However, some clients may still choose to come to Gates and continue to charter.

Conclusion: This alternative would have the greatest adverse economic impacts on commercial operators, totaling approximately $750,000 in lost revenue per year.

Impacts on Private Landowners

The impacts of this alternative are similar to those of the proposal with a few differences. Special water quality standards would be established for the park, potentially resulting in additional restrictions being placed on private inholders or landowners upstream from the park. This could be especially significant for operators of mining claims within or adjacent to the park and the village of Anaktuvuk Pass, which has a landfill at the headwaters of the John River. Currently, there are two approved plans of mining operation.

The proposed restrictions on fixed-wing aircraft and helicopters would minimize the disruption to private landowners seeking solitude.

Conclusion: This alternative would be more restrictive than existing conditions for mining operators within and adjacent to the park. However, the alternative would have beneficial impacts on those landowners desiring solitude by limiting aircraft use within the park.

Impacts on Socioeconomy

Increased water quality standards within the national park and preserve could require Ambler and other mines in and around the park to use more expensive mitigation measures and may make some operations infeasible. This would result in a minor impact on the local economy. Prohibiting summer research helicopters would lessen the local sale of fuel, but this would be offset some by the increased NPS operation and use of fixed-wing aircraft and fuel. The encouragement of local museums would have the same effects as described in the proposed plan.

The elimination of guides would result in the loss of two guides in Bettles and two guides in Wiseman. Air-taxi operators would not be directly affected.

The dog team race would be discontinued. While the dog team race can bring in outside money to the communities, there has only been one event and it is not traditionally part of the economy. The event can also be disruptive to some in communities, and where popular, provide good public relations and local interest in the park. Curtailment of special events would reduce both disruption and good public relations.

Bettles would not be affected by the addition of two backcountry transient employees. New construction would total about $1.6 million and occupy about 6 acres of land jointly with other facilities.

Anaktuvuk Pass would receive two new permanent employees, and increase from two to four seasonals and six backcountry rangers. The population of Anaktuvuk Pass would be increased by 3 percent year-round and 7 percent seasonally. Combined salaries would total about $130,000 per year. Construction would total about $1.6 million and occupy 5 acres of village land. Existing leases would be discontinued. There would be a social effect from NPS presence in the predominantly native community. Adverse effects of outsiders and government presence would be balanced by improved communication and NPS responsiveness. There would be no effect on the local infrastructure.

A major new facility would be developed at a location along the Dalton Highway, with 19 permanent employees, 11 seasonal employees, and 4 backcountry rangers. Many effects would result from locating the headquarters, no matter what the locality, along the Dalton Highway. Permanent staff and families could total 60 people year-round with an additional 11 seasonal and 4 backcountry employees, a virtual new community. That many people would place demands for new services such as schools and businesses. It would also tend to attract more visitors to the area. Salaries would total almost $600,000 per year, and construction would total $7.8 million and require 30 acres of land. Government presence would dominate any location, especially if built in conjunction with other government agencies.

A Kobuk River community, which currently has no NPS employees, would have two permanent, four backcountry, and six seasonal employees. The effect of increased population on a Kobuk River community would depend on which community was chosen. The percentages are listed below by community:

	Year-round	Summer
Ambler	2	6
Kobuk	7	19
Shungnak	2	5

Combined annual salaries would total about $130,000 per year, construction would total about 2.2 million, and about 5 acres of land would be used. There would be a social effect from NPS presence in these predominantly native communities. There would be little effect on the local infrastructure.

Conclusion: A new headquarters along the Dalton Highway would be virtually a new community. Other local communities would have social effects from NPS presence. This could be mitigated by using local hires, maintaining good communications, and training employees to be sensitive to local needs. Four local businesses would be in jeopardy by the elimination of guides and outfitters. Mining activities may be reduced by stricter water quality standards. These losses would be offset by the large staff and construction programs, part of which would mean money cycled into the local economy. The cumulative effect would be changes to the region, both adverse and beneficial.

Impacts on Wild and Undeveloped Character

Alternative D would protect entire ecosystems through research, monitoring, and management. Vegetation and soils affected by human use would have a net reclamation of 600 of the 1,500 acres, which leaves 0.011 percent of the unit disturbed. Water quality deterioration would be prevented. A moderate effect on the choices of visitors would be the trade for ensuring solitude for all visitors in all areas.

Conclusion: This alternative would maintain and slightly increase the wild and undeveloped character of the area.

Research And Monitoring

Access

Ranger Station, Anaktuvuk Pass

NPS Employee Housing, Bettles

Development by Area	ESTIMATED CONSTRUCTION COSTS AND SCHEDULE OF PROPOSAL Phase I 1986-1990	Phase II 1991-1995	
Anaktuvuk Pass			
NPS housing - 1 permanent employee	$ 321,000		
NPS housing - 2 seasonal employees	164,000		
NPS housing - 6 bunks	197,000		
Offices for 3, visitor area		$172,000	
Work space - bulk storage, 1-bay hangar, 1-bay garage		314,000	
Utilities-electric	16,000	16,000	
Subtotal	$ 698,000	$502,000	$ 1,200,000
Bettles			
NPS housing-5 permanent employees	$1,376,000		
NPS housing-rehab. existing	39,000		
NPS housing-12 bunks	314,000		
Offices for 11, visitor area		$384,000	
Work space-bulk storage, 1-bay hangar, 2-bay garage, workshop		295,000	
Fuel storage area		105,000	
Utilities-well, septic, electric	443,000		
Subtotal	$2,172,000	$784,000	$ 2,956,000
Coldfoot			
NPS housing-1 permanent employee	$ 229,000		
NPS housing-2 seasonal employees	157,000		
NPS housing-6 bunks	118,000		
Cabin/office	46,000		
Work space-bulk storage, 1-bay hangar, 1-bay garage		$170,000	
Fuel storage area		105,000	
Utilities-well, septic, electric	372,000		
Subtotal	$ 922,000	$275,000	$1,197,000
Miscellaneous			
Cabins-NPS use, rehab. 2, 1 new	$ 46,000		
Communications system	225,000		
Subtotal	$ 271,000		$ 271,000
TOTAL - PROPOSAL	$4,063,000	$1,561,000	$5,624,000

Note: Estimated construction costs include supervision, cultural resource compliance, and contingencies.

ESTIMATED CONSTRUCTION COSTS OF ALTERNATIVE A

Development by Area

Bettles		
NPS housing-rehab. existing	$ 39,000	
Coldfoot		
Cabin/ranger station	39,000	
Utilities, well, septic, electric	66,000	
Cabins-NPS operations, rehab. 4	42,000	
Communications system	62,000	
TOTAL - ALTERNATIVE A		$ 248,000

ESTIMATED CONSTRUCTION COSTS OF ALTERNATIVE B

Development by Area

Anaktuvuk Pass		
NPS housing-1 permanent employee	$ 321,000	
NPS housing-1 seasonal employee	131,000	
NPS housing-4 bunks	164,000	
Offices for 3	138,000	
Work space, bulk storage, 1-bay garage	118,000	
Utilities-electric	24,000	
Subtotal		$ 896,000
Bettles		
NPS housing-3 permanent employees	$ 825,000	
NPS housing-rehab. existing	39,000	
Offices for 6, visitor area	207,000	
Work space-bulk storage, 1-bay hangar, 1-bay garage, workshop	266,000	
Fuel storage	105,000	
Utilities-well, septic, electric	286,000	
Subtotal		$1,728,000
Wiseman		
NPS housing-1 permanent employee	$ 229,000	
NPS housing-2 seasonal employees	79,000	
NPS housing-4 bunks	98,000	
Offices/cabin	46,000	
Work space-bulk storage, 1-bay garage	59,000	
Utilities-well, septic, electric	293,000	
Subtotal		$ 804,000

Kobuk River Community		
NPS housing-1 seasonal employee	$ 105,000	
NPS housing-4 bunks	131,000	
Offices for 2, visitor area, work space	98,000	
Utilities-water, septic, electric	168,000	
Subtotal		$ 502,000
Miscellaneous		
Cabins-NPS use, rehab. 6, 2 new	$ 113,000	
Communications system	83,000	
Campsites-hardening	41,000	
Trail-hardening	98,000	
Subtotal		$ 335,000
TOTAL - ALTERNATIVE B		$4,265,000

ESTIMATED CONSTRUCTION COSTS OF ALTERNATIVE D

Development by Area

Anaktuvuk Pass		
NPS housing-2 permanent employees	$ 642,000	
NPS housing-2 seasonal employees	131,000	
NPS housing-8 bunks	328,000	
Offices for 7, visitor area	118,000	
Work space-bulk storage, 1-bay hangar, 1-bay garage	328,000	
Utilities-electric	39,000	
Subtotal		$1,586,000
Bettles		
NPS housing-2 permanent employees	$ 550,000	
NPS housing-2 seasonal employees-rehab. existing duplex	39,000	
Offices for 9, visitor area	295,000	
Work space-bulk storage, 1-bay hangar, 1-bay garage	246,000	
Dog kennel	98,000	
Fuel storage area	105,000	
Utilities-well, septic, electric	227,000	
Subtotal		$1,560,000
New Headquarters along Dalton Highway		
NPS housing-19 permanent employees	$4,356,000	
NPS housing-11 seasonal employees	413,000	
NPS housing-8 bunks	197,000	
Offices for 34, visitor lobby	884,000	

Work space-bulk storage, 2-bay hangar, 8-bay garage, workshop	459,000	
Fuel storage	105,000	
Utilities-well, sewer, electric	1,389,000	
Subtotal		$7,803,000
Kobuk River Community		
NPS housing-2 permanent employees	$ 550,000	
NPS housing-4 seasonal employees	210,000	
NPS housing-10 bunks	314,000	
Offices for 15, visitor area	393,000	
Work space-bulk storage, 1-bay hangar, 1-bay garage	246,000	
Fuel storage area	105,000	
Utilities-water, septic, electric	345,000	
Subtotal		$2,163,000
Miscellaneous		
Communications system	$ 83,000	
Subtotal		$ 83,000
TOTAL - ALTERNATIVE D		$13,195,000

ESTIMATED OPERATING COSTS OF PROPOSAL	ANNUAL COST
Personnel	
Salary-17 permanent employees	$ 568,000
Salary-25 seasonal employees	210,000
Travel, overtime, uniforms	124,000
Rent, communications, and utilities	117,000
Services and supplies	
OAS aircraft operations	171,000
Printing and reproduction	18,000
Other services	67,000
Consumable supplies	73,000
Capitalized equipment (amortized)	21,000
TOTAL	$1,369,000
Increase over 1984 operating budget	$ 656,000

ESTIMATED OPERATING COSTS OF ALTERNATIVE A	ANNUAL COST
Personnel	
Salary-10 permanent employees	$ 324,000
Salary-9 seasonal employees	63,000
Travel, overtime, uniforms	45,000
Rent, communications, and utilities	157,000

Services and supplies	
OAS aircraft operations	100,000
Printing and reproduction	9,000
Other services	34,000
Consumable supplies	37,000
Capitalized equipment (amortized)	12,000
TOTAL	$ 781,000
Increase over 1984 operating budget	$ 70,000

ESTIMATED OPERATING COSTS OF ALTERNATIVE B	ANNUAL COST
Personnel	
Salary-16 permanent employees	$ 484,000
Salary-16 seasonal employees	129,000
Travel, overtime, uniforms	70,000
Rent, communications, and utilities	121,000
Services and supplies	
OAS aircraft operations	171,000
Printing and reproduction	14,000
Other services	50,000
Consumable supplies	55,000
Capitalized equipment (amortized)	18,000
TOTAL	$1,112,000
Increase over 1984 operating budget	$ 401,000

ESTIMATED OPERATING COSTS OF ALTERNATIVE D	ANNUAL COST
Personnel	
Salary-25 permanent employees	$ 686,000
Salary-39 seasonal employees	281,000
Travel, overtime, uniforms	150,000
Rent, communications, and utilities	32,000
Services and supplies	
OAS aircraft operations	205,000
Printing and reproduction	22,000
Other services	80,000
Consumable supplies	88,000
Capitalized equipment (amortized)	25,000
TOTAL	$1,569,000
Increase over 1984 operating budget	$ 858,000

Dalton Highway

Dalton Highway

Mining Activities

Walker Lake Lodge

Cabin on Small Private Tract

PRIVATE AND ADJACENT LANDS

LAND PROTECTION PLAN

SUMMARY

Current Ownership:	Acres
Federal land	8,188,920
Private land	283,925
State interests (submerged lands, RS 2477)	(none determined to date)
Other interests (subsurface, easement)	35,440
Total	8,472,845

Proposed Land Protection:	Tracts	Acres
Fee acquisition by NPS (preferred methods - exchange, donation, willing seller)		
Native allotments	43	(<3,905)
Small tracts	11	105
Native corp. lands (Doyon)	2	87,555
Native corp.-subsurface (ASRC)	1	35,073
14(h)(1) (NANA)	21	13,410
Mining claims	(undisturbed valid claims among 213)	
Adjacent: Upper Nigu River (BLM)	1	23,000
Adjacent: Reed River (state)	1	80,000
Adjacent: Admin. sites BTL AKP CFT	4	12
Agreements/Alaska Land Bank		
Native allotments	18	(<2,670)
Native corp. lands & easement ASRC & AKP)	3	110,575
Regulation		
Mining claims	(disturbed valid claims among 34)	
State Classification and Zoning		
State submerged lands (none determined to date)		
Adjacent: Schwatka Mountains (state)		
Adjacent: Killik-Itkillik rivers (state, ASRC)		
Adjacent: Alatna, John, and North Fork rivers (state)		
Cooperative Planning		
Adjacent: Trans-Alaska pipeline corridor (BLM)		
Adjacent: Ambler mining district (state, claimants)		
Statutory Acreage Ceiling:		none
Funding Status:		
Authorized acquisition ceiling - none		
Appropriated to date - none		

Top Priorities:

1. Walker Lake and Administrative Sites
2. North Fork of the Koyukuk River
3. Alatna River
4. Noatak River

Note: The "less than" (<) symbol is used because many tracts are under application and have not been approved, and because the source of this information did not include a full acreage breakdown of an owner with several separate tracts.

INTRODUCTION

The Department of the Interior adopted a new land protection policy in May 1982. Briefly, this policy addresses the treatment of private and nonfederal land within units of the national park system to achieve the purposes of the area as established by Congress and how this relates to land protection needs. Cost-effective alternatives to direct federal purchase of private lands are to be implemented to the fullest extent practical. When acquisition is deemed essential, it is to involve only the minimum interests necessary to meet the management objectives of the area. The policy calls for cooperation among federal agencies, state and local governments, and the private sector. Sociocultural impacts are fully considered. A plan for acquiring land and proposed modifications to the boundary is directed by section 1301(b)(6) of ANILCA.

In response to policy, this land protection plan has been prepared to

identify purposes of the unit and management objectives

identify nonfederal lands and interests within the boundary, land uses, compatibility or threats, current and potential

identify existing authorities and alternatives and assess sociocultural impacts of alternatives on local residents

determine what land or interest in land needs to be in public ownership and what means of protection in addition to fee acquisition are available to achieve unit purpose as established by Congress

inform landowners about NPS intentions for buying or protecting land through purchases or other means within the unit

identify priorities for making budget requests and allocating available funds to protect land and unit resources

identify external activities that have a direct bearing on park resources and land protection requirements

find opportunities to help protect the unit by cooperating with state and local governments, landowners, and the private sector

This plan does not constitute an offer to purchase land or interest in land; neither does it diminish the rights of nonfederal landowners. The plan is intended to guide subsequent land protection activities subject to the availability of funds and other constraints.

LAND PROTECTION ISSUES

The following land protection issues have been identified for Gates of the Arctic National Park and Preserve:

Lands within the boundary

Native corporation lands - compatibility or threats from mining, oil and gas development, ATV use, commercial development, access

State lands - resolution of status, compatibility or threats from mining or development of submerged lands, RS 2477 rights-of-way

Mining claims - threats to water quality, fish, vegetation, wild and undeveloped character

Small tract entries - compatibility or threats from timber cutting, mechanized access, development of cabins or commercial lodges

Lands outside the boundary

Lands south - compatibility or threats from Ambler mining district, future transportation corridors, land disposals for private development

Lands east - compatibility or threats from the Dalton Highway, disposal of land for mining, residential and commercial development

Lands north - compatibility or threats from oil and gas development, transmission corridors

Lands west - compatibility or threats from oil and gas development

PURPOSE OF THE UNIT AND RESOURCES TO BE PROTECTED

The purpose of the unit and the resources to be protected are described in the general management plan. Integral to the purposes of Gates of the Arctic National Park and Preserve, among others, is the mandate to maintain the wild and undeveloped character of the area. Management objectives may be found in appendix A.

LEGISLATIVE AUTHORITIES

In establishing the park and preserve, Congress specified the land protection authorities available to the National Park Service. Section 907 of ANILCA establishes a significant cooperative authority in the Alaska Land Bank. The land bank allows private landowners to avoid property tax liabilities and to obtain technical management assistance in exchange for agreeing to manage their lands in a manner that is compatible with the purposes of the park. Numerous additional sections of ANILCA repeatedly encourage federal land managers to undertake cooperative agreements with other landowners for the achievement of mutual benefits.

The following acquisition authority is granted by section 1302 of ANILCA (this authority extends to both fee and less-than-fee interests):

> Lands inside the boundary may be acquired without restriction so long as the owner consents. If the owner of land inside the boundary is not willing to sell, acquisition is constrained as follows:
>
> State lands may not be acquired.

Native corporation lands may not be acquired unless native stockholders no longer retain the controlling interest in the corporation.

Lands that were conveyed pursuant to sections 14(c)(1) and 14(h)(5) of ANCSA may not be acquired unless they are no longer occupied for the purposes specified in ANCSA and the secretary of the interior determines that activities on the tract would be detrimental to the purposes of the park and preserve.

No improved property may be acquired unless the secretary of the interior determines that the acquisition is necessary for the fulfillment of the purposes of ANILCA (generally section 101), or necessary for the fulfillment of the purposes of the conservation system unit. "Improved property" is defined in section 1302(f) as lands developed for noncommercial recreational uses or with a detached, noncommercial single-family dwelling constructed before January 1, 1980.

For all unwilling sellers other than the state, native corporations, and 14(c)(1) owners, the government must offer appropriate land of similar characteristics and like value for exchange if such lands are available.

The owner of an improved property being acquired by the United States may elect to retain a right of use and occupy the land for an assignable term of either no more than 25 years, or the life of the owner or spouse. If the exercise of this right becomes inconsistent with the purposes of ANILCA, the secretary may acquire the portion that remains unexpired for fair market value.

Section 1302(h) contains sweeping exchange provisions and waives all other related law so long as the authority is used to acquire lands and interests for the purposes of ANILCA. Lands offered for exchange may be, but do not have to be, within the conservation system unit. Exchanges must be for equal value unless the secretary determines that other than equal value is in the public interest.

Acquisition authority is generally restricted to lands inside the boundary with the following exceptions:

Section 1302(i) provides that if the state agrees, contiguous state lands may be acquired by donation or exchange. No further congressional action is necessary.

Section 103(b) authorizes boundary adjustments that add or delete up to 23,000 acres per unit without further congressional action.

Section 1306 authorizes the acquisition of land inside or outside the boundaries for the purposes of administrative sites or visitor facilities. If practical and desirable, such sites outside

the boundaries are to be located on native lands in the vicinity of the park and preserve.

Section 1431 allows for exchange of certain lands with the Arctic Slope Regional Corporation (ASRC).

LANDOWNERSHIP AND USES

Current Land Status/Compatibility with Park Purpose

Current land status is indicated in table 20 and on the Land Status map (located in the back pocket of this document). Most of the nonfederal lands within the park and preserve boundaries are currently undeveloped or minimally developed with cabins, camps, or caches. Existing uses and activities on nonfederal lands are largely compatible. However, the potential for future development is of concern to the National Park Service. To achieve the congressionally mandated purposes of the Gates of the Arctic, it must be managed to avoid intrusions on, or alterations of, the wild and undeveloped character since that is its special value to the nation. Generally, new and additional uses on nonfederal lands within the boundaries that adversely affect the area's wild and undeveloped character and other purposes will be considered incompatible. Specific examples of compatible and incompatible uses are discussed in the following section and in the discussion of land protection priorities.

Native Corporation Lands. Native corporation lands include ASRC and village corporation lands around Anaktuvuk Pass, Doyon lands, and cemetery and historical sites selected by NANA under section 14(h)(1) of ANCSA. The types of interest include surface estates, subsurface rights, and easements.

Village corporation and ASRC lands in the vicinity of Anaktuvuk Pass are currently used for the village site and subsistence. ASRC also owns ATV easements, which provide access for subsistence uses. Anaktuvuk Pass is one of the two most widely used access points in the park for recreation. ANCSA 17(b) easements provide for public access across corporation lands.

Doyon lands embrace part of the North Fork of the Koyukuk drainage and contain known historical sites. There is some recreational access from the Dalton Highway on ANCSA 17(b) easements across these lands. NANA 14(h)(1) sites are used to preserve cultural values. These scattered tracts have been selected and applied for under section 14(h)(1) of ANCSA on the basis that they contain cemeteries or historical values of local or regional native concern. These sites, if conveyed, cannot be developed, but they involve specific rights of reasonable access.

Most of these existing land uses are compatible with park purposes. The National Park Service is concerned about water quality below Anaktuvuk Pass and about damage to vegetation and soils caused by ATV use outside the easement corridors. Doyon lands contain many unpatented, undisturbed mining claims. Park resources could be additionally affected by future changes such as oil and gas development, mining (particularly

Table 20: Current Land Status
(October 1984)

Category	Acreage
Gates of the Arctic National Park and Preserve	8,472,845
Gates of the Arctic National Park and Wilderness	7,523,485
Gates of the Arctic National Preserve	949,360
Federal lands within the boundary	8,188,920
Nonfederal lands within the boundary	283,925
Arctic Slope Regional Corporation	
Patent and interim conveyance	110,210
Subsurface mining rights	35,073
ATV easements (60 miles)	365
Doyon Limited Regional Corporation	
Patent and interim conveyance	87,555
Anaktuvuk Pass Village Corporation	
Patent and interim conveyance	66,270
Small private tracts	
Native allotments (61 tracts)	6,375
Headquarters sites (7 tracts)	30
Homesites (1 tract)	10
Homesteads (1 tract)	5
Trade and manufacturing sites (2 tracts)	60
Cemetery/historical sites (21 tracts application)	13,410
Mining claims	
Unpatented placer (247 claims)	
Federal interests outside the boundary	
Coldfoot administrative right-of-way (2 tracts)	7
ANCSA 17(b) public easements - Kobuk River, Glacier River, Anaktuvuk Pass	(undetermined)

placer mining), commercial development of lodges and hotels, and provisions for access to these activities on Anaktuvuk Pass, ASRC, and Doyon lands. Adverse impacts could affect wildlife, vegetation and soils, water quality, cultural resources, opportunities for solitude, and the wild and undeveloped character.

Small Private Tracts. There are 72 small private tracts within the boundaries: 61 are native allotments and 11 were claimed under the public land laws. Most are undeveloped and lightly used. Privately used cabins or homes are on 15 tracts. There is one small cabin at the headwaters of the Alatna and a two-story structure on Walker Lake that are both used as commercial lodges. These existing developments and levels of use are largely compatible with park management objectives.

There are, however, future changes that could adversely affect wilderness purposes of the park and impair resources. Expanded or new commercial use on small private tracts is a concern of the National Park Service. Such activity usually depends on the use of surrounding park lands and waters. Clients are concentrated in one area, causing impacts on fish and wildlife, vegetation and soils, subsistence activities, and opportunities for solitude. Associated development further affects adjacent park land by impairing scenic vistas, water quality, cultural resources, and the wild and undeveloped character of the area. Future commercial development is most likely to occur on small tracts with good access by plane, boat, or raft. Tracts include Walker, Takahula, Narvak, Selby, and Nutuvukti lakes; the lower Alatna and John rivers; and the upper North Fork and Noatak rivers.

Certain methods of access to small tracts would adversely affect park resources, such as ATV trails or roads that destroy permafrost and tundra vegetation and erode fragile soils. Another incompatible future use of small tracts is clear-cutting timber, which would impair scenic vistas. Similarly, new structures in open, undeveloped valleys would adversely affect scenic vistas and the wild and undeveloped character of the area.

Mining Claims. There are approximately 250 mining claims within the boundary; all are unpatented placer claims, and only two claims have approved plans of operation. Park and preserve lands are no longer available for new mineral entry and location, and if the existing unpatented claims are abandoned, the lands will revert to full administration by the National Park Service. Currently, however, locatable mineral claims may be filed anywhere on state lands inside the unit (the submerged lands beneath the navigable rivers).

The activity of mining and the associated access is not consistent with maintaining the wild and undeveloped character of the area, wildlife habitat and populations, environmental integrity, scenic beauty, nor with managing designated wilderness and wild rivers. Placer mining destroys soils, vegetation, and wildlife habitat, severely degrades water quality, disrupts stream flow, reduces fish populations, disrupts solitude, impairs scenery, conflicts with subsistence activities, and destroys cultural resources. Soil erosion and vegetation destruction caused by access vehicles can be seen in the vicinity of past mining operations.

State Lands. The state of Alaska owns the submerged lands beneath waters determined to be navigable, and determination is an ongoing process. Most rivers in the park still await such determination. The development of submerged lands beneath navigable waters for extraction of minerals or removal of gravel would be contrary to the purposes of the area. Adverse effects on resources include degradation of water quality, disruption or reduction of stream flow, and impacts on fish, vegetation, soils, wildlife populations, and habitat on adjacent park lands caused by access vehicles.

The National Park Service is aware that the state might assert certain claims of rights-of-way under RS 2477. The Park Service intends to cooperate with the state (and any other claimant) in identifying these claims, the nature, extent, and validity of which may vary depending on the circumstances under which they were acquired or asserted. Notwithstanding that certain RS 2477 rights-of-way may exist, it will still be necessary for users of any right-of-way to comply with applicable NPS permit requirements.

The U.S. Senate and House of Representatives both indicated in legislative history that RS 2477 would not apply to a right-of-way for the Hickel Highway up the John River (Congressional Record, August 18, 1980, S. 11128; and November 12, 1980, H. 10535).

Ambler Right-of-Way. When Gates of the Arctic National Park and Preserve was established, a provision was made for a right-of-way to link the Alaska pipeline haul road to the Ambler mining district across the western Kobuk River preserve unit (ANILCA section 201(4)). Any other developed right-of-way requests must be pursued under Title XI of ANILCA.

Public Easement. Management responsibility for federally owned 17(b) ANCSA public easements on nonfederal land is being shifted to the National Park Service if the easements provide access to park lands. There are easements along the Kobuk River, in the vicinity of Anaktuvuk Pass, and near the Glacier River. Exact locations are being determined.

Recent Land Status Changes

Since the establishment of Gates of the Arctic National Park and Preserve, certain land status changes have occurred. A land exchange with ASRC resulted in the acquisition of 102,000 acres of surface estate in the vicinity of Anaktuvuk Pass and a recreation easement along the Killik River to the confluence with the Colville River. Air and ATV access easements were retained by the corporation in the vicinity of Anaktuvuk Pass. The subsurface estate beneath these lands was acquired through provisions of the Barrow Gas Field Transfer Act of 1984. A second land exchange with ASRC under section 1431 of ANILCA resulted in the addition of 6,500 acres, including Kurupa Lake along the park's northwestern boundary.

Sociocultural Characteristics

Sociocultural characteristics of the area are described in the "Regional Setting, Affected Environment" section of the general management plan.

PROTECTION ALTERNATIVES

Existing Authorities

Several authorities can be used to partially mitigate adverse land uses without eliminating them.

Mining operations within the park are addressed by the Mining in the Parks Act of 1976 (16 USC 21-54) and its implementing regulations (36 CFR 9A). The regulations intend to minimize resource impacts by requiring operations to adhere to an approved plan of operations. Operations are monitored by NPS staff for compliance. Existing claims, environmental effects of mining, mitigating measures, and current regulations are described fully in the "Environmental Overview and Analysis of Mining Effects, Gates of the Arctic National Park and Preserve, Alaska" (NPS, USDI 1983).

All private resource development activities on private, state, and federal lands must meet applicable state and federal environmental protection standards. These standards are cooperatively enforced by the Alaska Departments of Environmental Conservation and Natural Resources, the Environmental Protection Agency, and the National Park Service.

The Coastal Zone Management Act (PL 92-583), as amended in 1976 (PL 94-370) and 1980 (PL 96-464), establishes a national policy and develops a national program for the management, beneficial use, protection, and development of the land and water resources of the nation's coastal zones.

While this act establishes national goals for coastal zones, it also provides substantial state discretion in interpreting and achieving its goals. A state program has been approved by the Office of Coastal Zone Management. NANA is developing a regional coastal zone management plan that includes the Kobuk River preserve unit and Walker Lake. The draft of September 7, 1984, emphasizes the importance of subsistence use. The Kobuk area is identified as an area meriting special attention, noting that the Ambler mining district should receive special planning by an interagency task force. The North Slope Borough is also preparing a coastal zone management plan that includes the upper reaches of the Anaktuvuk, Nanashuk, and Itkillik rivers adjacent to Gates of the Arctic.

Section 1104 of ANILCA specifies the procedure for reviewing requests for rights-of-way for any transportation or utility system across public lands, and it establishes the criteria for approving or disapproving such requests. However, because of the special wilderness and other purposes of Gates of the Arctic, future transportation or utility systems across the unit may be inconsistent with the congressional mandate. The access provision of section 1110 of ANILCA assures private landowners that they will be given "such rights as may be necessary to assure adequate and

feasible access for economic and other purposes to the concerned lands," subject to reasonable regulations to protect park values.

The North Slope Borough has a Comprehensive Plan (proposed by Wickersham and Flynn, Planning Consultants), which includes "Land Use Zone Districts" identified in 1983. Borough lands adjacent to the park are zoned primarily in the "conservation district," which is intended to preserve the natural ecosystem for all of the various species upon which residents depend for subsistence. The conservation district can accommodate resource exploration and development on a limited scale, case-by-case basis, but major resource development projects would require rezoning. Anaktuvuk Pass is within a "village district" that encourages development which reinforces traditional values and lifestyles, is in accord with village planning, and is in accord with the desires of village residents.

Alternatives

A number of alternative methods are available for protecting the values of the park and preserve from potentially damaging activities on nonfederal lands. Each alternative is analyzed for its applicability, effectiveness, and sociocultural impacts on nonfederal landholders and communities. This analysis is the basis for the recommendations of which methods are used to protect specific areas.

Agreements (including the Alaska Land Bank). Agreements are legal instruments that define administrative arrangements among two or more parties, usually an exchange of services or other benefits. From the NPS viewpoint, the purpose of this protection tool is to encourage the management of private lands in a manner consistent with park purposes. Agreements are flexible and may include provisions for access, facility use and maintenance, protection of property, and visitor services.

The Alaska Land Bank provides for agreements in which private owners of lands conveyed under ANCSA agree to manage their lands consistently with the purposes of the park. The landowner receives exemptions from property taxes and certain corporate liabilities and also receives technical land management assistance. Native corporations would receive two types of benefits from the land bank: First, land-banked properties would be immune from judgments to recover corporate debts or penalties; and second, the National Park Service would offer technical assistance in matters of fire control, trespass control, resource and land use planning, and fish and wildlife management. The waiver of property taxes for land-banked lands would provide no incentive to untaxed native corporations or owners of native allotments.

Applications: Agreements could be developed with Arctic Slope and Doyon native corporations, owners of small private tracts, and the state.

Effectiveness: Advantages of agreements include their flexibility, relative low cost, and ability to establish cooperative management arrangements. Disadvantages include procedural requirements, funds to continue agreements, the ability of one party to terminate on short

notice, the lack of a legally binding commitment, and the lack of permanent protection. The effectiveness of agreements to ensure compatible management relies on common or compatible goals between landowners and would depend on the incentives offered to landowners.

Agreements with individual landowners to ensure compatible management might be difficult to obtain because of the lack of incentives. The state and native corporations may have a range of incentives for entering into agreements.

Sociocultural Impacts: Specific impacts would be defined by the terms of each agreement. It is unlikely that any negative or adverse impacts would result.

Coordination with Other Agencies. Actions by federal and local agencies to permit, license, or provide financial assistance may have significant impacts on park resources. Under provisions of the National Environmental Policy Act, major federal actions are subject to public review processes to assure adequate consideration of possible impacts on the environment. The draft NANA Region Coastal Zone Management Program also provides opportunities for review of permit and funding activities that may have a significant impact on park resources.

As a concerned land manager and neighbor, the park can assure that other agencies are fully aware of any impacts proposed actions may have on park resources. Participation in public hearings and review processes is one means of expressing park concerns. Coordination may also be improved by memoranda of understanding or advance requests to agencies that the park be notified when certain actions are being considered. Participation by the park in project designs, locations, and operating requirements for new construction may be undertaken wherever possible.

Application: Coordination would particularly apply to state lands and lands outside the unit.

Effectiveness: Effectiveness relies on similar or common goals of agencies and continual communication.

Sociocultural Impacts: Coordination would usually improve public notice and participation. It is unlikely that negative or adverse impacts would result.

State Land Classification and Zoning. The state government and local jurisdictions have the power to protect public health, safety, and welfare by regulating land use. Zoning directs orderly development rather than preventing it. Zoning by state and local jurisdictions is possible; however, the North Slope Borough is the only entity developing zoning at this time. It is also possible for the state to prescribe compatible uses of state lands by classifying them for specific types of use, such as wildlife habitat protection or recreation.

Application: Land classification would apply to state lands, and zoning would apply to native corporation lands and small private tracts within North Slope Borough.

Effectiveness: Local zoning has been criticized as a long-term protection tool because of the potential for changes in local governing bodies, political pressures on decisions, and problems in enforcement of regulations. Only if the state supports an objective compatible with maintaining the wild and undeveloped character of the park and preserve, would there be incentives for the state to classify submerged lands as nondevelopment areas.

Sociocultural Impacts: With the adoption (generally through broad-based public participation) and enforcement of zoning regulations, individual landowners may be prevented from using their land in some manner, but this restriction on individual freedom is imposed for the benefit of the community as a whole. The impact can be regarded as beneficial to and supported by the public at large.

Regulations. Activities and developments on nonfederal land in the preserve must meet applicable state and federal environmental protection laws. Regulations based on these laws provide some authority to protect park resources. While the NPS regulations stemming from ANILCA do not generally apply to private land in the park and preserve, there are federal and state laws that do apply. These include but are not limited to the Alaska Coastal Management Program, Mining in the Parks Act, Alaska Anadromous Fish Act, Clear Water and Clean Air acts, and Protection of Wetlands.

Application: Existing laws and regulations could be applied to activities on small private tracts, native corporation lands, mining claims, and state lands.

Effectiveness: These laws and regulations can assist in minimizing harm to park resources, but do not prevent an activity that might adversely affect the area.

Sociocultural Impacts: Impacts are generally the same as those identified under zoning.

Less-than-Fee-Acquisition. Landownership may be envisioned as a package of rights. Less-than-fee acquisition conveys only specified rights from one owner to another.

Easements convey some rights, while all other rights of ownership remain unchanged. Easements can be positive--conveying a right of access, or negative--limiting specific uses of the land. Specific easement terms can be constructed to fit the topography, vegetation, visibility, and character of existing or potential developments on each tract.

Easements can be acquired in various areas of the park to ensure the preservation of scenic values, to maintain compatible land uses, and to provide public access. An easement remains with the land when it is transferred to another owner. The amount of consideration depends on the interest being acquired.

Mineral interests are a specific right that can be acquired from the owner.

Application: Easement acquisition could be applied to small private tracts where some, but not all, existing or potential uses are compatible with park purposes. Acquisition of mineral interest could be applied to valid, unpatented mining claims.

Effectiveness: Easements are extremely flexible, and they could be drafted to fit the specific characteristics of the land, NPS management objectives, and the special concerns of the owner. They would be effective in protecting key elements of scenic landscapes, such as trees to buffer developments and improvements, while still allowing the continuation of traditional uses. Easements would also be an effective way of limiting motorized access to snowmachines, motorboats, and fixed-wing aircraft to protect wilderness values on the park lands adjacent to small private tracts. Particularly on undeveloped tracts where most timber development and access rights would be purchased, the easement's cost could conceivably be as great as the acquisition of fee interest. Cost advantages of easements, as opposed to fee, can be determined on a case-by-case basis. There are additional long-term costs to the National Park Service to monitor and enforce the conditions and terms of easement provisions. In remote areas this is an especially difficult problem.

Acquisition of mineral interests would preclude any mining activities.

Sociocultural Impacts: Individual and collective impacts would vary, depending on the rights acquired. In most cases, an easement would continue the current conditions while compensating owners for the loss of potential uses. Acquisition of valid unpatented mining claims could affect local employment working these claims. Currently, there are only two claims with approved plans of operations.

Fee Acquisition. When all of the interests in land are acquired, it is owned in fee simple. Methods of acquisition include donation, exchange, purchase, relinquishment, and eminent domain.

Application: Fee acquisition could be employed for native corporation lands, and small private tracts. Fee acquisition is most often appropriate when the land is needed for heavy public use, must be maintained in pristine natural condition, which precludes reasonable private use, is owned by individuals who do not wish to sell less-than-fee interest, or when alternatives would not be cost-effective.

Effectiveness: Fee acquisition would ensure the achievement of park purposes; however, it would be expensive unless land exchanges or donations occurred. Exchanges would depend on the availability of comparable lands outside the boundary.

Sociocultural Impacts: Acquisition of native corporation lands by exchange would not result in a net loss of corporation lands; however, fee simple purchase would result in a loss of lands. Exchanges involving lands near Anaktuvuk Pass could result in the loss of residents' areas rights if easements were not retained.

Individual landowners could be adversely affected by loss of livelihood, loss of home, problems of moving property, and inability to pass land on to their heirs. However, ANILCA contains several provisions that significantly mitigate the severity of these impacts. For example, sellers of improved noncommercial property could retain a right of continued use or occupancy for a set period of time or for the lifetime of the owner or surviving spouse (however, ANILCA does not provide for continued use or occupancy of commercial properties). All sellers would be fairly compensated for their properties, and land exchanges might be available if the owners preferred. Native allottees who use their lands for subsistence purposes could sell the lands or exchange them for lands of equal value outside the boundary and continue to use the park for subsistence activities so long as they were local rural residents.

Combination. Probably no single land protection method would be best for all nonfederal lands within the boundary. A combination of alternatives could be used to obtain the minimum interest necessary to achieve park purposes.

Methods of Acquisition

There are five primary methods of acquisition of fee and less-than-fee interests in lands: donation, purchase, exchange, relinquishment, and eminent domain.

Donation. Landowners may be motivated to donate their property or interests in the land to achieve conservation objectives. Tax benefits of donation also may be an important incentive. Donations of fee are generally deductible from taxable income. Easement donations may also provide deductions from taxable income, but are subject to certain IRS requirements to qualify as a charitable contribution.

Landowners are encouraged to consult their own qualified tax advisors to discuss the detailed advantages of donations. NPS representatives may be able to provide some general examples of tax advantages, but cannot provide tax advice or commitments of what deductions will be allowed by the IRS.

Exchange. Land or interests in land may be acquired by exchange. The land to be exchanged is required to be located within Alaska and should be of equal value. Differences in value may be resolved by making cash payments.

The National Park Service will also consider other federal lands within the authorized boundary as potential exchange lands to consolidate NPS jurisdiction.

Other federal lands in Alaska that become surplus to agency needs would normally go through disposition procedures, including public sale. The National Park Service will work with the Bureau of Land Management and the General Services Administration to determine if any additional federal land may be available for exchange purposes.

Purchase. Acquisiton by purchase requires funds to be appropriated by Congress or donated by private sources. Further funding for purchases depends primarily on future appropriations. Potential donations of funds or purchase by individuals or organizations interested in holding land for conservation purposes will be encouraged.

Relinquishment. State and native corporation lands under application may be relinquished resulting in fee ownership by the United States. The relinquishing entity can use the acreage being relinquished to acquire other selected lands outside the unit.

Eminent Domain. The government has the right to appropriate land for public use with compensation to the owner subject to the constraints of ANILCA described earlier. Exercise of the power of eminent domain will be considered where necessary to clear title or initiated in emergencies to prevent new land use activities that would severely damage the unit's integrity.

RECOMMENDATIONS

Native Corporation Lands

Doyon Lands. The National Park Service will seek fee acquisiton of the three Glacier River townships, and exchange is the preferred method of acquisition. Fee acquisition of these lands is considered necessary to protect the watershed, wild character, recreational use and access, and known historical sites. For the township at the juncture of the North Fork and the Middle Fork of the Koyukuk, the Park Service will also seek fee acquisition, and the preferred method is by exchange. It is not as high a priority as the Glacier River lands. These lands embrace the designated wild river.

Arctic Slope/Anaktuvuk Pass Lands. The National Park Service will encourage comprehensive community planning for Anaktuvuk Pass and will seek agreements for compatible land management in exchange for technical assistance. The Park Service will not actively seek to acquire lands in this area, but it will consider exchanges offered by landowners if mutual benefits can be demonstrated and there is full involvement and consent of residents.

The Park Service will seek the acquisition of subsurface rights near Itkillik Lake to protect the archeological significance of the area. The preferred method of acquisition is donation or exchange.

NANA 14(h)(1) Sites. Relinquishment of selections for cemetery and historical sites within the national park and preserve will be encouraged. The National Park Service will continue to protect and preserve these sites.

Small Private Tracts

The minimum interest necessary to protect the wild and undeveloped character and other purposes of this national park and preserve is fee

simple acquisition of most patented or approved small private tracts. The minimum interest necessary for approved native allotments within or contiguous to native corporation lands are cooperative agreements in which landowners would manage lands in a manner compatible with park purposes. In return, the National Park Service could provide services such as technical assistance for fire protection and trespass enforcement. The Park Service will pursue the acquisition of other small tracts in fee simple. The preferred methods are land exchange, donation, and purchase from willing sellers.

It is anticipated that because of the number of tracts and limited funding, acquisition will be limited over the next 10 years. Most existing land uses are compatible with the purposes of the area and will continue. Where acquisition is necessary, every effort will be made to find suitable land for exchange or reach agreement on price if purchase is necessary. Exercise of the power of eminent domain will be considered where necessary to clear title or will be initiated in emergencies to prevent new land use activities that would severely damage the unit's integrity. This could be triggered by new or increased activities such as commercial operations, new cabins or structures on undeveloped tracts, significant enlargement of existing structures, clear-cutting, or developing new access methods such as ATV roads and trails (as described in "Current Land Status"). Priorities have been established that consider resource values and potential threats (see "Land Protection Priorities").

Mining Claims

The National Park Service will acquire the interest in valid undisturbed claims through donation whenever possible, willing seller purchase, or exercise of the power of eminent domain if necessary. The validity of all unpatented mining claims will be tested, and mineral contests will be recommended as appropriate. The highest priorities will be given to undisturbed claims.

For valid claims in already disturbed areas, submitted plans of operations will be developed with operators pursuant to federal and state regulations to minimize impacts on clean water, fish populations, and habitat; prohibit destruction of vegetation by overland vehicle travel; and improve reclamation. The advice and cooperation of the Alaska Department of Environmental Conservation and the Environmental Protection Agency will be sought in developing and monitoring plans of operations. Where operation of valid claims threatens park resources, the National Park Service will pursue acquisition of the mineral interest through donation or purchase.

State Lands

Where the state is determined to own submerged lands, the National Park Service will seek an agreement from the state to protect the park values associated with the beds or waters or adjacent lands.

The Park Service reserves the right to maintain instream flows in all rivers within the park and preserve at levels adequate to protect the public interest values under its jurisdiction. In order to protect these values, water quality standards, appropriate rights, and minimum instream flow requirements would be established with the state of Alaska.

LANDS OUTSIDE THE UNIT

External conditions and activities have a direct bearing on the future land protection requirements of Gates of the Arctic National Park and Preserve. The following discussion describes compatible and incompatible land uses, both existing and potential, and recommendations for protection.

Lands South

Existing and Potential Uses. Most of the lands south of the park and preserve are owned by the state of Alaska. Current land uses here have little impact on park resources. However, future uses could result in significant changes. Potential uses include mining and associated transportation and community development, all of which could adversely affect resources inside the park and preserve. Of key concern are park resources in the Kobuk River region, particularly those that are adjacent to the Ambler mining district. The Reed River flows out of the park, through the mining district, then empties into the Kobuk Wild River in the unit. Similarly, Beaver Creek flows from the district into the park. Future mineral development could significantly affect water quality, fish, wildlife, and subsistence resources.

Another concern is that the southern boundary often does not follow natural features. This poses identification problems for visitors and local residents and causes resource management difficulties. Also, visitors enjoying the John, Alatna, and North Fork of the Koyukuk wild rivers begin their trips in the park but float significant distances outside the boundary to reach practical pull-out points. Assuring continuity of their wilderness experience along these rivers is of major concern.

Recommendations. The National Park Service will seek to protect the Reed River watershed by acquiring the approximately 80,000 acres from the state through donation or exchange pursuant to ANILCA 1302(i). The boundary will be adjusted to include these lands in accordance with ANILCA section 1302(i). While the exact location of this boundary would be determined during negotiations for the exchange, it is generally shown on the Land Protection Plan map. Depending on where the line is finalized, it may include mineral interests.

For lands in the vicinity of the Alatna, John, and North Fork of the Koyukuk, the National Park Service is willing to participate in any cooperative planning. The state classification of adjoining lands to protect fish and wildlife and recreational values will be encouraged. The National Park Service will work with the state to resolve practical pull-outs for floaters. One option would be for the state to designate

and manage state-owned portions of the Alatna, John, and Middle Fork of the Koyukuk as part of the national wild and scenic rivers system.

The National Park Service will offer to participate in the interagency task force planning for the Ambler mining district proposed in the Draft NANA Region Coastal Management Plan. If mining is not significantly developed, the National Park Service will encourage the state to classify the Schwatka Mountains in the upper Ambler River area for public recreation, wildlife, and subsistence use.

Lands East

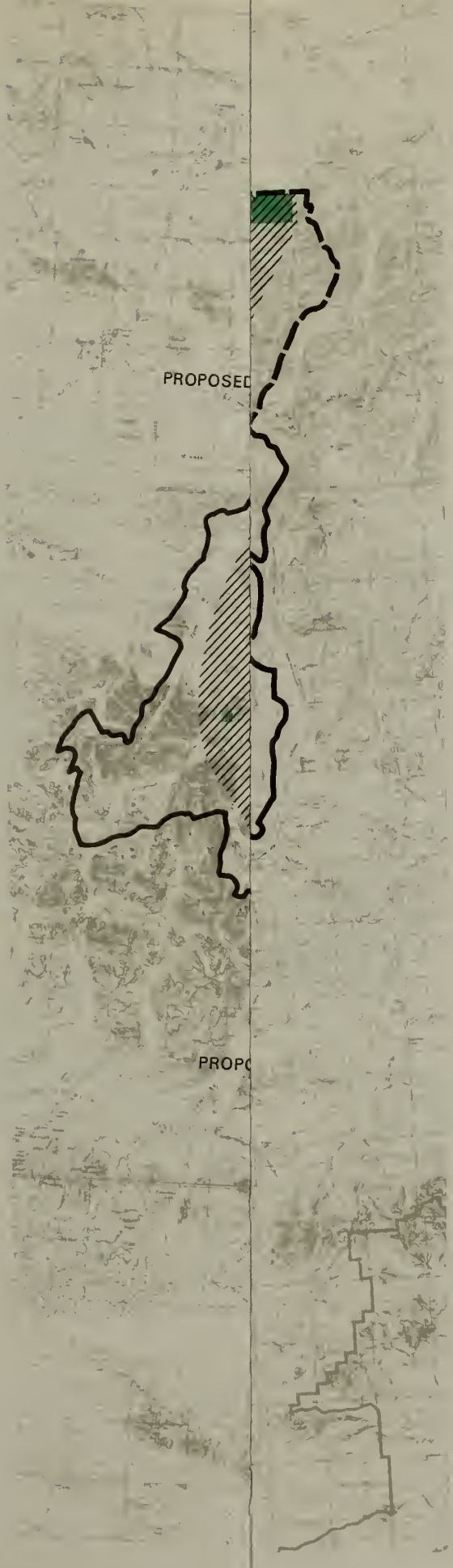
Existing and Potential Uses. The trans-Alaska utility corridor just east of the park is currently managed by the Bureau of Land Management. Along with the oil pipeline, the corridor contains the Dalton Highway, which is managed and maintained by the state of Alaska. State maintenance camps at Prospect, Coldfoot, Chandalar, and Atigun, BLM concession operations at Coldfoot, and Yukon River, and a growing number of permanent residents in Coldfoot and Wiseman along the road all affect park use and access. A gas pipeline is proposed within this corridor.

The Dalton Highway is open to the public to Dietrich, providing an opportunity for visitor access that did not exist at the time the park was established. The unpaved road is well maintained and provides a spectacular recreational experience. It is a unique opportunity to be able to drive through the outstanding scenery of the Brooks Range. The range corridor is adjacent to several other conservation system units: Kanuti, Yukon Flats, and Arctic national wildlife refuges. Adjacent state and native lands possess scenery and lakes with additional recreational potential.

While recreational use of the road provides access for visitors to Gates of the Arctic, there are some concerns. Concentrated visitor use near the highway could potentially damage park resources; habituation of wildlife to people is already evident. Another problem is that not all visitors who reach the park by way of the highway are prepared for wilderness opportunities and dangers.

Corridor management planning by the Bureau of Land Management anticipates that development will occur in nodes, around government facilities, and concessions. A possible future gas pipeline has the highest priority over other potential uses. The Alaska Department of Natural Resources has recently made a formal request to the Bureau of Land Management to allow state land selection within the corridor north of the Yukon. Future changes in land use within the corridor could pose adverse impacts on the park. Mining along streams that are used for access, increased local population and related pressures on subsistence and recreation resources, and strip development not unlike gateways to national parks in the lower 48 states are all possible scenarios.

Recommendation. The National Park Service recommends comprehensive planning of the utility corridor as national interest land reserved for oil



GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

NONFEDERAL LANDS AND INTERESTS WITHIN THE BOUNDARY

LAND PROTECTION PRIORITIES
These priorities indicate the general interest and concern of the National Park Service for the foreseeable future.

PROPOSED BOUNDARY ADJUSTMENT

LAND PROTECTION PLAN

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

815 | 20047
DSC | FEB 85

PROPOSED NIGU ADDITION

PROPOSED REED RIVER ADDITION

7

6

4

3

2

6

6

1

5

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

NONFEOERAL LANDS AND INTERESTS WITHIN THE BOUNOARY

LANO PROTECTION PRIORITIES
These priorities indicate the general interest and concern of the National Park Service for the foreseeable future.

PROPOSEO BOUNOARY ADJUSTMENT

LAND PROTECTION PLAN

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITEO STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

815 | 20047

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and gas transmission and as a vital link to several national conservation system units. As a link to these units, the corridor itself possesses outstanding opportunities for scenic and recreational use in a manner compatible with the utility purposes and purposes of the conservation system units. The National Park Service will encourage orderly, planned development that recognizes the recreational opportunities of the corridor and surrounding lands and is willing to participate in any planning or task force and provide technical assistance.

Lands North

Existing and Potential Uses. The northern boundary of the park is bordered by ASRC and state land selections. Oil and gas exploration and development is the primary reason for these selections, although future prospects are not completely known. The state of Alaska proposes oil and gas leasing of land just north of the park and preserve in 1989. If reserves are found and developed, an east-west pipeline corridor connecting the trans-Alaska pipeline is probable. Migrating wildlife, particularly caribou, could be affected by increased human activity in an east-west corridor, which would cut directly across drainages and migration routes.

Recommendation. The National Park Service will encourage the North Slope Borough to continue the land use zone districts that place lands adjacent to the unit in a conservation district. The Park Service will also encourage the state and ASRC to manage these lands to protect wildlife.

Further exchanges with ASRC pursuant to ANILCA section 1431 will be sought in the Cascade Lake and Shainin Lake areas. The National Park Service would be interested in future exchanges to make the Castle Mountain "island" contiguous.

Lands West

Much of the western boundary borders Noatak National Preserve, which together with Gates of the Arctic protects one of the largest undeveloped watersheds in the world. To the northwest is the Alaska National Petroleum Reserve. A 12-mile-wide band of land originally thought to be part of the reserve may actually be unappropriated public land. If this is adopted, the National Park Service plans to add approximately 23,000 acres of this land along the upper Nigu River to each of the Gates of the Arctic and Noatak units, under the authority of section 103 of ANILCA. Archeological surveys on nearby lands have revealed numerous sites of five different types representing most cultural traditions in northwest Alaska (Irving 1964; NPS, USDI 1981). Acquisition would significantly improve the protection of cultural and ecological values in this area.

Minor Boundary Adjustments

As authorized by section 103 of ANILCA, the National Park Service will pursue minor boundary adjustments with the state of Alaska to place the

boundaries along hydrographic divides or other recognizable natural features.

Administrative Sites

For administrative facilities identified in the general management plan, land will be needed outside the unit as authorized by section 1306 of ANILCA. To the extent practicable, native lands will be used for this purpose. The National Park Service will seek to acquire 6 acres at Bettles and 2 acres at Anaktuvuk Pass for facilities. In Bettles, the National Park Service will seek joint construction of facilities on land shared with the U.S. Fish and Wildlife Service and the Alaska Fire Service (BLM). About 3 acres of the needed land could be located on Evansville Native Corporation lands for NPS residential use. The other 3 acres for administrative and visitor facilities need to be near the airstrip on state land. A fee or long-term lease is needed. The 2 acres at Anaktuvuk Pass would be on private lands.

At Coldfoot, the National Park Service has an administrative right-of-way for two tracts of land. This will be sufficient for housing and offices, but an additional tract of approximately 1 acre will be needed in fee or leased from the state for a hangar.

COMPLIANCE CONSIDERATIONS

In accordance with section 910 of ANILCA, proposed actions of the land protection plan involving land exchanges with native village and regional corporations are excluded from NEPA considerations. Proposed land exchanges with Doyon, Ltd., acquisition of subsurface rights from ASRC, agreements with other native corporation lands, and relinquishment of NANA 14(h)(1) sites therefore do not require NEPA compliance.

Other actions of this land protection plan that propose no significant change to existing land or public use are categorically excluded from NEPA considerations, in accordance with Department of the Interior implementing procedures (516 DM 6, appendix 7.4(11) and 516 DM, appendix 2). The proposed actions for small tracts, native allotments, mining claims, administrative sites, and agreements and cooperative planning for submerged or adjacent lands are included in this category. The proposed Nigu addition is also in this category, as this action would not significantly change existing land or visitor use nor exceed the 23,000-acre limitation (ANILCA section 103(b)) for minor boundary adjustments.

The remaining land protection proposal that does require an environmental assessment to determine impacts is the acquisition by donation or exchange of the Reed River watershed, approximately 80,000 acres. These impacts are discussed in the "Impacts of the Proposal" section. Impacts on federal lands that would be offered for exchange with the state would need to be determined when such lands are identified.

LAND PROTECTION PRIORITIES

These priorities indicate the general interest and concern of the National Park Service for the foreseeable future. These priorities will be followed in sequence unless, pursuant to ANILCA section 1302(g), a situation arises involving owner hardship or a need to sell.

Priority 1

The Walker Lake area has highly scenic, natural, and recreational values. This area is within designated wilderness and is a national natural landmark. Its landmark status is merited by being an outstanding example of glacial activity and resulting wide range of ecological associations and by its impressive scenery. Commercial development and use has already occurred, particularly a two-story lodge that has begun operation since establishment of the park. Increased use would concentrate impacts on fish, scenery, wild and undeveloped character, and water quality of the lake and surrounding park lands. Fee simple acquisition will be on a willing-seller basis unless further development or new or expanded commercial use is imminent.

Another aspect of priority 1 is to secure administrative sites in Bettles, Anaktuvuk Pass, and Coldfoot.

Table 21: Land Protection Priority 1 - Walker Lake and Administrative Sites

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
25	NA	50	-	Walker Lake	-	FF016597	Earnest Chase	PE	fee	purchase*
101	T	3	-	Walker Lake	house	F030911	Martha Helmricks	PA	fee	purchase*
102	T	17	-	Walker Lake	-	F011622	Harmon Helmricks	PA	fee	purchase*
104	T	5	-	Walker Lake	cabin	FF033312	Harmon Helmricks	PA	fee	purchase*
107	T	5	-	Walker Lake	-	FF005370	Thomas Classen	PE	fee	purchase*
110	T	3	-	Walker Lake	commercial/ lodge	FF009832	Martha Helmricks	PA	fee	purchase*
-	C	3,840	6	Walker Lake	-	-	NANA Corp.	PE	fee	relinquishment
-	AJ	3	-	Bettles	-	-	State DOTPF	-	fee	exchange
-	AJ	3	-	Bettles	-	-	State DOTPF or Evansville, Inc.	-	fee	exchange
-	AJ	2	-	Anaktuvuk Pass	-	-	Village Corp.	-	fee	exchange
-	AJ	1	-	Coldfoot	-	-	State DOTPF	-	fee	exchange

Type:

NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Footnotes:

* In accordance with ANILCA sec. 1302(c), exchange will be sought first.

Priority 2

The North Fork of the Koyukuk is a designated wild river that possesses outstanding natural, cultural, scenic, and recreational values. Approximately 15 to 20 percent of wilderness recreational activities take place in this portion of the park. Boreal Mountain and Frigid Crags flank the North Fork forming the "Gates of the Arctic"--namesake of the park. Private lands are located along the river and have access and potential for commercial development, which would be incompatible with the wild and undeveloped character of the area. Development of mining claims would threaten vegetation, wildlife, water quality, cultural resources, scenery, and wilderness character. Fee simple acquisition of small tracts will be on a willing seller basis unless tracts were further developed.

Table 22: Land Protection Priority 2 - North Fork of the Koyukuk River

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
5A	NA	(<160)	-	North Fork	cabin	FF014284	Renee Merry	A	fee	purchase*
5B	NA	(<160)	-	North Fork	cabin	FF014284	Renee Merry	A	fee	purchase*
33	NA	160	-	North Fork	-	FF017881	Elizabeth Ahgook	A	fee	purchase*
201	M	1,240	31	North Fork	-	Bonanza Cr.	Maple Leaf Gold, Inc.	U	mineral**	purchase
202	M	3,400	99	North Fork	lower 5 miles disturbed	Conglomerate	Maple Leaf Gold, Inc.	U	mineral**	purchase
205	M	1,680	42	North Fork	-	Ipnek Cr.	Maple Leaf Gold, Inc.	U	mineral**	purchase
207	M	60	3	La Salle Cr.	-	Hansen Cr.	Thorwald Hansen	U	mineral**	purchase
208	M	580	29	North Fork	cabin, disturbed	Mascot Cr.	Maple Leaf Gold, Inc.	U	protect park resources	regulations
305	NC	68,495	-	Glacier River	historic cabin	-	Doyon, Ltd.	PA	fee	exchange
-	AJ	-	-	Trans-Alaska pipeline corridor	pipeline, Dalton Highway	-	BLM	-	BLM retain	cooperative planning
-	AJ	-	-	Alatna, John, Middle Fork, Koyukuk	-	-	State of Alaska	-	State designated wild river	classification

Type:

NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Footnotes:

* In accordance with ANILCA sec. 1302(c), exchange will be sought first.
** Validity of mining claims will be examined.

Priority 3

The Alatna River is a designated wild river in wilderness, adjacent to Arrigetch Peaks, a national natural landmark and popular visitor destination. Its remarkable natural, scenic, and recreational values are virtually untouched by man. Private lands are at prime locations for commercial development along the river and Takahula Lake, and there is already one commercially operated lodge at the headwaters. Further development and commercial use would concentrate impacts on wilderness character, fish, and wildlife on adjacent park lands. Fee simple acquisition will be on a willing seller basis unless further development or expanded commercial use occurs.

Table 23: Land Protection Priority 3 - Alatna River

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
28A	NA	40	-	Alatna River	cabin	FF017762	Stella Hamilton	PE	fee	purchase*
32	NA	40	-	Takahula Lake	-	FF017773	Cora Maguire	PE	fee	purchase*
108	T	5	-	Alatna River, upper	commercial cabin	FF008750	Bernd Gaedeke	PA	fee	purchase*
109	T	5	-	Alatna River, upper	-	FF009043	National Parks and Conservation Assoc.	PA	fee	donation
111	T	10	-	Takahula Lake	cabin	FF007675	Harmon Helmricks	PA	fee	purchase*
-	C	640	1	Alatna River	-	-	NANA Corp.	PE	fee	relinquishment

Type:

NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Footnotes:

* In accordance with ANILCA sec. 1302(c), exchange will be sought first.

Priority 4

The Noatak River drainage is the largest undeveloped river valley in America, containing every arctic habitat and one of the finest arrays of flora and fauna anywhere in the Arctic. The headwaters lie within Gates of the Arctic National Park and Preserve, and the rest of the watershed is protected by the Noatak National Preserve. It is a designated wild river, designated wilderness, part of the United Nations' "Man in the Biosphere" program, and popular for wilderness recreational activities. Private lands are located along the river and have potential for commercial development. Development of mining claims would adversely affect the wild and undeveloped character and water quality. Fee acquisition of small tracts will be on a willing seller basis unless further development occurs.

Table 24: Land Protection Priority 4 - Noatak River

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
1B	NA	(<80)	-	Noatak River	-	FF035179	Anthony Bernhardt	PE	fee	purchase*
49	NA	160	-	Noatak River	cabin	FF019203	Myra Walker	A	fee	purchase*
50	NA	40	-	Noatak River	-	FF021749	Virginia Christiansen	PE	fee	purchase*
105	T	5	-	Noatak River	cabin	FF000019	Nelson Walker	PA	fee	purchase*
219A	M	150	8	Nigikpalugurvak	-	Joiners Cr.	E.B. Joiner, D & L MacPhee	U	mineral**	purchase
219B	M	10	1	Nigikpalugurvak	-	Joiners Cr.	Bill Boucher	U	mineral**	purchase
-	C	5,120	8	Noatak River	-	-	NANA Corp.	PE	fee	relinquishment
-	AJ	23,000	-	Upper Nigu River	-	-	BLM, may be unappropriated	-	fee	boundary adjustment

Type:

NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Footnotes:

* In accordance with ANILCA sec. 1302(c), exchange will be sought first.
** Validity of mining claims will be examined.

Priority 5

The Kobuk River and Narvak, Selby, and Nutuvukti lakes are important for subsistence fishing (particularly sheefish), hunting, sporthunting, and recreational floating. The Kobuk River is a designated wild river, and the area contains numerous archeological sites. Private lands along the river or lakes could be sold or developed for commercial use, which would be disruptive to these activities and to the wild and undeveloped character of the area. Adjacent land includes the Reed River watershed, which empties into the unit, and water quality is threatened by mining. Fee acquisition will be on a willing seller basis unless further development or significant commercial uses occur.

Table 25: Land Protection Priority 5 - Kobuk River

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
1A	NA	(<80)	-	Narvak Lake	cabin	FF035179	Anthony Bernhardt	PE	fee	purchase*
3A	NA	(<40)	-	Narvak Lake	cabin	FF013268	Charlie Sheldon	PE	fee	purchase*
3B	NA	(<40)	-	Nutuvukti Lake	-	FF013268	Charlie Sheldon	PE	fee	purchase*
4A	NA	(<120)	-	Kobuk River	-	FF014224	Charlie Horner	PE	fee	purchase*
4B	NA	(<120)	-	Kobuk River	-	FF014224	Charlie Horner	PE	fee	purchase*
27	NA	80	-	Kobuk River	-	FF017614	Ida Ross	A	fee	purchase*
48	NA	40	-	Selby Lake	cabin	FF018992	May Bernhardt	PE	fee	purchase*
-	C	3,840	6	Kobuk River	-	-	NANA Corp.	PE	fee	relinquishment
-	AJ	80,000	-	Reed River	-	-	State of Alaska	-	fee	donation
-	AJ	-	-	Schwatka Mtns.	-	-	State of Alaska	-	protect park resources	classification
-	AJ	-	-	Ambler Mining	some mining	-	State of Alaska, numerous claimants	-	protect park resources	cooperative planning

Type:

NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Footnotes:

* In accordance with ANILCA sec. 1302(c), exchange will be sought first.

Priority 6

Lands along the lower John River and the Hunt Fork, lands along the Itkillik River and Lake, and the Middle Fork of the Koyukuk drainage contain varied resources. John River is a designated wild river, a major caribou migration route, and from the Hunt Fork down is a moderately popular recreational floating area. The Itkillik River and Lake are along a common caribou migration route and are moderately popular for backpacking trips which are accessible from the Dalton Highway. Private lands are located along the rivers or lake and could be developed for commercial activities, which would not be compatible with wildlife or the wild and undeveloped character of the area. Development of subsurface rights for minerals or oil and gas near Itkillik Lake could be disruptive to wildlife and would not maintain the wild and undeveloped character. Mining claims along the Middle Fork could affect the wild and undeveloped character, water quality, and fish. Fee acquisition of small tracts will be on a willing seller basis unless further development or significant commercial use occurs.

Table 26: Land Protection Priority 6 - John River, Itkillik Lake, and Middle Fork

Tract	Type	Acres	Tracts or Claims	General Location	Improvments or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
5C	NA	(<160)	-	Itkillik River	cabin	FF014284	Renee Merry	A	fee	purchase*
5D	NA	(<160)	-	Itkillik Lake	cabin	FF014284	Renee Merry	A	fee	purchase*
9	NA	160	-	Hunt Fork	cabin	FF014512	Ruth Rulland	A	fee	purchase*
11A	NA	(<160)	-	Itkillik River	-	FF01692	Mary Darling	PE	fee	purchase*
11B	NA	(<160)	-	Itkillik River	-	FF01692	Mary Darling	PE	fee	purchase*
42	NA	160	-	John-Hunt Fork	cabin	FF018123	Mollie Ahgook	A	fee	purchase*
44	NA	160	-	Hunt Fork	-	FF018217	Joseph Mekiana	PE	fee	purchase*
106	T	5	-	Itkillik River	-	FF000030	Peter Merry	PA	fee	purchase*
210	M	20	1	Hammond/Jenny	-	Hammond #1	Robert Emerson	U	mineral**	purchase
211	M	100	5	Lower Hammond	disturbed	Snowshoe Cr.	L & N Cobb	U	protect park resources	regulations
212	M	300	15	Lower Hammond	-	Washington Cr.	Maple Leaf Gold, Inc.	U	mineral**	purchase
213	M	40	2	Middle Fork	-	Alder Cr.	Glen Bouton	U	mineral**	purchase
215	M	140	7	Fall Creek	-	Otto Cr.	Maple Leaf Gold, Inc.	U	mineral**	purchase
216	M	80	4	Fall Creek	-	Fall Creek	Maple Leaf Gold, Inc.	U	mineral**	purchase
304	NC	19,060	-	North/Middle Fork	cabin	-	Doyon, Ltd.	PA	fee	exchange
307	NC	35,075	-	Itkillik Lake	subsurface rights	-	Arctic Slope Regional Corp.	PA	fee	donation

Type:

NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Footnotes:

* In accordance with ANILCA sec. 1302(c), exchange will be sought first.
** Validity of mining claims will be examined.

Priority 7

Lands in the vicinity of Anaktuvuk Pass and Chandler Lake are of great importance for subsistence resources and activities for the people of Anaktuvuk Pass. The John River, a designated wild river, is a major caribou migration route. The Anaktuvuk Pass area is also one of the two highest recreational use areas of the park, with a growing number of visitors per year beginning backpacking trips there.

The future development of corporation lands in a manner consistent with the purposes of the national park is a goal. Particularly in this area of the park, existing uses of native allotments are compatible with park purposes. Tracts are undeveloped, used for subsistence activities, and are reached by snowmachine or on foot. Significant commercial use or development of ATV trails to small tracts would be incompatible. Acquisition will be on a willing seller basis unless substantial changes in use occur, and exchange is the preferred method of acquisition. Exchange of outlying tracts for lands adjacent to village and regional corporation lands provides an opportunity for consolidation of native lands and reduces access costs for small tract owners.

Table 27: Land Protection Priority 7 - Anaktuvuk Pass and Chandler Lake

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
2A	NA	(<160)	-	Okokmilaga River	-	FF000038	Zaccarius Hugo	PE	fee	exchange
2B	NA	(<160)	-	Anaktuvuk Pass	(within corp.)	FF000038	Zaccarius Hugo	PE	protect park resources	agreement
6	NA	160	-	John River, upper	-	FF014505	Lela Ahgook	A	fee	exchange
7	NA	160	-	John River, upper	-	FF014506	Noah Ahgook	A	fee	exchange
9	NA	80	-	John River, upper	-	FF015025	Ben Ahgook	A	fee	exchange
10	NA	75	-	John River, upper	-	FF015575	Elizabeth Paneak	A	fee	exchange
12	NA	150	-	Chandler Lake	(adj. corp.)	FF016309	Clyde Hugo	PE	protect park resources	agreement
13	NA	160	-	Anaktuvuk Pass	(within corp.)	FF016415	Jack Ahgook	A	protect park resources	agreement
14	NA	160	-	Anaktuvuk Pass	(within corp.)	FF016416	Rhoda Ahgook	A	protect park resources	agreement
15A	NA	(<160)	-	Arctic Slope	-	FF016424	Danny Hugo	PE	fee	exchange
15B	NA	(<160)	-	Chandler Lake	(within corp.)	FF016424	Danny Hugo	PE	protect park resources	agreement
16	NA	160	-	Chandler Lake	(within corp.)	FF016425	John Hugo	PE	protect park resources	agreement
18	NA	80	-	Anaktuvuk Pass	(adj. ATV easement)	FF016430	Amos Morry	A	protect park resources	agreement
19	NA	160	-	Anaktuvuk Pass	(adj. ATV easement)	FF016431	John Morry	A	protect park resources	agreement
20A	NA	(<160)	-	Anaktuvuk Pass	(within corp.)	FF016434	Anna Nageak	A	protect park resources	agreement
20B	NA	(<160)	-	Chandler Lake	(adj. corp.)	FF016434	Anna Nageak	A	protect park resources	agreement
21	NA	160	-	Chandler Lake	(within corp.)	FF016436	Roosevelt Paneak	A	protect park resources	agreement
22	NA	160	-	Anaktuvuk Pass	-	FF016443	Lazarus Rulland	A	fee	exchange

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
23	NA	160	-	Anaktuvuk Pass	(within corp.)	FF016445	Rachel Riley	PE	protect park resources	agreement
24	NA	160	-	John River, upper	-	FF016447	Sarah Tobuk	PE	fee	exchange
26A	NA	(<160)	-	John River, upper	-	FF016647	Raymond Paneak	PE	fee	exchange
26B	NA	(<160)	-	Arctic Slope	-	FF016647	Raymond Paneak	PE	fee	exchange
29	NA	160	-	John River, upper	-	FF017763	Anna Hugo	A	fee	exchange
30	NA	160	-	John River, upper	-	FF017764	Ellen Hugo	A	fee	exchange
31	NA	160	-	John River, upper	-	FF017765	Harry Hugo	A	fee	exchange
34	NA	160	-	Agiak Lake	-	FF017884	Doris Hugo	A	fee	exchange
35A	NA	(<160)	-	John River, upper	-	FF017885	Ethel Mekiana	A	fee	exchange
35B	NA	(<160)	-	Chandler Lake	(adj. ATV easement)	FF017885	Ethel Mekiana	A	protect park resources	agreement
36A	NA	(<120)	-	Arctic Slope	-	FF017886	Billy Morry	PE	fee	exchange
36B	NA	(<120)	-	Anaktuvuk Pass	(adj. ATV easement)	FF017886	Billy Morry	PE	protect park resources	agreement
37	NA	160	-	Anaktuvuk Pass	(within corp.)	FF017887	Rebecca Mekiana	A	protect park resources	agreement
38	NA	140	-	Anaktuvuk Pass	(within corp.)	FF017888	Maggie Morry	PE	protect park resources	agreement
39	NA	160	-	Anaktuvuk Pass	(adj. ATV easement)	FF017889	Riley Morry	PE	protect park resources	agreement
40	NA	160	-	Chandler Lake	(within corp.)	FF017892	Robert Paneak	PE	protect park resources	agreement
41	NA	160	-	Anaktuvuk Pass	(within corp.)	FF017893	Jane Young	PE	protect park resources	agreement
45	NA	80	-	Ekopuk Creek	-	FF018272	Mark Morry	PE	fee	exchange
46	NA	160	-	Arctic Slope	-	FF018274	Johnny Rulland	A	fee	exchange
47	NA	160	-	Okokmilaga River	-	FF018815	Joshua Rulland	A	fee	exchange
301-302	NC	110,210	-	Chandler Lake, Anaktuvuk Pass	-	-	Arctic Slope Regional Corp.	PA	protect park resources	agreement

Tract	Type	Acres	Tracts or Claims	General Location	Improvements or Disturbance	Serial No. or Claim Group	Applicant or Owner	Status	Minimum Interest	Preferred Method
303	NC	66,270	-	Anaktuvuk Pass	village AKP	-	Anaktuvuk Pass Village Corp.	PA	protect park resources	agreement
308	NC	365	-	Anaktuvuk Pass, Chandler Lake	ATV easements	-	Arctic Slope Regional Corp.	PA	protect park resources	agreement
-	AJ	-	-	Killik-Itkillik River	-	-	Arctic Slope Regional Corp., State	-	protect park resources	zoning

Type:

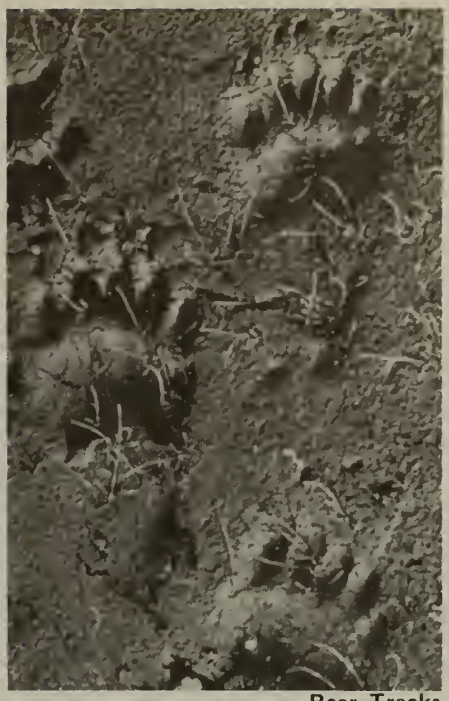
NA	Native allotment
T	Other small tract
M	Mining claim
C	Cemetery and historical site
NC	Native corporation
AJ	Adjacent lands

Status:

PA	Patented
U	Unpatented
A	Approved
PE	Pending

Moose

Game Trails



Bear Tracks

Nest

Caribou

Young Raptor

Grayling

WILDERNESS SUITABILITY REVIEW

WILDLIFE

WILDERNESS SUITABILITY REVIEW

Approximately 7,262,800 acres of wilderness were designated by ANILCA in the park. Approximately 1,210,034 acres in the park and preserve are examined here for suitability.

Section 1317(a) of ANILCA directed that a review be made of the suitability or nonsuitability for preservation as wilderness of all lands not so designated by the act. Section 1317(b) specifies that "the Secretary shall conduct his review, and the President shall advise the United States Senate and House of Representatives of his recommendations, in accordance with the provisions of sections 3(c) and (d) of the Wilderness Act." The president is to make his recommendations before December 2, 1987.

The Wilderness Act of 1964 defines wilderness as follows:

> (2)(c) A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wilderness areas in Alaska have certain exceptions to the Wilderness Act specified in ANILCA. The legal guidelines for wilderness management in appendix E provide more information.

Wilderness review criteria specific to Gates of the Arctic were developed that reflect the act's definition of wilderness. For a particular tract of land to be determined suitable for designation, it must meet all of the following suitability criteria:

Land Status

Federal land - suitable

Federal land containing ATV use easements or subsurface mineral rights - unsuitable

Federal land under application such as native allotments or cemetery and historical sites (14(h)(1) sites) - suitable if

retained in federal ownership, but unsuitable if land conveyed to nonfederal applicant

Patented nonfederal land - unsuitable

Airstrips

Unimproved or minimally improved - suitable

Improved and maintained - unsuitable

Cabins

Uninhabited structures; subsistence, hiker, and patrol cabins - suitable

Inhabited as a primary place of residence - unsuitable

Size of Units

Greater than 5,000 acres, adjacent to existing wilderness or a manageable size - suitable

Less than 5,000 acres or an unmanageable size - unsuitable

Historical and Archeological Sites

Not currently used or intended for primary visitor use - suitable

Primary visitor attraction - unsuitable

Roads and ATV Trails

Unimproved and unused or little used - suitable

Improved or regularly used - unsuitable

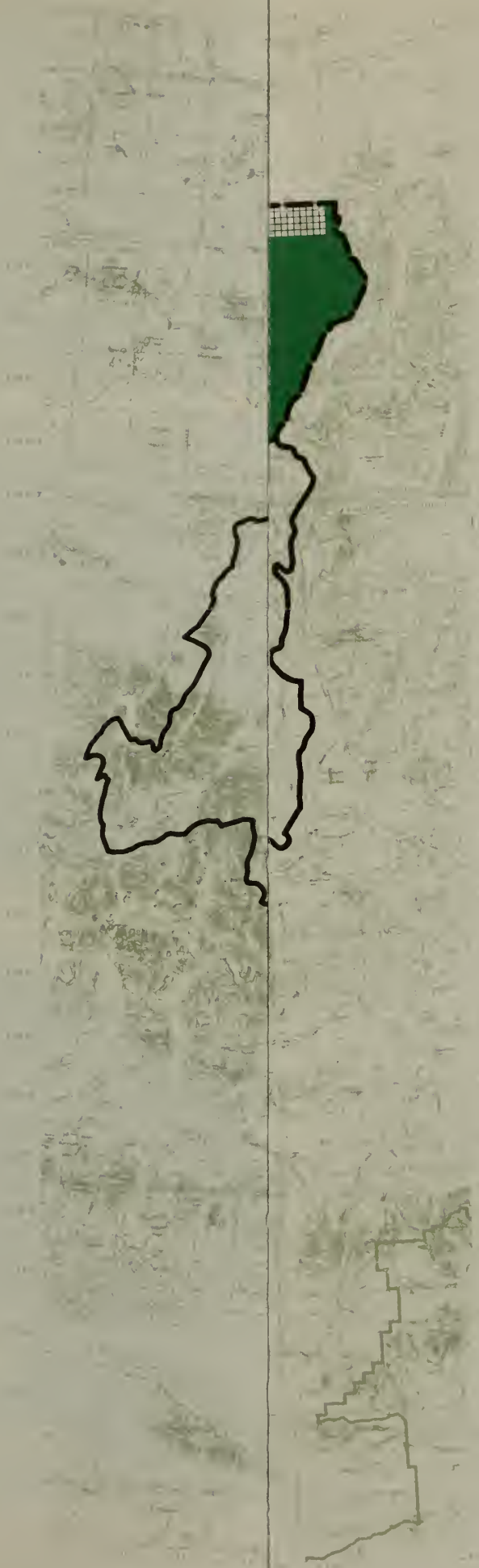
Approximately 986,550 acres of nonwilderness lands within the park and preserve meet the criteria as established by the Wilderness Act (see Wilderness Suitability map). Prior to a formal presidential recommendation, a wilderness report and environmental analysis will be prepared.

Approximately 217,660 acres of nonwilderness lands do not meet the criteria: (1) land containing subsurface mineral rights in the northeast preserve (35,070 acres), (2) ATV use easements in the Anaktuvuk Pass/Chandler Lake area (about 56 miles of 200-foot-wide nonwilderness corridors equals about 1,360 acres), and (3) native village and regional

corporation lands in the Anaktuvuk Pass/Chandler Lake area (181,230 acres). All of these lands, except for the village of Anaktuvuk Pass, would be suitable for wilderness designation if nonconforming uses (ATVs), outstanding rights, or nonfederal ownership were eliminated.

Approximately 5,820 acres of nonwilderness lands cannot have their suitability determined until pending applications are resolved. These lands include native allotments and cemetery and historical sites (14(h)(1) sites). Each of the eight cemetery and historical site applications in nonwilderness land included an entire section (640 acres). Resolution of these applications could result in all 640 acres, a few acres, or no acres being transferred to the nonfederal applicant depending on facts and findings surrounding the specific cemetery or historical site.

The entire southwest preserve is suitable for wilderness except for lands conveyed or under application. ANILCA section 201(4)(b, c, d, and e) permits surface access across the southwest preserve. The formal wilderness recommendation will have to consider the existing authority for that right-of-way.



GATES OF THE ARCTIC NATIONAL PRESERVE BOUNDARY

GATES OF THE ARCTIC NATIONAL PARK BOUNDARY

EXISTING WILDERNESS (7,262,810 ACRES)

SUITABLE FOR WILDERNESS (986,550 ACRES)

UNSUITABLE FOR WILDERNESS DUE TO SUBSURFACE RIGHTS (35,070 ACRES)

UNSUITABLE FOR WILDERNESS OUE TO ATV USE EASEMENT (1,360 ACRES)

UNSUITABLE FOR WILDERNESS DUE TO NONFEOERAL LAND (181,230 ACRES)

SUITABLE IF RETAINED IN FEDERAL OWNERSHIP (5,820 ACRES)

WILDERNESS SUITABILITY

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITEO STATES OEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

185 | 20044A

OSC | FEB 85

GATES OF THE ARCTIC NATIONAL PRESERVE BOUNOARY

GATES OF THE ARCTIC NATIONAL PARK BOUNOARY

EXISTING WILDERNESS (7,262,810 ACRES)

SUITABLE FOR WILDERNESS (986,550 ACRES)

UNSUITABLE FOR WILOERNESS DUE TO SUBSURFACE RIGHTS (35,070 ACRES)

UNSUITABLE FOR WILOERNESS OUE TO ATV USE EASEMENT (1,360 ACRES)

UNSUITABLE FOR WILDERNESS DUE TO NONFEOERAL LAND (181,230 ACRES)

SUITABLE IF RETAINEO IN FEDERAL OWNERSHIP (5,820 ACRES)

WILDERNESS SUITABILITY

GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE

UNITED STATES OEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NORTH

0 5 10 15 20 MILES

0 5 10 15 20 25 30 KILOMETERS

185 | 20044A

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Bettles Airfield

Coldfoot Truck Stop

Anaktuvuk Pass

CONSULTATION AND COORDINATION

Many varied activities have taken place throughout the planning process to consult and coordinate with the general public, agencies, and organizations. As a result, issues have been clarified, information has been identified, and alternatives have emerged and been refined. Through consultation and coordination the draft general management plan, land protection plan, and wilderness suitability review have evolved.

SCOPING

The first event was a general scoping meeting held March 12, 1984, in Anchorage for five NPS areas in northern and northwest Alaska. The purpose of the meeting was to notify agencies and organizations of the start of five general management plans, briefly identify the purpose and major issues of each area, outline the planning process and schedule, and identify where and how agencies would like to further be involved. Representatives of the following agencies and organizations were invited, those attending indicated by an asterisk (*).

U.S. Department of Agriculture
Soil Conservation Service
Forest Service
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
U.S. Army Corps of Engineers
U.S. Department of Energy
U.S. Environmental Protection Agency
U.S. Department of the Interior
*Special Assistant to the Secretary
Bureau of Land Management
Bureau of Indian Affairs
*Bureau of Mines
*Fish and Wildlife Service
Geological Survey
U.S. Department of Transportation
Federal Aviation Administration
Federal Highway Administration
*Alaska Land Use Council, State Coordinator
Alaska Land Use Council, Federal Coordinator
*Alaska Department of Fish and Game (Note: State CSU Coordinator was responsible for identifying and notifying all other related state agencies)
*Citizens Advisory Commission on Federal Areas
*Alaska Federation of Natives
*NANA Development Corporation, Inc.
Arctic Slope Regional Corporation
Doyon, Ltd.
Bering Straits Native Corporation
*Alaska Visitors Association
Alaska Center for the Environment

*Sierra Club
Cominco Alaska, Inc.
Arctic Environmental Information and Data Center
Alaska Geographic Society
*Alaska Miners Association
*Alaska Oil and Gas Association
Alaska Professional Hunters Association
Alaska Wilderness Guides Associaton
Friends of the Earth
*National Audubon Society
*North Slope Borough
*Alaska Department of Transportation
*Alaska Department of Natural Resources
*Alaska Department of Environmental Conservation

PUBLICATIONS DISTRIBUTED TO THE PUBLIC

The primary forum for identifying issues was the "Statement for Management," and over 600 were distributed in draft form in 1982. This document set forth the purposes of the area, analyzed resources and uses, identified issues, and proposed management objectives. Public comments were incorporated, and the final Statement for Management was publicly distributed in April 1984. Issues and management objectives were the starting point of this plan.

A newsletter was developed and distributed to more than 600 people on the mailing list, and another 100 were distributed at field stations and headquarters in July 1984. Its purpose was to keep the public informed of the progress of the general management plan for Gates of the Arctic following the first round of public meetings. It stated the purpose of the park, the planning process, summarized public participation, and presented four conceptual alternatives being developed and considered.

A second general newsletter was also distributed in July to discuss the progress of planning for all NPS areas in Alaska, particularly the five new plans underway for northern and northwest units.

OPEN MEETINGS

Open meetings were held in May and June 1984 in Bettles/Evansville, Coldfoot, Allakaket/Alatna, Anaktuvuk Pass, and Fairbanks. Attendance was 24, 28, 3, 37, and 13, respectively. At each meeting there was a presentation of the major purposes of the area, the planning process, and issues identified to date, followed by open discussion of issues, local concerns, and possible alternatives. The local meetings revealed many concerns about subsistence, access, and interest in more NPS involvement and communication in communities.

A second set of open meetings was held in the local communities of Ambler, Kobuk, Shungnak, and Allakaket (rescheduled because of low attendance) in October 1984. Attendance was 28, 6, 24, and 12, respectively. In addition to presenting the park purposes, issues, and

planning problems, alternatives were presented for discussion. Concerns were expressed about recreational visitors, particularly sporthunters and rafters, interfering with subsistence use. People were also concerned about Anaktuvuk Pass, the only community within the boundaries of the park and preserve.

CONSULTATION COMMITTEE

To develop and further consult on the details of the general management plan, a consultation committee comprised of representatives of federal, state, and local agencies and native and private organizations was established. The initial list of 50 has grown to 65 consultants. The first meeting was held in Fairbanks on May 15, 1984, attended by a cross section of 22 representatives. Members of the planning team presented topics of the plan, followed by a general discussion and initial ideas on alternatives. Among other topics, participants brought up the importance of Gates of the Arctic as a wilderness.

Following the initial meeting, participants were provided with an outline of alternatives developed to address the issues which went into more detail than the general newsletter. Responses were incorporated into the alternatives.

The second meeting was held in Fairbanks on August 15, 1984. Alternatives had been more fully developed and were written out on large worksheets and organized by topic. Participants were asked to work through as many of the alternatives as they could, particularly those of greatest interest, and provide comments on the worksheets or discuss them with available team members. Although only 15 attended, the worksheets were made available at the Fairbanks NPS office until the end of September for those who could not attend or did not have enough time at the August meeting. About 12 additional participants added comments.

Mailing List of Consultation Committee

*Denotes those who have participated in one or more sessions

Honorable Albert P. Adams, Alaska State Legislature
Jacob Adams, Arctic Slope Regional Corporation
*Wesley Aikiz, Arctic Slope Regional Corporation
Perry Baker, Bureau of Indian Affairs
*Leslie Barber, Citizens Advisory Commission
*Joyce Beelman, Alaska Department of Environmental Conservation
Earl H. Beistline, Alaska Miners Association
*Richard Bishop, Alaska Department of Fish and Game
Judy Bittnor, State Historic Preservation Officer
Jerry L. Brossia, Alaska Department of Natural Resources, Division of Forest, Land, and Water
*Billy E. Butts, Bureau of Land Management
*John Carnihan, North Slope Borough
Ken Charlie, Interior Regional Fish and Game Advisory Council
John Coady, Alaska Department of Fish and Game, Game Division

*Naomi Costello, Evansville, Inc.
James Drew, UAF School of Agriculture and Land Resources Management
Phillip Driver, Alaska Guide Board
Larry Edwards, K'oyitlots'ina, Ltd.
Glen Ellison, Arctic National Wildlife Refuge
*Jean Ernst, Alaska Department of Fish and Game, Game Division
Honorable Bettye Fahrenkamp, Alaska State Legislature
Honorable Frank Ferguson, Alaska State Legislature
Dale Fox, Alaska Visitors Association
Paul Gallagher, Federal Aviation Administration
*Sally Gibert, Alaska OMB, CSU Coordinator
H. Glenzer, Jr., Alaska Department of Transportation
*Don Greybeck, U.S. Geological Survey, Branch of Alaska Geology
*Terry Haynes, Alaska Department of Fish and Game, Subsistence Division
*Harry Hugo, Anaktuvuk Pass
Honorable Vern Hurlburt, Alaska State Legislature
Carl Johnson, Bureau of Land Management
*Lt. Terry Jordan, Alaska Department of Fish and Game
*Carol Kasza, Alaska Association of Wilderness Guides
Roger Kaye, Northern Alaska Environmental Center
Captain Lawrence, Alaska State Troopers
Shirly Lee, Evansville, Inc.
*Stan Lephart, Citizens Advisory Committee
Douglas L. Lowery, Alaska Department of Fish and Game
*Michael Matz, Northern Alaska Environmental Center
*Ervin W. McIntosh, Kanuti National Wildlife Refuge
Thomas P. Miller, U.S. Geological Survey, Branch of Alaska Geology
Calvin Motto, Fish and Game Advisory Council
Honorable Frank Murkowski, U.S. Senate
Al Ott, Alaska Department of Fish and Game
*Roosevelt Paneak, Anaktuvuk Pass
*Sverre Pedersen, Alaska Department of Fish and Game, Subsistence Division
President, Doyon Ltd.
Honorable John Ringsted, Alaska State Legislature
*Matt Robus, Alaska Department of Fish and Game, Habitat Division
*Randy Rogers, Northern Alaska Environmental Center
*Dave Rupert, Bureau of Land Management
Honorable John C. Sackett, Alaska State Legislature
Helvi Sandvik, Alaska Department of Transportation
Honorable Richard Schultz, Alaska State Legislature
John Shaeffer, NANA Regional Corporation, Inc.
*Craig Shirley, Alaska Department of Natural Resources
*Ron Silas, Tanana Chiefs Conference
*Richard Stern, Alaska Department of Fish and Game, Subsistence Division
George Stevens, North Slope Borough
Honorable Ted Stevens, U.S. Senate
*Dick Stolzberg, Northern Alaska Environmental Center
Lou Swanson, Yukon Flats National Wildlife Refuge
*William Thomas, Arctic Slope Regional Corporation
George Van Whe, Alaska Department of Fish and Game

*Bob Waldrop, Citizens Advisory Commission
George Walters, Bureau of Indian Affairs
*Dan Wetzel, Subsistence Resource Commission, Commercial Operator
Honorable Dan Young, U.S. House of Representatives

QUESTIONNAIRES

Over 40 questionnaires were sent to the commercial operators offering visitor services in Gates of the Arctic. Over 30 percent of the major operators responded, offering observations on commercial operations, visitor expectations, conflicts with other users, and human impacts on the park and preserve. The majority indicated that the total number of commercial operators should be held at current levels. Their observations on human use impacts coincide with the field observations of NPS staff.

Along with this questionnaire, each commercial operator was given 20 visitor questionnaires to send to their clients, with more available upon request. This voluntary report inquired about activities, group size, observations of use and impacts, and management preferences. Over 60 responses were received. Results are summarized in the "Affected Environment" section of the general management plan, and the questionnaire is in appendix C.

OTHER CONSULTATIONS

In addition to those involved in the general scoping meeting and consultation committee, the following people have also provided information and assistance:

Tina Cunning, Alaska Department of Fish and Game
Dave Hansen, Alaska Federation of Natives
Mike Green, Bureau of Land Management, Yukon Resource Area
Jack Ledgerwood, Alaska Fire Service
Dave Weingartner, Mahillag Associates, Coastal Zone Management
Tom Hamilton, U.S. Geological Survey, Branch of Alaska Geology
John Kelley, U.S. Geological Survey, Branch of Alaska Geology
Tom Dutro, U.S. Geological Survey, National Museum

Cabin

Cabin

Cabin Ruins

APPENDIX A: MANAGEMENT OBJECTIVES

NATURAL RESOURCES

Maintain the wild and undeveloped character of the park and preserve.

Maintain natural features, environmental integrity, and the dynamics of natural processes operating within the park.

Allow wildfire as a natural process while protecting private property, significant historic resources, water quality, and air quality.

Determine and only allow levels of human use that park resources can withstand without impairing their integrity or condition.

Maintain clean air and unimpaired viewsheds.

Maintain free-flowing rivers and water quality.

Establish clear standards and maintain natural and healthy populations of fish and wildlife and their associated habitats within the park.

Identify and protect threatened or endangered species.

Identify interrelated portions of natural watersheds, wildlife populations, habitat, and systems that are outside the park boundary and actively strive for compatible protection.

Promote human understanding and behavior which minimizes hazardous or destructive encounters with wildlife.

Manage sport hunting and trapping in the preserve and permit sportfishing in such manner as to maintain healthy populations and natural habitat and to avoid competing with subsistence needs.

CULTURAL RESOURCES

Identify, evaluate, and provide appropriate treatment for known historic and prehistoric sites and structures in the park and preserve.

Protect significant cultural resources on park land with methods that are compatible with the wilderness purposes of the area.

Offer technical assistance and cooperative protection for significant related cultural resources on private inholdings and adjacent lands.

Coordinate cultural resource research monitoring and protection with all land managers and owners throughout the central Brooks Range area.

SUBSISTENCE USES

In cooperation with the state of Alaska, provide continued opportunity for customary subsistence activities by local residents in traditional areas in accordance with Title VIII and Title II, 201(4) of the Alaska Lands Act.

Permit the subsistence taking of wildlife, fish, and plants without impairing natural and healthy populations of fish and wildlife.

Permit access to customary and traditional areas of subsistence activities without seriously impairing vegetation, waters, and other natural resources and systems.

Fully document customary and traditional subsistence activities, including patterns, intensity, and cycles, as they interrelate with natural and healthy flora and fauna populations.

Allow preference for customary subsistence uses over other consumptive uses of park resources when necessary.

Minimize conflicts between subsistence activities and recreational uses.

Fully support the operation and informational needs of the park's Subsistence Resource Commission, consulting with it on all major subsistence management decisions.

VISITOR USES

Provide for park purposes and wilderness recreational activities by maximizing a visitor's opportunity to experience solitude, self-reliance, challenge, wilderness discovery, and freedom of movement through the use of the park, without intrusive regulation or unreasonable jeopardy.

Monitor aircraft operations (including access planes, commercial, military, and private overflights) and mitigate visual and audible intrusion on visitors' wilderness experiences.

Allow aircraft landings, river use, foot, ski, and dogsled use, which facilitates visitor access without adversely affecting resource conditions or the wild and undeveloped character of the area.

Continually assess the appropriateness of new nontraditional forms of mechanized access as they are developed and appear in the central Brooks Range.

Authorize necessary commercial services, such as air-taxis, outfitters, and guides, at levels which meet visitors' wilderness recreation needs and are compatible with park resources.

Identify park experiences for handicapped visitors.

At appropriate locations, provide visitor information and interpretation necessary to ensure basic orientation to the area, promote safe enjoyment

of the area, minimize adverse impacts on park resources, and avoid conflicts with private property owners and subsistence users.

Promulgate the importance of this area to the public through the availability of research material that examines and develops an appreciation for the area's national significance.

Prepare well-developed guidelines and methods for the consideration, analysis, and establishment of park use carrying capacities.

Respond to all known requests for emergency assistance within the limits of available manpower and equipment.

Promote visitor awareness of known life-threatening hazards in the park.

Ensure that each visitor accepts responsibility for their own safety and behavior while in the park and preserve.

Aggressively pursue elimination of emergency search or rescue caused by careless or negligent actions.

LAND PROTECTION

Ensure through cooperative agreement, easement, or exchange protection of watersheds that are not entirely in NPS ownership.

Recognize fully the rights of private inholders and promote understanding among inholders and neighbors of compatible use, development, and access.

Recognize the rights of valid mining claims; work closely with all operators to ensure that valid mining activities have the least possible adverse impact on park resources.

Extinguish invalid mining claims.

Ensure that present access routes and future requests for access corridors are consistent with law, visitor needs, park purposes, and resource conditions.

Identify future incompatible uses of adjacent lands and be an active participant in working with adjacent landowners to ensure compatibility.

ADMINISTRATION

Provide optimal staff necessary to accomplish purposes, objectives, and management plans of the park.

Provide all park employees detailed orientation to the Alaska national parks, the central Brooks Range, and park management issues and objectives.

Keep park management activities, requirements, and regulations from unnecessarily interfering with valid recreation, subsistence, and private property uses.

Solicit and utilize citizen volunteers, cooperative education students, public and private organizations, and other donations for planning, research, and operation of the park.

Employ staffing plans that recognize Alaskan conditions, particularly the knowledge and skills of local persons and the effects of severe environmental conditions on personnel productivity.

Closely coordinate management activities along the Kobuk and Noatak rivers with the superintendent, northwest areas.

Work with the state of Alaska regarding numerous areas of common interest: sport hunting and fishing, subsistence use, wildlife protection, and enforcement; disposal of adjacent state lands; state rights-of-way and navigable river claims; and future transportation corridors.

Work with individuals, villages, and regional corporations regarding access, subsistence, adjacent land use, transportaion, and other areas of common interest.

Work with the Bureau of Land Management regarding development of the utility corridor.

Quickly inform the public, through notices and other direct means, of all significant management decisions, projects, and programs.

DEVELOPMENT

Determine facilities necessary for visitor use and resource protection.

Locate necessary visitor and administrative facilities in local communities whenever practicable.

Allow no developed facilities in wilderness for visitor use or management, including trails, signs, campsites, or communications equipment unless after thorough examination no feasible, prudent, and effective alternative is available to accomplish park purposes.

Routinely evaluate any such facility and remove it if a more effective alternative becomes available, or if such management intervention is no longer essential.

APPENDIX B: SUMMARY OF ANILCA PROVISIONS

The Alaska National Interest Lands Conservation Act (ANILCA, Public Law 96-487, December 2, 1980) provides for "the designation and conservation of certain public lands in the State of Alaska, including the designation of units of the national park, national wildlife refuge, national forest, national wild and scenic rivers, and national wilderness preservation systems, and for other purposes." The following provisions of this act are pertinent to Gates of the Arctic National Park and Preserve.

Section 101 - (a) establishment of all units, (b) identification of values to be protected, and (c) provision of opportunity for subsistence.

Section 102 - definitions.

Section 103 - (a) availability of boundary maps, (b) minor boundary adjustments.

Section 201(4) - (a) establishment of Gates of the Arctic National Park and Preserve, purposes, (b) provision for access for surface transportation from the Ambler mining district to the pipeline haul road, (c) notice for application for right-of-way, and (d) environmental and economic analysis process for right-of-way.

Section 203 - administration of new National Park Service areas pursuant to cited laws; national preserves permit hunting; no entrance fees.

Section 206 - withdrawal from future disposition for mining or state and native selections.

Section 601 - designation of the (26) Alatna, (30) John, (31) Kobuk, (33) Noatak, (34) North Fork of the Koyukuk, and (36) Tinayguk rivers as part of the national wild and scenic rivers system.

Section 605 - (a) above rivers designated as wild, (d) coordination of plan for rivers with conservation system unit management plan, and (e) cooperative agreements for rivers.

Section 606 - other amendments to the Wild and Scenic Rivers Act.

Section 701(2) - designation of Gates of the Arctic wilderness.

Section 707 - administration of wilderness pursuant to Wilderness Act.

Section 801 - findings and declaration of opportunity for subsistence.

Section 802 - subsistence policy.

Section 803 - subsistence definitions.

Section 804 - preference for subsistence uses.

Section 805 - establishment of regional advisory councils.

Section 806 - federal monitoring.

Section 807 - judicial enforcement.

Section 808 - establishment of park and monument subsistence resource commissions.

Section 809 - cooperative agreements for subsistence.

Section 810 - procedural requirements to assess impacts of land use decisions on subsistence.

Section 811 - ensures reasonable access for subsistence.

Section 812 - provision for research on subsistence.

Section 813 - monitoring and periodic reports on subsistence.

Section 814 - authority to prescribe appropriate regulations.

Section 815(a) - subsistence level consistent with natural and healthy populations of fish and wildlife in the park unit, healthy populations in the preserve.

Section 816 - authority to close subsistence uses for specified conditions.

Section 905 - Alaska native allotments.

Section 907 - Alaska land bank.

Section 1010 - Alaska mineral resource assessment program.

Section 1101 - authority for the approval or disapproval of applications for transportation and utility systems through public lands in Alaska.

Section 1107(b) - transportation or utility system pursuant to Title XI may not interfere with or impede a national wild and scenic river.

Section 1109 - protection of valid existing rights of access.

Section 1110 - (a) specifies methods of access for traditional activities, (b) assurance of access to private property rights.

Section 1111 - temporary access.

Section 1112 - North Slope haul road.

Section 1301 - (a) transmittal of conservation management plan for each National Park Service unit to Congress by December 2, 1985, and (b) requirements for a National Park Service plan, (c) consideration factors, (d) hearing and participation.

Section 1302 - land acquisition authority, (a) general authority, (b) restrictions, (c) exchanges, (d) improved property, (e) retained rights, (f) definitions, (g) consideration of hardship, (h) exchange authority, (i) authority to acquire contiguous state lands by donation or exchange.

Section 1303 - use of cabins, improved property on national park lands.

Section 1306 - administrative sites and visitor facilities.

Section 1307 - revenue-producing visitor services.

Section 1308 - local hire.

Section 1313 - administration of national preserves.

Section 1314 - taking of fish and wildlife.

Section 1315 - (a) wilderness management in Alaska, (c) existing cabins, and (d) new cabins.

Section 1316 - allowed uses of compatible temporary facilities to manage fish and wildlife.

Section 1317 - general wilderness review provision.

Section 1319 - effect on existing rights.

Section 1431 - (a) provisions for Arctic Slope Regional Corporation lands, (c) land exchange terms and conditions for Kurupa Lake, and (e) acquisition and exchange authority, boundary adjustments, exchange with National Petroleum Reserve-Alaska.

Gates of the Arctic
NATIONAL PARK AND PRESERVE

VOLUNTARY VISITOR REPORT

Gates of the Arctic is a new part of the National Park System. The National Park Service is in the initial stages of planning the future management of the area, and would like to draw upon your experiences as a visitor. This voluntary visitor report reflects several management concerns. Feel free to add others on additional sheets. Thank you for your time and assistance.

- Number in your party: _____
- Dates in the park/preserve: from __/__/__ to __/__/__
- Trip was:
  - ___ Led by guide/outfitter
  - ___ Independently led and organized
  - ___ Independently led and organized, but outfitted by professional guide or outfitter
- Method of access to the area:
  - ___ Dalton Highway (oil pipeline haul road)
  - ___ Small aircraft
  - ___ Anaktuvuk Pass
  - ___ Other (_____)
- Primary method(s) of travel while in the park/preserve:
  - ___ Boat/raft/kayak/canoe
  - ___ Backpacking/niking
  - ___ Horse
  - ___ Dog sled
  - ___ Snowmobile
  - ___ X-country skis/snowshoes
  - ___ Other (_____)
- Activities participated in:
  - ___ Fishing
  - ___ Photography
  - ___ Hunting
  - ___ Wildlife observation
  - ___ Mountaineering
  - ___ Other (_____)
- Description and locations of any trash, cabins, or camps in the backcountry:

_____

_____

_____

_____

- Route of travel: _____

_____

_____

- Number of other groups encountered while in the park/preserve backcountry: _____
- Reaction to that number of encounters:

Too Many	Just Right	Too Few

- What would threaten the wilderness character of the park?

	No Threat	Minor Threat	Major Threat
Other people seen			
Fire rings			
Barespots on tundra			
Trails			
Aircraft			
Cabins, perm. camps			
Other (specify):			
_____			
_____			

- If use levels ever increased enough to threaten the wilderness character of Gates of the Arctic, which management strategy would you prefer for controlling use?

___ Regulations (like requiring a permit or limiting the number of people into a zone.)

___ Minor Facilities (like establishing and maintaining selected trails or campsites.)

- If minor facilities had to be used to control impacts from increasing visitor use, check which box best represents your feelings about the use of the following:

	Approve	Neutral	Disapprove
Trails			
Campsites			
Cabins			
Other (specify):			
_____			
_____			

- If regulations had to be used to control impacts from increasing visitor use, check which box best represents your feelings about the use of the following:

	Approve	Neutral	Disapprove
Inform and educate users by requiring free permit			
Limit number of people or groups that can start from a given access point			
Use temporary zone closures			
Limit number of poeple or groups by zone			
Limit commercial guide operations			
Eliminate selected public cabins where use problems have accumulated			
Limit group size			
Limit types of uses			
Other (specify):			
_____			
_____			

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GATES OF ARCTIC NATIONAL PARK AND PRESERVE
P. O. BOX 74680
FAIRBANKS, ALASKA 99707

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

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INT-417

Visitor Address:

● General Comments:

Thanks for your help! If you have additional general comments, please feel free to add them on additional sheets. You may return these comments to us by refolding to the pre-addressed side. Postage is pre-paid.

● Do you wish to be on a mailing list for future planning documents?

_____ Yes _____ No

If so, please give name and address:

_____

_____

_____

_____

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GATES OF ARCTIC NATIONAL PARK AND PRESERVE
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Superintendent
Gates of the Arctic
National Park and Preserve
P.O. Box 74680
Fairbanks, AK 99707

(copy)

MASTER MEMORANDUM OF UNDERSTANDING BETWEEN THE ALASKA DEPARTMENT OF FISH AND GAME JUNEAU, ALASKA AND THE U.S. NATIONAL PARK SERVICE DEPARTMENT OF THE INTERIOR ANCHORAGE, ALASKA

This Master Memorandum of Understanding between the State of Alaska, Department of Fish and Game, hereinafter referred to as the Department, and the U.S. Department of the Interior, National Park Service, hereinafter referred to as the Service, reflects the general policy guidelines within which the two agencies agree to operate.

WHEREAS, the Department, under the Constitution, laws, and regulations of the State of Alaska, is responsible for the management, protection, maintenance, enhancement, rehabilitation, and extension of the fish and wildlife resources of the State on the sustained yield principle, subject to preferences among beneficial uses; and

WHEREAS, the Service, by authority of the Constitution, laws of Congress, executive orders, and regulations of the U.S. Department of the Interior is responsible for the management of Service lands in Alaska and the conservation of resources on these lands, including conservation of healthy populations of fish and wildlife within National Preserves and natural and healthy populations within National Parks and Monuments; and

WHEREAS, the Department and the Service share a mutual concern for fish and wildlife resources and their habitats and desire to develop and maintain a cooperative relationship which will be in the best interests of both parties, the fish and wildlife resources and their habitats, and produce the greatest public benefit; and

WHEREAS, the Alaska National Interest Lands Conservation Act (ANILCA) and subsequent implementing Federal regulations recognize that the resources and uses of Service lands in Alaska are substantially different than those of similar lands in other states and mandate continued subsistence uses in designated National Parks plus sport hunting and fishing, subsistence, and trapping uses in National Preserves under applicable State and Federal laws and regulations; and

WHEREAS, the Department and the Service recognize the increasing need to coordinate resource planning and policy development;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

(copy)

THE DEPARTMENT OF FISH AND GAME AGREES:

1. To recognize the Service's responsibility to conserve fish and wildlife and their habitat and regulate human use on Service lands in Alaska, in accordance with the National Park Service Organic Act, ANILCA, and other applicable laws.

2. To manage fish and resident wildlife populations in their natural species diversity on Service lands, recognizing that nonconsumptive use and appreciation by the visiting public is a primary consideration.

3. To consult with the Regional Director or his representative in a timely manner and comply with applicable Federal laws and regulations before embarking on management activities on Service lands.

4. To act as the primary agency responsible for management of subsistence uses of fish and wildlife on State and Service lands, pursuant to applicable State and Federal laws.

5. To recognize that National Park areas were established, in part, to "assure continuation of the natural process of biological succession" and "to maintain the environmental integrity of the natural features found in them."

THE NATIONAL PARK SERVICE AGREES:

1. To recognize the Department as the agency with the primary responsibility to manage fish and resident wildlife within the State of Alaska.

2. To recognize the right of the Department to enter onto Service lands after timely notification to conduct routine management activities which do not involve construction, disturbance to the land, or alterations of ecosystems.

3. To manage the fish and wildlife habitat on Service lands so as to ensure conservation of fish and wildlife populations and their habitats in their natural diversity.

4. To cooperate with the Department in planning for management activities on Service lands which require permits, environmental assessments, compatibility assessments, or similar regulatory documents by responding to the Department in a timely manner.

5. To consider carefully the impact on the State of Alaska of proposed treaties or international agreements relating to fish and wildlife resources which could diminish the jurisdictional authority of the State, and to consult freely with the State when such treaties or agreements have a significant impact on the State.

(copy)

6. To review Service policies in consultation with the Department to determine if modified or special policies are needed for Alaska.

7. To adopt Park and Preserve management plans whose provisions are in substantial agreement with the Department's fish and wildlife management plans, unless such plans are determined formally to be incompatible with the purposes for which the respective Parks and Preserves were established.

8. To utilize the State's regulatory process to the maximum extent allowed by Federal law in developing new or modifying existing Federal regulations or proposing changes in existing State regulations governing or affecting the taking of fish and wildlife on Service lands in Alaska.

9. To recognize the Department as the primary agency responsible for policy development and management direction relating to subsistence uses of fish and wildlife resources on State and Service lands, pursuant to applicable State and Federal laws.

10. To consult and cooperate with the Department in the design and conduct of Service research or management studies pertaining to fish and wildlife.

11. To consult with the Department prior to entering into any cooperative land management agreements.

12. To allow under special use permit the erection and maintenance of facilities or structures needed to further fish and wildlife management activities of the Department on Service lands, provided their intended use is not in conflict with the purposes for which affected Parks or Preserves were established.

THE DEPARTMENT OF FISH AND GAME AND THE NATIONAL PARK SERVICE MUTUALLY AGREE:

1. To coordinate planning for management of fish and wildlife resources on Service lands so that conflicts arising from differing legal mandates, objectives, and policies either do not arise or are minimized.

2. To consult with each other when developing policy, legislation, and regulations which affect the attainment of wildlife resource management goals and objectives of the other agency.

3. To provide to each other upon request fish and wildlife data, information, and recommendations for consideration in the formulation of policies, plans, and management programs regarding fish and wildlife resources on Service lands.

(copy)

4. To recognize that the taking of fish and wildlife by hunting, trapping, or fishing on certain Service lands in Alaska is authorized in accordance with applicable State and Federal law unless State regulations are found to be incompatible with documented Park or Preserve goals, objectives or management plans.

5. To recognize for maintenance, rehabilitation, and enhancement purposes, that under extraordinary circumstances the manipulation of habitat or animal populations may be an important tool of fish and wildlife management to be used cooperatively on Service lands and waters in Alaska by the Service or the Department when judged by the Service, on a case by case basis, to be consistent with applicable law and Park Service policy.

6. That implementation by the Secretary of the Interior of subsistence program recommendations developed by Park and Park Monument Subsistence Resource Commissions pursuant to ANILCA Section 808(b) will take into account existing State regulations and will use the State's regulatory process as the primary means of developing Park subsistence use regulations.

7. To neither make nor sanction any introduction or transplant of any fish or wildlife species on Service lands without first consulting with the other party and complying with applicable Federal and State laws and regulations.

8. To cooperate in the development of fire management plans which may include establishment of priorities for the control of wildfires and use of prescribed fires.

9. To consult on studies for additional wilderness designations and in development of regulations for management of wilderness areas on Service lands.

10. To resolve, at field office levels, all disagreements pertaining to the cooperative work of the two agencies which arise in the field and to refer all matters of disagreement that cannot be resolved at equivalent field levels to the Regional Director and to the Commissioner for resolution before either agency expresses its position in public.

11. To meet annually to discuss matters relating to the management of fish and wildlife resources on, or affected by, Service lands.

12. To develop such supplemental memoranda of understanding between the Commissioner and the Regional Director as may be required to implement the policies contained herein.

13. That the Master Memorandum of Understanding is subject to the availability of appropriated State and Federal funds.

(copy)

14. That this Master Memorandum of Understanding establishes procedural guidelines by which the parties shall cooperate, but does not create legally enforceable obligations or rights.

15. That this Master Memorandum of Understanding shall become effective when signed by the Commissioner of the Alaska Department of Fish and Game and the Alaska Regional Director of the National Park Service and shall continue in force until terminated by either party by providing notice in writing 120 days in advance of the intended date of termination.

16. That amendments to this Master Memorandum of Understanding may be proposed by either party and shall become effective upon approval by both parties.

STATE OF ALASKA	U.S. DEPARTMENT OF THE INTERIOR
Department of Fish and Game	National Park Service
By /s/ Ronald O. Skoog	By /s/ John E. Cook
Ronald O. Skoog	John E. Cook
Commissioner	Regional Director, Alaska
Date 14 October 1982	Date October 5, 1982

Section 701 of ANILCA designated approximately 7,262,800 acres of Gates of the Arctic National Park as wilderness and directed that this wilderness be managed in accordance with the Wilderness Act of 1964 except as otherwise expressly provided for in ANILCA. The Wilderness Act states that wilderness areas ". . . shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness."

Wilderness is then defined (in part) as "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitations, which is protected and managed so as to preserve its natural conditions. . . ."

ANILCA made certain exceptions to the Wilderness Act, which apply only to management of wilderness areas in Alaska. These are summarized below.

Section 1110(a) provides that the secretary shall permit, on conservation system units, which by definition in section 102(4) includes units of the national wilderness preservation system,

> . . . the use of snowmachines . . ., motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other law) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the (wilderness) . . . areas, and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use would be detrimental to the resource values of the unit or area.

The National Park Service has incorporated this provision into the Code of Federal Regulations (36 CFR 13) covering the administration of national park system units in Alaska.

Airplanes, motorboats, and snowmachines are used to gain access to the designated wilderness. The continued use of these forms of motorized equipment in designated wilderness is allowed under the above-cited sections of ANILCA and CFR. Helicopter landings are prohibited on park lands except in compliance with a permit issued by the superintendent. No other forms of motorized access are permitted except as provided by ANILCA sections 1110 and 1111.

The Wilderness Act, section 4(c), states that, subject to existing private rights, there will be

> . . . no commercial enterprise and no permanent road within any wilderness area . . . and except as necessary to meet minimum requirements for the administration of the area for

> purposes of this Act (including measures required in emergencies involving health and safety of persons within the area), there shall be no temporary road . . . and no structure or installation within the area.

NPS "Management Policies" further state that:

> Guide services for horseback trips, hiking, mountain climbing, boat trips, and similar services designed to provide opportunities for the enjoyment of primitive and unconfined types of recreation or other wilderness purposes of the area are permissible under careful control by each park as to their nature, number, and extent. Structures or facilities in support of such commercial services are not permitted within wilderness.

Section 1303(a)(3) of ANILCA, however, authorizes the use and occupancy of existing cabins or other structures in national park system units under a permit system. Cabins and other structures not under a permit system may be used for official government business, for emergencies involving health and safety, and for general public use. Also under section 1303, the secretary may permit the construction and maintenance of cabins or other structures if it is determined that the use is necessary to reasonable subsistence use. Section 1315 of ANILCA contains more specific language: "Previously existing public use cabins within wilderness . . . may be permitted to continue and may be maintained or replaced subject to such restrictions as the Secretary deems necessary to preserve the wilderness character of the area."

Section 1315 also allows the construction of new cabins and shelters if necessary for the protection of public health and safety. Appropriate congressional committees must be notified of the intention to remove existing or construct new public use cabins or shelters in wilderness.

Section 1310 provides, subject to reasonable regulation, for access to and the operation, maintenance, and establishment of air and water navigation aids, communications sites and related facilities, and facilities for weather, climate, and fisheries research and monitoring in wilderness areas.

Section 1316 provides that the secretary will permit, subject to reasonable regulations, temporary shelters and facilities on lands open to the taking of fish and wildlife except that the secretary may, subject to adequate notice, determine that such facilities consitute a significant expansion of existing facilities or are detrimental to unit purposes, including wilderness character, and thereupon deny such use.

I. Introduction

Section 810(a) of ANILCA states the following:

> In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease permit, or other use, occupany or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency
>
> > (a) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805; (2) gives notice of, and holds, a hearing in the vicinity of the area involved; and (3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

The purposes for which the park and preserve were established and will be managed are presented in Title II of ANILCA.

In addition, components of the national wild and scenic rivers system and the national wilderness preservation system are to be administered pursuant to the Wild and Scenic Rivers Act and the Wilderness Act, respectively, as amended by ANILCA (see wild river management and wilderness management discussions in the "Proposal" section for specific management provisions).

Subsistence uses are to be permitted in conservation system units in accordance with Title VIII of ANILCA. Section 102 defines the term "conservation system unit" to include any unit in Alaska of the national park system, national wild and scenic rivers system, and national wilderness preservation system.

II. Evaluation Factors

As directed by section 810(a) of ANILCA, the following three factors have been evaluated:

1. The effect on subsistence use or needs would be significant if:

   (a) there is likely to be a reduction in subsistence uses due to factors such as direct impacts on the resource, adverse impacts on habitat, or increased competition from nonrural harvesters.

   (b) there is likely to be a reduction in subsistence uses due to changes in availability of resources caused by an alteration in their distribution, migration, or location.

   (c) there is likely to be a reduction in subsistence uses due to limitations on the access to harvestable resources, such as by physical or legal barriers.

2. The availability of other lands that could be used for the proposed action, including an analysis of existing subsistence uses of those lands.

3. Alternatives that would reduce or eliminate the proposed action from lands needed for subsistence purposes.

III. Proposed Action on Federal Lands

The National Park Service is proposing to implement a general management plan for Gates of the Arctic National Park and Preserve that would guide management of the area for the next 5-10 years. The plan presents proposed approaches to management of natural resources, cultural resources, visitor use and development, land management, and administration.

IV. Alternatives Considered

1. The Proposal (preferred alternative C)
2. Minimum action (alternative A)
3. Management emphasis on known areas of high and concentrated use (alternative B)
4. Management emphasis on anticipation and prevention of problems through comprehensive research and intensive management of all park uses (alternative D)

V. Affected Environment

As described in the subsistence section of the "Affected Environment," Gates of the Arctic National Park and Preserve is part of a broader area used by local residents for subsistence. The total area of the park and preserve that may be effectively and efficiently used for subsistence purposes is relatively small. Much of the park is made up of rugged

mountains. While limited amounts of sheep harvest is possible on the rocky slopes, the great mass of mountainous terrain is marginally productive and inaccessible. The resource base, particularly in the northern half of the park, is thin and tends to be concentrated within narrow margins along valley floors. The following waterways are important for subsistence purposes: the Kobuk up to the lower canyon for hunting, fishing, and gathering; the Alatna to the mouth of the Unakseruk River for hunting moose and bear; and the John to the mouth of Wolverine Creek for hunting moose and bear. Winter is the time of greatest travel and resource use within the park area with the greatest amount of travel taking place from late February through early April. The residents of Anaktuvuk Pass travel by ATVs along designated easements to Chandler Lake for the purposes of netting fish, gathering edible vegetation, and hunting sheep, caribou, bear and marmot, and out toward Ernie Pass to hunt sheep and caribou. There are other areas of light subsistence use.

VI. Evaluation

In the determination of potential restrictions to existing subsistence activities, the evaluation criteria were analyzed relative to existing subsistence resources that could be affected. The draft general management plan and environmental assessment describe the total range of potential impacts that may occur. This section discusses any possible restrictions to subsistence activities.

1. (a) The potential to reduce populations, adversely impact habitat, or increase competition from nonrural harvesters

No significant declines in populations would result from implementation of any of the alternatives. Natural cycles in populations would be allowed to continue. The National Park Service would not attempt to artificially manipulate wildlife populations or habitat within the park and preserve.

Under alternative A, the possibility for adverse impacts on habitat is greater than under the other alternatives because there would not be a systematic approach to researching and monitoring the park's resources, including those habitats important to subsistence uses. Adverse impacts on habitat could go undetected until they reached a more serious or obvious stage. The likelihood of this happening is not considered significant in view of the minimal changes in resource conditions expected over the next 10 years. All of the other alternatives would provide varying degrees of research and monitoring programs that would enable the National Park Service to detect adverse impacts on habitats at early stages.

Increased competition from nonrural harvesters is possible in the preserve portions of Gates of the Arctic where sporthunting is allowed. Competition may occur from a growth of the number of eligible subsistence users.

Increased recreational use of the entire area including the preserve portions would occur under any of the alternatives. However, the

primary subsistence use periods occur in the winter, while the primary recreational use periods are in the summer and during hunting season in the fall. Therefore, the overlap between the two user groups is not great. In addition, in all of the alternatives except A, the National Park Service would manage recreational uses by placing limits on group sizes and on length of stay and number of groups at high use areas. Visitors and commercial guides would be provided information on subsistence activities including locations and seasons, and NPS personnel would monitor sensitive subsistence use areas. All of these actions would be designed to minimize interaction and thus conflict between subsistence users and recreational users.

The Subsistence Resource Commission will be examining the potential to reduce populations, adverse habitat impacts, and increased competition from nonrural harvesters as part of their subsistence hunting recommendations.

Conclusion: None of the alternatives including the proposed plan would result in a reduction in population of any harvestable resource, adversely impact habitat, or significantly increase competition from nonrural harvesters.

(b) Availability of subsistence resources

The distribution, migration patterns, and location of subsistence resources are expected to remain essentially the same under any of the alternatives. In all of the alternatives except A, the National Park Service would manage recreational uses (as described under (a) above) to minimize disturbance to wildlife including their distribution, migration routes, or location.

Conclusion: None of the alternatives including the proposed plan would result in changes in the availability of resources caused by an alteration in their distribution, migration, or location.

(c) Restriction of access

Under all alternatives, access to the preserve for subsistence purposes is guaranteed by section 811 of ANILCA. Regulations implementing section 811 are already in place, and none of the alternatives propose changes in those regulations.

Conclusion: None of the alternatives including the proposed plan would result in limitations on the access to harvestable resources.

2. Availability of other lands for the proposed action

There are no other lands available for this action because the park and preserve boundaries were established by Congress to achieve specific purposes. Local residents can and do use other lands outside the park and preserve for subsistence purposes. The proposed plan is consistent with the mandates of ANILCA, including Title VIII, and the National Park Service organic act.

3. Alternatives

No alternatives that would reduce or eliminate the proposed actions from lands needed for subsistence purposes were identified because preparation of a general management plan is required by ANILCA and the proposed plan is consistent with provisions of ANILCA related to subsistence.

VII. Consultation and Coordination

The Alaska Department of Fish and Game, Arctic Slope Regional Corporation, North Slope Borough, residents of Anaktuvuk Pass, and the Subsistence Resource Commission for the park were consulted specifically on subsistence throughout preparation of this plan. Further information on meetings and other contacts is contained in the "Consultation and Coordination Section."

VIII. Findings

Based on the above process and considering all the available information, this evaluation concludes that the action would not result in a significant restriction of subsistence uses within Gates of the Arctic National Park and Preserve.

APPENDIX G: CONSISTENCY DETERMINATION FOR ALASKA COASTAL MANAGEMENT PROGRAM

Section 307(c) of the Coastal Zone Management Act of 1972, as amended (PL 92-583), states that "each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state coastal management programs." Approximately 668,160 acres or 7.8 percent of Gates of the Arctic National Park and Preserve are within the NANA Coastal Resource Service Area. These lands are located in the southwestern "boot," along the upper Kobuk River and include Walker Lake.

The Alaska Coastal Management Act of 1977, as amended, and the subsequent Alaska Coastal Management Program (ACMP) and Final Environmental Impact Statement of 1979 set forth policy guidelines and standards to be used for review of projects. The NANA Coastal Resource Service Area is preparing a district program, but the program has not been approved by the state or the U.S. Department of Commerce. Therefore, the standards established by the state of Alaska are applicable to Gates of the Arctic National Park and Preserve.

The ACMP identifies 12 primary categories that are to be used in consistency evaluations. The basis of the following consistency determination is the environmental assessment that accompanies this draft general management plan for the Gates of the Arctic. The highlights of this assessment are organized in the format of the ACMP standards in the following consistency determination. This determination considers not only the elements of the proposed plan, but also the elements of alternative proposals in the draft plan that relate to coastal land and water uses.

The categories in the ACMP that are applicable to this plan are as follows:

Coastal development	*
Geophysical hazard areas	*
Recreation	*
Energy facilities	
Transportation and utilities	*
Fish and seafood processing	
Timber harvest and processing	
Mining and mineral processing	
Subsistence	*
Habitats	*
Air, land, and water quality	*
Historic, prehistoric, and archeological resources	*

* Applicable

The accompanying matrix evaluates the consistency of the plan alternatives with the requirements of each of the applicable categories identified.

Preferred ACMP Section	Policy	Other Alternatives	Evaluation of Consistency
6 AAC 80.040 Coastal Development	(a) In planning for and approving development in coastal areas, districts and state agencies will give, in the following order, priority to 1) water-dependent uses and activities, 2) water-related uses and activities, and 3) uses and activities that are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.	(a) All of the alternatives emphasize nondevelopment uses of the preserve (e.g., subsistence, dispersed recreation, research). Many of these activities are water-related and take place within a 2-mile corridor along the Kobuk River and at Walker Lake. Two small-scale administrative facilities (e.g., seasonal camps consisting of tents and caches) would be developed along the Kobuk River and at Walker Lake.	Consistent
	(b) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with CFR, Title 33, Parts 320-323, July 19, 1977.	(b) None of the alternatives propose discharging any dredged or fill material into coastal waters.	Consistent
6 AAC 80.050 Geophysical Hazard Areas	(a) Districts and state agencies will identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur. (b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.	None of the alternatives propose developments in any known geophysical hazard area.	Consistent
6 AAC 80.060 Recreation	(a) Districts will designate areas for recreational use. Criteria for designation of areas of recreational use are (1) The area receives significant use by persons engaging in recreational pursuits or is a major tourist destination, or (2) the area has potential for high quality recreational use because of physical, biological, or cultural features.	(a) Present recreational use of the area is small, but expected to grow at a rate of 7.3%/year. The park is recognized as one of the country's premier wilderness areas, and the national park designation was designed primarily to protect the wilderness opportunities. All of the alternatives recognize and would protect the preserve's potential for high quality, wilderness-type recreational opportunities related to its physical, biological, and cultural features.	Consistent
	(b) District and state agencies will give high priority to maintaining and, where appropriate, increasing public access to coastal water.	(b) The park preserve is not adjacent to any coastal waters, but does guarantee access to the upper Kobuk River and Walker Lake	Consistent
6 AAC 80.080 Transportation and Utilities	(a) Transportation and utility routes and facilities in the coastal area must be sited, designed, and constructed so as to be compatible with district programs.	When the park/preserve was established, a provision was made for a right-of-way to link the Alaska pipeline haul road to the Ambler mining district across the western Kobuk River preserve unit. Upon	Consistent

	(b) Transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.	receipt of any application for development of the right-of-way, environmental and economic analysis for the purposes of determining the the most desirable route in the right-of-way and other terms and conditions will be prepared.	
6 AAC 80.120 Subsistence	(a) Districts and state agencies will recognize and ensure opportunities for subsistence usage of coastal areas and resources. (b) Districts will identify areas in which subsistence is the dominant use of coastal resources. (c) Districts may, after consultation with appropriate state agencies, native corporations, and any other persons or groups, designate areas identified under (b) of this section as subsistence zones in which subsistence uses and activities have priority over all nonsubsistence uses and activities. (d) Before a potentially conflicting use of activities may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted, and appropriate safeguards to ensure subsistence usage must be provided. (e) Districts sharing migratory fish and game resources must submit compatible plans for habitat management.	The ANILCA section 810 subsistence evaluation (see appendix F) finds that none of the alternatives would result in a significant restriction of subsistence uses within the park/preserve.	Consistent
60 AAC 80.130 Habitats	(a) Habitats in the coastal area which are subject to the ACMP include (1) offshore areas, (2) estuaries, (3) wetlands and tidelands, (4) rocky islands and seacliffs, (5) barrier islands and lagoons, (6) exposed high energy coasts, (7) rivers, streams, and lakes, (8) important upland habitat. (b) The habitats contained in (a) of this section must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.	All of the alternatives would serve to maintain the integrity and biological health of habitats within the Coastal Resource Service Area by promoting research and monitoring programs, except alternative A. Under alternative A, the possibility for adverse impacts on habitat would be much greater than with the other alternatives because there would not be systematic research and monitoring. Adverse impacts on habitat could go undetected until they reached a more serious stage. The likelihood of this happening is not considered to be significant in view of minimal changes in resource conditions expected in the next 10 years.	Consistent
6 AAC 80.140 Air, Land, and Water Quality	The statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the ACMP.	All requirements would be met under all of the alternatives. Development of any facilities would require compliance with applicable federal and state laws and regulations regarding air, land, and water quality.	Consistent

6 AC 80.150 Historic, Prehistoric, and Archeological Resources	Districts and appropriate state agencies will identify areas of the coast that are important to the study, understanding, or illustration of national, state, or local history or prehistory.	In all alternatives, the National Park Service would survey, evaluate, and protect historical and archeological sites within the preserve as mandated by laws and regulations.	Consistent

DETERMINATION

The draft general management plan for Gates of the Arctic National Park and Preserve has been evaluated for consistency with the standards of the ACMP. The National Park Service has determined that the proposed plan conforms with all the requirements of the ACMP.

APPENDIX H: COMPLIANCE WITH OTHER LAWS, POLICIES, AND EXECUTIVE ORDERS

This section provides a reference to the applicable laws, executive orders, and policies that this planning project is required to address or comply with. In many cases compliance has already been discussed in the "Environmental Consequences of the Proposal and Alternatives" section, and the information is repeated here only to provide a comprehensive compliance discussion. Detailed discussions of the requirements of ANILCA and the federal regulations for national park system units in Alaska are included in appendixes B and J.

Natural Environment

Clean Air Act, Clean Water Act: None of the proposed actions would appreciably affect air or water quality within the park/preserve. All NPS facilities would meet or exceed state Department of Environmental Quality and EPA standards and regulations for proper waste disposal.

Rivers and Harbors Act: Permits from the U.S. Army Corps of Engineers for work in navigable waters of the United States would be obtained. However, no construction is planned in these waters.

Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands): Since no floodplain mapping exists for the park/preserve, the Park Service would assume worst-case conditions for placement of facilities. Development of new facilities would be preceded by site-specific analyses. No proposal would affect wetlands within the area.

Since there is little or no human habitation along the rivers in the park/preserve, the Corps of Engineers does not consider floodplain mapping within the area a high priority in Alaska.

Safe Drinking Water Act: The plan does not propose to provide any public drinking water within the park/preserve. However, at visitor contact areas established in Bettles, Anaktuvuk Pass, and Coldfoot, all drinking water will be treated to meet state and federal standards.

Endangered Species Act: Pursuant to section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service was contacted in March 1984 for a list of threatened and endangered plant and animal species that might occur within the park/preserve. In their response of March 28, 1984, the Fish and Wildlife Service stated that records indicate that arctic peregrine falcons as possibly passing through the area during migration. The candidate plant species Erigeron muirii and Oxytropis glaberrima have been reported from Anaktuvuk Pass and the Kurupa Lake area, respectively. Either or both may be present within the park/preserve.

Since no threatened or endangered species were identified as occurring within the area, no further consultation with the U.S. Fish and Wildlife Service is required under section 7.

Protection of Fish and Game and Waters Important to Anadromous Fish (Alaska State Statutes): Before undertaking any development or action that could have an effect on spawning and rearing habitat for anadromous fish in designated streams, the Park Service would request a Title 16 permit from the Alaska Department of Fish and Game.

Alaska Hunting, Trapping, and Fishing Regulations: All of these uses within either the park or preserve, whether for sport, subsistence, or commercial purposes, are subject to established laws. The Park Service will seek concurrent jurisdiction from the state to assist in enforcing game and fish laws within the park/preserve.

Alaska Coastal Management Program: A consistency determination has been prepared pursuant to the Alaska Coastal Management Act of 1977, as amended (see appendix G). Based on the findings of the consistency determination, the Park Service has determined that the proposal is consistent with the Alaska Coastal Management Program.

Cultural Resources

Antiquities Act, Historic Sites Act, National Historic Preservation Act, and Archeological Resources Protection Act: All actions will be in full compliance with appropriate cultural resource laws. All proposals and activities affecting or relating to cultural resources will be developed and executed with the active participation of professional historians, archeologists, anthropologists, and historical architects, in accordance with NPS "Management Policies" and "Cultural Resource Management Guidelines" (NPS-28). No undertaking that would result in the destruction or loss of known significant cultural resources is proposed in this plan.

In accordance with the September 1981 amendment to the 1979 programmatic memorandum of agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers, the Park Service has requested the advice and consultation of the Advisory Council and the Alaska historic preservation officer during the preparation of this plan. A meeting was held in Anchorage in April 1984 with the Alaska historic preservation office to discuss coordination and consultation procedures for this plan. The Advisory Council was provided a copy of the task directive for this plan. Another briefing was held with the Alaska historic preservation office in November 1984. The advice and consultation of these offices will continue to be requested as the plan progresses. The council and the state historic preservation officer have received copies of the draft plan for comment and will be invited to attend all future public meetings.

1982 National Park Service Native American Relationships Policy (derived from American Indian Religious Freedom Act of 1978): A thorough effort has been made to identify all native corporations and local native American groups and individuals who would be interested in participating in this planning effort and who have traditional ties with the park/preserve. The planning team has met with representatives of these

groups at various stages of the plan's development. These individuals and groups have been placed on the mailing list and will continue to be consulted, invited to all public meetings, and sent copies of all public information documents for review and comment.

Socioeconomic Environment

Concessions Policy Act: Concession permits will be issued in accordance with this act.

Architectural Barriers Act: All public facilities both inside and outside the park/preserve will be accessible by the handicapped to the extent possible.

SUBSISTENCE AND RECREATIONAL USE

Means of Access	Subsistence	Reference[1]	Recreation	Reference[1]	Changes Proposed in Plan
Snowmachines	Yes Except: A	ANILCA 811 36 CFR 13.46 13.30	Yes Except: A	ANILCA 1110 36 CFR 13.10 13.30	Allow local travel to and from villages and homesites on designated routes; prohibit general public use of snowmachines; no change to subsistence use or access to private land.
Offroad Vehicles	No	ANILCA 811 36 CFR 13.46	No	ANILCA 101 36 CFR 13.14 4.19	None
Motorboats	Yes Except: A	ANILCA 811 36 CFR 13.46 13.30	Yes Except: A	ANILCA 1110 36 CFR 13.11 Wild. Act Sec. 4(d)(1)[2] 13.30	Limit recreational use of motorboats to 10 horsepower on Walker Lake; prohibit recreational use of motorboats on other rivers and lakes; no change to subsistence or access to private land
Fixed-Wing Aircraft	No Except: C	ANILCA 811 36 CFR 13.45 13.64	Yes Except: A	ANILCA 1110 36 CFR 13.13 Wild: Act Sec. 4(d)(1)[2] 13.30	None
Helicopters	No	ANILCA 811 36 CFR 13.13 13.45	No Except: B	ANILCA 1110 36 CFR 13.13	None
Ultralights	No	ANILCA 811 36 CFR 2.17 13.45	No	ANILCA 1110 36 CFR 2.17 13.13	None
Pack Animals	Yes Except: A	ANILCA 811 36 CFR 13.46 13.30	Yes Except: A	ANILCA 1110 36 CFR 13.12 13.30	Limit recreational use of hoofed pack animals to eight per party and monitor closely; allow pack dogs under restraint; no change to subsistence or access to private land

Exceptions:

A. The superintendent may close an area or restrict an activity on an emergency, temporary, or permanent basis (36 CFR 13.30).
B. The use of a helicopter in any park area, other than at designated landing areas and pursuant to the terms and conditions of a permit issued by the superintendent, is prohibited (36 CFR 13.13(f)).
C. The use of fixed-wing aircraft for access for the purposes of taking fish and wildlife for subsistence is prohibited (36 CFR 13.13). In extraordinary cases local rural residents, in particular residents of Anaktuvuk Pass, may use aircraft on park lands for taking fish and wildlife in accordance with a permit issued by the superintendent (36 CFR 13.45, 13.64)).

Footnotes:

1. ANILCA refers to sections of the Alaska National Interest Lands Conservation Act of 1980; Part 13 of Title 36 of the Code of Federal Regulations (36 CFR 13), "National Park System Units in Alaska," is contained in appendix J.
2. Wilderness Act, section 4(d)(1) states in part "within wilderness areas . . . the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary . . . deems desirable."

OTHER ACCESS PROVISIONS

Provision	Reference	Changes Proposed in Plan
1. Access to Inholdings (Applies to holders of valid property or occupancy interest including mining claims) Ensures adequate and feasible access that will not cause significant adverse impacts on natural or other values or jeopardize public health and safety; under terms and conditions of permit from superintendent; mine must also have approved plan of operations for access.	ANILCA 1110 36 CFR 13.15 13.31	None
2. Temporary Access (Applies to state and private landowners not covered in sections 13.10 through 13.15) Superintendent will permit temporary access across a park area for survey, geophysical, exploratory, or similar temporary activities on nonfederal lands when determined that such access will not result in permanent harm to park area resources.	ANILCA 1111 36 CFR 13.16 13.31	None
3. Transportation and Utility Systems in and Across Conservation System Units Sets procedures for application and approval process; proposal must be compatible with purposes for which the unit was established and no economically feasible and prudent alternate route exists; establishes terms and conditions of rights-of-way.	ANILCA Title XI	None
4. RS 2477 The National Park Service is aware that the state might assert certain claims of rights-of-way under RS 2477. The Park Service intends to cooperate with the state (and any other claimant) in identifying these claims, the nature, extent, and validity of which may vary depending on the circumstances under which they were acquired or asserted. Notwithstanding that certain RS 2477 rights-of-way may exist, it will still be necessary for users of any right-of-way to comply with applicable NPS permit requirements.	43 U.S.C.	None
5. Navigation Aids and Other Facilities Access is provided to existing air and water navigation aids, communication sites, and facilities for weather, climate, and fisheries research and monitoring, subject to reasonable regulation. Access is also provided to facilities for national defense purposes.	ANILCA 1310	None

6.	Alaska Department of Fish and Game The National Park Service recognizes the right of the department to enter onto park lands after timely notification to conduct routine management activities that do not involve construction, disturbance to the land, or alterations of ecosystems.	NPS/ADF&G Memorandum of Understanding	None
7.	Alaska Mineral Resource Assessment Program Allows for access for assessment activities for USGS and their designated agents permitted by ANILCA section 1010 subject to regulations ensuring that such activities are carried out in an environmentally sound manner.	ANILCA 1010	None
8.	General Research The superintendent may permit the use of helicopters for research activities subject to terms and conditions prescribed by the superintendent.	ANICLA 1110 36 CFR 13.13 13.31	Research and activities must meet stipulations and helicopter must be minimum tool.
9.	Surface Transportation Route Across Western (Kobuk River) Unit of Preserve Access for a surface transportation route is to be permitted in accordance with the provision of section 201(4) of ANILCA.	ANILCA 201(4)	None

PART 13—NATIONAL PARK SYSTEM UNITS IN ALASKA

Subpart A—Public Use and Recreation

Subpart B—Subsistence

Subpart C—Special Regulations—Specific Park Areas in Alaska

Authority: Sec. 3 of the Act of August 15, 1916 (39 Stat. 535, as amended (16 U.S.C. 3); 16 U.S.C. 1, 1a–1, 1c, 462); Alaska National Interest Lands Conservation Act (ANILCA), 94 Stat. 2371 and 1281; Pub. L. No. 96–487 (December 2, 1980); and the Paperwork Reduction Act of 1980, 94 Stat. 2812, Pub. L. No. 96–511.

Subpart A—Public Use and Recreation

§ 13.1 Definitions.

The following definitions shall apply to all regulations contained in this part:

(a) The term "adequate and feasible access" means a reasonable method and route of pedestrian or vehicular transportation which is economically practicable for achieving the use or development desired by the applicant on his/her non-federal land or occupancy interest, but does not necessarily mean the least costly alternative.

(b) The term "aircraft" means a machine or device that is used or intended to be used to carry persons or objects in flight through the air, including, but not limited to airplanes, helicopters and gliders.

(c) The term "ANILCA" means the Alaska National Interest Lands Conservation Act (94 Stat. 2371; Pub. L. 96–487 (December 2, 1980)).

(d) The term "carry" means to wear, bear or carry on or about the person and additionally, in the case of firearms, within or upon a device or animal used for transportation.

(e) The term "downed aircraft" means an aircraft that as a result of mechanical failure or accident cannot take off.

(f) The term "firearm" means any loaded or unloaded pistol, revolver, rifle, shotgun or other weapon which will or is designated to or may readily be converted to expel a projectile by the action of expanded gases, except that it does not include a pistol or rifle powered by compressed gas. The term "firearm" also includes irritant gas devices.

(g) The term "fish and wildlife" means any member of the animal kingdom,

including without limitation any mammal, fish, bird (including any migratory, nonmigratory or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod, or other invertebrate, and includes any part, produce, egg, or offspring thereof, or the dead body or part thereof.

(h) The term "fossil" means any remains, impression, or trace of any animal or plant of past geological ages that has been preserved, by natural processes, in the earth's crust.

(i) The term "gemstone" means a silica or igneous mineral including, but not limited to (1) geodes, (2) petrified wood, and (3) jade, agate, opal, garnet, or other mineral that when cut and polished is customarily used as jewelry or other ornament.

(j) The term "National Preserve" shall include the following areas of the National Park System:

Alagnak National Wild and Scenic River, Aniakchak National Preserve, Bering Land Bridge National Preserve, Denali National Preserve, Gates of the Arctic National Preserve, Glacier Bay National Preserve, Katmai National Preserve, Lake Clark National Preserve, Noatak National Preserve, Wrangell-St. Elias National Preserve, and Yukon-Charley National Preserve.

(k) The term "net" means a seine, weir, net wire, fish trap, or other implement designed to entrap fish, except a landing net.

(l) The term "off-road vehicle" means any motor vehicle designed for or capable of crosscountry travel on or immediately over land, water, sand, snow, ice, marsh, wetland or other natural terrain, except snowmachines or snowmobiles as defined in this chapter.

(m) The term "park areas" means lands and waters administered by the National Park Service within the State of Alaska.

(n) The term "person" means any individual, firm, corporation, society, association, partnership, or any private or public body.

(o) The term "possession" means exercising dominion or control, with or without ownership, over weapons, traps, nets or other property.

(p) The term "public lands" means lands situated in Alaska which are federally owned lands, except—

(1) land selections of the State of Alaska which have been tentatively approved or validly selected under the Alaska Statehood Act (72 Stat. 339) and lands which have been confirmed to, validly selected by, or granted to the Territory of Alaska or the State under any other provision of Federal law;

(2) land selections of a Native Corporation made under the Alaska Native Claims Settlement Act (85 Stat. 688) which have not been conveyed to a Native Corporation, unless any such selection is determined to be invalid or is relinquished; and

(3) lands referred to in section 19(b) of the Alaska Native Claims Settlement Act.

(q) The term "snowmachine" or "snowmobile" means a self-propelled vehicle intended for off-road travel primarily on snow having a curb weight of not more than 1,000 pounds (450 kg), driven by a track or tracks in contact with the snow and steered by a ski or skis on contact with the snow.

(r) The term "Superintendent" means any National Park Service official in charge of a park area, the Alaska Regional Director of the National Park Service, or an authorized representative of either.

(s) The term "take" or "taking" as used with respect to fish and wildlife, means to pursue, hunt, shoot, trap, net, capture, collect, kill, harm, or attempt to engage in any such conduct.

(t) The term "temporary" means a continuous period of time not to exceed 12 months, except as specifically provided otherwise.

(u) The term "trap" means a snare, trap, mesh, or other implement designed to entrap animals other than fish.

(v) The term "unload" means there is no unexpended shell or cartridge in the chamber or magazine of a firearm; bows, crossbows and spearguns are stored in such a manner as to prevent their ready use; muzzle-loading weapons do not contain a powder charge; and any other implement capable of discharging a missile into the air or under the water does not contain a missile or similar device within the loading or discharging mechanism.

(w) The term "weapon" means a firearm, compressed gas or spring powered pistol or rifle, bow and arrow, crossbow, blow gun, speargun, hand thrown spear, slingshot, explosive device, or any other implement designed to discharge missiles into the air or under the water.

§ 13.2 Applicability and scope.

(a) The regulations contained in this Part 13 are prescribed for the proper use and management of park areas in Alaska and supplement the general regulations of this chapter. The general regulations contained in this chapter are applicable except as modified by this Part 13.

(b) Subpart A of this Part 13 contains regulations applicable to park areas. Such regulations amend in part the general regulations contained in this chapter. The regulations in Subpart A govern use and management, including subsistence activities, within the park areas, except as modified by Subparts B or C.

(c) Subpart B of this Part 13 contains regulations applicable to subsistence activities. Such regulations apply to park areas except Kenai Fjords National Park, Katmai National Park, Glacier Bay National Park, Klondike Gold Rush National Historical Park, Sitka National Historical Park, and parts of Denali National Park. The regulations in Subpart B amend in part the general regulations contained in this chapter and the regulations contained in Subpart A of this Part 13.

(d) Subpart C of this Part 13 contains special regulations for specific park areas. Such regulations amend in part the general regulations contained in this chapter and the regulations contained in Subparts A and B of this Part 13.

(e) The regulations contained in this Part 13 are applicable only on federally owned lands within the boundaries of any park area. For purposes of this part, "federally owned lands" means land interests held or retained by the United States, but does not include those land interests: (1) Tentatively approved, legislatively conveyed, or patented to the State of Alaska; or (2) interim conveyed or patented to a Native Corporation or person.

§ 13.3 Penalties.

Any person convicted of violating any provision of the regulations contained in this Part 13, or as the same may be amended or supplemented, may be punished by a fine not exceeding $500 or by imprisonment not exceeding 6 months, or both, and may be adjudged to pay all costs of the proceedings (16 U.S.C. 3).

§ 13.4 Information collection.

The information collection requirements contained in §§ 13.13, 13.14, 13.15, 13.16, 13.17, 13.31, 13.44, 13.45, 13.49, and 13.51 have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned clearance number 1024–0015. The information is being collected to solicit information necessary for the Superintendent to issue permits and other benefits. This information will be used to grant statutory or administrative benefits. In all sections except 13.13, the obligation to respond is required to obtain a benefit. In § 13.13, the obligation to respond is mandatory.

§ 13.10 Snowmachines.

(a) The use of snowmachines (during periods of adequate snow cover or frozen river conditions) for traditional activities (where such activities are permitted by ANILCA or other law) and for travel to and from villages and homesites, is permitted within park areas, except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30. Nothing in this section affects the use of snowmobiles by local rural residents engaged in subsistence uses as authorized by § 13.46.

(b) For the purposes of this section "adequate snow cover" shall mean snow of sufficient depth to protect the underlying vegetation and soil.

§ 13.11 Motorboats.

Motorboats may be operated on all park area waters, except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30, or § 7.23(b)–(f) of this chapter. Nothing in this section affects the use of motorboats by local rural residents engaged in subsistence uses as authorized by § 13.46.

§ 13.12 Nonmotorized surface transportation.

The use of nonmotorized surface transportation such as domestic dogs, horses and other pack or saddle animals is permitted in park areas except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30. Nothing in this section affects the use of nonmotorized surface transportation by local rural residents engaged in subsistence uses as authorized by § 13.46.

§ 13.13 Aircraft.

(a) Fixed-wing aircraft may be landed and operated on lands and waters within park areas, except where such use is prohibited or otherwise restricted by the Superintendent in accordance with this section. The use of aircraft for access to or from lands and waters within a national park or monument for purposes of taking fish and wildlife for subsistence uses therein is prohibited as set forth in §13.45.

(b) In imposing any prohibitions or restrictions on fixed-wing aircraft use the Superintendent shall: (1) Comply with the procedures set forth in § 13.30; (2) publish notice of prohibitions or restrictions as "Notices to Airmen" issued by the Department of Transportation; and (3) publish permanent prohibitions or restrictions as a regulatory notice in the United States Government Flight Information Service "Supplement Alaska."

(c) Except as provided in paragraph (d) of this section, the owners of any aircraft downed after December 2, 1980, shall remove the aircraft and all component parts thereof in accordance with procedures established by the Superintendent. In establishing a removal procedure, the Superintendent is authorized to: (1) Establish a reasonable date by which aircraft removal operations must be complete; and (2) determine times and means of access to and from the downed aircraft.

(d) The Superintendent may waive the requirements of § 13.12(c) upon a determination that: (1) The removal of downed aircraft would constitute an unacceptable risk to human life; or (2) the removal of a downed aircraft would result in extensive resource damage; or (3) the removal of a downed aircraft is otherwise impracticable or impossible.

(e) Salvaging, removing, posessing, or attempting to salvage, remove or possess any downed aircraft or component parts thereof is prohibited, except in accordance with a removal procedure established under paragraph (c) of this section. *Provided, however,* That the owner or an authorized representative thereof may remove valuable component parts from a downed aircraft at the time of rescue without a permit.

(f) The use of a helicopter in any park area, other than at designated landing areas (*see* Subpart C regulations for each park area) pursuant to the terms and conditions of a permit issued by the Superintendent, is prohibited.

§ 13.14 Off-road vehicles.

(a) The use of off-road vehicles in locations other than established roads and parking areas is prohibited, except on routes or in areas designated by the Superintendent or pursuant to a valid permit as prescribed in paragraph (c) of this section or in § 13.15 or § 13.16. Such designations shall be made in accordance with procedures in this section. Nothing in this section affects the use of off-road vehicles by local rural residents engaged in subsistence as authorized by § 13.46.

(b)(1) The Superintendent's determination of whether to designate a route or area for off-road vehicle use shall be governed by Executive Order 11644, as amended.

(2) Route or area designations shall be published in the "Federal Register."

(3) Notice of routes or areas on which off-road travel is permitted shall be in accordance with the provisions of § 13.30(f).

(4) The closure or restrictions on use of designated routes or areas to off-road vehicles use shall be in accordance with the provisions of § 13.30.

(c) The Superintendent is authorized to issue permits for the use of off-road vehicles on existing off-road vehicle trails located in park areas (other than areas designated as part of the National Wilderness Preservation System) upon a finding that such off-road vehicle use would be compatible with park purposes and values. The Superintendent shall include in any permit such stipulations and conditions as are necessary for the protection of park purposes and values.

§ 13.15 Access to inholdings.

(a) *Purpose.* A permit for access to inholdings pursuant to this section is required only where adequate and feasible access is not affirmatively provided without a permit under §§ 13.10–13.14 of these regulations. Thus, it is the purpose of this section to ensure adequate and feasible access across a park area for any person who has a valid property or occupancy interest in lands within or effectively surrounded by a park area or other lands listed in section 1110(b) of ANILCA.

(b) *Application and Administration.* (1) Applications for a permit designating methods and routes of access across park areas not affirmatively provided for in this part shall be submitted to the Superintendent having jurisdiction over the affected park area as specified under § 13.31.

(2) Except as provided in paragraph (c) of this section, the access permit application shall contain the name and address of the applicant, documentation of the relevant property or occupancy interest held by the applicant (including for 1872 Mining Law claimants a copy of the location notice and recordations required under the 1872 Mining Law and 43 U.S.C. 1744), a map or physical description of the relevant property or occupancy interest, a map or physical description of the desired route of access, a description of the desired method of access, and any other information necessary to determine the adequacy and feasibility of the route or method of access and its impact on the natural or other values of the park area.

(3) The Superintendent shall specify in a nontransferable permit, adequate and feasible routes and methods of access across park areas for any person who meets the criteria of paragraph (a) of this section. The Superintendent shall designate the routes and methods desired by the applicant unless it is determined that:

(i) The route or method of access would cause significant adverse impacts on natural or other values of the park area, and adequate and feasible access otherwise exists; or

(ii) The route or method of access would jeopardize public health and safety, and adequate and feasible access otherwise exists.

(4) If the Superintendent makes one of the findings described in paragraph (b)(3) of this section, he/she shall specify such other alternate methods and routes of access as will provide the applicant adequate and feasible access, while minimizing damage to natural and other values of the park area.

(5) Any person holding an access permit shall notify the Superintendent of any significant change in the method or level of access from that occurring at the time of permit issuance. In such cases, the Superintendent may modify the terms and conditions of the permit, provided that the modified permit also assures adequate and feasible access under the standards of paragraph (b)(3) of this section.

(6) Routes and methods of access permitted pursuant to this section shall be available for use by guests and invitees of the permittee.

(c) *Access requiring permanent improvements.* (1) Application form and procedure. Any application for access to an inholding which proposes the construction or modification of an improved road (*e.g.*, construction or modification of a permanent, year-round nature, and which involves substantial alteration of the terrain or vegetation, such as grading, gravelling of surfaces, concrete bridges, or other such construction or modification), or any other permanent improvement on park area lands qualifying as a "transportation or utility system" under Section 1102 of ANILCA, shall be submitted on the consolidated application form specified in Section 1104(h) of ANILCA, and processed in accordance with the procedures of Title XI of ANILCA.

(2) Decision-making standard. (i) If the permanent improvement is required for adequate and feasible access to the inholding (*e.g.*, improved right-of-way or landing strip), the permit granting standards of paragraph (b) of this section shall apply.

(ii) If the permanent improvement is not required as part of the applicant's right to adequate and feasible access to an inholding (*e.g.*, pipeline, transmission line), the permit granting standards of Sections 1104–1107 of ANILCA shall apply.

(d) *Clarification of the Applicability of 36 CFR Part 9.* (1) 1872 Mining Law Claims and 36 CFR Subpart 9A. Since section 1110(b) of ANILCA guarantees adequate and feasible access to valid mining claims within park areas notwithstanding any other law, and since the 36 CFR 9.3 requirement for an approved plan of operations prior to the issuance of an access permit may interfere with needed access, 36 CFR 9.3 is no longer applicable in Alaska park areas. However, holders of patented or unpatented mining claims under the 1872 Mining Law (30 U.S.C. 22 *et seq.*) should be aware that 36 CFR 9.9, 9.10 independently require an approved plan of operations prior to conducting mining operations within a park area (except that no plan of operations is required for patented claims where access is not across federally-owned parklands).

(2) Non-Federal Oil and Gas Rights and 36 CFR Subpart 9B. Since section 1110(b) of ANILCA guarantees adequate and feasible access to park area inholdings notwithstanding any other law, and since 36 CFR Subpart 9B was predicated on the park area Superintendent's discretion to restrict and condition such access, 36 CFR Subpart 9B is no longer applicable in Alaska park areas.

§ 13.16 Temporary access.

(a) *Applicability.* This section is applicable to State and private landowners who desire temporary access across a park area for the purposes of survey, geophysical, exploratory and other temporary uses of such nonfederal lands, and where such temporary access is not affirmatively provided for in §§ 13.10–13.15. State and private landowners meeting the criteria of § 13.15(a) are directed to utilize the procedures of § 13.15 to obtain temporary access.

(b) *Application.* A landowner requiring temporary access across a park area for survey, geophysical, exploratory or similar temporary activities shall apply to the Superintendent for an access permit and shall provide the relevant information described in section 13.15(b)(2), concerning the proposed access.

(c) *Permit standards, stipulations and conditions.* The Superintendent shall grant the desired temporary access whenever he/she determines that such access will not result in permanent harm to park area resources. The Superintendent shall include in any permit granted such stipulations and conditions on temporary access as are necessary to ensure that the access granted would not be inconsistent with the purposes for which the park area was reserved and to ensure that no permanent harm will result to park area resources.

(d) *Definition.* For the purposes of this section, "temporary access" shall mean limited, short-term (*i.e.*, up to on year from issuance of the permit) access, which does not require permanent facilities for access, to undeveloped State or private lands.

§ 13.17 Cabins and other structures.

(a) *Purpose.* It is the purpose of this section to provide procedures and guidance for those occupying and using existing cabins and those wishing to construct new cabins within park areas.

(b) *Existing cabins or other structures.* (1) This subsection applies to all park areas in Alaska except Klondike Gold Rush National Historical Park, Sitka National Historical Park and the former Mt. McKinley National Park, Glacier Bay National Monument and Katmai National Monument.

(2) Cabins or other structures existing prior to December 18, 1973, may be occupied and used by the claimants to these structures pursuant to a nontransferable, renewable permit. This use and occupancy shall be for terms of five years. *Provided, however,* That the claimant to the structure, by application:

(i) Reasonably demonstrates by affidavit, bill of sale or other documentation proof of possessory interest or right of occupancy in the cabin or structure;

(ii) Submits an acceptable photograph or sketch which accurately depicts the cabin or structure and a map showing its geographic location;

(iii) Agrees to vacate and remove all personal property from the cabin or structure upon expiration of the permit;

(iv) Acknowledges in the permit that he/she has no interest in the real property on which the cabin or structure is located; and

(v) Submits a listing of the names of all immediate family members residing in the cabin or structure.

Permits issued under the provisions of this paragraph shall be renewed every five years until the death of the last immediate family member of the claimant residing in the cabin or structure under permit. Renewal will occur unless the Superintendent determines after notice and hearing, and on the basis of substantial evidence in the administrative record as a whole, that the use under the permit is causing or may cause significant detriment to the principal purposes for which the park area was established. The Superintendent's decision may be appealed pursuant to the provisions of 43 CFR 4.700.

(3) Cabins or other structures, the occupancy or use of which began between December 18, 1973, and December 1, 1978, may be used and occupied by the claimant to these structures pursuant to a nontransferable, nonrenewable permit. This use and occupancy shall be for a maximum term of 1 year: *Provided, however,* That the claimant, by application, complies with § 13.17(c)(1) (i) through (iv) above. Permits issued under the provisions of this paragraph may be extended by the Superintendent, subject to reasonable regulations, for a period not to exceed one year for such reasons as the Superintendent deems equitable and just.

(4) Cabins or other structures, construction of which began after December 1, 1978, shall not be available for use and occupancy, unless authorized under the provisions of paragraph (d) of this section.

(5) Cabins or other structures, not under permit, shall be used only for official government business: *Provided, however,* That during emergencies involving the safety of human life, or where designated for public use by the Superintendent through the posting of signs, these cabins may be used by the general public.

(c) *New Cabins or Other Structures Necessary for Subsistence Uses or Otherwise Authorized by Law.* The Superintendent may issue a permit under such conditions as he/she may prescribe for the construction, reconstruction, temporary use, occupancy, and maintenance of new cabins or other structures when he/she determines that the use is necessary to accommodate reasonably subsistence uses or is otherwise authorized by law. In determining whether to permit the use, occupancy, construction, reconstruction or maintenance of cabins or other structures, the Superintendent shall be guided by factors such as other public uses, public health and safety, environmental and resource protection, research activities, protection of cultural or scientific values, subsistence uses, endangered or threatened species conservation and other management considerations necessary to ensure that the activities authorized pursuant to this section are compatible with the purposes for which the park area was established.

(d) *Existing Cabin Leases or Permits.* Nothing in this section shall preclude the renewal or continuation of valid leases or permits in effect as of December 2, 1980, for cabins, homesites, or similar structures on federally owned lands. Unless the Superintendent issues specific findings, following notice and an opportunity for the leaseholder or permittee to respond, that renewal or continuation of such valid permit or lease constitutes a direct threat or a significant impairment to the purposes for which the park area was established, he/she shall renew such valid leases or permits upon their expiration in accordance with the provisions of the original lease or permit subject to such reasonable regulations as he/she prescribe in keeping with the management objectives of the park area. Subject to the provisions of the original lease or permit, nothing in this paragraph shall necessarily preclude the Superintendent from transferring such a lease or permit to another person at the election or death of the original permittee or leasee.

§ 13.18 Camping and picnicking.

(a) *Camping.* Camping is permitted in park areas except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30, or as set forth for specific park areas in Subpart C of this part.

(b) *Picnicking.* Picnicking is permitted in park areas except where such activity is prohibited by the posting of appropriate signs.

§ 13.19 Weapons, traps and nets.

(a) This section applies to all park areas in Alaska except Klondike Gold Rush National Historical Park, Sitka National Historical Park and the former Mt. McKinley National Park, Glacier Bay National Monument and Katmai National Monument.

(b) Firearms may be carried within park areas in accordance with applicable Federal and State laws, except where such carrying is prohibited or otherwise restricted pursuant to § 13.30.

(c) Traps, bows and other implements authorized by State and Federal law for the taking of fish and wildlife may be carried within National Preserves only during those times when the taking of fish and wildlife is authorized by applicable law or regulation.

(d) In addition to the authorities provided in paragraphs (b) and (c) of this section, weapons (other than firearms) traps and nets may be possessed within park areas provided such weapons, traps or nets are within or upon a device or animal used for transportation and are unloaded and cased or otherwise packed in such a manner as to prevent their ready use while in a park area.

(e) Notwithstanding the provisions of this section, local rural residents who are authorized to engage in subsistence uses, including the taking of wildlife pursuant to § 13.48, may use, possess, or carry traps, nets and other weapons in accordance with applicable State and Federal laws.

§ 13.20 Preservation of natural features.

(a) This section applies to all park areas in Alaska except Klondike Gold Rush National Historical Park, Sitka National Historical Park, the former Mt. McKinley National Park, Glacier Bay National Monument, and Katmai National Monument.

(b) *Renewable Resources.* The gathering or collecting, by hand and for personal use only, of the following renewable resources is permitted:

(1) Natural plant food items, including fruits, berries and mushrooms, but not including threatened or endangered species;

(2) Driftwood and uninhabited seashells;

(3) Such plant materials and minerals as are essential to the conduct of traditional ceremonies by Native Americans; and

(4) Dead or downed wood for use in fires within park areas.

(c) *Rocks and Minerals.* Surface collection, by hand (including hand-held gold pans) and for personal recreational use only, of rocks and minerals is permitted: *Provided, however,* That (1) collection of silver, platinum, gemstones and fossils is prohibited, and (2) collection methods which may result in disturbance of the ground surface, such as the use of shovels, pickaxes, sluice boxes, and dredges, are prohibited.

(d) *Closure and Notice.* Under conditions where it is found that significant adverse impact on park resources, wildlife populations, subsistence uses, or visitor enjoyment of resources will result, the Superintendent shall prohibit the gathering or otherwise restrict the collecting of these items. Portions of a park area in which closures or restrictions apply shall be (1) published in at least one newspaper of general circulation in the State and designated on a map which shall be available for public inspection in the office of the Superintendent, or (2) designated by the posting of appropriate signs, or (3) both.

(e) *Subsistence.* Nothing in this section shall apply to local rural residents authorized to take renewable resources.

§ 13.21 Taking of fish and wildlife.

(a) *Subsistence.* Nothing in this section shall apply to the taking of fish and wildlife for subsistence uses.

(b) *Fishing.* Fishing is permitted in all park areas in accordance with applicable State and Federal law, and such laws are hereby adopted and made a part of these regulations to the extent they are not inconsistent with § 2.13 of this chapter. With respect to the Cape Krusenstern National Monument, the Malaspina Glacier Forelands area of the Wrangell-St. Elias National Preserve, and the Dry Bay area of Glacier Bay National Preserve, the exercise of valid commercial fishing rights or privileges obtained pursuant to existing law—including any use of park area lands for campsites, cabins, motorized vehicles, and aircraft landings on existing airstrips which is directly incident to the exercise of such rights or privileges—may continue: *Provided, however,* That the Superintendent may restrict the use of park area lands directly incident to the exercise of these rights or privileges if he/she determines, after conducting a public hearing in the affected locality, that such use of park area lands constitutes a significant expansion of the use of park area lands beyond the level of such use during 1979.

(c) *Hunting and Trapping.* Hunting and trapping are permitted in all National Preserves in accordance with applicable State and Federal law, and such laws are hereby adopted and made a part of these regulations: *Provided, however,* That engaging in trapping activities, as the employee of another person is prohibited.

(d) *Closures and Restrictions.* The Superintendent may prohibit or restrict the taking of fish or wildlife in accordance with the provisions of § 13.30. Except in emergency conditions, such restrictions shall take effect only after consultation with the appropriate State agency having responsibility over fishing, hunting, or trapping and representatives of affected users.

§ 13.22 Unattended or abandoned property.

(a) This section applies to all park areas in Alaska except Klondike Gold Rush National Historical Park and Sitka National Historical Park, or as further restricted for specific park areas in Subpart C of this part.

(b) Leaving any snowmachine, vessel, off-road vehicle or other personal property unattended for longer than 12 months without prior permission of the Superintendent is prohibited, and any property so left may be impounded by the Superintendent.

(c) The Superintendent may (1) designate areas where personal property may not be left unattended for any time period, (2) establish limits on the amount, and type of personal property that may be left unattended, (3) prescribe the manner in which personal property may be left unattended, or (4) establish limits on the length of time personal property may be left unattended. Such designations and restrictions shall be (i) published in at least one newspaper of general circulation within the State, posted at community post offices within the vicinity affected, made available for broadcast on local radio stations in a manner reasonably calculated to inform residents in the affected community, and designated on a map which shall be available for public inspection at the office of the Superintendent, or (ii) designated by the posting of appropriate signs or (iii) both.

(d) In the event unattended property interferes with the safe and orderly management of a park area or is causing damage to the resources of the area, it may be impounded by the Superintendent at any time.

§ 13.30 Closure procedures.

(a) *Authority.* The Superintendent may close an area or restrict an activity on an emergency, temporary, or permanent basis.

(b) *Criteria.* In determining whether to close an area or restrict an activity on an emergency basis, the Superintendent shall be guided by factors such as public health and safety, resource protection, protection of cultural or scientific values, subsistence uses, endangered or threatened species conservation, and other management considerations necessary to ensure that the activity or area is being managed in a manner compatible with the purposes for which the park area was established.

(c) *Emergency Closures.* (1) Emergency closures or restrictions relating to the use of aircraft, snowmachines, motorboats, or nonmotorized surface transportation shall be made after notice and hearing; (2) emergency closures or restrictions relating to the taking of fish and wildlife shall be accompanied by notice and hearing; (3) other emergency closures shall become effective upon notice as prescribed in § 13.30(f); and (4) no emergency closure or restriction shall extend for a period exceeding 30 days, nor may it be extended.

(d) *Temporary closures or restrictions.* (1) Temporary closures or restrictions relating to the use of aircraft, snowmachines, motorboats, or nonmotorized surface transportation or to the taking of fish and wildlife, shall not be effective prior to notice and hearing in the vicinity of the area(s) directly affected by such closures or restrictions, and other locations as appropriate; (2) other temporary closures shall be effective upon notice as prescribed in § 13.30(f); (3) temporary closures or restrictions shall not extend for a period exceeding 12 months and may not be extended.

(e) *Permanent closures or restrictions.* Permanent closures or restrictions shall be published as rulemaking in the **Federal Register** with a minimum public comment period of 60 days and shall be accompanied by public hearings in the area affected and other locations as appropriate.

(f) *Notice.* Emergency, temporary and permanent closures or restrictions shall be (1) published in at least one newspaper of general circulation in the State and in at least one local newspaper if available, posted at community post offices within the vicinity affected, made available for broadcast on local radio stations in a manner reasonably calculated to inform residents in the affected vicinity, and designated on a map which shall be available for public inspection at the office of the Superintendent and other places convenient to the public; or (2) designated by the posting of appropriate signs; or (3) both.

(g) *Openings.* In determining whether to open an area to public use or activity otherwise prohibited, the Superintendent shall provide notice in the **Federal Register** and shall, upon request, hold a hearing in the affected vicinity and other locations as appropriate prior to making a final determination.

(h) Except as otherwise specifically permitted under the provisions of this part, entry into closed areas or failure to abide by restrictions established under this section is prohibited.

§ 13.31 Permits.

(a) *Application.* (1) Application for a permit required by any section of this part shall be submitted to the Superintendent having jurisdiction over the affected park area, or in the absence of the Superintendent, the Regional Director. If the applicant is unable or does not wish to submit the application in written form, the Superintendent shall provide the applicant an opportunity to present the application orally and shall keep a record of such oral application.

(2) The Superintendent shall grant or deny the application in writing within 45 days. If this deadline cannot be met for good cause, the Superintendent shall so notify the applicant in writing. If the permit application is denied, the Superintendent shall specify in writing the reasons for the denial.

(b) *Denial and appeal procedures.* (1) An applicant whose application for a permit, required pursuant to this part, has been denied by the Superintendent has the right to have the application reconsidered by the Regional Director by contacting him/her within 180 days of the issuance of the denial. For purposes of reconsideration, the permit applicant shall present the following information:

(i) Any statement or documentation, in addition to that included in the initial application, which demonstrates that the applicant satisfies the criteria set forth in the section under which the permit application is made.

(ii) The basis for the permit applicant's disagreement with the Superintendent's findings and conclusions; and

(iii) Whether or not the permit applicant requests an informal hearing before the Regional Director.

(2) The Regional Director shall provide a hearing if requested by the applicant. After consideration of the written materials and oral hearing, if any, and within a reasonable period of time, the Regional Director shall affirm, reverse, or modify the denial of the Superintendent and shall set forth in writing the basis for the decision. A copy of the decision shall be forwarded promptly to the applicant and shall constitute final agency action.

Subpart B—Subsistence

§ 13.40 Purpose and policy.

(a) Consistent with the management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each park area was established, designated, or expanded by ANILCA, the purpose of this subpart is to provide the opportunity for local rural residents engaged in a subsistence way of life to do so pursuant to applicable State and Federal law.

(b) Consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of park areas is to cause the least adverse impact possible on local rural residents who depend upon subsistence uses of the resources of the public lands in Alaska.

(c) Nonwasteful subsistence uses of fish, wildlife and other renewable resources by local rural residents shall be the priority consumptive uses of such resources over any other consumptive uses permitted within park areas pursuant to applicable State and Federal law.

(d) Whenever it is necessary to restrict the taking of a fish or wildlife population within a park area for subsistence uses in order to assure the continued viability of such population or to continue subsistence uses of such population, the population shall be allocated among local rural residents engaged in subsistence uses in accordance with a subsistence priority system based on the following criteria:

(1) Customary and direct dependence upon the resource as the mainstay of one's livelihood;

(2) Local residency; and

(3) Availability of alternative resources.

(e) The State of Alaska is authorized to regulate the taking of fish and wildlife for subsistence uses within park areas to the extent such regulation is consistent with applicable Federal law, including but not limited to ANILCA.

(f) Nothing in this subpart shall be construed as permitting a level of subsistence use of fish and wildlife within park areas to be inconsistent with the conservation of healthy populations, and within a national park or monument to be inconsistent with the conservation of natural and healthy populations, of fish and wildlife.

§ 13.41 Applicability.

Subsistence uses by local rural residents are allowed pursuant to the regulations of this Subpart in the following park areas:

(a) In national preserves;

(b) In Cape Krusenstern National Monument and Kobuk Valley National Park;

(c) Where such uses are traditional (as may be further designated for each park or monument in Subpart C of this part) in Aniakchak National Monument, Gates of the Arctic National Park, Lake Clark National Park, Wrangell-St. Elias National Park, and the Denali National Park addition.

§ 13.42 Definitions.

(a) *Local rural resident.* (1) As used in this part with respect to national parks and monuments, the term "local rural resident" shall mean either of the following:

(i) Any person who has his/her primary, permanent home within the resident zone as defined by this section, and whenever absent from this primary, permanent home, has the intention of returning to it. Factors demonstrating the location of a person's primary, permanent home may include, but are not limited to, the permanent address indicated on licenses issued by the State of Alaska Department of Fish and Game, driver's license, and tax returns, and the location of registration to vote.

(ii) Any person authorized to engage in subsistence uses in a national park or monument by a subsistence permit issued pursuant to § 13.44.

(b) *Resident zone.* As used in this part, the term "resident zone" shall mean the area within, and the communities and areas near, a national park or monument in which persons who have customarily and traditionally engaged in subsistence uses within the national park or monument permanently reside. The communities and areas near a national park or monument included as a part of its resident zone shall be determined pursuant to § 13.43 and listed for each national park or monument in Subpart C of this part.

(c) *Subsistence uses.* As used in this part, the term "subsistence uses" shall mean the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter or sharing for personal or family consumption; and for customary trade. For the purposes of this paragraph, the term—

(1) "Family" shall mean all persons related by blood, marriage, or adoption, or any person living within the household on a permanent basis; and

(2) "Barter" shall mean the exchange of fish or wildlife or their parts taken for subsistence uses—

(i) For other fish or game or their parts; or

(ii) For other food or for nonedible items other than money if the exchange is of a limited and noncommercial nature; and

(3) "Customary trade" shall be limited to the exchange of furs for cash (and such other activities as may be designated for a specific park area in Subpart C of this part).

§ 13.43 Determination of resident zones.

(a) A resident zone shall include—

(1) the area within a national park or monument, and

(2) the communities and areas near a national park or monument which contain significant concentrations of rural residents who, without using aircraft as a means of access for purposes of taking fish or wildlife for subsistence uses (except in extraordinary cases where no reasonable alternative existed), have customarily and traditionally engaged in subsistence uses within a national park or monument. For purposes of

determining "significant" concentrations, family members shall also be included.

(b) After notice and comment, including public hearing in the affected local vicinity, a community or area near a national park or monument may be—

(1) Added to a resident zone, or

(2) Deleted from a resident zone, when such community or area does or does not meet the criteria set forth in paragraph (a) of this section, as appropriate.

(c) For purposes of this section, the term "family" shall mean all persons living within a rural resident's household on a permanent basis.

§ 13.44 Subsistence permits for persons whose primary, permanent home is outside a resident zone.

(a) Any rural resident whose primary, permanent home is outside the boundaries of a resident zone of a national park or monument may apply to the appropriate Superintendent pursuant to the procedures set forth in § 13.51 for a subsistence permit authorizing the permit applicant to engage in subsistence uses within the national park or monument. The Superintendent shall grant the permit if the permit applicant demonstrates that,

(1) Without using aircraft as a means of access for purposes of taking fish and wildlife for subsistence uses, the applicant has (or is a member of a family which has) customarily and traditionally engaged in subsistence uses within a national park or monument; or

(2) The applicant is a local rural resident within a resident zone for another national park or monument, or meets the requirements of paragraph (1) of this section for another national park or monument, and there exists a pattern of subsistence uses (without use of an aircraft as a means of access for purposes of taking fish and wildlife for subsistence uses) between the national park or monument previously utilized by the permit applicant and the national park or monument for which the permit applicant seeks a subsistence permit.

(b) In order to provide for subsistence uses pending application for and receipt of a subsistence permit, until August 1, 1981, any rural resident whose primary permanent home is outside the boundaries of a resident zone of a national park or monument and who meets the criteria for a subsistence permit set forth in paragraph (a) of this section may engage in subsistence uses in the national park or monument without a permit in accordance with applicable State and Federal law. Effective August 1, 1981, however, such rural resident must have a subsistence permit as required by paragraph (a) of this section in order to engage in subsistence uses in the national park or monument.

(c) For purposes of this section, the term "family" shall mean all persons living within a rural resident's household on a permanent basis.

§ 13.45 Prohibition of aircraft use.

(a) Notwithstanding the provisions of § 13.12 the use of aircraft for access to or from lands and waters within a national park or monument for purposes of taking fish or wildlife for subsistence uses within the national park or monument is prohibited except as provided in this section.

(b) *Exceptions.* (1) In extraordinary cases where no reasonable alternative exists, the Superintendent shall permit, pursuant to specified terms and conditions, a local rural resident of an "exempted community" to use aircraft for access to or from lands and water within a national park or monument for purposes of taking fish or wildlife for subsistence uses.

(i) A community shall quality as an "exempted community" if, because of the location of the subsistence resources upon which it depends and the extraordinary difficulty of surface access to these subsistence resources, the local rural residents who permanently reside in the community have no reasonable alternative to aircraft use for access to these subsistence resources.

(ii) A community which is determined, after notice and comment (including public hearing in the affected local vicinity), to meet the description of an "exempted community" set forth in paragraph (b)(1) of this section shall be included in the appropriate special regulations for each park and monument set forth in Subpart C of this part.

(iii) A community included as an "exempted community" in Subpart C of this part may be deleted therefrom upon a determination, after notice and comment (including public hearing in the affected local vicinity), that it does not meet the description of an "exempted community" set forth in paragraph (b)(1) of this section.

(2) Any local rural resident aggrieved by the prohibition on aircraft use set forth in this section may apply for an exception to the prohibition pursuant to the procedures set forth in § 13.51. In extraordinary cases where no reasonable alternative exists, the Superintendent may grant the exception upon a determination that the location of the subsistence resources depended upon and the difficulty of surface access to these resources, or other emergency situation, requires such relief.

(c) Nothing in this section shall prohibit the use of aircraft for access to lands and waters within a national park or monument for purposes of engaging in any activity allowed by law other than the taking of fish and wildlife. Such activities include, but are not limited to, transportating supplies.

§ 13.46 Use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses.

(a) Notwithstanding any other provision of this chapter, the use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas except at those times and in those areas restricted or closed by the Superintendent.

(b) The Superintendent may restrict or close a route or area to use of snowmobiles, motorboats, dog teams, or other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses if the Superintendent determines that such use is causing or is likely to cause an adverse impact on public health and safety, resource protection, protection of historic or scientific values, subsistence uses, conservation of endangered or threatened species, or the purposes for which the park area was established.

(c) No restrictions or closures shall be imposed without notice and a public hearing in the affected vicinity and other locations as appropriate. In the case of emergency situations, restrictions or closures shall not exceed sixty (60) days and shall not be extended unless the Superintendent establishes, after notice and public hearing in the affected vicinity and other locations as appropriate, that such extension is justified according to the factors set forth in paragraph (b) of this section. Notice of the proposed or emergency restrictions or closures and the reasons therefor shall be published in at least one newspaper of general circulation within the State and in at least one local newspaper if appropriate, and information about such proposed or emergency actions shall also be made available for broadcast on local radio stations in a manner reasonably calculated to inform local rural residents in the affected vicinity. All restrictions and closures shall be designated on a map which shall be available for public inspection at the office of the

Superintendent of the affected park area and the post office or postal authority of every affected community within or near the park area, or by the posting of signs in the vicinity of the restrictions or closures, or both.

(d) Motorboats, snowmobiles, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses shall be operated (1) in compliance with applicable State and Federal law, (2) in such a manner as to prevent waste or damage to the park areas, and (3) in such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.

(e) At all times when not engaged in subsistence uses, local rural residents may use snowmobiles, motorboats, dog teams, and other means of surface transportation in accordance with §§ 13.10, 13.11, 13.12, and 13.14, respectively.

§ 13.47 Subsistence fishing.

Fish may be taken by local rural residents for subsistence uses in park areas where subsistence uses are allowed in compliance with applicable State and Federal law, including the provisions of §§ 2.13 and 13.21 of this chapter: *Provided, however,* That local rural residents in park areas where subsistence uses are allowed may fish with a net, seine, trap, or spear where permitted by State law. To the extent consistent with the provisions of this chapter, applicable State laws and regulations governing the taking of fish which are now or will hereafter be in effect are hereby incorporated by reference as a part of these regulations.

§ 13.48 Subsistence hunting and trapping

Local rural residents may hunt and trap wildlife for subsistence uses in park areas where subsistence uses are allowed in compliance with applicable State and Federal law. To the extent consistent with the provisions of this chapter, applicable State laws and regulations governing the taking of wildlife which are now or will hereafter be in effect are hereby incorporated by reference as a part of these regulations.

§ 13.49 Subsistence use of timber and plant material.

(a) Notwithstanding any other provision of this part, the non-commercial cutting of live standing timber by local rural residents for appropriate subsistence uses, such as firewood or house logs, may be permitted in park areas where subsistence uses are allowed as follows:

(1) For live standing timber of diameter greater than three inches at ground height, the Superintendent may permit cutting in accordance with the specifications of a permit if such cutting is determined to be compatible with the purposes for which the park area was established;

(2) For live standing timber of diameter less than three inches at ground height, cutting is permitted unless restricted by the Superintendent.

(b) The noncommerical gathering by local rural residents of fruits, berries, mushrooms, and other plant materials for subsistence uses, and the noncommerical gathering of dead or downed timber for firewood, shall be allowed without a permit in park areas where subsistence uses are allowed.

(c)(1) Nothwithstanding any other provision of this part, the Superintendent, after notice and public hearing in the affected vicinity and other locations as appropriate, may temporarily close all or any portion of a park area to subsistence uses of a particular plant population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. For the purposes of this section, the term "temporarily" shall mean only so long as reasonably necessary to achieve the purposes of the closure.

(2) If the Superintendent determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular plant population, the Superintendent may immediately close all or any portion of a park area to the subsistence uses of such population. Such emergency closure shall be effective when made, shall be for a period not to exceed sixty (60) days, and may not subsequently be extended unless the Superintendent establishes, after notice and public hearing in the affected vicinity and other locations as appropriate, that such closure should be extended.

(3) Notice of administrative actions taken pursuant to this section, and the reasons justifying such actions, shall be published in at least one newspaper of general circulation within the State and at least one local newspaper if available, and information about such actions and reasons also shall be made available for broadcast on local radio stations in a manner reasonably calculated to inform local rural residents in the affected vicinity. All closures shall be designated on a map which shall be available for public inspection at the office of the Superintendent of the affected park area and the post office or postal authority of every affected community within or near the park area, or by the posting of signs in the vicinity of the restrictions, or both.

§ 13.50 Closure to subsistence uses of fish and wildlife.

(a) Notwithstanding any other provision of this part, the Superintendent, after consultation with the State and adequate notice and public hearing in the affected vicinity and other locations as appropriate, may temporarily close all or any portion of a park area to subsistence uses of a particular fish or wildlife population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. For purposes of this section, the term "temporarily" shall mean only so long as reasonably necessary to achieve the purposes of the closure.

(b) If the Superintendent determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular fish or wildlife population, the Superintendent may immediately close all or any portion of a park area to the subsistence uses of such population. Such emergency closure shall be effective when made, shall be for a period not to exceed sixty (60) days, and may not subsequently be extended unless the Superintendent establishes, after notice and public hearing in the affected vicinity and other locations as appropriate, that such closure should be extended.

(c) Notice of administrative actions taken pursuant to this section, and the reasons justifying such actions, shall be published in at least one newspaper of general circulation within the State and in at least one local newspaper if available, and information about such actions and reasons also shall be made available for broadcast on local radio stations in a manner reasonably calculated to inform local rural residents in the affected vicinity. All closures shall be designated on a map which shall be available for public inspection at the office of the Superintendent of the affected park area and the post office or postal authority of every affected community within or near the park area, or by the posting of signs in the vicinity of the restrictions, or both.

§ 13.51 Application procedures for subsistence permits and aircraft exceptions.

(a) Any person applying for the subsistence permit required by § 13.44(a), or the exception to the prohibition on aircraft use provided by

§ 13.45(b)(2), shall submit his/her application to the Superintendent of the appropriate national park or monument. If the applicant is unable or does not wish to submit the application in written form, the Superintendent shall provide the applicant an opportunity to present the application orally and shall keep a record of such oral application. Each application must include (1) a statement which acknowledges that providing false information in support of the application is a violation of Section 1001 of Title 18 of the United States Code, and (2) additional statements or documentation which demonstrates that the applicant satisfies the criteria set forth in § 13.44(a) for a subsistence permit or § 13.45(b)(2) for the aircraft exception, as appropriate. Except in extraordinary cases for good cause shown, the Superintendent shall decide whether to grant or deny the application in a timely manner not to exceed forty-five (45) days following the receipt of the completed application. Should the Superintendent deny the application, he/she shall include in the decision a statement of the reasons for the denial and shall promptly forward a copy to the applicant.

(b) An applicant whose application has been denied by the Superintendent has the right to have his/her application reconsidered by the Alaska Regional Director by contacting the Regional Director within 180 days of the issuance of the denial. The Regional Director may extend the 180-day time limit to initiate a reconsideration for good cause shown by the applicant. For purposes of reconsideration, the applicant shall present the following information:

(1) Any statement or documentation, in addition to that included in the initial application, which demonstrates that the applicant satisfies the criteria set forth in paragraph (a) of this section;

(2) The basis for the applicant's disagreement with the Superintendent's findings and conclusions; and

(3) Whether or not the applicant requests an informal hearing before the Regional Director.

(c) The Regional Director shall provide a hearing if requested by the applicant. After consideration of the written materials and oral hearing, if any, and within a reasonable period of time, the Regional Director shall affirm, reverse, or modify the denial of the Superintendent and shall set forth in writing the basis for the decision. A copy of the decision shall be forwarded promptly to the applicant and shall constitute final agency action.

Subpart C—Special Regulations—Specific Park Areas in Alaska

§ 13.64 Gates of the Arctic National Park and Preserve.

(a) *Subsistence.*—(1) *Resident Zone.* The following communities and areas are included within the resident zone for Gates of the Arctic National Park:

Alatna
Allakaket
Ambler
Anaktuvuk Pass
Bettles/Evansville
Hughes
Kobuk
Nuiqsut
Shungnak
Wiseman

(2) *Aircraft Use.* In extraordinary cases where no reasonable alternative exists, local rural residents who permanently reside in the following exempted community(ies) may use aircraft for access to lands and waters within the park for subsistence purposes in accordance with a permit issued by the Superintendent:

Anaktuvuk Pass

(2) *Customary Trade.* In The Gates of the Arctic National Preserve unit which contains the Kobuk River and its tributaries, "customary trade" shall include—in addition to the exchange of furs for cash—the selling of handicraft articles made from plant material taken by local rural residents of the park area.

PROPOSED CHANGES TO REGULATIONS
(36 CFR PART 13)

Subpart A - Public Use and Recreation

13.1 Definitions. No change.

13.2 Applicability and scope. No change.

13.4 Information collection. No change.

13.10 Snowmachines. Closed except to local residents for point to point travel on four designated routes--John River, Kobuk River, Middle Fork River, Anaktuvuk Pass - West. Closure does not apply to private property owners and guests or subsistence users.

13.11 Motorboats. Limit to 10 horsepower on Walker Lake, closed on other park and preserve waters. Closure does not apply to private property owners and guests or subsistence users.

13.12 Nonmotorized surface transportation. Limit use of hoofed pack animals to eight per party.

13.13 Aircraft. No change.

13.14 Offroad vehicles. No change.

13.15 Access to inholdings. No change.

13.16 Temporary access. No change.

13.17 Cabins and other structures. No change.

13.18 Camping and picnicking. Prohibit single campsite use by more than 6 people per backcountry group or 12 people per river running group between June 1 and September 30. Prohibit single campsite use by more than 12 people between October 1 and May 31. Prohibit camping at a single site for longer than three nights. No campsite in use may be located within one-half mile of another campsite in use. Prohibit campfires on tundra or anywhere beyond tree line. This closure does not apply to subsistence users.

13.19 Weapons, traps, and nets. Prohibit the discharge of any firearms in the park unit except in defense of life and property. Require any discharge of any firearms in the park to be promptly reported to National Park Service personnel. Closure does not apply to subsistence users or preserve.

13.20 Preservation of natural features. No change.

13.21 Taking of fish and wildlife. No change.

13.22 Unattended or abandoned property. Prohibit food and stove fuel caches unless stored in approved containers for no longer than one month. Require permit for unattended property at Walker Lake and Arrigetch Peaks zone. Prohibit aviation, motorboat, or other vehicle fuel caches in park and preserve. Closures do not apply to subsistence users.

13.30 Closure procedures. No change.

13.31 Permits. Applications for the following activities between June 1 and September 30 must be submitted and completed 45 days prior to the start of each season (April 15); applications for the following activities that occur between October 1 and

May 31 must be submitted and completed 45 days prior to the start of the proposed activity: commercial visitor services, research activities involving specimen collection, helicopter landings, special events, temporary access to private property, and temporary camps. Failure to submit and complete such an application by this deadline will result in automatic disapproval of the requested activity for that season. Disapproval may not be appealed to the regional director.

Subpart B - Subsistence

13.40 - 13.51. No change.

Subpart C - Special Regulations-Specific Park Areas in Alaska

13.46 Gates of the Arctic National Park and Preserve. As necessary to implement the foregoing changes.

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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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LAND STATUS
AS OF JANUARY 1985
TIC NATIONAL PARK AND PRESERVE
MENT OF THE INTERIOR / NATIONAL PARK SERVICE

185 | 20046
DSC | FEB 85

5 20 MILES
25 30 KILOMETERS

ON INCOMPLETE
R STRUCTURE
S FOR ARCTIC SLOPE REGIONAL
SHAREHOLDERS

AL PRESERVE BOUNDARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
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ALASKA REGIONAL OFFICE
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