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general management plan/  
development concept plan  
december 1982

LAKE CLARK



NATIONAL PARK AND PRESERVE / ALASKA

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**GENERAL MANAGEMENT PLAN**

**AND**

**DEVELOPMENT CONCEPT PLAN**

**LAKE CLARK NATIONAL PARK AND PRESERVE**

**ALASKA**

**Denver Service Center  
National Park Service  
U.S. Department of the Interior**

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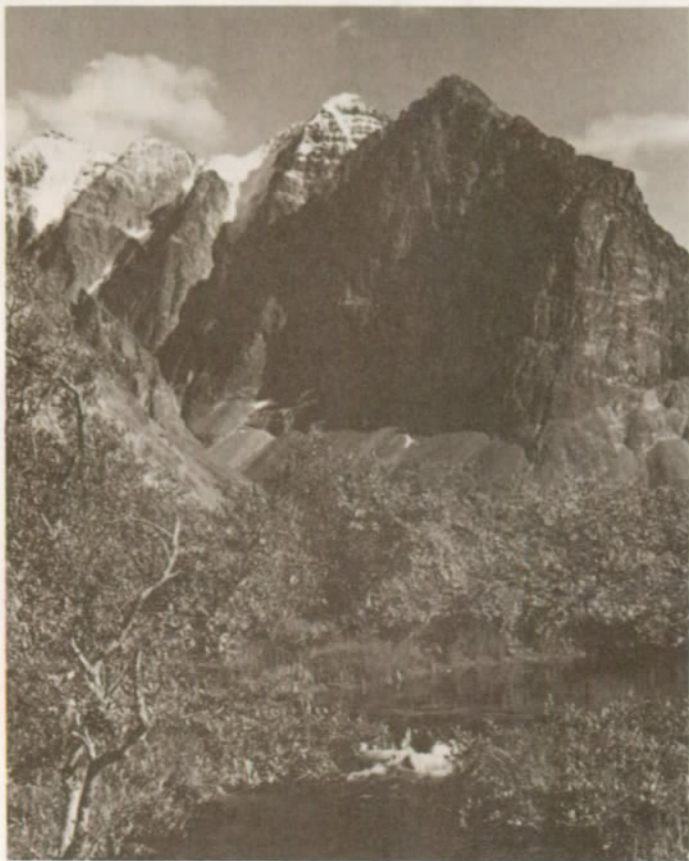
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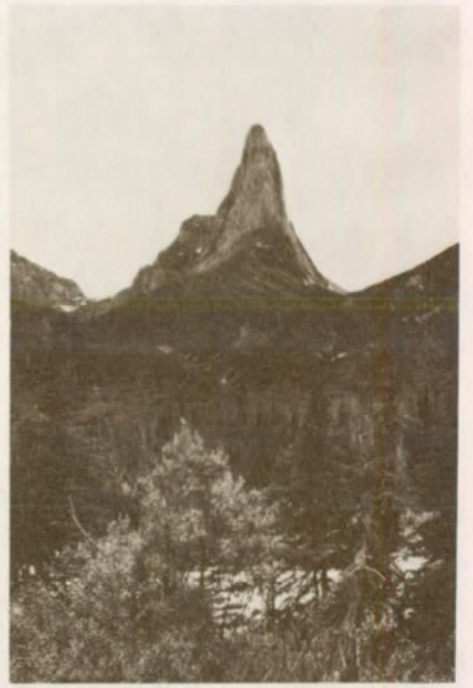
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## INTRODUCTION

This General Management Plan/Development Concept Plan outlines the minimum actions selected for basic operations and management of Lake Clark National Park and Preserve over the next five to ten years by the National Park Service. The plan proposes research and monitoring to gain knowledge about the natural and cultural resources, protective management of resources, support of dispersed outdoor recreational activities, programs to ensure visitors' safety and to promote their understanding of the resources they enjoy, and a permanent field headquarters at Port Alsworth. Most of the actions in the plan will require close coordination and cooperation with private landowners, adjacent land management agencies, and resource managers to promote compatible and complementary management and use.

The actions in this plan do not differ significantly from those presented as alternative two in the proposed General Management Plan/Development Concept Plan and Environmental Assessment for Lake Clark National Park and Preserve, which was made available for public and other agency review in June 1982.





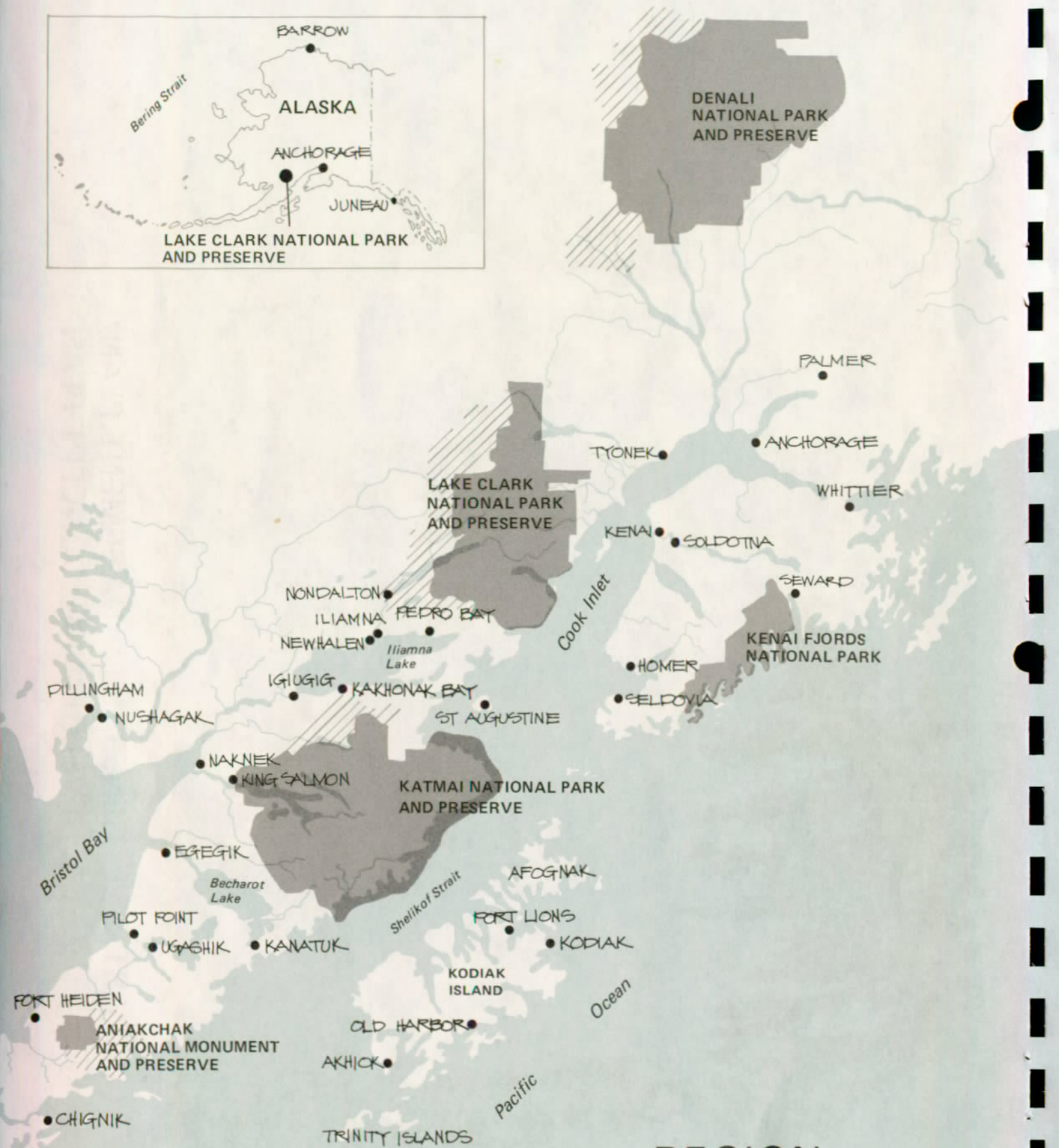
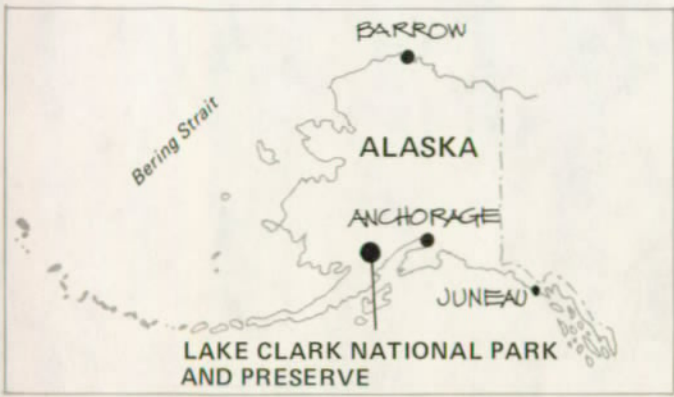








PART ONE: GENERAL MANAGEMENT PLAN/  
DEVELOPMENT CONCEPT PLAN



# REGION

LAKE CLARK NATIONAL PARK AND PRESERVE / ALASKA

United States Department of the Interior / National Park Service

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NO SCALE

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## THE MANDATE FOR LAKE CLARK

One hundred miles southwest of Anchorage the Chigmit Mountains rise from the western coast of Cook Inlet at the junction of the Aleutian and Alaska ranges. Nearly all the Chigmits are encompassed by the 2.6-million-acre Lake Clark National Park. Immediately south and west of the park lie an additional 1.4 million acres of foothills, lakes, rivers, and tundra plains encompassed by Lake Clark National Preserve.

The park and preserve were established December 2, 1980, by the Alaska National Interest Lands Conservation Act (16 USC 3101 et seq.), hereafter referred to as ANILCA. Congress specified in section 201(7)(a) of the act that the purposes, among others, of the park and preserve are

to protect the watershed necessary for the perpetuation of the red salmon fishery in Bristol Bay; to maintain unimpaired the scenic beauty and quality of portions of the Alaska Range and the Aleutian Range, including active volcanoes, glaciers, wild rivers, lakes, waterfalls, and alpine meadows in their natural state; and to protect habitats for and populations of fish and wildlife including but not limited to caribou, Dall sheep, brown/grizzly bears, bald eagles, and peregrine falcons.

The general purposes of all the conservation system units established under ANILCA are defined in section 101(a), (b), and (c) of the act:

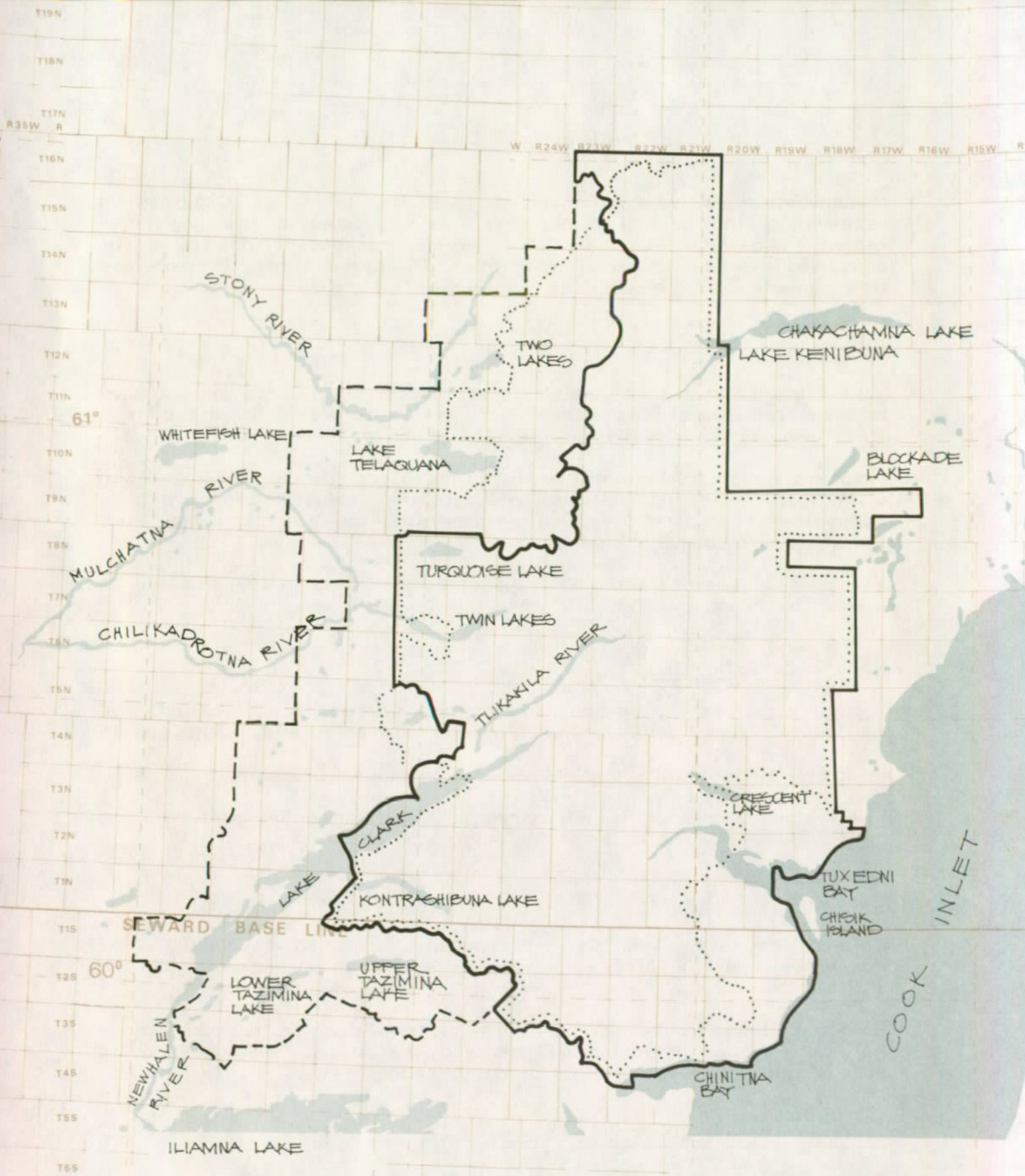
to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the state of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values

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 . . . 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

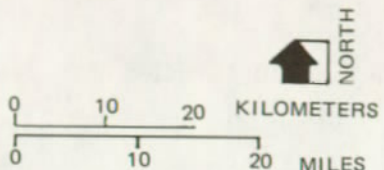
consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded by or pursuant to this act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so

Section 203 of ANILCA directs that the Lake Clark park and preserve are to be administered as new areas of the National Park System pursuant to the Act of August 25, 1916, as amended and supplemented, as well as to all the applicable provisions of ANILCA. Sport hunting is to be permitted in the preserve and subsistence use permitted in the park and preserve. Management and use of all NPS areas is directed by federal regulations (published in title 36 of the Code of Federal Regulations), which have recently been updated to include regulations specific to the Alaskan parks (36 CFR 13, reprinted in appendix A).

Section 1301 of ANILCA directs that a conservation and management plan be developed for the park and preserve prior to December 2, 1985. This general management plan for Lake Clark has been developed to fulfill this ANILCA requirement. The primary intent of the plan is to define the strategies that will be used over the next five to ten years to move toward achieving the congressionally mandated purposes of the park and preserve.



- PARK
- - - PRESERVE
- ..... WILDERNESS



# BOUNDARY

LAKE CLARK NATIONAL PARK  
AND PRESERVE / ALASKA  
United States Department of the Interior /  
National Park Service

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## MANAGEMENT OBJECTIVES

Management objectives are derived from the intent of Congress in establishing the park and preserve, as expressed in the legislative record, and from National Park Service management policies. The objectives describe the conditions which will prevail when the park and preserve are fully achieving their purposes.

### ADMINISTRATION

Lake Clark National Park and Preserve will be administered and managed as a natural area of the National Park System according to all applicable laws, regulations, executive orders, and policies.

Programs for protecting and preserving resources, serving and protecting visitors, interpreting natural and cultural values, and providing administrative support will be implemented by a professional staff operating with adequate funding.

The special expertise and knowledge of people living in the area will be utilized by hiring qualified local residents for park jobs.

### NATURAL RESOURCES

Natural resources will be managed for the protection and perpetuation of ecological systems and for the education and enjoyment of the public.

Ecological systems will evolve in response to natural processes.

Undisturbed environments will serve as benchmarks for measuring the effects of human activity on similar landscapes elsewhere.

### CULTURAL RESOURCES

Cultural resources will be professionally identified, evaluated, and interpreted, and a program of preservation and management will be implemented.

Resources found to be significant will be nominated for inclusion on the National Register of Historic Places and the Alaska Heritage Resource Survey and preserved from loss or deterioration.

### VISITOR USE AND INTERPRETATION

Opportunities will exist for the public to enjoy a wide variety of resources for outdoor recreation.

Visitor programs will enhance opportunities for rewarding and educational visits.



Resources will be interpreted to illustrate ecological diversity and successional stages, the ongoing processes that are shaping the landscape and causing ecological change, the development of human ways of life from ancient to present times, and human and environmental interactions over time.

#### VISITOR PROTECTION AND SAFETY

Qualified field personnel will provide emergency and law enforcement services.

Information will be available to the public informing them of the inherent dangers faced in a vast wilderness environment.

#### PLANNING AND CONSTRUCTION

Facilities will be constructed in selected locations to serve as bases for visitor services and NPS operations.

New construction will be architecturally harmonious with the natural and cultural setting and designed and built with the most suitable materials and equipment to conserve resources and protect the environment.

#### COMMERCIAL SERVICES

Visitor facilities and services will be provided by the private sector through a system of business licenses and a concessions management program.

#### LAND PROTECTION

Cooperative agreements with private landowners, adjacent land-managing agencies, and resource managers will promote compatible and complementary management and use.

A land protection program will achieve resources management objectives through land exchange, donation, cooperative agreements, and the land bank provisions of ANILCA.

#### SUBSISTENCE

Cooperative studies, agreements, and programs will guide the management of subsistence activities.

Types and areas of visitor use will conflict as little as possible with the opportunity for local rural residents to pursue traditional lifestyles.

## NATURAL RESOURCES MANAGEMENT

The Chigmit Mountains and the major valleys draining them were blocked out before the last major advance of glaciers in the Pleistocene. As these piedmont and valley glaciers receded some 10,000 to 12,000 years ago, they left behind a land largely scoured of life-supporting environments. The present ecological record dates from that time, beginning with the development of soils and following through the advance and succession of plants, the establishment of habitats where humans and other animals can subsist, and the ultimate contact with the wider world, which caused, and is continuing to cause, changes in the nature of the evolving environment we witness today. The evolution so far has not been smooth, but has been punctuated by tectonic movements, fluctuations in climate and sea level, volcanic flows and dustings of tephra, advances and retreats in annual snowlines and glaciers, catastrophic floods and changes in stream courses, and the introduction of humans and their use of the available resources.

The natural resources management program will ensure that the park and preserve remain as benchmarks from which the effects of human activity on similar natural systems can be measured. No actions will be taken that would change the regenerative capability of natural systems. Management actions will be based upon a thorough understanding of natural processes and their correlation with human activities, which will be gained through a program of research, survey, monitoring, and evaluation. Information about natural resources will be summarized and compiled with information about cultural resources to provide a comprehensive, usable data base designed to aid park managers in the identification and resolution of critical issues. Modern computer technology will be used for data storage, retrieval, and analysis.

All studies and management actions will be detailed, prioritized, and scheduled through the park and preserve's annual resource management program. Funding and implementation of the program will be accomplished to the maximum extent possible by utilizing park and regional office resources and by coordinating activities and funding with other federal and state agencies and private organizations. The National Park Service encourages and will support appropriate studies by recognized educational or scientific institutions, professional personnel of other agencies, and accredited individuals. Research procedures which might change natural systems and processes or damage significant natural resources will not be permitted. Major research will be submitted to appropriate professional journals to alert the general scientific community of the research potential in the Lake Clark area. A work-study program might be developed through the Cooperative Studies Unit at the University of Alaska, or other universities, to aid students in obtaining graduate credit for research on selected topics in the park and preserve.

### SCOPE OF STUDIES

Research will be initiated to unravel the evolution of the park and preserve's natural resources during the last 10,000 to 12,000 years

(Holocene epoch). The spatial and temporal extent of glaciation and annual snowlines will be determined and mapped to show the areas and times available to the various developing ecosystems. Particular emphasis will be placed upon the times and areas of potential prehistoric human occupancy and use. Once established, the chronology of glaciation will be tied to that already established in the literature for the Cook Inlet, Kenai Peninsula, and Anchorage areas and, if possible, to the volcanism chronology being developed by the U.S. Geological Survey for Augustine, Iliamna, Redoubt, and Spurr volcanoes.

In conjunction with the study of glaciation an attempt will be made to determine past ecosystem compositions and climates. Perkins and Sims (USGS 1981) have shown that varve thickness in glacial lakes can be correlated with mean annual temperatures and cumulative snowfalls in the southern climatological division of Alaska. Jacoby and Cook (1981), among others, have used tree-ring measurements from temperature-sensitive trees to infer temperatures several hundred years into the past. Similar studies in the park and preserve, when combined with studies of pollen and microfossils, can reveal past climatic trends and ecologic conditions. Where appropriate material can be found, cultural remains, macrofossils, tephra layers, carbon-14, lichen growth, and amino acids can be analyzed to establish approximate and absolute ages of events and conditions.

The west coast of Cook Inlet in and near the park will be investigated to determine the amount and rate of coastal uplift during the Holocene. Elevated beaches and wave-cut terraces will be located and mapped, and these data, combined with established data on past sea-level elevations, glaciation, and volcanism, will establish the timing and extent of land emergence and its availability for human occupancy and use. A similar study will be encouraged west of the preserve where Bristol Bay may have reached further inland than it does today and affected both developing ecosystems and the activities of early human inhabitants.

Climate and fire-weather data will be gathered by observation and recording instruments at selected locations. In addition to the normal records of temperature, precipitation, snowfall, relative humidity, and wind strength and direction, records of snow depth and water content will be kept for specific areas determined by park wildlife specialists to gain information about wildlife wintering conditions. Records will also be maintained on the dates Lake Clark and Merrill passes are closed to light aircraft as a result of bad weather, the dates major bodies of water freeze over and break up, and the fluctuation of water levels in Lake Clark and Lake Telaquana.

Monitoring and census studies of caribou and Dall sheep will continue, and similar research will begin on moose, bears, beavers, and wolves. These studies will establish the historic conditions of these animals and their preferred habitats, their birthing areas, population trends, and habitual patterns of movement. Surveys will determine the presence and distribution of raptors and species protected under the Endangered Species Act, Migratory Bird Treaty Act, and Bald Eagle Protection Act, and the habitats critical to the continued existence of these species will be located and protected from disturbance.

A survey will determine traditional and customary subsistence use areas and the amounts and types of present harvests. The National Park Service will cooperate with the Alaska Department of Fish and Game to develop and implement a method for determining the amounts and types of fish and wildlife harvested by both sport and subsistence users in the various habitats of the park and preserve. Because the park and preserve are not state game management subunits, this may require minor administrative changes in harvest reports or other programs for reporting to the Alaska Department of Fish and Game.

The National Park Service will continue to cooperate with the Alaska Department of Fish and Game on fisheries and limnological studies, concentrating its research efforts on monitoring sport fish harvest, limnological studies of high use streams and lakes, stream habitat studies with emphasis on resident nonanadromous fish, and studies to determine migration patterns and spawning areas of nonanadromous fish. Two specific studies under consideration are an annual grayling spawning survey on Little Kijik River to assess brood stock recruitment at the present level of exploitation, and a tag-and-recovery survey to determine the migration and population of northern pike in the Chulitna River/Chulitna Bay area of Lake Clark. Limnological and fisheries studies and management actions that require permanent structures, change the natural productivity of the fisheries ecosystem, or introduce eggs, fry, or brood stock will not be permitted in the waters of the park and preserve.

A study will examine current and past conflicts between bears and humans within the park and preserve, potential problem areas of human and bear concentrations, and the literature on reducing or avoiding human injury and property loss from bears. An action plan will then be drawn up to address the best means of informing the public of hazards, the most suitable locations for campsites and trail routes to avoid encounters, how to deal with encounters, and alternative actions for resolving problem situations.

Research will determine the role natural fire has played in the evolution of the park and preserve's ecosystems.

Many campsites have been used in the park and preserve in support of subsistence and outdoor recreation. They are most numerous along lakeshores, riverbanks, and the coast. The park staff will locate, describe, and photograph these sites to determine the present amount of vegetation damage, soil erosion, and trash accumulation resulting from human use. Based upon this information and a projection of future use, a campsite management program will be developed as a part of the area's backcountry management plan. This program will outline techniques for managing the numbers, locations, uses, and systematic maintenance of campsites in order to minimize environmental damage.

#### POLLUTION CONTROL AND ABATEMENT

The National Park Service will recommend to the governor of the state of Alaska that the national park and preserve be designated a class I

airshed under the provisions of the Clean Air Act amendments (42 USC 7401 et seq.).

### HARVEST MANAGEMENT

Traditional and customary levels of subsistence activities by local rural residents will be considered a part of the park's natural ecosystems. Subsistence activities, including hunting, trapping, fishing, and timber harvesting, will be controlled by applicable federal and state regulations. Upon approval by the secretary of the interior, the National Park Service will implement the annual subsistence hunting program developed by the Lake Clark National Park Subsistence Resource Commission (see "Consultation and Coordination" for the background and requirements of this program).

Sport hunting, fishing, and trapping are allowed in the preserve under applicable state and federal laws and regulations. The National Park Service will work closely with the state in determining seasons, bag limits, and similar controls on the taking of fish and wildlife. Recognizing that predators fulfill a critical role in maintaining the natural ecosystem protected in the park and preserve, predator control actions will not be taken purely for the sake of increasing wildlife harvest.

When it becomes necessary to restrict the taking of fish and wildlife in order to assure the continued viability of species populations or the continuation of traditional and customary subsistence uses within the preserve, nonwasteful subsistence uses will be given preference over other consumptive uses (ANILCA, section 802(2)), until such time as the populations are restored by natural productivity. Subsistence activities will only be curtailed or eliminated if they threaten the natural health and viability of the populations on which they depend (ANILCA, section 804). Hunting restrictions may be recommended by the Lake Clark Subsistence Resource Commission, the Alaska Department of Fish and Game, or the superintendent. As the responsible manager of habitats within the park and preserve, and as the person responsible for visitor safety, the superintendent may prohibit, restrict, or otherwise control the taking of fish and wildlife for reasons of public safety, administration, ecosystem protection, or public use and enjoyment. Except in emergency situations, such actions will not be taken without the appropriate consultations required by the federal regulations governing the Alaskan parks (36 CFR 13).

The Sport Fish, Subsistence, and Game divisions of the Alaska Department of Fish and Game use major drainage basins and topographic features as the units for management and regulation. The park and preserve are divided by 12 of these management units (3 sport fish, 3 subsistence, and 6 game), all of which extend far beyond the outer boundaries of the park and preserve. Applicable state regulations thus reflect the management needs of large areas and different habitats that are outside the park and preserve and subject to different pressures and demands for resource use. The National Park Service will work closely with the Alaska Department of Fish and Game to ensure that regulation and management of fish and wildlife within the park and preserve are consistent with the purposes for which this area was established.

Subsistence timber harvest for firewood and cabin logs occurs primarily along lakes, rivers, and the coast. Improper techniques or overharvest can result in a wide variety of adverse consequences. A timber harvest survey will be conducted to determine present cutting procedures, areas of harvest, and sustained yield. From this survey an action plan will be prepared to guide area managers in issuing permits, designating harvest sites, and determining a yield that will not compromise the resources of the park and preserve. In the interim, subsistence timber harvest and use of plant materials will be managed in accordance with 36 CFR 13.49.

### RIVER MANAGEMENT

All federally managed rivers in the park and preserve will be managed so that they remain free of impoundments and diversions and generally inaccessible by road, with their shorelines essentially primitive and their waters unpolluted. Hydroelectric or flood control facilities will not be permitted on federal lands within the park and preserve or allowed to flood federal land in the park and preserve. Flow-measurement and similar water-monitoring devices may be permitted if they are unobtrusive.

ANILCA established those portions of the Chilikadrotna (11 miles), Mulchatna (24 miles), and Tlikakila (51 miles) rivers within the park and preserve as national wild rivers. These rivers will be managed as an integral part of the park and preserve, and wild river boundaries will not need to be established. Riverine ecological studies will determine the pristine baseline conditions of these three wild rivers, and monitoring will be conducted to determine the effects of present and future levels of river running activities. The National Park Service will operate a trip information service so that private and commercial river runners can time their trips to avoid conflict with other parties and congestion on the river. All users of park waters will be encouraged to practice minimum-impact camping techniques.

Formal river use regulations and individual wild river management plans will only be proposed when voluntary cooperation among river users is not sufficient to prevent degradation of the riverine ecosystems, their pristine appearance, or the quality of the wild river experience. Until that time the three wild rivers will be managed the same as all other water bodies within the natural zone of the park and preserve.

The National Park Service will pursue land exchanges (see "Land Protection") to include additional portions of the Chilikadrotna and Mulchatna rivers within the preserve, where they would be managed as wild rivers. In addition, the National Park Service proposes that the state of Alaska designate and manage these two rivers as wild rivers beyond the boundary of the preserve, at least to their confluences and preferably to Dummy Creek. The National Park Service will cooperate with the state to ensure that the wild and scenic nature of these rivers is not impaired.

## FIRE MANAGEMENT

Based upon the previously mentioned fire history research, a fire management program will be recommended to reduce accidental human-caused fires and to allow natural fires to fulfill their role in vegetative succession to the fullest extent possible, consistent with the protection of life and property and the watershed values necessary for the perpetuation of the red salmon fishery. The suppression of natural fires in the past may have had an ecological effect significant enough to warrant the use of prescribed burning as a management tool.

## CULTURAL RESOURCES MANAGEMENT

Past and present uses of the park and preserve will be identified, evaluated, and interpreted, and management programs will be developed and implemented to protect cultural values. Known historic and archeologic resources will be protected wherever possible. NPS Management Policies and Cultural Resources Management Guidelines (NPS-28) will direct all actions pertaining to cultural resources, including the mitigation of any adverse effects on cultural properties.

Archeological surveys and, where appropriate, subsurface testing will be done on a site-specific basis for all ground-disturbing activities resulting from the general management plan. An archeological clearance will be prepared when there are no archeological resources in a project's impact area or where the project will have no foreseeable impacts upon archeological resources. Cultural resources that will be affected will be treated in accordance with a September 1981 programmatic memorandum of agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers. The state officer will be afforded an opportunity to comment on the appropriateness of proposed treatments for cultural resources in the park and preserve.

The approximately 80 cabin sites situated along the shore of Lake Clark and the 69 others known to be scattered throughout the rest of the park and preserve, and all other above-grade structures, will be located, and their ownership, condition, and use will be determined. Their archeological, historical, architectural, and cultural values will be professionally evaluated. From this inventory, a list of classified structures will be prepared by area managers.

A cultural sites inventory and cultural resources base map will be prepared and maintained up-to-date by the regional office. Based upon professional evaluation, all cultural resources which qualify will be nominated for inclusion on the National Register of Historic Places. A scope of collections statement will be prepared to guide the park in making day-to-day decisions about what museum specimens to acquire and which to reject or eliminate.

The National Park Service will offer its expertise in historic preservation to the owners of National Register properties surrounded by the park and preserve. In addition, the National Park Service will recommend that private lands within the Kijik historic district be included in the land bank program established under ANILCA. If this cannot be done, means other than condemnation will be explored to ensure the preservation of cultural values. Wherever possible, the National Park Service's plans and programs will contribute to the preservation of nonfederal cultural properties in the area.

The recognition and protection of the local residents' culture and history will be encouraged by providing advice, assistance, and technical expertise in data collection, preservation, display, publication, and interpretation. The cultural resource studies of this plan will provide background data for this program.



Human presence, both past and present, has been closely tied to the environment and available resources. The geologic and paleoecological studies of natural resources and past climates will delineate areas in the park and preserve where cultural resources of particular time periods can be expected to exist. Based on this information, predictive models will be prepared and archeological surveys will be conducted to determine the locations of any cultural resources. Detailed scientific examinations based upon survey data for selected sites will be conducted to establish a regional cultural sequence and settlement pattern for each prehistoric cultural group and to provide an understanding of the reasons for change from one period to the next.

Subsistence activities are a critical factor in preserving cultural and social values of Alaskan rural residents. The historic and present uses of natural resources for subsistence in the park and preserve area have been documented by Van Stone and Townsend (1970) and by Behnke (1978). This data base will be expanded through a study that will analyze how subsistence activities relate to the local sociocultural structure and project what subsistence needs and activities will be in the future. The sociocultural study will include oral history, language, ethnohistoric, and ethnogeographic data to document the existing social system, traditional uses, subsistence uses, settlement locations, functions, and sacred sites.

A historic resource study will document the events, experiences, and observations of people in the area from the earliest written records through the beginning of National Park Service management. The first part of this study will be primarily an archival search. It will extract observations about the natural resources and climate of the area as well as cultural information. The second portion of the study will concern itself primarily with the 20th century and consist of interviews with people who have lived or are still living in the area and a review of contemporary literature through 1985.

All of these studies and surveys will be detailed, prioritized, scheduled, funded, and implemented through the annual cultural resource management program.

In addition to the NPS studies and surveys, other research by qualified investigators or recognized educational or scientific institutions will be permitted, in conformance with the procedures of the Antiquities Act of 1906 (16 USC 431 et seq.), the Archeological Resources Protection Act of 1979 (16 USC 470aa et seq.), and NPS Management Policies and Cultural Resources Management Guidelines. Sanctions against the unauthorized appropriation or destruction of cultural resources will be carried out by area managers who will inspect identified sites and post and enforce applicable regulations prohibiting such conduct.

Before any lands in the park and preserve leave NPS ownership they will be surveyed for cultural values and identified sites will be professionally evaluated for nomination to the National Register of Historic Places, in compliance with section 110 of the National Historic Preservation Act, as amended.

## VISITOR ACCESS AND USE

Visitor access to the park and preserve will continue to be by the traditional means of commercially and privately operated airplanes and boats. No new landing strips will be built on federal lands and no docking facilities will be provided along the Cook Inlet coast. The National Park Service will actively participate in all transportation studies affecting the park and preserve. No regulations affecting the navigable airspace over the park and preserve will be sought from the Federal Aviation Administration. The National Park Service will make information about transportation to and within the park and preserve available to the public but will not provide the transportation systems.

Unlike most National Park System areas, the park and preserve have no entrance point where visitor statistics can be gathered. The park staff will evaluate transportation and commercial services data and conduct random surveys to ascertain the current volume of use, destinations of visitors, types of activities engaged in, and perceived needs for increased safety and convenience.

Uses of the Lake Clark area are those commonly associated with Alaskan wilderness activities: hunting, fishing, trapping, river running, hiking, photography, and wilderness camping. Sailing, waterskiing, iceboating, mountain climbing, and cross-country skiing opportunities are also available within the park and preserve but few people currently take advantage of them. All these uses are to continue as permitted by law and regulation. Those activities that are nonconsumptive of resources and allow visitors to experience the wild and natural character of the area will be encouraged. Interpretation, information, and education will stress dispersed and low density modes of use.

Private enterprise now operating within the park will be encouraged to offer guided wildlife observation and photography tours. Private enterprise around Lake Clark will also be encouraged to provide canoes, kayaks, or other small boats for rental. The use of off-road vehicles for other than subsistence activities is prohibited on federal lands within the park and preserve, and rental of these vehicles for recreational use on nonfederal lands will not be encouraged.

Short foot trails will be designated and hardened at popular takeout points along the major lakes and rivers to reduce erosion and multiple trailing. For the immediate future, longer trail routes will be designated but not brushed; hikers will simply follow the easiest terrain between destinations. Information signs will be placed at the trailheads. The park will undertake a systematic study of trail needs and, following that, prepare a program of trail development and maintenance.

The National Park Service will not develop campgrounds. If suitable cabins exist they may be maintained for visitor use on a reservation and fee basis. Local landowners will be encouraged to develop camping sites in environmentally suitable locations on private lands enclosed by the park and preserve, especially along the shores of Lake Clark. Such development will be compatible with the purposes of the area and allow

the landowners to take advantage of the incentives offered under the land bank program established by ANILCA.

For visitor safety, field personnel will be trained and equipped to deal effectively with emergency situations. Services such as voluntary registration, emergency message systems, and reports of weather and other conditions will be available to those planning to visit the area. Cooperation with other agencies such as the Alaska State Troopers and the Air Force Rescue Coordination Center will be formalized and maintained under cooperative agreements.

Emphasis will be placed on forming capable and ready search-and-rescue teams. Ideally, these will include members of outdoor organizations and local residents who are skillful in wilderness and emergency situations and knowledgeable about the area. Volunteer groups will be utilized when special needs arise. They will be dispatched through the Alaska State Troopers office in Anchorage, as provided for in a statewide search-and-rescue cooperative agreement.

The National Park Service is seeking concurrent jurisdiction with the state of Alaska for law enforcement in the park and preserve. This will allow the application of either state or federal laws and regulations by state or federal officials and courts. Only fully qualified rangers will be assigned law enforcement responsibilities. The basic guidelines and regulations for visitor use and law enforcement are the National Park Service Management Policies and the Code of Federal Regulations.

## COMMERCIAL SERVICES

Current visitor needs within the park and preserve are chiefly transportation, guides, food, and lodging. (Other than running short of small supplies such as photographic film, cigarettes, or fishing lures, visitors are otherwise largely self-sufficient.) Private enterprise appears to be adequately meeting the current demand for these services; consequently, no additional commercial service facilities are proposed to be provided on federal lands at this time.

A commercial services study will evaluate the private sector's capability for, and interest in, continuing to meet the projected demands for visitor services and identify problems that may develop with the increasing popularity of the area for recreation. The study will address transportation, lodging, river running, and guide service, compiling data from state visitor and transportation studies, the future business plans of local landowners, the hospitality industry, tour and air taxi operators, the Alaska Visitor Association, native regional and village corporations, and other interested persons, organizations, and agencies.

When visitor statistics have been thoroughly studied and performance data for established commercial operations assessed, a determination will be made regarding what visitor services are needed and appropriate to accomplish the purposes for which the park and preserve were established. If it appears at that time that concession operations on federal lands are warranted, the National Park Service will issue concession permits and contracts to those operators best able to meet the needs of visitors and most interested in and capable of protecting the resources.

## INTERPRETATION

Interpretation will focus on the diverse resources and the interrelationships between biological, cultural, and geological features, to help people gain a greater understanding of Alaska's wilderness heritage. An interpretive plan will determine precise interpretive themes and methods of interpretation that the area managers can carry out without any major interpretive structures.

Within the park and preserve, informal programs will be given on request at the lodges, and talks and interpretive walks will be conducted on an opportunity basis. In addition, the National Park Service will conduct programs for schools and interested organizations. Videotape, film, and slide presentations will be prepared to enhance these programs.

The park headquarters office in Anchorage will provide information and publications such as the Lake Clark brochure and the all-Alaskan-parks folder, which are being prepared for distribution in the 1983 visitor season. A backcountry use brochure will also be prepared for public distribution. At a minimum, it will contain information on natural hazards, proper care of fire, distress signals, wearing bright clothing during all hunting seasons, proper disposal of waste, and the proper release method for reducing fish mortality. This information will be made available at the Parks and Forests Information Center in Anchorage and elsewhere. Interpretive and informational displays and services will be provided at the airfields at Kenai, Soldotna, Iliamna, and Port Alsworth. If the road from Iliamna to Nondalton is built, this visitor access point will be evaluated for the need for similar displays and services.

## PARK OPERATIONS

The park and preserve's headquarters carries out administrative functions; maintains communications with other NPS offices, the public, native corporations, state and federal agencies, private businesses, and organizations; and procures most equipment, tools, fuel, supplies, and aircraft services. This office will remain in Anchorage for the present time.

The field office for the headquarters will remain at Port Alsworth on Lake Clark, which is the hub of commercial activity in the park and preserve, has two landing strips and regular air taxi service, provides sheltered aircraft and boat moorage, provides access to trailheads around Lake Clark, and has mail, telephone, and elementary education services. A suitable site for support facilities and residences is currently leased to the National Park Service.

Based on weather and terrain conditions, the park and preserve are divided into the Kijik, Lakes, and Coastal ranger districts, and offices for these districts will be established at Port Alsworth and at Kenai or Soldotna, respectively. Bases of emergency operations, such as fire and search-and-rescue efforts, will be established in conjunction with the district offices.

With a district office at Soldotna or Kenai, management of the Coastal district will not be constrained by the bad weather in the Chigmit mountain passes, which often isolates the coastal area from the interior of the park and preserve. From this office, managers will supervise commercial operations that affect park resources, conduct studies and surveys of fish and wildlife, develop visitor protection and resource management programs, cooperate with adjacent landowners and other resource managers in resource management, and provide information and interpretive services to visitors coming from the Kenai Peninsula.

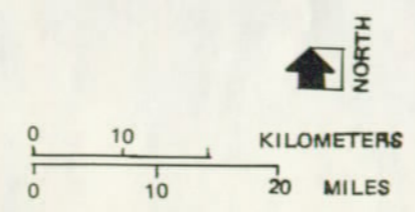
The Port Alsworth district office will afford managers of the Kijik and Lakes districts easy access to the lakes, rivers, and high country in the western portions of the park and preserve. Effective management of these districts requires entering into cooperative agreements with the Bureau of Land Management and the state of Alaska, as both have responsibilities for managing the resources of vast areas adjacent to the park and preserve in this area. Managers will be concerned with conducting fish and wildlife surveys, monitoring sport hunting in the preserve and subsistence hunting in the park, gathering data on visitor uses (particularly activities on the three wild rivers and the major lakes) developing fire management strategies, and providing visitor assistance and resource protection.



## MANAGEMENT DISTRICTS AND PROPOSED DEVELOPMENT

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Minimum staffing to carry out the management of the park and preserve will require the following job positions:

- superintendent
- resource management specialist
- chief of operations
- district rangers
- park interpreter
- administrative clerk
- clerk typist
- maintenance specialists
- seasonal technicians
- seasonal carpenters
- seasonal laborers

To the maximum extent possible, the National Park Service will recruit qualified local residents with special expertise and knowledge of the park and preserve for positions at all grade levels. This recruitment will be guided by the Alaska Local Hire program, found in chapter 370 of the Department of the Interior's Personnel Manual.



## MANAGEMENT ZONING

The National Park Service uses three zone designations to direct the emphasis of management activities on its lands: natural, historic, and development. The field headquarters site at Port Alsworth will be zoned for development. The Kijik historic district and the village site at Lake Telaquana will be designated as historic zones. The remainder of the park and preserve's federal lands will constitute the natural zone.

## DEVELOPMENT CONCEPT

The development concept is to build permanent structures only where necessary for supporting onsite management; to utilize existing structures wherever possible; to use tent frames and portable shelters for seasonal field ranger stations; and to avoid committing sites to permanent development until sensitive habitats and visitor use patterns are identified. All future developments in the park and preserve will use simple utility systems that maximize self-sufficiency and energy conservation. All construction will be done with the least environmental impact practicable. All permanent structures will have environmentally compatible architectural designs in terms of shape, color, texture, and materials appropriate in their natural settings. To minimize construction costs as many skills and materials as possible will be obtained locally.

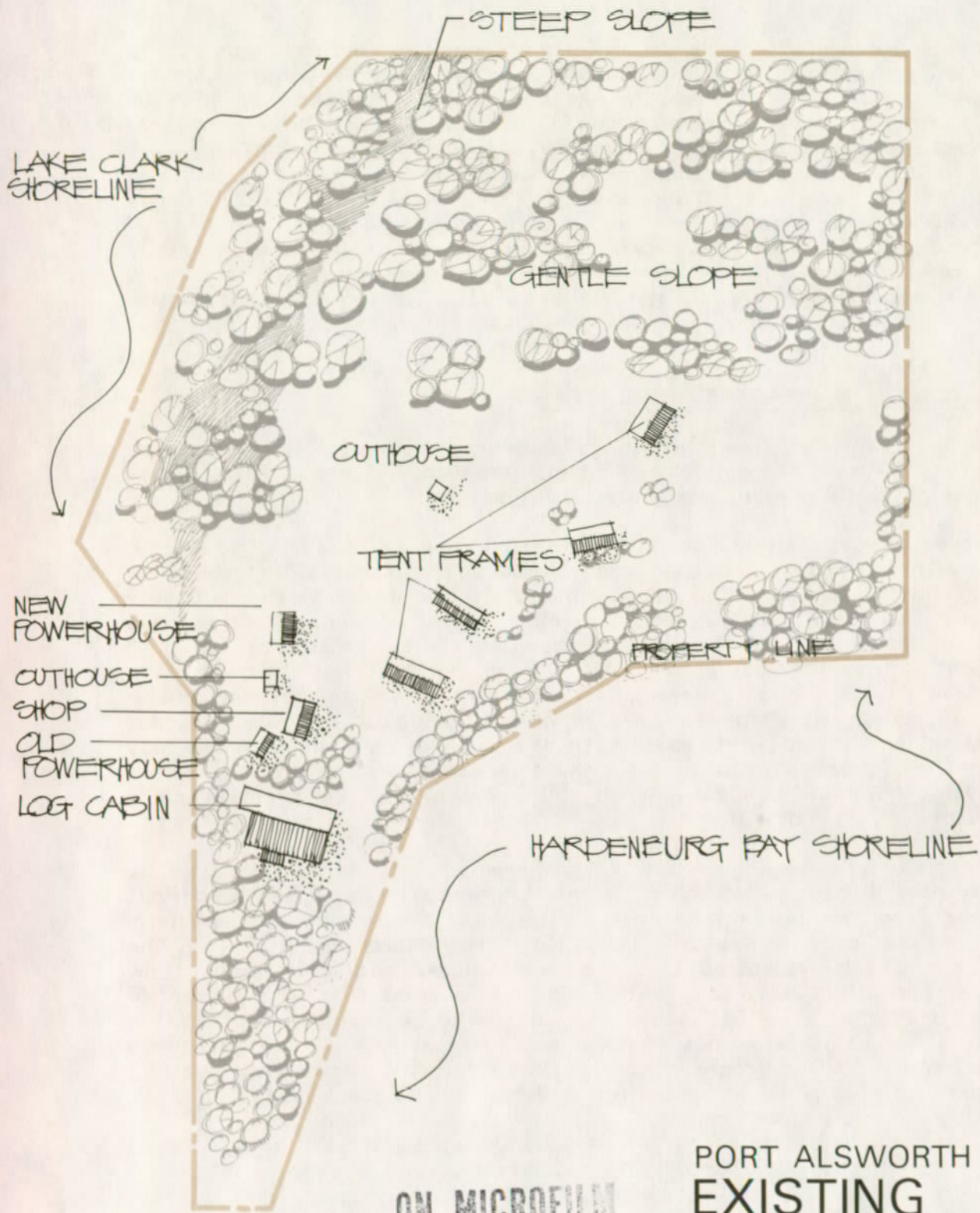
### PORT ALSWORTH FIELD HEADQUARTERS

The development for the field headquarters consists of four residences; space for visitor contact, office, and maintenance functions; fuel storage and docking facilities; and associated utilities.

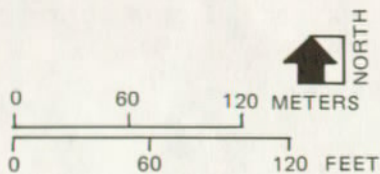
The Port Alsworth site is on the southern exposure of a low ridge that projects into Hardenburg Bay and provides a protected shoreline for docking boats and aircraft. The width of gravel beach varies with the lake level, which fluctuates about 8 feet during the year. A ridge rises about 50 feet above the beach and provides shelter from the prevailing northeast winds, which average 7 to 10 miles per hour. The sandy and silty soils are thin and contain a large percentage of gravel. A ground cover of moist sedge tundra predominates throughout the site. Forest vegetation consists of white and black spruce and some mixed hardwoods along the shore. Additional, more exacting, information about topography, subsurface geology and soils, vegetation, and microclimate is needed prior to construction.

The headquarters development will be a complex of pole buildings. The structures will have a southern orientation and sit below the ridgeline, sheltered from the prevailing winds. They will sit far enough back from the shoreline to minimize their visibility from Hardenburg Bay. The structures will be clustered to act as wind blocks and heat traps, allow for a single utility corridor, and minimize the amount of land disturbed by construction. The individual buildings will be connected by raised wooden walkways to ease snow removal and protect the moist sedge tundra from trampling. The proposed configuration for the structures, pending more detailed study, is shown on the Development Concept map.

Preliminary space estimates for the new structures and utilities are shown in table 1. In the absence of data regarding actual Alaskan construction costs, the costs may be estimated as four times greater than current construction costs in the Seattle area. Total costs might be reduced by up to 50 percent if day labor is used instead of a contractor. The range of costs is estimated to be \$2.5 million to \$5 million.



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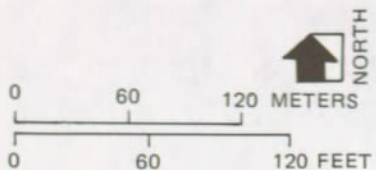
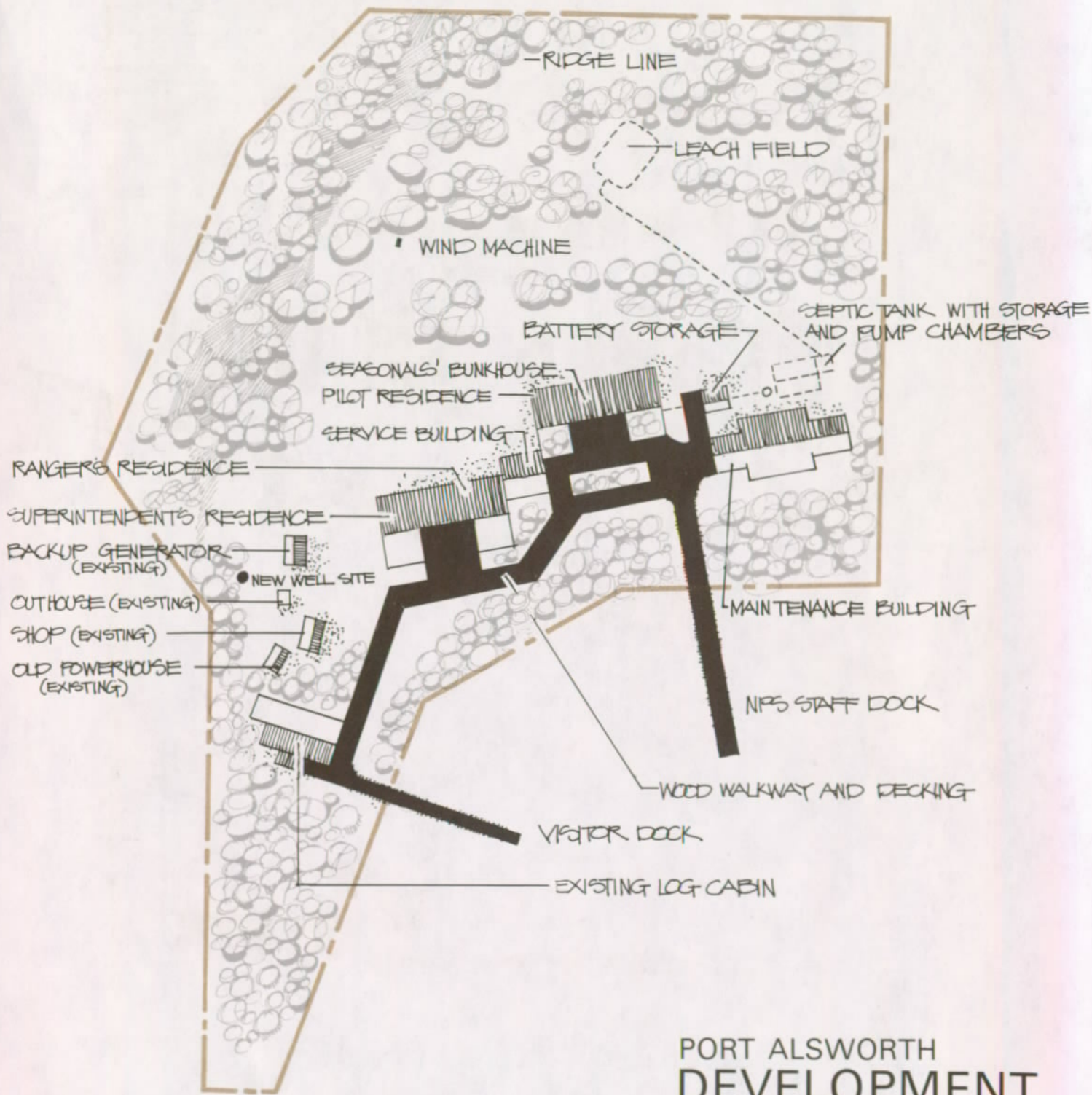


# PORT ALSWORTH EXISTING CONDITIONS

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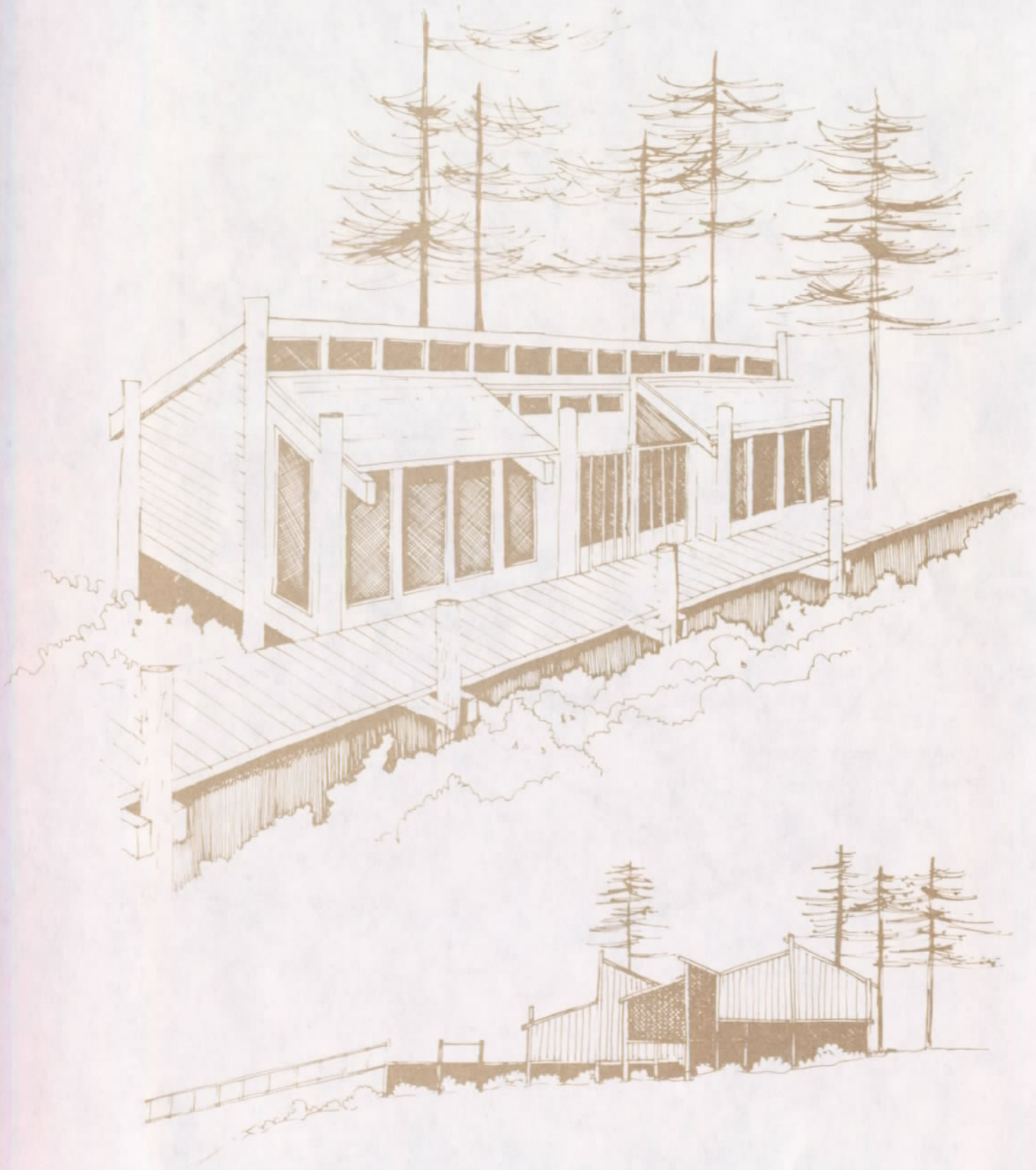


# PORT ALSWORTH DEVELOPMENT CONCEPT

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PORT ALSWORTH-ARCHITECTURAL CONCEPT

Permanent employees and their families will be housed in three similar units with two bedrooms (400 sq ft), living room (150 sq ft), dining area (100 sq ft), kitchen (200 sq ft), bathroom (100 sq ft), and miscellaneous space for air lock, storage, and other purposes (150 sq ft). Seasonal housing will be provided in a bunkhouse arranged for eight occupants with separate bathrooms and sleeping areas for male and female employees. The bunkhouse will contain a common kitchen (225 sq ft), two bathrooms (250 square feet), two bedrooms (300 sq ft), a dining area (225 sq ft), and miscellaneous space for air lock, storage, common living room, and other purposes (200 sq ft). The seasonals will spend most of their time at backcountry locations and will not require larger living areas at the field headquarters. Each residential unit will have an adjacent enclosed patio. A large deck will provide additional space for recreation and group activities. A common service building will contain eight food storage/freezer units, two clothes washers and dryers, an industrial trash compactor, and storage space for large articles.

The 30-year-old cabin near the lake (known as the Blye House) will be remodeled to function as a visitor contact and information station, park operations office, and overnight quarters for employees on temporary duty. Walls and ceilings will be insulated and a vapor barrier will be installed. The interior surfaces will be refinished with paneling or painted drywall. New exterior doors and windows with weather stripping will be installed. The dugout basement will be treated to prevent damage from moisture. The exterior log wall will be chinked with new okum.

The five tent frames will be removed for use elsewhere in the park and preserve after the bunkhouse has been constructed.

The maintenance building will be set apart from the housing area to provide a buffer between the sights and sounds of maintenance activities and the living quarters. The structure will contain space for repair and storage of equipment, boats, rescue and fire supplies, and other material needing protection from the elements.

All heated structures will be insulated against the heating-degree-day requirements indicated by the weather records of the Port Alsworth station. Air-tight stoves capable of burning wood or coal will be used to heat the housing units. North, northwest, and northeast facing walls will be solid and contain no windows or doors; the roof design will include a clerestory that will allow heat and light to penetrate to the back rooms of the buildings. Triple pane construction will be used on all nonopening windows; all other windows will have fitted window inserts or R-10 insulating shades and drapes for winter use. Housing units will have double-doored or antechamber entrances to act as air locks and reduce heat loss. Electric use will be metered and records of fuel consumption will be kept.

Two docks for boats and planes will be constructed, one for use by visitors, near the contact station, and one for use by staff, near the maintenance building. Both docks will be designed to accommodate the 8-foot lake fluctuation and the winter ice conditions. Plane and boat fuel will be stored in three 1,000-gallon tanks buried adjacent to the maintenance building and NPS dock. Spoil from the tank excavations will

be used to fill the existing trails, which have become entrenched, and to raise the trail north of the visitor contact station to provide added protection from fluctuations in lake level.

Soil temperature and percolation tests and core borings will determine the feasibility of using a leach field for treating effluent during the summer months. If the tests are favorable, a collection system will connect all required buildings to a septic and storage tank from which effluent will be pumped to the leach field for disposal whenever summer temperatures allow proper leaching. If the tests are not favorable, a Clivus Multrum or similar system will be installed to treat liquid wastes. Appropriate organic waste from food preparation will be composted for use in cold frames. Nonburnable solid waste will be compacted and taken to municipal dumps by airplane on the empty leg of supply trips.

Electric power will be generated by a 40 kw wind machine installed on the ridge. The tower for the wind machine will not rise high enough above the existing tree top level to pose a hazard to aircraft using the Port Alsworth airstrip. A heated building will be constructed apart from other buildings for battery storage. The present generator will be retained as a backup to the wind system.

The headquarters water supply will come either from a drilled well near the generator building (if groundwater is available) or an all-weather intake from the lake (if it is not). The depth to bedrock beneath the point is not known, but outcrops across Hardenburg Bay to the north indicate that Jurassic granite may underlie the unconsolidated glacial and lacustrine deposits at relatively shallow depths and preclude a groundwater reservoir sufficient to support the development. A seismic survey will determine the thickness and shape of the overburden and the potential locations of groundwater. Water from either a well or the lake may require filtration and chlorination prior to use. Water from either source will be pumped to an underground storage tank above the housing units and distributed through a gravity flow system.

Table 1: Field Headquarters Development Summary

Permanent staff housing	3 family units of 1,100 sq ft each
Seasonal bunkhouse	1,200 sq ft
Community building	625 sq ft
Maintenance building	2,000 sq ft
Utilities	100-foot deep well, and water system Sewer line, septic tank, storage tank, 2 pumps, and leach field 50 kw wind machine, installed with balances and tower Battery storage building, 200 sq ft
Docks	NPS, capacity for 6 boats, 3 planes, fuel storage and pumping, 200' x 8' Visitor, capacity for 3 to 5 planes 80' x 8'

## OTHER DEVELOPMENT

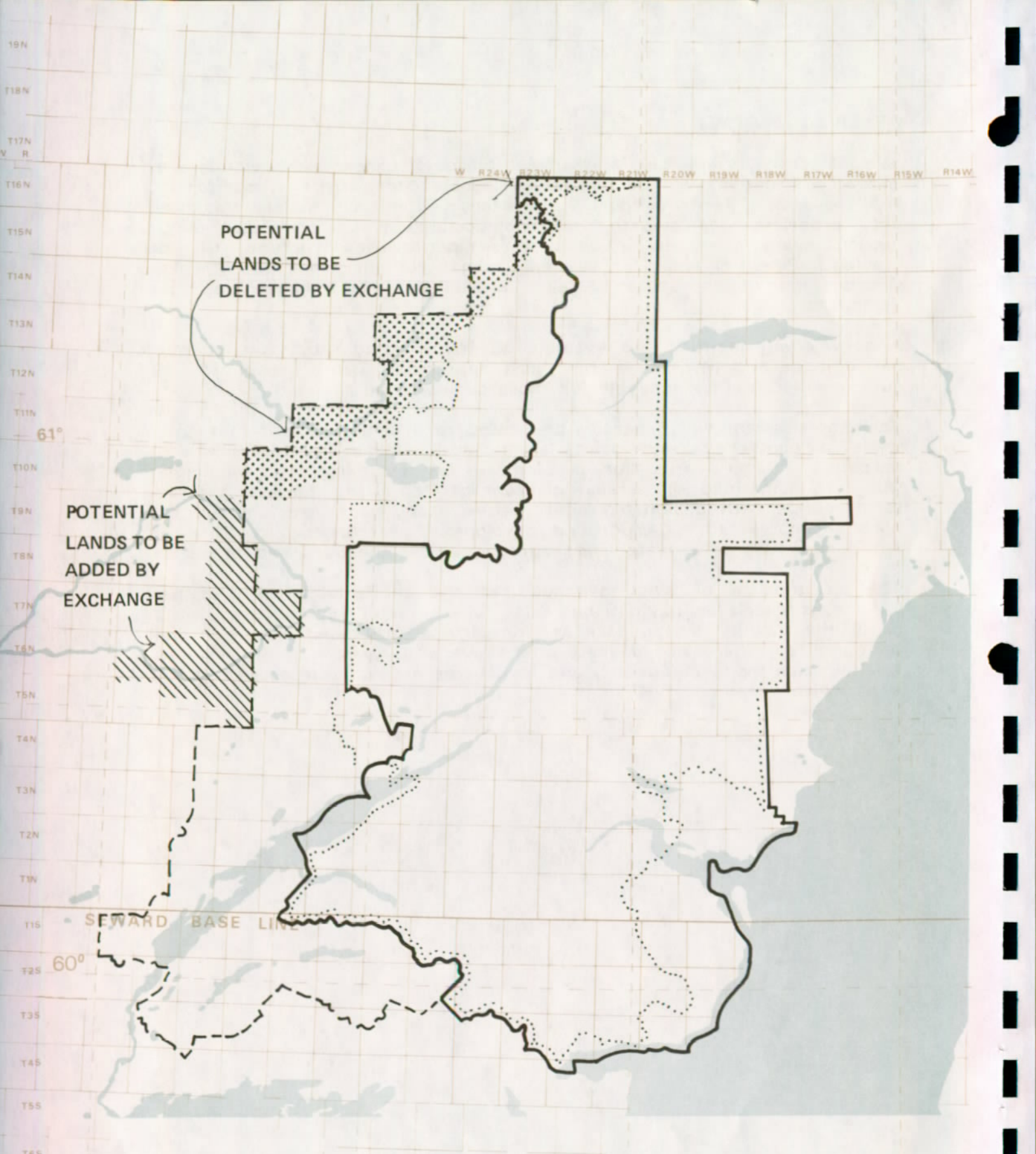
Seasonal outposts will be necessary at places of concentrated visitor use, and accommodations will be needed for people doing surveys, monitoring, and research. Tents or portable shelters will initially satisfy this need until experience indicates that seasonal occupation at a particular site is needed every year, in which case semipermanent structures will be erected. Potential areas for seasonal ranger stations are Crescent Lake, Chinitna Bay, Silver Salmon Creek, Tuxedni Bay, Twin Lakes, and Lake Telaquana.

A survey will identify and evaluate all the existing cabins on federally owned lands and recommend their most appropriate use or removal. The survey will contain a schedule for those cabins to be removed.

Trail development will generally be limited to brushing except that short trails at popular takeout points around major lakes and rivers will be hardened. General areas for camping will be designated, and pit privies will be maintained in areas of concentrated use; however, formal campgrounds with designated sites, tables, tent pads, and shelters will not be constructed. Campground development will be encouraged as an appropriate use of private lands surrounded by the park and preserve.

The maintenance of existing structures and the establishment of new structures (such as navigational aids) for the safety of travelers within or in the vicinity of the park and preserve's designated wilderness will be permitted where no adequate alternative sites exist outside the area. The minimum tools, equipment, and structures necessary to accomplish the work will be used.





POTENTIAL  
LANDS TO BE  
DELETED BY EXCHANGE

POTENTIAL  
LANDS TO BE  
ADDED BY  
EXCHANGE

SEWARD BASE LINE

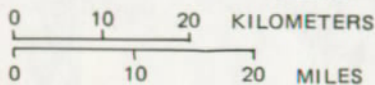
# LAND PROTECTION

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## LAND PROTECTION

### BOUNDARY AND LANDOWNERSHIP CHANGES

The land protection strategy will seek to consolidate NPS management over the core ecosystems of the park, to establish boundaries along natural features that can easily be identified on the ground, and to encourage complementary management of adjacent and surrounded nonfederal lands.

The Senate, in report 96-413 of the Committee on Energy and Natural Resources, expected and encouraged the secretary of the interior to seek land exchanges with the state of Alaska to obtain lands adjacent to the preserve in the Chilikadrotna and Mulchatna watersheds. These lands will automatically become part of the preserve when acquired. The Senate report also directed the secretary of the interior to automatically add state or native lands in the Chakachamna Lake/Mount Spurr area and at the eastern entrance to Lake Clark Pass if they become available through exchange or relinquishment.

Federal lands involved in these exchanges need not be from the park and preserve; however, the Senate report recommended that approximately seven townships of preserve land in the Stony River drainage be used for land exchanges. These lands are now under native regional corporation selection. If all or part of these lands are relinquished or if the selection is rejected, the National Park Service will seek to exchange them for an equal amount of land from the state in keeping with the intent of the Senate committee.

Section 103(b) of ANILCA permits the secretary of the interior to make minor boundary adjustments. These adjustments are not to result in an increase or decrease in the gross acreage of the park or the preserve of more than 23,000 acres, the size of one township. The most recent acreage calculations of federal and nonfederal lands within the boundary of the park and preserve will be published periodically in the Federal Register.

Section 1302 of ANILCA outlines the land acquisition authority of the secretary of the interior for conservation units in the state of Alaska. Acquisition of lands internal to the park and preserve are not affected by the limitations of section 103(b) because this would not result in a change of the gross acreage. The secretary is also authorized to acquire, by donation or exchange, lands which are contiguous to any conservation system unit established or expanded by ANILCA, and lands which are owned or validly selected by the state of Alaska. Such lands become part of the conservation system unit when acquired.

Owing to the unsettled nature of landownership in and adjacent to the park and preserve boundaries, the undetermined future relinquishment of land selections, the unknown willingness of future landowners to participate in land exchanges, and other factors, it is not possible to specify an ultimate boundary configuration for the park and preserve. In many cases, land acquisitions that increase the gross acreage will be offset by deletions of nonfederal lands that have nonconforming uses on

them. The 23,000-acre differential will mainly be used to accommodate minor adjustments necessary to place boundary lines along natural features.

The Land Protection map shows some of those lands which at the present time may have the potential for addition to or deletion from the park and preserve. Within the next five years, as landownership becomes more accurately known, the National Park Service will develop an ongoing land protection program, which will prioritize land acquisitions and deletions, identify topographic features for exterior boundary delineation, and identify interior and adjacent lands where other landowners are willing to enter into land bank or other less-than-fee acquisition agreements for complementary and cooperative land use management. The program will be implemented through opportunity purchases, exchanges, or donations on a case-by-case basis. Cooperation and coordination with adjacent landowners, land managers, and resource managers will be a key component of this program.

The National Park Service will purchase in fee simple and on a willing-buyer, willing-seller basis the 3.94-acre field headquarters site, which is now under a lease agreement, and any small tracts that are found to be required for the long-term management, operation, and resource protection of the park and preserve.

#### LAND BANK PROGRAM

The National Park Service will seek cooperative agreements under the Alaska Land Bank Program to ensure protection of natural and cultural resources on private lands in and adjacent to the park and preserve. These potential land management agreements are particularly important in cooperating with the Nondalton Village Corporation and the Cook Inlet Regional Corporation, which own the bulk of the private land within and adjacent to the park and preserve.

#### MINING CLAIMS AND MINING

NPS management of mining operations within the park and preserve boundaries will be limited in some cases because of private surface ownership of the mineral-bearing lands and the assurance of access provided for by ANILCA. To the extent possible that the National Park Service can require a plan of operations, designate the location of surface access routes, or control mining activities by other means, such as cooperative agreements, it will minimize any adverse environmental impacts from mining operations. Where applicable, the Mining Activity within National Park System Areas Act (90 Stat. 1342) and its implementing regulations in 36 CFR 9 will be applied to prevent or minimize damage to the environment and resource values.

## WILDERNESS REVIEW

Section 1317(a) of ANILCA directs that a review be made of the suitability or nonsuitability for preservation as wilderness of all lands within the park 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 following is a review of wilderness suitability in accordance with these provisions.

Approximately 2.47 million of the 4 million acres of land in the park and preserve have been established as wilderness. Of the remaining lands, only about 101,000 acres are not now encumbered by private ownership or land application. An additional 1,055,000 acres will soon be unencumbered as they are in the process of being relinquished from native selection. These lands are shown as federal lands on the Land Status map (in the back pocket) for this reason. These lands are all zoned for management as natural areas in this proposal. The Federal-State Land Use Planning Commission evaluated all nondeveloped and primitive lands within the park and preserve as having high quality wilderness values (USDI 1978, appendix E). The unencumbered lands in the park and preserve are undeveloped, primitive, and meet the criteria established in the Wilderness Act of 1964:

They are undeveloped federal lands of primeval character without permanent improvements or human habitation.

The forces of nature predominate, and the imprint of civilization is not readily perceived.

The area provides outstanding opportunities for solitude or a primitive and unconfined type of recreation.

A formal wilderness study and recommendation will be required if these lands are to become part of the National Wilderness Preservation System. Such study and recommendation are beyond the scope of this review. The lands are patently suitable for preservation as wilderness.



PART TWO: ENVIRONMENT

## NATURAL PROCESSES AND FEATURES

The 4-million-acre Lake Clark National Park and Preserve is a region of highly diverse resources encompassing outstanding examples of Alaska's finest natural and recreational values. Adjacent to the Cook Inlet, it is only an hour's air flight from Anchorage and towns on the Kenai Peninsula; however, despite its closeness to the state's major center of population, most of this large and intricate area remains a wilderness.

The Aleutian and Alaska mountain ranges meet at the Chigmit Mountains--a landscape shaped by uplift, intrusion, earthquakes, volcanism, and glaciation. The mountains are flanked on the east by the wooded hills, lakes, marshes, and outwash plains of the Cook Inlet coastal lowland, and on the west by rolling tundra-covered foothills and a string of glacial lakes. The coastal and interior climates meet here and, combined with the diverse physical terrain, support ecosystems representative of nearly every part of Alaska. Today's human use and occupation of the area is typical of the rural Alaska bush lifestyle, yet the area also bears the imprint of prehistoric societies and the Russian fur-trading and missionizing period of the 18th century.

The major description of the park and preserve, including resource maps, is found in the Final Environmental Impact Statement prepared for the 1974 plan (USDI 1974) and in its supplement (USDI 1978). The ecosystem study by Racine and Young (1978), the extensive subsistence activity descriptions by Behnke (1978), and the fisheries inventory by Russell (ADF&G/USDI 1980) are major additions to the area's information base. This information is included here by reference. Complementary resource descriptions may be found in the works cited in the bibliographies of these studies and in the bibliography included at the back of this document. What follows is an overview of those facets of the park and preserve required to understand the planning effort and those that may affect, or be affected by, the implementation of any of the planning alternatives.

### GEOMORPHOLOGY

The region of the park and preserve can be divided into five realms of distinct character: the Cook Inlet coastal region, the Alaska-Aleutian mountain ranges, the western foothills and lakes, the interior lowlands, and the Lake Clark-Kontrashibuna region.

North of Tuxedni Bay the coastal terrain is gently rolling, with numerous braided streams bringing silt-laden waters to Cook Inlet. The glacial outwash and deposition of rock flour and silt over the years has produced a very shallow shoreline with large areas of mud flats exposed at low tide. Terminal moraines and other glacial landforms have trapped surface waters in a complex of rolling wooded hills, lakes, and marshes. South of Tuxedni Bay this lowland strip disappears and the mountains plunge directly into the inlet. Here the precipitous coast is deeply incised with

U-shaped glacial valleys and fjordlike coves. The inlet floor drops off rapidly, but the heads of the coves are generally choked with sediment washed down from the uplands. The large tidal fluctuations on this glacial outwash results in well-developed estuarine salt marshes in Tuxedni and Chinitna bays. Pacific coastal forests of Sitka spruce occur here near their northwestern limit in North America, and alder thickets mantle most of the uplands. Coastal beach vegetation is also present, as are intertidal communities. Seabirds, harbor seals, and whales are found along the inlet, and small beluga whales sometimes feed at the river mouths. Moose and bear are the commonly seen large land mammals.

The Alaska and Aleutian ranges form a continuous drainage divide along the length of the park. These are rugged mountains carved by glaciers and frost action into narrow pinnacles, gendarmes, and spires of great height, interwoven with deep canyons that break the mountains into separate blocks with summit elevations rising generally to 5,000 to 9,000 feet. Several valleys penetrate the mountains, and low passes of 1,200 to 3,000 feet are used regularly by light aircraft. Many of the mountain peaks are flanked with active glaciers. These glaciers are generally largest and descend to the lowest elevations on the east side of the mountains. Redoubt Volcano, 10,197 feet in elevation, and Iliamna Volcano, 10,016 feet in elevation, are active volcanoes and stand above the surrounding peaks. Except for the forested valleys, the vegetation of the mountains is sparse and consists mainly of alpine tundra and shrub thickets. The rest of the area is covered by permanent snow, ice, and barren rock. Dall sheep are the only large mammals to venture away from the low mountain passes into this montane region.

West of the mountains is a region of foothills where past glaciers pushed their moraines out onto the interior plains. These moraines cradle a series of long lakes. The upper ends of these lakes are typically surrounded by low mountains and fed by streams of glacial meltwater, while their lower ends reach out onto the tundra plains and are fed by clear-running streams from springs and ponds. Because of the high elevation and sometimes poorly drained topography over much of this region, various forms of alpine tundra vegetation are widespread. Boreal forest vegetation is well represented at elevations below 2,000 feet on slopes bordering Lake Telaquana, Two Lakes, and to some extent Twin Lakes. Caribou, moose, and bear are the common large mammals seen along the foothill lakes and the streams that drain from them.

The foothills region gives way on the west and northwest to the interior lowlands. Rivers and streams across this area have low gradients and become slow, meandering, and braided. Much of the surface water is trapped in a myriad of poorly drained lakes and ponds. This region is vegetated with moist tundra and black spruce communities and supports large populations of caribou, moose, birds, and fish.

The Lake Clark/Kontrashibuna region includes the Lake Clark, Kontrashibuna, and Tazimina lakes drainage basins, with their low-elevation valleys and bordering mountain slopes. Boreal forest vegetation is well developed here and is represented by white spruce forest, black spruce muskeg, deciduous forests of paper birch and balsam poplar, and bogs.

## CLIMATE

The Chigmit Mountains stand between the subpolar marine climate of Cook Inlet and the continental climate of interior Alaska. Local climatic conditions within these two regimes vary with the elevation and the distance from mountains and large bodies of water. Although the gathering of weather data began as early as 1898 at nearby Tyonek, few continuous records of any length are available for this portion of the Alaska Peninsula. The best data for recent years is from the Port Alsworth cooperative weather station, which was established in 1960.

The maritime climate along the eastern side of the park typically produces cool, cloudy, and drizzly summers and relatively warm, cloudy, and snowy winters. Rain, fog, and clouds obscure the sun on the majority of summer days along the coast. Rainfall ranges from light to extremely heavy--with amounts of 0.5 to 1 inch per hour falling during the more intense storms--and it may be accompanied by winds in excess of 50 to 60 mph. Wherever the coastal lowlands form a wide apron between the inlet and the mountains, the precipitation averages only 15 to 25 inches per year, but wherever the mountains meet the inlet, such as along the southeast edge of the park, the annual precipitation reaches 40 to 80 inches. Along the coast January temperatures range from an average minimum of about 10°F to an average maximum of about 32°F. Corresponding July temperatures are about 48°F and 60°F.

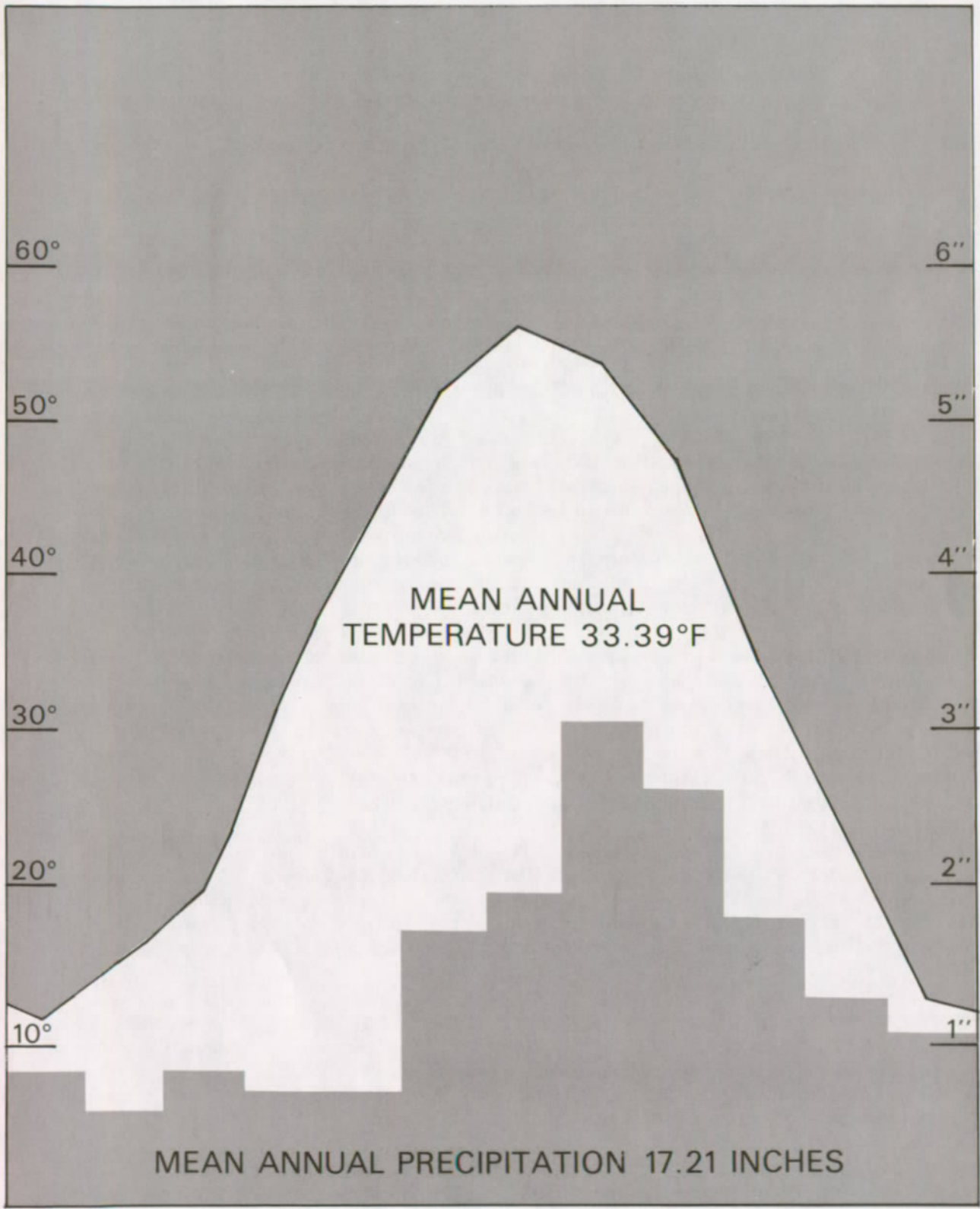
The precipitation and number of cloudy days decrease inland to Lake Clark and northward along the western foothill lakes. The annual precipitation at Port Alsworth is about 17 inches. The mean January temperature at Port Alsworth is 12°F and the mean July temperature is 56°F; temperatures as high as 86°F and as low as -55°F have been recorded since 1960. Summer temperatures are rather uniform from year to year, but winter temperatures are extremely variable.

The presence of active glaciers at low elevations along the coast, combined with an annual snowline that is 2,500 feet lower than it is on the western flank of the mountains, suggests that the mountains form a barrier to precipitation. Snow accumulation along the coast may exceed 10 feet while along the western lowlands and foothills it seldom exceeds 4 feet.

Temperatures of 32°F or less can occur on any day during the summer at Port Alsworth; however the period between hard freezes is normally from 60 to 90 days. The average annual temperature of about 33°F in the Lake Clark area is reflected by only sporadic occurrences of frozen ground or permafrost in the area.

Winds at lower elevations in the park and preserve average about 8 to 12 mph and rarely exceed 30 mph. During the frequent strong storms from December through March, lowland winds may reach 50 mph with gusts in the mountain passes of up to 100 mph. The wind is strongly channeled by the terrain, and severe turbulence and wind shear can be a hazard to light aircraft, especially near the major mountain passes (Lake Clark and Merrill) and the high volcanic peaks (Iliamna, Redoubt, and Spurr).





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CLIMATIC CHART  
 PORT ALSWORTH  
 1960-1981

## GEOLOGY

The core of the Chigmit Mountains is a complex of multiple granitic stocks and batholiths that intruded after Triassic time into Paleozoic and Cenozoic rocks. The main batholith is elongated to the northeast, parallel to the structural trends of the region. The intruded rocks, which dip away from the Chigmits, are moderately to highly deformed volcanic and sedimentary rocks. In some areas the oldest rocks intruded by the granites are moderately metamorphosed. Three volcanic piles of Tertiary to Recent age are still active: Mount Spurr, Redoubt Volcano, and Iliamna Volcano. Redoubt and Iliamna volcanoes are 2 of 17 areas in Alaska listed on the National Register of Natural Landmarks (Federal Register 45:79699).

Plate tectonic theory suggests that uplift, earthquakes, and volcanism in the park are related to the underthrusting of the oceanic crust of the Pacific plate under the continental North American plate. This underthrusting has been occurring at a rate of 2.6 inches per year for the past 3 million years along a subduction zone called the Aleutian megathrust. This zone is about 30 miles beneath the surface of the Kenai Peninsula but abruptly dives to depths greater than 65 miles beneath the western edge of Cook Inlet and to depths greater than 100 miles beneath Redoubt and Iliamna volcanoes in the eastern park. The focus of earthquakes with a magnitude greater than 5 on the Richter scale is at depths of 55 to more than 110 miles beneath the eastern park. The locations of seismic activity and the andesitic nature of the lavas erupted from the volcanoes indicate slippage and partial melting of the oceanic crust and upper mantle rocks along the subduction zone at these depths. Thirteen earthquakes of magnitude 5 to 6 have occurred in the park area since 1972. Most of these occurred in the area of Iliamna Volcano between Chinitna and Tuxedni bays. However, one was centered as far west as Little Lake Clark and another as far north as Telaquana Mountain. The last eruption of Iliamna was in 1953, and the last eruption of Redoubt was in 1966. Strong earthquakes and volcanic eruptions can be expected to continue to occur in the eastern park.

Table 2: Earthquake Occurrence, Cook Inlet Region

<u>Richter Magnitude Range</u>	<u>Annual Occurrence Rate</u>	<u>One Occurs Every</u>
4.0-4.6	20.1	18.0 days
4.6-5.2	7.22	7.2 weeks
5.2-5.8	2.60	4.6 months
5.8-6.4	0.935	12.8 months
6.4-7.0	0.336	3.0 years
7.0-7.6	0.121	8.3 years
7.6-8.2	0.0435	23.0 years
8.2-8.8	0.0156	64.1 years

The present landforms in the region are mainly the products of Quaternary fluvial and glacial action. At least three glacial advances have occurred, and all glacial deposits appear to be Wisconsin or younger in age. Modern glaciers in the park are receding, and the lateral moraines perched 50 to 100 feet above the glaciers show the amount of recent thinning.

### MINERALS

The first well drilled in search of oil in Alaska was completed at Oil Bay on the Iniskin Peninsula southeast of the park in 1903. Since then, five other wells have been drilled on the peninsula, but none have been brought in as producers of oil or gas. Private lands within the southwest portion of the park may have a small potential for oil or gas production, but the structure and lithology are not favorable for the accumulation of a large quantity of petroleum (USGS, Detterman and Hartsock 1966). No deposits of coal of commercial grade or quantity are known to occur within the park and preserve, and the geologic history of the area suggests that none should be expected.

Small zones of mineralization can be found throughout the park and are probably the result of pyrometasmatic enrichment of the country rock by intrusive stocks and plutons. Placer gold was recovered from the Portage Creek area on Lake Clark in the early part of the century. The Johnson River tract has been selected and conveyed to the Cook Inlet Native Regional Corporation for its mineral value. Small deposits of magnetite occur at Tuxedni Bay on Magnetic Island and Rusty Mountain. The deposits are under claim, but development may not be economically feasible. Copper-bearing skarn-type mineralization has been identified and claimed on Kaska Creek above Kontrashibuna Lake. This 175.3-acre patented claim is surrounded by lands designated as both park and wilderness. The ore averages only about 1 percent copper, and its limited extent may prove it uneconomical to mine; however, should it come under commercial operation, access would be required and controls would be needed to prevent water contamination from mine wastes.

### HYDROLOGY

To the east of the Chigmit Mountain divide, the drainages are short and flow directly into Cook Inlet. The waters of the myriad of rivers, streams, lakes, and ponds west of the divide eventually reach the sea via the Kuskokwim, Nushagak, or Kvichak rivers. Lakes Clark, Kontrashibuna, Tazimina, Kijik, and Lachbuna, and the Tlikakila, Current, Chulitna, Kijik, and Newhalen rivers all drain to Lake Iliamna and thence down the Kvichak River to Bristol Bay. Twin Lakes and Turquoise Lake flow into the Nushagak River by way of the Mulchatna and Chilikadrotna rivers, and Lake Telaquana and Two Lakes drain into the Kuskokwim River system.

Rivers and streams are generally of two types: clear waters flowing from springs and snowfields and carrying less than 50 parts per million of suspended sediment, or silt-laden streams flowing from glaciers and

containing as much as 2,000 parts per million of suspended sediment. West of the mountain divide most of this silt is precipitated in the many large lakes, but on the east side the silt is carried directly into the saltwater of Cook Inlet, where it causes considerable murkiness.

Runoff from the Chigmit Mountains varies seasonally from an estimated high of 25 cfs (cubic feet per second) for each square mile to a low of 0.5 cfs; the average yearly runoff is 2-4 cfs per square mile. Water quality is excellent, with low mineralization and little human-caused pollution. However, the general lack of adequate sewage facilities at sites of human concentration and the increasing human use of the park and preserve make treatment advisable before surface waters are considered potable.

The best sources for groundwater supplies are floodplains, terraces, and alluvial fan deposits. Glaciofluvial outwash and coastal deposits may yield fair to good groundwater supplies. Moraines and undifferentiated materials are generally poor sources of groundwater owing to the unsorted character of these deposits. Coastal wells may encounter high salt concentrations from saltwater intruding the aquifer.

Flood data is not available for the major streams in the park and preserve. Historic flood heights can be estimated on a case-by-case basis if scars, driftwood, or other flood deposits are present. For the most part, flood hazard estimates will have to be made on a worst-case basis and will have to include the effects of ice during breakup.

### SOILS

The soils of the park and preserve are youthful and poorly developed. The materials deposited as outwash from glaciers and lacustrine and fluvial sediments accumulate at lower elevations, while above 3,000 feet the surface is primarily bare rock, snow, and ice. In the lowlands and foothills surrounding the Chigmit Mountains are found well-drained very gravelly soils; poorly drained, moderately deep silty loam over gravelly or stony colluvium; and well-drained, shallow silty loam over very gravelly drift or shattered rock. In the western foothills area a layer of peat 6 to 20 inches deep has developed in bogs and black spruce stands. None of the soils in the park and preserve can be considered as prime or unique for agricultural purposes.

### PLANTS

Plant communities in the park and preserve are as diverse and complex as the physical conditions which support them. The area is a meeting ground for plants belonging to at least four different Alaskan biogeographic regions: Pacific Northwest coast and rainforest, Aleutian, interior Alaska, and arctic-alpine Alaska. Racine and Young (1978) provide the most complete description available of the plant communities in the park and preserve and divide them into five formation types: forest, shrub, grassland, tundra, and wetland (see table 3).

Table 3: Vegetation Types Recognized in the Park and Preserve

Formation Type	Vegetation Units	Observed Distribution within the Park and Preserve
<b>Forests</b>		
Evergreen-needleleaf	Sitka spruce/alder White spruce/dwarf birch/ <u>Cladonia</u> White spruce/feathermoss Black spruce/Labrador tea	Cook Inlet, coastal zone Treeline at Twin Lakes Twin Lakes and Crescent Lake Lakes Clark, Kontrashibuna, and Telaquana, and Two Lakes
Deciduous broadleaf	Balsam poplar/alder/ <u>Equisetum</u> Balsam poplar/ <u>Aconitum</u>	Throughout on river floodplains Uplands near treeline in regions west of coastal zone
Mixed evergreen-needleleaf and deciduous-broadleaf	Paper birch/alder/ <u>Calamagrostis</u> Aspen White spruce-paper birch/feathermoss White spruce-balsam poplar/alder Black spruce-paper birch/Labrador tea	Mainly Lake Clark/Kontrashibuna region Kontrashibuna region, very restricted Regional climax, Lake Clark/Kontrashibuna Lake, foothills lakes, Crescent Lake Late successional stage on floodplains Very similar to above black spruce/Labrador tea; fire related?
<b>Shrub Thicket</b>		
	Subalpine shrub	Treeline at Lake Clark/Kontrashibuna Lake, foothills lakes, and montane region
	Alder/ <u>Calamagrostis</u> / <u>Heracleum</u>	Steep mountain slopes throughout, but particularly in coastal zone
	Willow	Throughout bordering lakes, streams, and ponds
	Dwarf birch/feathermoss	Well-drained glacial plateaus west of and in foothills lakes region
<b>Alpine Tundra</b>		
	Dry tundra of dwarf shrubs, mat, and cushion-form plants	Alpine mountain slopes
	Snow accumulation areas	Hollows and depressions on mountain slopes
	Tussock-dwarf shrub tundra	Moist flats in foothills lakes region
	Wet meadow	Wet poorly drained flats in foothills lakes region
<b>Wetland</b>		
	Tidal salt marsh	Coastal zone on Cook Inlet
	Bogs	Sporadic throughout
	Freshwater marsh	Flat valley floors, upland plains
	Aquatic	Small ponds, bays of lakes at lower elevations
<b>Grassland</b>		
	<u>Calamagrostis</u> /fireweed/fern	Steep mountain slopes in alder shrub thickets throughout, mainly coastal zone
	Shorelines	Sand or gravel beaches in coastal zone and on edges of inland lakes

Source: Racine and Young 1978.

No federally listed threatened or endangered plant species is known to grow within the park or preserve. A few individuals of Androsace alaskana, a very rare plant endemic to the Alaska Range, have been found in the preserve along the old mining road near Portage Creek on the northwest shore of Lake Clark. Also, Aphragmus eschscholtzianus, a very rare plant known from less than ten sites in the Alaska Range, Aleutian Islands, and Seward Peninsula, has been found in the park growing on a rocky streambank near the headwaters of the large stream flowing into the southwest end of Turquoise Lake. The red baneberry (Actaea rubra), whose brilliant red or white berries are the only poisonous berries found in the park and preserve, is common in the understory of moist spruce and deciduous forests.

Fire, disease, insect infestations, timber cutting, flooding, avalanches, ashfall, and landslides can disturb different ecosystems in various ways. The response of an ecosystem to such disturbances usually involves a series of successional changes which may eventually lead to a restoration of the climax plant community. When sufficient time elapses between major disturbances, a fairly stable climax community such as the white spruce/paper birch forest may develop. If the time intervals between disturbances are too short, the plant community will remain in a successional stage.

Fires from natural causes burn on the average of 1,000 to 2,000 acres of vegetation in the park and preserve each year. The coastal forests of the park are seldom disturbed by fires; as a result, many of the Sitka spruce stands are overmature, subject to heart rot and subsequent blowdown, and are under attack by the endemic spruce bark beetle (Dendroctonus rufipennis). The importance of fire disturbance to plant communities increases westward across the park and preserve, where a drier climate prevails. Black spruce forests are highly susceptible to fires because of their abundance of low dead branches covered with highly flammable lichens and the thick lichen and moss forest floor that serves as tinder during dry periods.

The primary production of plants in cold-dominated ecosystems is generally so low that large areas are needed to support animal populations. It thus seems contradictory to find that disturbance by fire is often necessary to maintain the habitat productivity of certain ecosystems in Alaska. However, fire increases productivity by releasing nutrients into the soils and by making the area available for plant succession and its high diversity of environmental conditions. Vegetative recovery enormously increases available biomass on burned areas and provides a habitat diversity which fosters a greater animal diversity than existed before the fire.

## ANIMALS

No federally listed threatened or endangered species of animals are known to be residents of the park and preserve or to depend upon it for portions of their habitat. A recent communication from the Alaska Department of Fish and Game reports sightings of nests of peregrine falcons (the unendangered subspecies) within the Lake Clark unit.

The Game Division of the Alaska Department of Fish and Game and the National Park Service are conducting moose, caribou, sheep, and beaver studies in the park and preserve. The intensity of the surveys varies from year to year, and in some years some studies are suspended. At times the surveys require physical contact with the animals. Depending upon budgets and management needs, additional work on other species, or expanded work on these species, may be undertaken.

Black bears are resident in all parts of the park and preserve except the high elevations. Brown/grizzly bears seem to be most abundant in the coastal area of the park but are also commonly seen in the Lake Clark area and along streams during major salmon runs. The bear population appears to be stable.

Wolverines inhabit the park and preserve and are sought by both sport and subsistence users.

Wolves occur in the preserve, mainly in the foothill lakes region near the Mulchatna caribou herd. Coyotes also inhabit the preserve and have been reported as increasing during the past 10 years. There appears to be no evidence of excessive wolf or coyote predation on any of the major game species such as moose or caribou. Red foxes are common residents of the lower elevations in the park and preserve.

Lynx populations in the park and preserve are unstable, as they are over much of Alaska, and are associated with the population cycles of snowshoe hares.

Beavers are common to abundant in both coastal and inland streams and lakes below timberline.

Porcupines are abundant throughout the forests and lower alpine areas of the park and preserve. They are not sought primarily as game or for subsistence purposes but are usually killed because of their propensity to damage unoccupied cabins, get into unattended food caches, and eat the tops out of standing timber.

Moose are found below timberline in transition areas between forests and tundra, between aquatic and terrestrial environments, and in areas which have been burned or otherwise disturbed. The moose population appears to be stable, with the winter ranges near or at their carrying capacities in some areas. The population appears to be healthy.

The foothill lakes and tundra plains of the western preserve are within the range of the Mulchatna caribou herd, which numbers about 20,000 individuals. This area is important to the herd for calving in some years and for grazing but is only a small fraction of its total range. The herd spends most of the year ranging through the Nushagak and Kuskokwim river drainages west of the preserve, and its future health and stability depend upon game management in that area as well as in the preserve. The caribou appear to have had a healthy, viable, and increasing population for the past few decades.

The number of Dall sheep in the park is about 800, but numbers may fluctuate widely as a result of winter mortality in adverse years. The mystique of these animals as trophies for hunters and as attractions for wilderness hikers places them in a position of importance wherever they occur in Alaska. The major sheep range is along the western slope of the Chigmit Mountains on the common boundary of the park and preserve. This is the western extent of Dall sheep range in south-central Alaska.

The tiny wood frog Rana sylvatica cantabrigensis is the only amphibian living in the park and preserve. It is common around the lakes and ponds of the western foothills and along the shore of Cook Inlet. At Lake Clark it is near the northwestern limit of its distribution in North America.

Ptarmigan, spruce grouse, ducks, and geese occur in the park and preserve. Waterfowl nest and molt in suitable lowland habitats throughout the park and preserve, and large migrations of waterfowl rest and feed in these areas before flying through the low mountain passes to the coast. Concentrations of whistling swans have been observed in the Chulitna River drainage from Nikabuna Lakes to Lake Clark. The primary ducks are mallard, widgeon, green-winged teal, pintail, harlequin, scaup, golden-eye, scoter, eider, bufflehead, and old squaw. Seabird colonies nest all along the Cook Inlet coast of the park, with concentrations found at Tuxedni and Chinitna bays. The park and the Tuxedni National Wildlife Refuge on Chisik Island protect nesting sites vital to the seabirds along the coast.

Commonly seen predatory birds in the park and preserve are bald and golden eagles, northern goshawks, sharp-shinned hawks, northern harriers, merlins, and American kestrels. Ospreys inhabit the coastal portions of the park, and peregrine falcons have been seen in the Tuxedni Bay/Crescent Lake area of the park. Predatory birds in the park and preserve become locally abundant when waterfowl migrations are underway.

From June through September all major drainage systems within the park and preserve receive migrations of spawning salmon, with the time of entry depending upon the particular species and drainage involved. Species include king (chinook) salmon, sockeye (red) salmon, chum (dog) salmon, coho (silver) salmon, and humpy (pink) salmon. The sockeye salmon are unquestionably the most important species in terms of both total numbers and value to the Bristol Bay commercial fishery. Approximately 10 percent of the total run of Bristol Bay sockeye salmon bound for the Kvichak River are dependent upon spawning and rearing habitat within the park and preserve. The Bristol Bay sockeye salmon run is the world's largest (30-35 million fish in 1981) and the Kvichak River drainage is its single most productive basin.

Because of the mountainous, glacier-covered nature of the watershed of the park, the waters draining from it are cold, low in nutrients, and not highly productive for freshwater fish. Large fish are generally very old due to the short summer growing season and cold water temperatures. Sport fish in the lakes and rivers include arctic char, arctic grayling, Dolly Varden, northern pike, lake trout, rainbow trout, and sockeye,



coho, and king salmon. Burbot and whitefish are also sought by local anglers during winter by fishing through the ice. Razor clams are harvested during low spring tides along the eastern Cook Inlet shoreline of the park.

Moderately high catch rates, particularly in the larger drainage systems, are supported by the present dispersed angling pressure. However, concentrated angling pressure can rapidly overexploit the smaller aquatic systems in the park and preserve. The primary sport fishing attributes of the park and preserve are the variety of fish species available and the scenic wilderness setting. An estimated minimum of 3,500 angler-days are spent in the park and preserve each year. Only limited data has been collected on the numbers, sizes, and species taken by sport fishing. The Sport Fish Division of the Alaska Department of Fish and Game has no immediate plans to conduct a creel census of sport fish harvest within the park or preserve. However, an annual statewide postal creel census is conducted by the Sport Fish Division, which provides some statistical information on the numbers and species of sport fish harvested in the Lake Clark area as well as some of the more important angling destinations within the region.

The Commercial Fisheries Division and other agencies under contract are currently conducting frequent aerial salmon escapement surveys in the Lake Clark and Chinitna Bay watersheds; less frequent surveys in Crescent Lake, Tuxedni Bay, and other salmon-producing watersheds; and adult salmon sonar enumeration at the outlet of Crescent Lake. The department is also conducting a limnological sampling program at Crescent Lake. Probable future studies include examining the population dynamics of rearing salmon in the Lake Clark system.

## CULTURAL HERITAGE

### ARCHEOLOGY AND ETHNOGRAPHY

Fifty-six archeological sites have been found within the park and preserve. Evidence indicates that people of the Northern Archaic tradition used the area as early as 4,300 to 6,500 years ago (Smith and Shields 1977). The next evidence points toward occupation some 1,000 to 2,500 years ago by people of the Norton tradition, which is related to present-day Eskimo culture. The historic native group in the area is Tanaina Indian, so the earlier Eskimo culture indicates a shift in cultural and ethnic borders in the Lake Clark area. Historic records and excavations at the village of Kijik led Van Stone and Townsend (1970) to conclude that the Lake Clark Tanaina moved in several years after Russian contact, perhaps to trap for furs at the behest of the Russians. Recent finds of aboriginal-style house depressions near Kijik, however, suggest an indigenous Tanaina population at Lake Clark before Russian contact.

While certain groups of the Tanaina are the only Northern Athabascan-speaking Indians to have developed a maritime economy, the Lake Clark group had an entirely interior adaptation. The Lake Clark Tanaina had an economy that was focused on salmon fishing and the hunting of large land mammals. It was similar to the environmental exploitation characteristic of the neighboring riverine Eskimos of the Nushagak River and its tributaries to the west of Lake Clark.

The relatively rich environment for subsistence in the Lake Clark area, especially the reliable salmon runs, made it possible for the Tanaina to live in semipermanent villages. Winter homes were partially underground and built of logs; the sides were covered with grass thatch and dirt and the roof with birch bark. The usual site for a village was along a major stream or lake. Wood for construction and fuel may have been a limiting resource and the cause for relocating the villages every few generations.

Satellite camps were established on a seasonal basis to fish and gather or hunt for specific resources. The summer fishing camps were usually of some duration but required less substantial shelters than the winter houses of the villages.

The Tanaina still speak of their warrior tradition. Their principal enemies were Eskimos living to the south and west of Lake Clark. Villages were sometimes built in out-of-the-way places to avoid discovery by enemy raiding parties. A high degree of individualism was encouraged as long as it did not interfere with the rights of others, and wealth obtained by skillful hunting and shrewd trading was highly respected.

The Tanaina traced descent through the female line, and these lineages were organized into clans. Members of a clan could not marry each other and had to seek spouses in other clans. Residence after marriage was usually with the wife's family but this was not a hard and fast rule. Polygyny was practiced but usually only by the wealthy men.

## HISTORY

Siberian fur hunters, called promyshlenki, began to move eastward along the Aleutian chain of islands soon after Bering's voyage of 1741. They took furs by force rather than by barter, and such news probably spread to the Alaska Peninsula. The Russians are not known to have entered the Lake Clark region until after Captain James Cook's 1778 expedition in the Cook Inlet. In 1783 a Russian fur-trading company established the Shelikov colony on Kodiak Island at Three Saints Bay, and the next year the first Greek Orthodox missionaries arrived there from Siberia. Dmitri Ivanovich Bocharov, a Russian naval officer, was sponsored by the Shelikov Company to explore the Lake Iliamna region in 1791. The competing Lebedev-Lastochkin Company plundered the villages of the area the next year in reprisal for the natives' having helped Bocharov on his expedition.

Russian missionaries followed closely in the steps of the fur traders. Father Yakov Federovich Juvenal began preaching his gospel to the interior Tanaina in 1796. He was especially strong in his opposition to polygyny and was martyred for his efforts by the natives, possibly at Kijik on Lake Clark.

In 1799, an imperial ukase from the crown converted the Shelikov Company into the Russian-American Fur Trading Company and gave it a monopoly over the fur trade in Alaska. The same year saw the company establish a trading post in the Iliamna area. As seems common to the times, the Russians were unfair in their dealings with the natives and often mistreated them. As a result, the local Tanaina attacked and wiped out the trading post. In 1818, Korasakorsky traveled from Cook Inlet to Lake Iliamna and thence to Bristol Bay and along the coast to the mouth of the Nushagak River, where he established the Alexandrovsk trading post. The Russians, however, were not able to reestablish an Iliamna trading post until 1821. In the meantime, those Tanaina who were caught up in the fur trade made regular trips to trading posts on the Kenai Peninsula.

The Russian occupation was so dominated by its orientation to the fur trade that little exploration was done remote from trading posts and forts. In 1834, Andree Glazanof, the discoverer of the Yukon, ascended the Kuskokwim to a river then called Tchalochuk, now known as Stony River. Despite being abandoned by their guides, his party was able to travel up the Stony River to a point near the highlands of the Lime Hills northwest of the preserve.

Orthodox missionary activity did not resume until after 1845, when the mission at Nikolayevski redoubt was established on the east side of Cook Inlet at Kenai. The village of Kijik on Lake Clark was not mentioned in church records until that date. After 1853 the Iliamna, Lake Clark, and Mulchatna regions were transferred to the jurisdiction of the Nushagak Orthodox mission, but little religious activity appears to have taken place until 1877. The church there, whose back wall still stands, was built in the 1880s. The church is an important part of some individual's culture to this day.

The American period began with the purchase of Alaska in 1867, but there was little effect on the Lake Clark region for the first quarter century. The presence of a large lake north of Iliamna was vaguely known, as it was indicated on some early Russian charts. In 1881 the lake was visited by C. L. McKay of the U.S. Signal Service, and in 1891 it was named for John W. Clark, the agent in charge of the Alaska Commercial Company's post at Nushagak (Schanz 1891).

Salmon canneries opened in Bristol Bay in the late 1800s, and by the early 1900s some Tanaina were obtaining cash income from this new industry. After the turn of the century the upper Mulchatna River saw some gold mining activity. There was never a major gold strike but the activity attracted nonnatives into the area. The Russian trading post at Old Iliamna was taken over by the Alaska Commercial Company, and the Severson trading post at New Iliamna began operations about 1900.

An exploration for a railroad line from Iliamna Bay to Anvik, on the Yukon, was begun in 1901 and continued more or less actively for several years. A route was finally selected, and a plat of the proposed line was accepted and filed in the General Land Office in 1912, but no construction work other than the laying of a few ties near the coast terminus was undertaken. The exploration survey was crude but does indicate that the railroad line would have passed through the present preserve and across the Mulchatna River on its way north.

The commercial salmon fishing and canning industry has dominated the history of the whole region since its inception. The developments along the coasts brought large numbers of outsiders to the region and a shifting of native populations. Agents of change, in the form of schools and teachers, missionaries, a few prospectors, trappers, and traders, became increasingly common. Airplanes and snowmobiles replaced traditional means of transportation and increased the need for a cash as well as a subsistence economy.

Throughout the historic period there were several settlements in or near the park and preserve. Kijik, the primary village on Lake Clark, had a population of 40 to 90 people in the late 1800s. Disease and a desire to be closer to the trading posts and canneries led the residents to abandon Kijik around 1909 and move to Old Nondalton on Sixmile Lake. Around 1940 they moved to the present village of Nondalton. Other villages were known to exist as early as the late 1800s on the upper Mulchatna River, Lake Telaquana, and the upper Stony River. About the same time as the abandonment of Kijik, the people in these settlements moved to Old Nondalton or to Lime Village on Stony River. Kin and trade relations acted to tie the villages together in a network which still exists today between Lime Village and Nondalton residents.

Two properties on the National Register of Historic Places are within or adjacent to the national preserve boundary. One is a Russian church in Nondalton, and the other is the old village of Kijik on the northwest shore of Lake Clark in the preserve. Neither is on federal lands; however, the Kijik nomination is currently being amended to form a district that will include significant cultural resources on adjacent federal lands. In addition to these two properties the park and preserve contain approximately 12,150 acres of federally managed lands identified as historic sites, trails, and cemeteries.

## SOCIETY AND ECONOMY

### POPULATION

The people living in the area of the park and preserve are still predominantly native and are concentrated in Nondalton, New Iliamna, Pedro Bay, Newhalen, and Port Alsworth. The total resident population of these villages rose from 419 in 1970 to about 475 in 1980. Many of the residents engage in a subsistence lifestyle.

The mountainous terrain of the park forms a natural division between two economic and social regions centered around Bristol Bay and the Anchorage/Kenai Peninsula area. Most of the native population is more oriented to the commercial salmon fisheries economy of Bristol Bay, while the nonnative residents are more oriented to the social and economic life of Anchorage and the Kenai Peninsula. The local cash economy is supported by a few state and federal jobs, commercial and sport fishing, sport hunting, and to a smaller degree trapping, petroleum exploration, and mineral prospecting.

The economy of Alaska is often described as "boom or bust," but the population growth in the Anchorage/Kenai Peninsula region can only be described in terms of boom. The Anchorage metropolitan area increased by about 37 percent between 1970 and 1980. This trend is continuing through 1982, and the expense of a home or apartment and other costs of living--including outdoor recreation--are escalating with it. In 1982 there will be nearly 300,000 residents in this region within a 1½-hour flight of the park and preserve. This population is predominantly young, nonnative, and urban.

### TRANSPORTATION

Access to the area of the park and preserve is exclusively by air and water. Good airfields are at Iliamna and Nondalton. The airstrips at Port Alsworth are private. Each village has its own strip, and a few unmaintained strips remain after being cleared for special purposes. The numerous lakes and coves are well suited for float and amphibious aircraft in the summer and for ski-equipped aircraft in the winter. Polly Creek, Silver Salmon, Chinitna Bay, and a few other beaches along Cook Inlet are also used by small aircraft.

Charter service is available from such nearby areas as Anchorage, Kenai, Homer, Soldotna, King Salmon, and Iliamna. About 120 air taxi operators serve the area, but only about 15 fly into the park and preserve on a regular basis. Wien Consolidated Airlines has jet service five times a week between Anchorage and Iliamna, making Iliamna a popular place to switch from commercial to charter air service. The low elevations and spectacular scenery along Merrill and Lake Clark passes make them popular access routes, and air travel through them is increasing each year. Aircraft access to the backcountry is expensive, but this is offset by the low expense of living in the wilderness. A 10-day backcountry trip with air access is less expensive than a 10-day stay in an urban part of Alaska.

Cook Inlet is navigable but can be treacherous. Offshore depths range from 100-500 feet and average about 200 feet, but the bays in the park are shallow, have a large tidal fluctuation, and are not sheltered from storms. There are two, quite different, high and low tides each 24 hours. The tidal range in lower Cook Inlet can be as great as 20 to 25 feet. Strong tidal currents commonly produce surface water velocities of 3 to 6 mph during flood and ebb tides, and combined with the strong Coriolis force of this latitude, the inlet geometry, and storm winds, can produce a confused sea with cross-current turbulence and waves up to 20 feet high. In the winter, ice formed in the upper Cook Inlet drifts south along the eastern shore of the park and compounds navigation problems.

The Alaska Marine Highway system does not provide ferry service to the western Cook Inlet coast. Private craft, commercial fishing and clamming vessels, and freight barges, however, ply the coast. Freight and small vessels can be hauled by truck along a 15.5-mile state-maintained road from Williamsport at Iliamna Bay to Pile Bay on Lake Iliamna, then follow a water route to Bristol Bay via the Kvichak River. Freight and vessels from Cook Inlet or Bristol Bay that reach Lake Iliamna can be transported up the Newhalen River by barge and portage road to Nondalton on Sixmile Lake. All other freight must be airlifted to reach Lake Clark.

Boats are used to travel from point to point within the area, by local residents and visitors alike. Once on Lake Clark, boaters can travel to the several rivers emptying into the lake and to hiking routes up the drainage valleys. Many of the rivers in the park and preserve are suitable for raft float trips, and a small but growing number of kayakers are beginning to use the rivers for recreation. The Chilikadrotna Wild River provides for a quality Alaskan river-running experience and is the most popular river for float trips in the park and preserve.

Local rural residents have traditionally used snowmobiles in conducting their winter activities, but recreational use of these vehicles has not become an established visitor activity. Hovercraft have not been introduced into the area, and large off-road vehicles with four-wheel drive or tracks do not venture far from the limited road networks around the villages. Small three-wheel scooters are often used in summer and other seasons when there is insufficient snow for snowmobile operation. When traveling on foot, snowshoes, or cross-country skis, people generally follow the easiest terrain between destinations rather than depending on established trails.

#### OUTDOOR RECREATION AND TOURISM

The demand for outdoor recreational opportunities in the Anchorage/Kenai Peninsula region is rapidly increasing from residents and tourists alike. Opportunities for outdoor sports, fishing, hunting, camping, boating, hiking, alpine and cross-country skiing, clamming, and flying or ballooning for pleasure are all available in the region, but traffic jams on the limited highway network and overcrowding at the more popular areas already face those seeking these activities.

Anchorage area residents account for much of the sport fishing and hunting on the Alaska Peninsula and provide many of the commercial guiding and other trip services in the Lake Clark area. Anchorage-based businesses serving the park and preserve include charter transportation, meals and lodging, guided hunting and fishing trips, float trips, taxidermy services, and other similar activities. Tourism is the second most important industry in Alaska and, combined with the increasing regional demand for outdoor recreation, will certainly bring increasing numbers of visitors to the new national park and preserve, where the scenic and natural resources offer a more uncrowded and primitive experience than the older established parks in Alaska.

Recreational activities occurring in the park and preserve are those commonly associated with the Alaskan wilderness--hunting, fishing, trapping, river floating, hiking, and camping. Some technical mountain climbing has been done in the northern portion of the park at Merrill Pass. The most used climbing area in 1981 was Iliamna Volcano. Little reliable data about levels of use are available, but it has been estimated that 1,600 sport-hunting-days, 3,500 angler-days, and 30 to 35 river trips occurred in the park and preserve during 1981. Without additional data, it can only be assumed that these traditional uses will expand as news of the area spreads and as wilderness experiences become more difficult to find in the Lower 48.

#### PRIVATE BUSINESS IN AND ADJACENT TO THE PARK AND PRESERVE

Eleven private lodges surrounded by the park and preserve currently offer guided hunting and fishing trips, meals, and overnight accommodations. Eight of these lodges are on the shores of Lake Clark and two are on Cook Inlet. All are on private lands and do not come under the authority of the National Park Service Concessions Policy Act. Individual lodge capacities range from 4 to 20 visitors, and the total overnight capacity on Lake Clark is 110. Several lodge owners are interested in providing guided sightseeing, photographic, and nature observation trips as well as boating and camping facilities when visitor interest will support them.

A number of businesses based outside the park and preserve bring clients into the area. Most of these businesses are based in Anchorage, Kenai, Soldotna, or Homer, but some are located as far away as Washington, Oregon, or other states in the Lower 48. The services offered include air taxi and guided sport fishing, hunting, river running, photography, nature observation, wilderness camping, backpacking, and hiking trips. The preserve contains 15 exclusive guide hunting areas where only designated guides may operate.

Businesses that support appropriate activities in the park and preserve but do not solicit business or maintain fixed commercial facilities there may be managed either under a concession contract/permit or a commercial business license. The implications of these two management strategies are quite different: Concessioners compete for the right to conduct business under controls imposed by the National Park Service. Such operations are limited in number. Licensed businesses also operate under controls,

to protect park resources and visitor safety, but any number of such businesses may operate in the park or preserve so long as they meet the licensing requirements. At the present time all of the businesses that provide services from bases outside the park and preserve are required to operate under commercial business licenses.

Many private landowners within and adjacent to the park and preserve are enlarging their homes or seasonal retreats, and some are building additional structures. Current high land values are encouraging the subdivision and sale of private lands, and many persons from Anchorage and communities on the Kenai Peninsula are purchasing lots in the area. Construction of cabins and lodges on private lands will increase the local population (especially in the summer) and lead to an increased need for support activities, including supply of construction materials, equipment, fuel, retail goods, and other materials. Suppliers from Anchorage and communities on the Kenai Peninsula use various areas of the park and preserve to supply residents and commercial operators with these items and to deliver mail.

Along the coast of the park there is commercial set net, drift, and seine fishing under a state permit system. The chief catches are salmon, herring, and some halibut. From Chinitna Bay to Polly Creek 60 set net fishermen use land bases in the park to support their fishing activities. In 1981, commercial clamming operations involved about 100 persons in the area of Polly Creek and Crescent River.

#### SUBSISTENCE USES

Most of the residents of the Lake Clark shoreline and other locations within the park and preserve, and most of the people of Nondalton, benefit from resources harvested within the park and preserve (Behnke 1978). Lake Clark and its shoreline are utilized by members of at least 25 of the 30 households in Nondalton at one time or another. A few residents of the villages of Sleetmute and Lime Village have used and are using the Telaquana and Stony River areas. This makes a total of about 240 local residents who benefit from subsistence activities in the area, although not all of them harvest resources with the same frequency or are dependent on those resources to the same degree. The degree of dependence varies from moderate to very little. Many Nondalton families only get into the area a few times a year or only every other year, and no one is totally dependent upon these resources for the necessities of life, since all have some form of cash income and certain alternative harvest areas. But nearly all residents supplement their other sources of income by harvesting resources for use as building materials, fuel, and food. Without the use of subsistence resources it would be difficult for many people to continue to live in the area without supplementing their income in some other way.

Subsistence activities vary with the season. A few families still follow a traditional pattern of establishing camps to catch and put up fish, mostly for dog food, but this practice has declined as use of dog teams has decreased. Fishing remains a year-round activity, however, and supplies an important food to some families.



Hunting for small and large game also continues the year around. Most Lake Clark and Nondalton residents attempt to get moose and caribou during the fall, but those without electricity wait until cold weather sets in, so that they can keep the meat. More caribou are taken than any other large animal, but the harvests of moose, black bear, grizzly, and Dall sheep by subsistence hunters are also considered significant in relation to the size of the populations of these animals in the park. Subsistence hunters compete successfully with sport hunters by flying into the good moose and caribou areas within or adjacent to the preserve.

Trapping for winter fur is greatly influenced by fluctuating fur prices and variable travel conditions. The numbers of beaver, fox, and lynx harvested in the park and preserve for subsistence constitute significant portions of the local take. Red fox is currently the most economically important furbearer in the park and preserve.

Wood gathering is one of the most important activities during fall and winter, and one in which almost all households participate. Spruce is the most commonly used fuel in Nondalton and is often used for both heating and cooking. Spruce logs are also used for cabin construction. Many areas near Nondalton have been logged over for cabin-log spruce, and long distances must sometimes be traveled to obtain them. Many areas around the shores of Lake Clark have also been logged. Logs for houses are usually cut in late spring or summer along waterways so they can be floated to the construction site.

Similar subsistence activities commonly occur around Silver Salmon and Chinitna Bay.

#### LAND STATUS

Lake Clark National Park and Preserve are estimated to contain 4,045,279 acres of land and water. Numerous laws have provided for extensive land selections in and adjacent to the park and preserve by individuals, native village and regional corporations, and the state (see land status maps in back pocket of this document). Currently, less than 92,000 acres within the park and preserve have been patented or placed under interim conveyance. The remaining lands are managed by the National Park Service pending definition of ownership. Exact land status is clouded by overselection, selection by more than one entity, and the incomplete adjudication of many small tract entries and allotments. In the future, some selections will be relinquished as land entitlements are met elsewhere, while other selections will be conveyed to private ownership.

Land selections are referenced to township and range lines projected across the area. In many instances Bureau of Land Management and U.S. Geological Survey maps disagree by as much as a mile over the positions of these lines and physical features such as lakeshores. In addition, many properties are bounded by irregular topographic features, which makes measurement difficult. Acreage calculations are based on the official Geological Survey map of the park and preserve. The errors inherent in the map scaling combined with the multiple selections produce acreage figures that only approximate reality and are not valid for determining land quotas.

Table 4: Land Status

<u>Status</u>	<u>Acres</u>
gross acreage of the park and preserve	4,045,279
acreage of park	2,638,819
acreage of preserve	1,406,460
land surface	3,889,735
major water surface	155,544
lands and waters under federal management	3,954,273
unencumbered federal lands	1,559,989
wilderness	2,470,000
regional corporation property in interim conveyance or patented	11,342
regional corporation selections	1,880,692
village corporation property in interim conveyance or patented	71,217
village corporation selections	500,413
historic or cemetery site selections	12,150
native allotments	7,309
small tract entries	1,138
subsurface mining rights	119,096
oil and gas rights	6,068
patented mining claims	176

## RELATED PLANS AND STUDIES

In 1974 a Master Plan and Final Environmental Impact Statement (FES 75-27) were approved for the management of national interest lands in the Lake Clark area, which at that time were being considered by Congress for establishment as a national park. In 1978, the impact statement was supplemented by Alternative Administrative Actions, - Alaska National Interest Lands. This supplement took a hard look at new information and circumstances relevant to environmental concerns and evaluated the consequences of establishing the area as a national monument by presidential proclamation. The 1974 master plan has been reduced in scope and tailored to the boundaries and requirements of ANILCA and is represented by alternative 3 in this environmental assessment.

The Alaska Native Claims Settlement Act (43 USC 3101 et seq.) directed a study and plan of the potential uses of selected lands along the western shore of Cook Inlet, including native corporation and village selected lands within the southeastern portion of the park. This study is underway in the NPS Alaska Regional Office and is not expected to be completed until mid or late 1982. Potential activities being evaluated are oil and gas exploration, commercial fishing and clamming, subsistence activities, sport hunting and fishing, recreation and tourism, timber harvest, mineral extraction, retention in land bank status, and lease or sale.

The Bureau of Land Management is preparing a land use plan for its southwest planning area. The 2.8-million-acre Lime Village planning block of this area lies between the town of Medfra on the north and Whitefish Lake on the south. The southern portion of the planning block is bisected by the Stony River about 35 miles west of the northern part of the preserve. The draft plan indicates that human use will be seasonal in the portions of the planning block closest to the preserve and that it will be managed primarily as caribou winter range.

In ANILCA Congress directed the secretary of the interior and the governor of Alaska to prepare a comprehensive and systematic cooperative management plan for the Bristol Bay region, which includes the lands immediately adjacent to the preserve and park on the west and south. The primary purpose of this plan is to conserve the fish and wildlife and other significant natural and cultural resources while providing for the rational and orderly development of economic resources in an environmentally sound manner. The plan will also identify lands that may be appropriate for addition to national conservation system units and provide for land exchanges among federal, state, and other public or private owners if appropriate. This plan is in its early stages of issue identification and data collection, and the final plan is scheduled for completion in 1983. Proposals for land exchanges along the western preserve boundary will be submitted to the study group for consideration in the Bristol Bay plan.

The 1981 Alaska legislature and the governor have appropriated funds to study the completion of a road from Iliamna to Nondalton. If the consensus of local residents is favorable, a road design and cost estimate

will be developed and road construction funds will be requested by the Alaska Department of Transportation. The road would have to bridge the Newhalen River and cross numerous tributaries critical for salmon spawning. Early indications are that while the local residents favor the transportation advantages of the road, they also fear damage to the salmon fishery and to the local cultural way of life from an influx of recreational users.

The Alaska Power Authority is conducting feasibility studies for a Tazimina hydroelectric project in the southern portion of the preserve. These studies are being done as part of the Bristol Bay regional power plan. While no conclusions have been reached, it appears that storage in Lower Tazimina Lake may not be sufficient for winter operation and that a storage reservoir on Kontrashibuna Lake might have to be considered to make the project feasible. Another variation being looked into for this project would entail a low dam with fish ladders on the Newhalen River. Construction of any hydroelectric project in the area would require road construction and clearing for transmission lines. The preserve lands involved are under native selection but remain under federal management until interim conveyance is made.

Activities may begin during the next few years to develop the Beluga coal field northeast of the park. The present network of transmission, timber, and seismic roads would be expanded by the addition of a coal transportation system. Beyond this the area holds the potential for the construction of a coal gasification plant, a fossil fuel power plant, and a surface transportation connection with the Anchorage area. Where possible, the National Park Service will need to actively participate in those plans which may affect the park environment and the quality of its airshed.

The Alaska Land Use Council staff, with the endorsement of the council, formed a work group in early 1982 to look into issues related to the accessibility and cooperative management of components of the National Wild and Scenic Rivers System in Alaska. The National Park Service is the lead agency for this effort. Other agencies participating on the work group include the U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service, Alaska Department of Natural Resources, Alaska Department of Fish and Game, Alaska Department of Transportation and Public Facilities, and Alaska Federation of Natives.

The U.S. Geological Survey will complete a geologic and mineral potential map of the Lake Clark quadrangle in 1982. The Survey is also conducting a study of volcanic hazards along Cook Inlet and will publish a geologic map of Redoubt Volcano in 1982. Future studies will include Augustine, Iliamna, and Spurr volcanoes.

Section 805 of ANILCA directs that all federal lands in Alaska be divided into at least six subsistence regions. Each region is to have a regional advisory council and as many local advisory committees as needed. Each regional council is to submit annual reports to the secretary of the interior containing descriptions of regional subsistence uses, needs, strategies, and recommendations. The first such reports are due December 2, 1982.

Section 808 of ANILCA further directs that a subsistence commission be set up for each national park or national monument that allows subsistence hunting. The commissions are to be composed of three members of the regional subsistence councils or local subsistence committees who are subsistence users of the park or monument, three members appointed by the governor, and three members appointed by the secretary of the interior. Each commission is to devise and recommend to the governor and the secretary a program for subsistence hunting within the park or monument. The first subsistence hunting programs are due July 2, 1982. As stated in section 808 the subsistence hunting program for Lake Clark National Park

shall be prepared using technical information and other pertinent data assembled or produced by necessary field studies or investigations conducted jointly or separately by the technical and administrative personnel of the State and the Department of the Interior, information submitted by, and after consultation with, the appropriate local advisory committees and regional advisory councils, and any testimony received in a public hearing or hearings held by the commission prior to preparation of the plan at a convenient location or locations in the vicinity of the park. The Secretary shall promptly implement the program and recommendations submitted to him by each commission unless he finds in writing that such program or recommendation violates recognized principles of wildlife conservation, threatens the conservation of healthy populations of wildlife in the park or park monument, is contrary to the purposes for which the park or park monument is established, or would be detrimental to the satisfaction of subsistence needs of local residents.

APPENDIX: FEDERAL REGULATIONS FOR ALASKAN PARKS

- Sec.  
 13.63 Denali National Park and Preserve.  
 13.64 Gates of the Arctic National Park and Preserve.  
 13.65 Glacier Bay National Park and Preserve.  
 13.66 Katmai National Park and Preserve.  
 13.67 Kenai Fjords National Park.  
 13.68 Klondike Gold Rush National Historical Park.  
 13.69 Kobuk Valley National Park.  
 13.70 Lake Clark National Park and Preserve.  
 13.71 Noatak National Preserve.  
 13.72 Sitka National Historical Park.  
 13.73 Wrangell-St. Elias National Park and Preserve.  
 13.74 Yukon-Charley Rivers National Preserve.

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.

## PART 13—NATIONAL PARK SYSTEM UNITS IN ALASKA

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 13.48 Subsistence hunting and trapping.  
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 13.50 Closure to subsistence uses.  
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### Subpart C—Special Regulations—Specific Park Areas in Alaska

- 13.60 Aniakchak National Monument and Preserve.  
 13.61 Bering Land Bridge National Preserve.  
 13.62 Cape Krusenstern National Monument.

### 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 "unloaded" 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, possessing, 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 one 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 qualify 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, transporting 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 noncommercial gathering by local rural residents of fruits, berries, mushrooms, and other plant materials for subsistence uses, and the noncommercial gathering of dead or downed timber for firewood, shall be allowed without a permit in park areas where subsistence uses are allowed.

(c)(1) Notwithstanding 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

#### § 13.60 Aniakchak National Monument and Preserve.

(a) *Subsistence.*—(1) *Resident Zone.* The following communities and areas are included within the resident zone for Aniakchak National Monument:

Chignik  
Chignik Lagoon  
Chignik Lake  
Meshik  
Port Heiden

#### § 13.61 Bering Land Bridge National Preserve.

(a) *Off-Road Vehicles.* The use of off-road vehicles for purposes of reindeer grazing may be permitted in accordance with a permit issued by the Superintendent.

#### § 13.62 Cape Krusenstern National Monument.

(a) *Subsistence.*—(1) *Resident Zone.* The following communities and areas are included within the resident zone for Cape Krusenstern National Monument:

Kivalina  
Kotzebue  
Noatak

#### § 13.63 Denali National Park and Preserve.

(a) *Subsistence.*—(1) *Resident Zone.* The following communities and areas are included within the resident zone for Denali National Park addition:

Cantwell  
Minchumina  
Nikolai  
Telida

(b) *Camping.* Camping is prohibited along the road corridor and at Wonder Lake, except at designated areas. Camping is allowed in other areas in accordance with the backcountry management plan.

(c) *Unattended or Abandoned Property.* Leaving unattended and abandoned property along the road corridor, at Wonder Lake, and in the areas included in the backcountry management plan, is prohibited.

#### § 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.

#### § 13.65 Glacier Bay National Park and Preserve [Reserved].

#### § 13.66 Katmai National Park and Preserve [Reserved].

#### § 13.67 Kenai Fjords National Park.

(a) *Subsistence.* Subsistence uses are prohibited in, and the provisions of Subpart B of this part shall not apply to, Kenai Fjords National Park.

#### § 13.68 Klondike Gold Rush National Historical Park.

(a) *Camping.* Camping is permitted only in designated areas.

#### § 13.69 Kobuk Valley National Park.

(a) *Subsistence.*—(1) *Resident Zone.* The following communities and areas are included within the resident zone for Kobuk Valley National Park:

Ambler  
Kiana  
Kobuk  
Kotzebue  
Noorvik  
Selawik  
Shungnak

(2) *Customary Trade.* In addition to the exchange of furs for cash, "customary trade" in Kobuk Valley National Park shall include the selling of handicraft articles made from plant material taken by local rural residents of the park area.

#### § 13.70 Lake Clark National Park and Preserve.

(a) *Subsistence.*—(1) *Resident Zone.* The following communities and areas are included within the resident zone for Lake Clark National Park:

Iliamna  
Lime Village  
Newhalen  
Nondalton



Pedro Bay  
Port Alsworth

**§ 13.71 Noatak National Preserve  
[Reserved].**

**§ 13.72 Sitka National Historical Park.**

(a) *Camping.* Overnight camping is prohibited.

**§ 13.73 Wrangell-St. Elias National Park and Preserve.**

(a) *Subsistence.*—(1) *Resident Zone.*  
The following communities and areas are included within the resident zone for Wrangell-St. Elias National Park:

Chisana  
Chistochina  
Chitina  
Copper Center  
Gakona  
Gakona Junction  
Glennallen  
Gulkana  
Kenny Lake  
Lower Tonsina  
McCarthy  
Mentasta Lake  
Nabesna  
Slana  
Tazlina  
Tok  
Tonsina  
Yakutat

(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:

Yakutat (for access to the Malaspina  
Forelands Area only)

**§ 13.74 Yukon Charley Rivers National Preserve [Reserved].**

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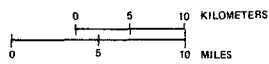
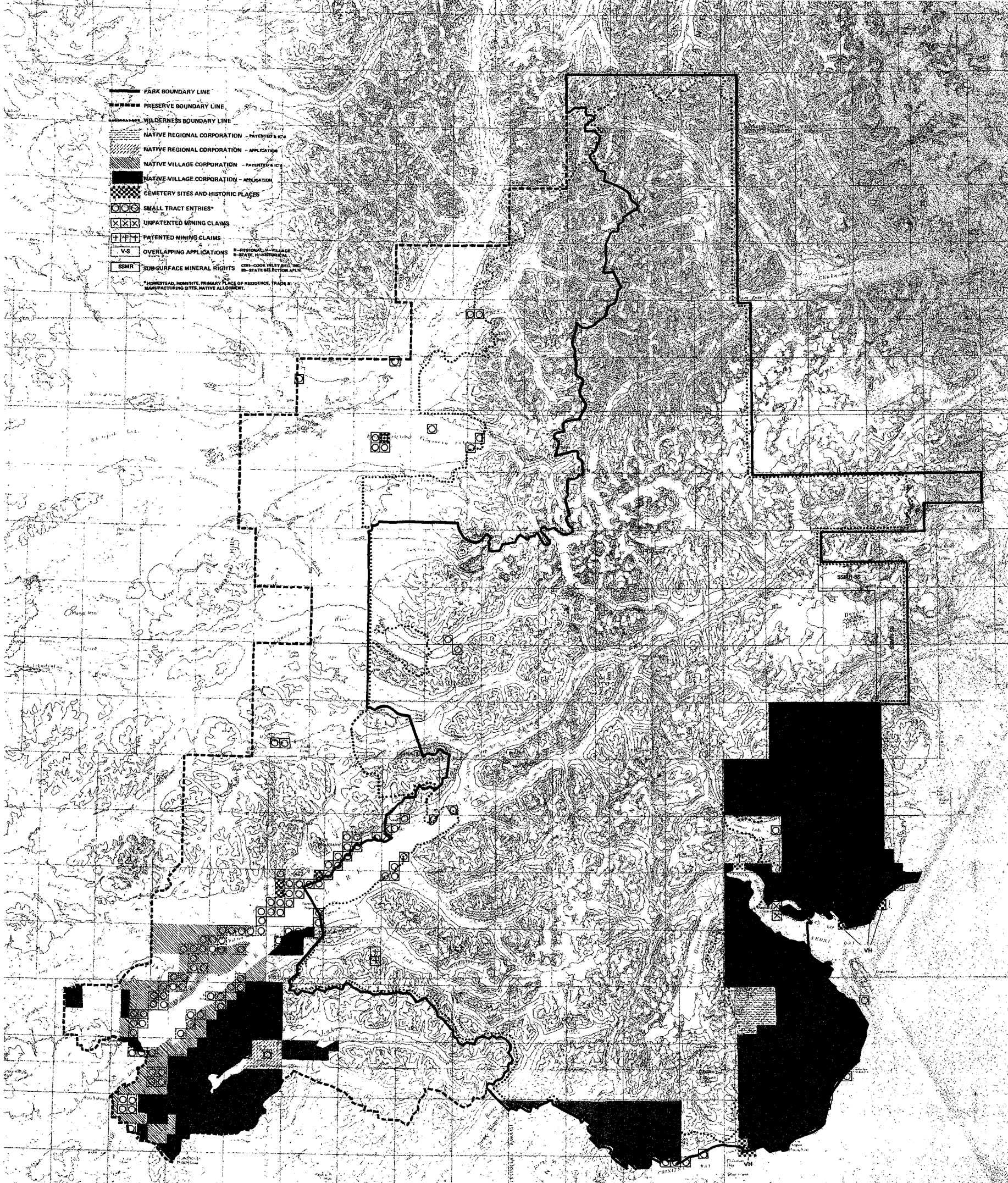
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  - WILDERNESS BOUNDARY LINE
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  - SMALL TRACT ENTRIES\*
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  - VS OVERLAPPING APPLICATIONS
  - BSMR SUB-SURFACE MINERAL RIGHTS
- \*HOMESTEAD, HOMESITE, PRIMARY PLACE OF RESIDENCE, TRADE, MANUFACTURING SITES, NATIVE ALLIANCE.
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 S-STATE SELECTION APPLN.



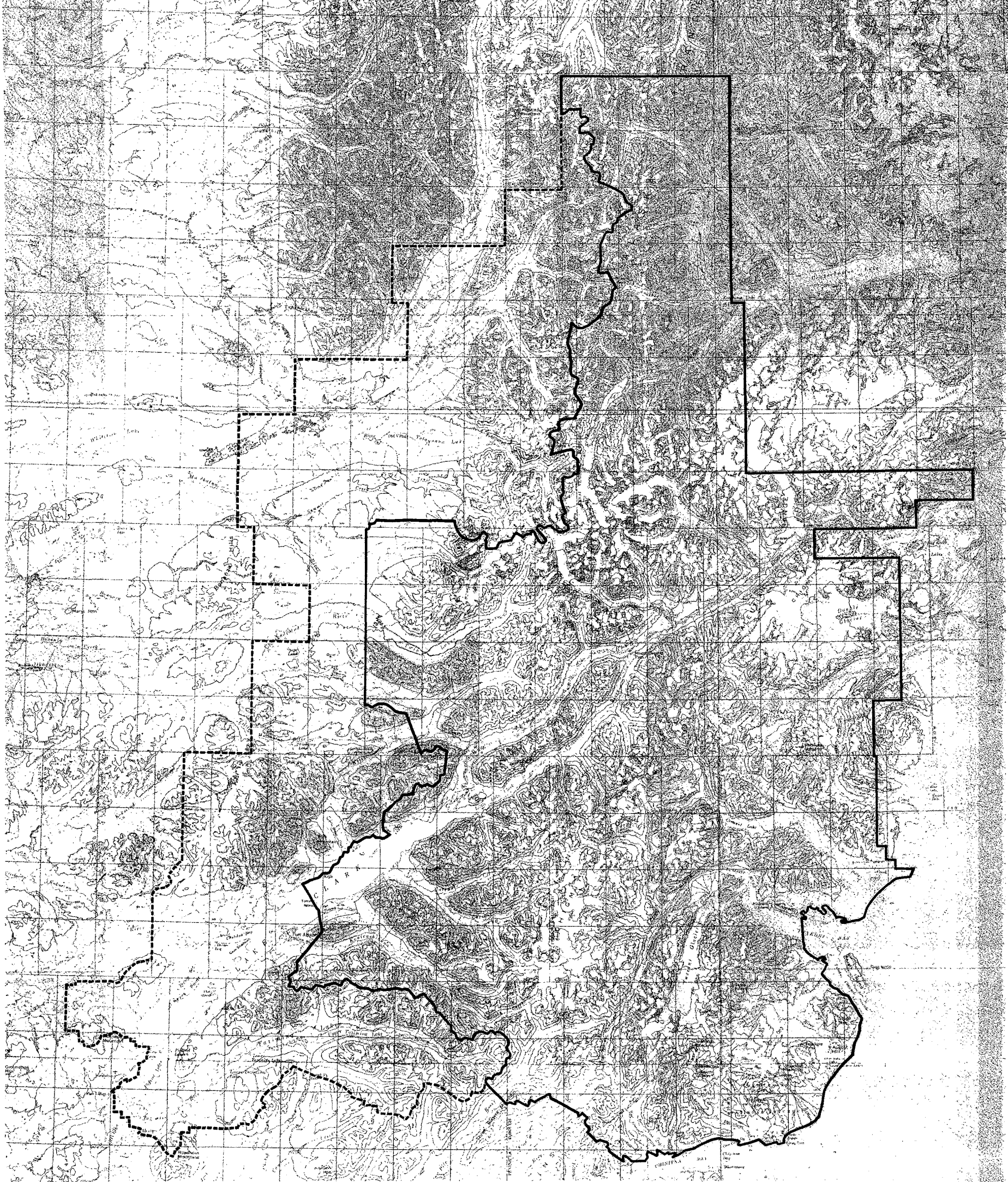
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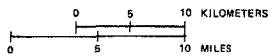
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