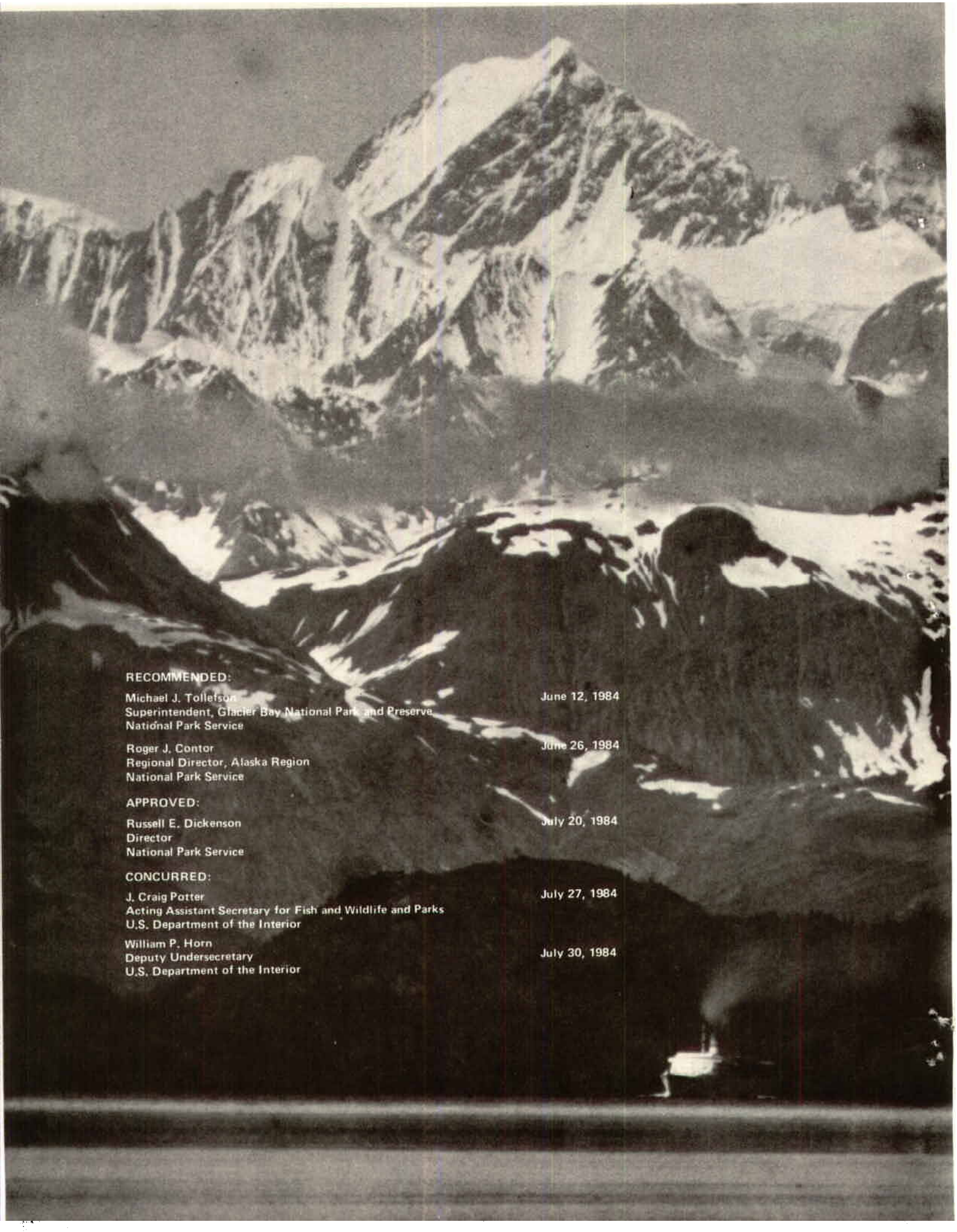
general management plan
september 1984

GLACIER BAY

NATIONAL PARK AND PRESERVE / ALASKA



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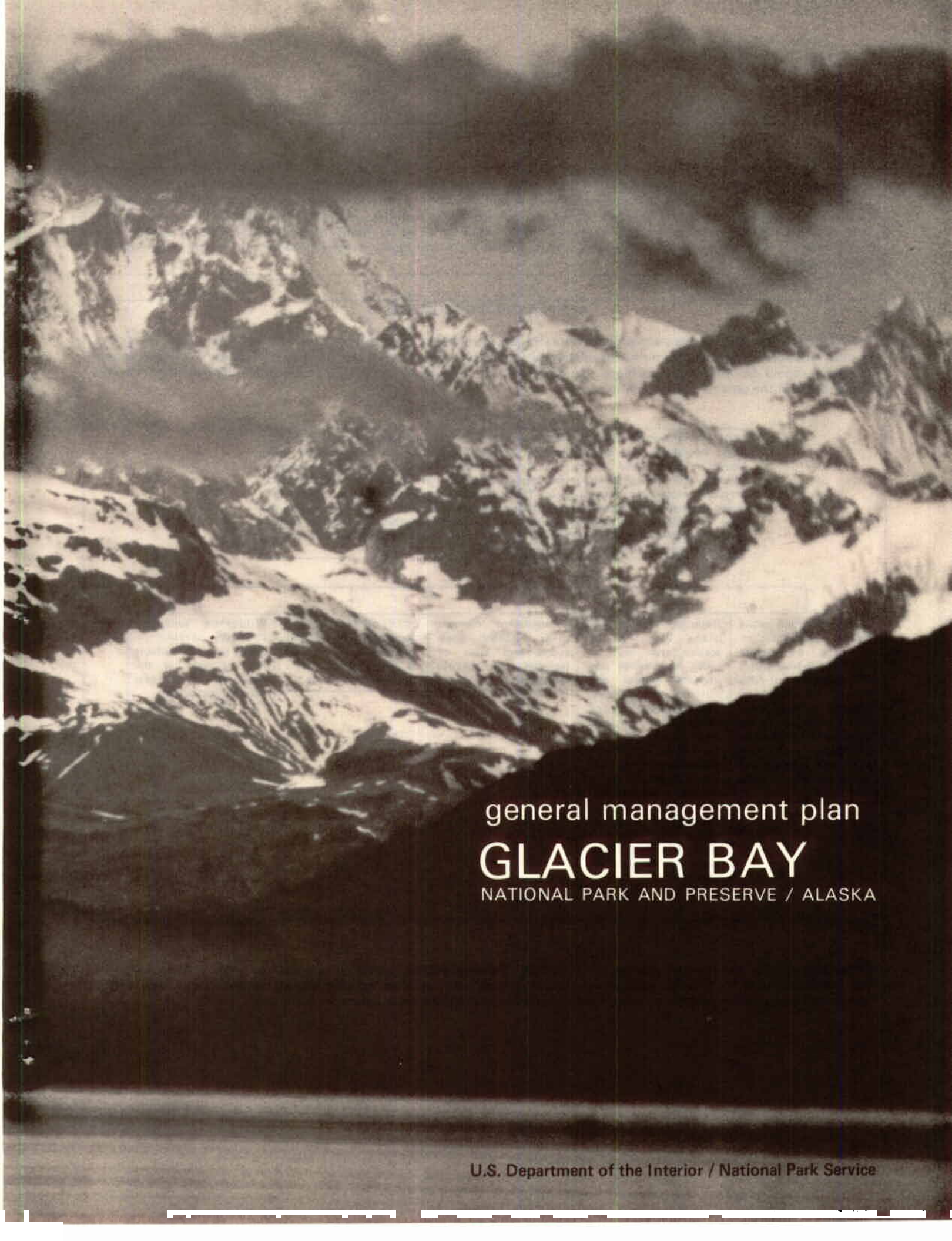


general management plan

GLACIER BAY

NATIONAL PARK AND PRESERVE / ALASKA

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

ANILCA REQUIREMENTS

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

NPS PLANNING DOCUMENTS

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

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

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

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

SUMMARY

This General Management Plan for Glacier Bay National Park and Preserve sets the overall direction for management of natural and cultural resources, visitor use, land protection, and facility development. The plan and the subsequent action plans will fulfill the requirements of section 1301 of the Alaska National Interest Lands Conservation Act (ANILCA) of 1980, which established the park and preserve and called for a management plan. The main elements of the plan are described below.

NATURAL RESOURCE MANAGEMENT

Management programs will ensure the continuity of support for internationally important research efforts on glaciers, plant succession, marine biology, and wildlife. Support will be provided when available to further research efforts. Carrying capacities will be determined to prevent degradation of resources. Regulations to protect humpback whales in Glacier Bay are being revised in accordance with the biological opinion of the National Marine Fisheries Service, issued in June 1983.

Traditional commercial fishing practices will be allowed throughout nonwilderness park and preserve waters and will be subject to regulations by the National Park Service (NPS) and Alaska Department of Fish and Game (ADF&G). Commercial fishing in wilderness waters will be prohibited, in accordance with ANILCA and the Wilderness Act. Sportfishing will be allowed in accordance with NPS and ADF&G regulations. Motorized vessels may be eliminated from wilderness waters in phases.

The subsistence harvest of fish, wildlife, and related resources on federal lands and waters in Alaska is controlled by provisions of ANILCA. Consequently, such activities will be allowed in the national preserve, but not in the national park. Management activities will provide and protect the opportunity for rural residents engaged in a subsistence way of life to continue those activities basic to their well-being.

CULTURAL RESOURCE MANAGEMENT

A comprehensive program will be undertaken to evaluate the prehistoric resources of Glacier Bay. The National Park Service will ensure the preservation of resources associated with native Americans whose cultural memory, traditions, and lives are closely associated with the park and its general vicinity. Historical and archeological surveys will be conducted.

LAND PROTECTION

Park/Preserve Boundary Changes

In the Dry Bay area, the National Park Service will recommend to Congress that the eastern boundary between the preserve and the park be moved southeastward to follow an easily identifiable topographic feature. This would facilitate management of an ecological area used by bears and moose. About 24,000 acres would be added to the preserve, but the wilderness designation would be maintained.

Wilderness

The NPS wilderness management recommendations represent a suitability study, as required by ANILCA. The National Park Service will complete all necessary environmental compliance before the final proposed wilderness changes are recommended to Congress. Several wilderness additions and deletions are proposed.

Management Zoning

Management zones will be established to provide for or to limit uses in certain areas.

Private Lands

Two tracts of privately owned land are located within the park boundary on the shoreline near Gustavus. No acquisition of these tracts is deemed necessary or is anticipated.

Approximately 21 Alaska native allotment claims are being reviewed by the Bureau of Land Management. If any allotments are conveyed to claimants, the National Park Service will develop land protection strategies to ensure the protection of park resources.

Approximately 7,000 acres of park wilderness is being considered for exchange with the state of Alaska for additional national park lands.

USE AND DEVELOPMENT

Commercial Visitor Services

Existing concession contracts for lodging services, aerial sightseeing tours, backcountry drop-off services, backcountry kayaking and backpacking trips, and commercial river trips will be continued. The National Park Service will also continue concession permits for cruise ships and sightseeing charter boat operations.

Backcountry Use

Backcountry management practices necessary to ensure opportunities for primitive recreational uses that are appropriate in an Alaskan wilderness park will be implemented. Constraints on backcountry users will be limited to those needed to preserve ecological conditions. A more frequent drop-off service will transport backcountry users to beach locations least susceptible to man-caused impacts.

To minimize conflicts between boaters, floaters, and fishermen, no motorized vessels will be permitted above Gateway Knob on the Alsek River. International cooperative planning efforts with Canadian agencies will continue for managing visitor use along the Tatshenshini and Alsek rivers.

Use of Glacier Bay National Preserve

In the Dry Bay area, temporary fish camps may be built on sandspits along rivers and the Gulf of Alaska shore within the designated "special use zone" (see "Management Zoning" section), with use being monitored regularly to ascertain potential environmental impacts.

The plan recognizes the need to maintain commercial fishing activities without significant expansion, in accordance with ANILCA.

Vessel Use

Cruise ships, tour boats, and charter vessels will be regulated in accordance with the Code of Federal Regulations, title 36, section 13.30 (36 CFR 13.30). Entry limits and restricted area designations will be reviewed annually, taking into consideration current scientific information and management concerns.

Bartlett Cove Development Concept

Bartlett Cove will remain the only developed area for visitor use within the park. Nearby facilities will be provided to adequately accommodate current and expanded administrative operations, maintenance, and housing.

Additional visitor service facilities may be developed after NPS facilities have been constructed and carrying capacity and economic studies have been done. These may include the construction of a maximum of 15 additional visitor cabins (30 beds), a 30-bed hostel, and an addition to the lodge to provide for more visitors.

The sociological and resource carrying capacities for Bartlett Cove and the physical carrying capacity of the existing utility infrastructure will be determined through research. Once those capacities have been reached, all future visitor facilities should be provided by private enterprise outside park boundaries.

CONTENTS

MAPS

TABLES

INTRODUCTION

Glacier Bay National Park and Preserve is in the panhandle of southeast Alaska. The center of the park is approximately 90 miles northwest of Juneau, the state capital, and about 600 miles southeast of Anchorage, the state's largest city (see Region map). The primary features that define the perimeter of this 3.3-million-acre area are the Gulf of Alaska to the west, the Chilkat Range to the east, Cross Sound and Icy Strait to the south, and the St. Elias Mountains and Alsek River to the north (see Land Status and Wilderness Recommendations map, inside the back cover).

The park is characterized by snowcapped mountain ranges rising over 15,000 feet, coastal beaches with protected coves, deep fjords, 16 tidewater glaciers, coastal and estuarine waters and freshwater lakes, and a mosaic of plant communities ranging from "pioneer species" in areas recently exposed by receding glaciers to climax communities in older coastal and alpine ecosystems.

Over the past few years, evolving natural conditions, increasing visitation, and changing patterns of use have created several problems that must be resolved to ensure the long-term protection of the park's significant resources and to allow for visitor use. These problems include the following:

> What are the best ways to deal with new management responsibilities, including subsistence uses, that have come about because the park area has been enlarged from 2.8 million to 3.3 million acres and because its status has been changed from a national monument to a national park and preserve?
>
> Has the increase in visitation and the number of vessels in the bay affected the habits of the endangered humpback whale in Glacier Bay (in 1978 the number of whales using the bay dropped dramatically and has continued to remain low)?
>
> What levels of manpower, services, and facilities are needed to meet the overall surge in total visitation (almost a fourfold increase over the last 10 years)?
>
> What regulations should be promulgated to control commercial fishing in wilderness waters because this practice has been determined not to be a legal activity?
>
> How should management direction for backcountry use, resource management, and river management be coordinated with other state and federal agencies and with the Canadian government?
>
> What land protection strategies are needed to ensure the protection of the park's significant resources and to allow for visitor use?

These problems are addressed in this General Management Plan, which sets forth conceptual approaches to the management of the natural and cultural resources of the park and preserve, and which provides for visitor use and associated development. Certain issues are discussed in

more detail than others to meet immediate management needs or to guide management pending the collection of data necessary to prepare detailed action plans (for example, a natural resource management plan, a backcountry management plan, a river management plan, and a bear management plan). These action plans will contain more specific management objectives, legal mandates, and NPS management policies and objectives. Action plans for the park and preserve, some of which have been prepared concurrently with this plan, will become effective within two years after this plan is approved. All action plans will be available for public and interagency input and review.

This General Management Plan also recommends changes in wilderness designation, and it constitutes a wilderness review as required by ANILCA. The National Park Service will comply with all National Environmental Policy Act (NEPA) requirements with respect to changes in wilderness designation.

This plan will be submitted to Congress to satisfy the ANILCA requirement for a conservation and management plan for the park. It also fulfills NPS planning requirements.

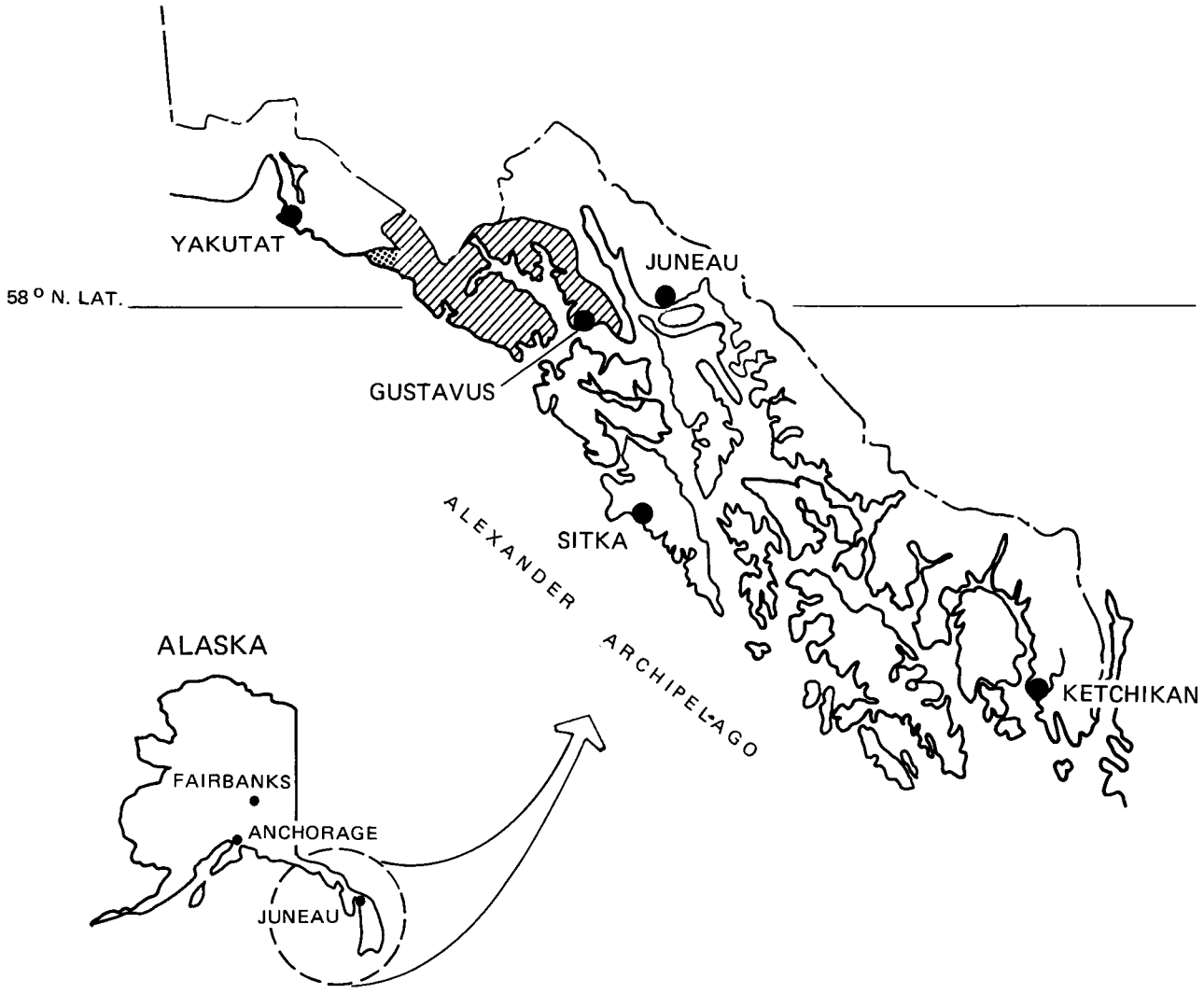
ESTABLISHMENT AND LEGISLATIVE MANDATES

Glacier Bay National Monument (now included in the national park) was established in 1925 by presidential proclamation. The purpose of the monument was to preserve an area significant for the following reasons:

> a number of tidewater glaciers of the first rank in a magnificent setting of lofty peaks, and more accessible to ordinary travel than other similar regions of Alaska
>
> a great variety of forest covering consisting of mature areas, bodies of youthful trees which have become established since the retreat of the ice which should be preserved in absolutely natural condition, and great stretches now bare that will become forested in the course of the next century
>
> a unique opportunity for the scientific study of glacial behavior and of resulting movements and developments of flora and fauna and of certain valuable relics of interglacial forests
>
> historic interest, having been visited by explorers and scientists since the early voyages of Vancouver in 1794 who left valuable records of such visits and explorations

A 1939 proclamation added adjacent lands in the Tongass National Forest to the monument. These lands were of both scenic and scientific value and either contributed to or were directly affected by the ice sheets leading into Glacier Bay.

A master plan for Glacier Bay National Monument was prepared in 1971 and revised in 1974, but it was never approved. An environmental impact statement was done for the 1974 revision, and although it was never finalized, it has provided basic information for this document.



Park

Preserve

THE REGION

GLACIER BAY NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

0 100 Miles

0 100 Kilometers

North

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In 1980, the 2.8-million-acre monument was redesignated a national park by the Alaska National Interest Lands Conservation Act (ANILCA; 16 USC 3101 et seq.), and 523,000 acres were added to the new park. In addition, a 57,000-acre area in the vicinity of the Alsek River was designated as a national preserve, for a total of 3.3 million acres in both units (see Land Status map for the location of preserve lands). The additional 580,000 acres are to be managed to protect a segment of the Alsek River, fish and wildlife habitats and migration routes, and a portion of the Fairweather Range, including the northwest slope of Mount Fairweather. ANILCA also designated 2.77 million acres within the park as wilderness, under the conditions of the 1964 Wilderness Act. The National Park Service has proprietary jurisdiction over all lands and waters within its boundary.

The general purposes of Glacier Bay National Park and Preserve, as well as of the other Alaska conservation areas established under ANILCA, are stated in section 101. They are as follows:

> 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 free-flowing rivers; and to maintain opportunities for scientific research in 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

The specific directives for management of Glacier Bay National Park and Preserve, as stated in ANILCA, include the following:

> Hunting and subsistence uses by local residents shall be allowed in the national preserve (sec. 203).
>
> No fees shall be charged for entrance (sec. 203).

In the Dry Bay area of the preserve, no action shall be taken to unreasonably restrict the exercise of valid commercial fishing rights or privileges obtained pursuant to existing laws, including the use of public lands for campsites, cabins, motorized vehicles, and aircraft landings on existing airstrips, unless these activities contribute to a significant expansion of the use of park lands beyond 1979 levels (sec. 205).

Subject to valid existing rights, the federal lands within the national park system are withdrawn from all forms of appropriation or disposal under the public land laws, including location, entry, and patent under U.S. mining laws, from disposition under the mineral leasing laws, and from future selections by the state of Alaska and native corporations (sec. 206).

SCIENTIFIC IMPORTANCE

The international scientific importance of the glacial retreat, with rapid plant succession and animal recolonization, played an important role in the establishment of Glacier Bay National Monument in 1925. Nearly continuous documentation of terrestrial revegetation has resulted from research studies conducted by W.S. Cooper and D.B. Lawrence. This 67-year record is one of the most complete descriptions of vegetative development in the world, and the resulting insights have greatly influenced plant successional theory.

Records of the advances and retreats of glacier termini have been made with moderate precision since 1890. An extensive photographic record has been updated by W.O. Field. The emergence of much of the landscape from glacier ice is known, providing a time base for studying the ecosystem.

Glacier Bay's natural resources have remained essentially unaltered by man, making the area an excellent natural laboratory for scientific research. The recent melting of glaciers has caused much of the phenomena to be highly visible and dramatic. Future research projects must be well conceived so as to avoid the compromising of important natural values. Park management recognizes the value of basic scientific research and will provide logistic support, library resource material, and other assistance when possible.

Some wilderness waters will be closed to motorized access from approximately May 1 to September 7 each year. In these areas research requiring motorized access will be conducted during the rest of the year (September 8 to April 30). Limited administrative exceptions may be made if the research is to meet the scientific purpose for which the park was established.

A strong relationship exists between research and resource management in Glacier Bay. Research plays a fundamental part in describing baseline conditions and predicting changes expected in this dynamic ecosystem. Resource management in the absence of baseline data is simply not possible. Thorough inventories provide the baseline data against which impacts of management strategies and public use can be evaluated.

Various resource monitoring actions are under way to provide the knowledge needed for resource planning, management, and protection. These projects are designed to monitor trends of key biological resources, and specifically to recognize changes in numbers and types of organisms and patterns of distribution. A variety of projects are being conducted by the Park Service, often in conjunction with a university or other governmental agency. Ongoing resource management activities include the following:

intertidal studies (Torch Bay)
bear monitoring program
moose distribution mapping
mountain goat census
marine mammal inventory
spruce bark beetle inventory
humpback whale population monitoring
salmon stream surveys
backcountry management program

The resource management plan identifies long-range research needed to provide park managers with sufficient information to interpret and protect park resources. Needed research project statements include the following:

water quality monitoring (Dry Bay)
measurement of glacier dynamics
marine benthic inventory
primary production study (fjords)
mammal migration study (Alsek River)
visitor use study (Alsek River)
backcountry user survey
climatic baseline data
ecosystem development monitoring

CONSULTATION AND COORDINATION

A notice of intent to prepare the general management plan/environmental assessment for Glacier Bay National Park and Preserve was published in the Federal Register during the summer of 1981. Preplanning workbooks were sent to over 500 individuals on the park's mailing list, requesting comments on the known planning issues and announcing workshops. The workshops were held the following November in Gustavus, Sitka, Elfin Cove, Juneau, Hoonah, Yakutat, Skagway, Haines, and Anchorage, Alaska, and in Seattle, Washington. A total of about 200 people attended the 10 workshops, which featured small group discussions to identify issues and solve problems. In addition approximately 180 workbook response forms were returned.

During summer and fall 1981, scoping meetings were held with representatives of the U.S. Forest Service (Juneau Field Office and Tongass National Forest), the National Marine Fisheries Service, and the Alaska Departments of Fish and Game, Environmental Conservation, and Commerce and Economic Development. Meetings were also held with the

state historic preservation officer and the Advisory Council on Historic Preservation. Consultation related to endangered species, as required by section 7 of the Endangered Species Act, was done by the NPS Alaska Regional Office with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

Following this initial public involvement period, the Draft General Management Plan / Environmental Assessment was prepared and released to the public in April 1983. Approximately 1,000 copies were distributed to individuals, organizations, and agencies. Public meetings to discuss the document were held in late April in Gustavus, Pelican, Elfin Cove, Hoonah, Juneau, Yakutat, Sitka, Skagway, Haines, and Anchorage, Alaska, and in Seattle, Washington. About 170 people attended the meetings in total. A second series of public meetings was held in July in Gustavus, Juneau, Anchorage, Fairbanks, and Pelican; altogether approximately 175 people attended these five meetings. In addition to the public meetings, the planning team also met with representatives of the following agencies and organizations to discuss the draft plan:

Federal Government

Department of Commerce, National Marine Fisheries Service

Alaska

Department of Fish and Game
Department of Transportation
Office of the Governor

Conservation Organizations

Alaska Alpine Club
Alaska Wildlife Alliance
Alaska Conservation Foundation
American Wilderness Alliance
National Audubon Society
Northern Alaska Environmental Center
Southeast Alaska Conservation Council
Sierra Club
Friends of Glacier Bay
Trustees for Alaska

Citizens' Committees

Citizens' Advisory Commission on Federal Areas
Gustavus Community Association

Commercial Fishermen

North Pacific Fishermen's Federation
Southeast Alaska Handtrollers' Association
Pelican Cold Storage

Concessioners and Commercial Visitor Service Operators

Alaska Discovery
Cruise ship industry officials
Dry Bay area hunting guides
Exploration Holidays
Glacier Bay Airways
Glacier Bay Lodge, Inc.
Gulf Air Taxi
Gustavus Marine Charters

Native American Organizations

Hoonah Totem Corporation
SEALASKA Corporation
Yak-Tat Kwaan, Inc.
Alaska Native Brotherhood

Official written comments on the Draft General Management Plan / Environmental Assessment were received from the following agencies and organizations (copies of all letters received are on file at park headquarters):

Federal Government

Department of Commerce, National Marine Fisheries Service
Department of the Interior
    Fish and Wildlife Service, Regional Endangered Species Coordinator
    National Park Service, Air Quality Division
House of Representatives
    Congressman Don Young

Alaska

Department of Community and Regional Affairs
Department of Fish and Game
Office of the Governor

Conservation Organizations

Alaska Wildlife Alliance
American Wilderness Alliance
Friends of Glacier Bay
Lynn Canal Conservation, Inc.
National Audubon Society
National Parks and Conservation Association
Sierra Club, Legal Defense Fund, Inc.
Sierra Club, Juneau Group
Southeast Alaska Conservation Council
Taku Conservation Society
Wilderness Society

Citizens' Committees

Citizens' Advisory Commission on Federal Areas
Gustavus Community Association

Commercial Fishermen

North Pacific Fishermen's Federation
Thompson Fish Company
Pelican Cold Storage

Concessioners and Commercial Visitor Service Operators

Alaska Cross-Country Guiding and Rafting
Alaska Discovery
Alaska Wilderness Guides Association
Arent, Fox, Kintner, Plotkin, and Kahn (legal counsel for Sitmar Cruises)
Bradbury, Bliss, and Riordan, Inc. (legal counsel for Cunard Lines)
Chamai Sailing Charters
Exploration Holidays and Cruises
Glacier Bay Lodge, Inc.
Glacier Guides, Inc.
Gulf Air Taxi
International Committee of Passenger Lines
P&O Inc. (subsidiary of Princess Enterprises, Inc.)
River Outfitters' Association of British Columbia
Southeast Stevedoring Corporation

Mineral Claim Holders

Rocky Mountain Energy (Nunatak lode group)

Native American Organizations

Hoonah Totem Corporation
Yak-Tat Kwaan, Inc. (Yakutat)

The planning team has sought to incorporate or address as many of the comments as possible in this final plan. Comments on the final plan will be reviewed for 30 days following publication. Any necessary changes will be made before the plan is implemented and will be announced in the Federal Register.

ALTERNATIVES CONSIDERED

Three alternatives for the management of Glacier Bay National Park and Preserve were presented in the April 1983 Draft General Management Plan / Environmental Assessment. The management actions presented in this General Management Plan were included in the draft as alternative A, except for development proposals which generally were part of alternative C. These actions have been determined to be necessary now or in the immediate future to prevent degradation of the park's resources and the visitor experience, and to provide for increased visitor use.

Alternative B presented the minimum requirements in terms of staffing, facilities, and funding, and it represented a "no-action" alternative. It provided for ongoing maintenance and repair of existing facilities, but not for any increase in visitor services. Current management problems would have remained had alternative B been implemented.

Alternative C presented actions to maximize resource protection, and it would have allowed for some increases in visitor use. Commercial fishing would eventually have been eliminated from Glacier Bay, cruise ship entries would have been limited, and visitor use would have been regulated through permit systems. NPS development would have remained in the same general locations except that a new maintenance facility would have been constructed approximately 1,500 feet from the inner cove.

Providing for a major increase in visitation to Bartlett Cove (for example, doubling or tripling lodge capacities) was considered but rejected for the following reasons:

> The "primary concern" for Glacier Bay expressed by the public during the initial planning stages in 1981 and 1982 was that the primitive character of the park be maintained.
>
> Because almost all Bartlett Cove visitors use scheduled commercial airline flights to reach Gustavus, any increase in visitation to Bartlett Cove is limited by the capacity of the existing aircraft service and the number of daily flights.
>
> A perception of crowding in the upper bay's visitor attraction areas was identified through a 1979 study (Johnson) and in letters received from visitors.

Also, constructing a new visitor service area in the mid or upper bay was rejected because of the public's desire that the park's primitive character be maintained, and because of problems with visitor access to such an area.

Relocating NPS developments outside the park boundaries or on native lands was considered but rejected because of the distance between those areas and existing visitor facilities.

MANAGEMENT OBJECTIVES

Management objectives for Glacier Bay National Park and Preserve are defined in the park's "Statement for Management." This document concisely describes management mandates, objectives, and philosophies. The Glacier Bay statement was updated following initial public meetings held in winter 1982 for a comprehensive management plan. The resulting Draft General Management Plan / Environmental Assessment was released to the public in April 1983.

The management objectives for Glacier Bay National Park and Preserve are derived from the establishing proclamation, the National Park Service organic act (16 USC sec. 1 et seq.), ANILCA, the legislative support data, and NPS management policies.

OVERALL MANAGEMENT

Manage Glacier Bay National Park and its use in such a manner as to conserve this extraordinary segment of Alaska and its continuing natural succession processes in a natural condition, as a backdrop for use, understanding, and enjoyment by the public; and provide a base for scientific inquiry into glaciology and related ecological succession.

Manage Glacier Bay National Preserve in recognition of its values relative to the protection of the Alsek River and regional wildlife patterns, and properly manage ongoing consumptive uses of resources such as fisheries and wildlife to provide for visitor enjoyment while preserving the basic natural ecological processes.

NATURAL RESOURCE MANAGEMENT

Manage the natural resources, both terrestrial and marine, to ensure perpetuation of values basic to the area's establishment, thus following the principle that natural processes proceed unchecked, as the controlling characteristic is dynamic post-glacial change.

Accomplish this through implementation of sound general management and resource management plans addressing resource management, visitor use, and general development; and establish or maintain a balanced relationship between resource preservation and visitor needs.

In accordance with ANILCA, accommodate visiting sport hunters and subsistence users in the preserve, guided by management's concerns and responsibilities to maintain the quality of wildlife habitat and healthy populations of wildlife.

CULTURAL RESOURCE MANAGEMENT

Locate, identify, and catalog significant cultural and ethnic resources in the park to ensure legal compliance in the management of such resources

(National Historic Preservation Act, as amended). Preserve knowledge and/or physical remnants of the area's cultural history as an aid to historians and archeologists, and interpretation. Manage the known remaining sites as "discovery sites" for visitor education and enjoyment while they are slowly reclaimed by the landscape. Make significance determinations for sites already identified, and develop a survey plan to complement past efforts.

Summarize the "history" of use of Glacier Bay by prehistoric and historic human groups in a form useful to the general public, including ethnographic and historical accounts of interest. Such information will be useful for strengthening understanding and cooperation with the public through relations and programs in neighboring communities with a significant population of native Americans.

Study traditional resource uses and harvests as a basis for managing such uses in the preserve under the terms of ANILCA.

VISITOR USE AND SERVICES

Ensure patterns of use that enable visitors to enjoy and understand the natural features, making use of recreational opportunities consistent with preservation of ongoing natural processes; balance forms of access and use to obtain a feeling of the ruggedness and wildness of this dynamic landscape and the solitude that early inhabitants found; witness the interrelated stories of geology, climate, glaciation, and biological communities of land and sea; and appreciate the dynamic natural forces still at work.

Determine what basic facilities, services, and size levels are necessary and appropriate to serve visitor needs and be consistent with the area's setting and purpose. Issue concession permits and contracts to provide the best levels of services.

If additional facilities are determined necessary, emphasize a high quality of design that harmonizes with the park's history and atmosphere, climatic conditions, and human considerations of a remote area.

Provide for the safety and health of users according to reasonable standards, in compliance with applicable laws and regulations, and protect their property as much as is practicable.

Continue recognition of Glacier Bay's waterways as primary access corridors to the area, consistent with area purpose and provision of quality, uncrowded visitor experiences.

RESEARCH

In recognition of the importance of science stated in the original purpose of the area, encourage park use for compatible, qualified research purposes, maintaining a climate conducive to research and contributing to resource management and science in general. Ensure that research is

pertinent, nondestructive of resources, and noninterfering with visitor enjoyment unless determined necessary.

INTERPRETATION

Through use of primary objectives of the park's interpretive prospectus, provide visitors with opportunities to become aware of and to understand the dynamic relationship of glaciation and biological succession that the area was established to preserve. Provide information for safe enjoyment and use of resources, and perform interpretive services in a manner compatible with resource protection.

Follow the major interpretive theme of glacial recession and resultant ecological terrestrial and marine succession; provide secondary treatment of plants, animals, and human history.

Strive for a maximum of personal service programs, recognizing the strengths and values of such interpersonal contact, and adapt changing interpretive methods to local needs to maintain a high level of effectiveness.

Strengthen mutual understanding and cooperation with neighboring communities, schools, and groups through offsite programs and participation in cultural and social activities.

Support sound research to the end that knowledge necessary for effective area interpretation will be available.

ADMINISTRATIVE FACILITIES

Optimize the effectiveness of management through provision of safe, functional, efficient, and environmentally compatible facilities for administration and operation of the park and preserve.

Ensure through proper design and location of facilities a minimum impact on resources and visitors.

REGIONAL COOPERATION

Maintain ongoing communication and cooperation with various agencies and groups during operational and planning efforts for resource management, visitor use, development, and research so as to enhance mutual understanding and communication in regional resource planning.

Maintain such communication with, among others, the U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and U.S. Coast Guard; Alaska Departments of Fish and Game, Natural Resources, Environmental Conservation, Commerce and Economic Development; village and regional corporations; and various civic, city, and conservation groups.

WILDERNESS MANAGEMENT POLICIES

In addition to the management objectives, the Park Service adheres to servicewide wilderness management policies in administering the wilderness areas of Glacier Bay National Park and Preserve. As stated in the "Management Policies" (NPS 1978), this policy is to

> preserve an enduring resource of wilderness in the national park system as part of the national wilderness preservation system, to be managed for the use and enjoyment of wilderness values without impairment of the wilderness resource

This policy is congruent with the management approach used by the Forest Service in adjacent wilderness areas, as outlined in Wilderness Management (Forest Service 1978):

> Wilderness management should not mold nature to suit people. Rather, it should manage human use and influences so that natural processes are not altered. Managers should do only what is necessary to meet wilderness objectives, and use only the minimum tools, force, and regulation required to achieve those objectives.

NATURAL ENVIRONMENT

CLIMATE

Glacier Bay National Park and Preserve has essentially three climatic zones: the outer coast along the Gulf of Alaska; upper Glacier Bay, north of a line drawn east-west through Tidal Inlet; and lower Glacier Bay, including the park waters of Cross Sound and Icy Strait. The outer coast has milder temperatures and more precipitation but less snowfall than the other areas, owing to the influence of the Japanese Current. Upper Glacier Bay is considerably colder than Bartlett Cove (a 20° F difference between the Bartlett Cove area and Muir Inlet has been recorded in August); the upper bay is also subject to the heaviest snowfall.

Daylight hours vary greatly at this latitude. On the longest day of the year, the sun rises at about 3:51 a.m. and sets at 10:09 p.m. On the shortest day, the sun rises at 9:45 a.m. and sets at 4:06 p.m. Prevailing cloudy weather appreciably shortens the usable daylight hours throughout the year.

Bartlett Cove is an indentation of Glacier Bay and is protected on the north by the Beardslee Islands. In the summer, temperatures average 50° to 60° F. Cloudiness and precipitation tend to be the rule during any month, and some form of precipitation occurs on an average of 228 days per year. Annual precipitation is 70 to 80 inches, including an annual snowfall of 14 feet, which accumulates to depths of 6 feet and persists for several months during severe winters. Winter temperatures average 20° to 30° F, with extremes of -10° F. Sun angles vary from a maximum of 55° on the longest day to 9° on the shortest day.

Fogs are common on the gulf coast and along the south end of Glacier Bay, where they can impede navigation. The prevailing winds are southerly and occur during most periods of precipitation. Northerly winds are usually associated with clear weather and are the strongest in winter, frequently reaching gale force.

WATER QUALITY

The waters of Glacier Bay are affected by seasonal variations. In winter minimal ice melt occurs, and freshwater and sediment input to the marine system are at their lowest level, creating a relatively homogeneous condition with ample bottom water mixing from Icy Strait (NPS 1979b). During warmer periods, a heterogeneous condition occurs, with fresh or brackish water overlying warmer salt water. Sediment input is high at these times, especially in the upper ends of the bay and tributary inlets.

Sampling in Glacier Bay for inorganic nutrients as well as for water clarity has been irregular. Inorganic nutrients are generally most concentrated in the winter months and decline to low levels during spring and summer because of phytoplankton blooms (NPS 1979b). Data on water clarity were not analyzed, and no data were referenced on water pollution.

Two potential sources of water pollution in Glacier Bay include vessels and existing NPS developments at Bartlett Cove. U.S. Coast Guard regulations stipulate that vessels are prohibited from discharging raw sewage into coastal waters (33 CFR 159). The ecological significance of this source has been discounted (NPS 1979b).

Wastewater disposal for NPS facilities at Bartlett Cove is from a secondary sewage treatment plant, which reduces biochemical demand and suspended solids by about 90 percent. Effluent is chlorinated and discharged into the ocean; sludge is disposed of in a landfill. Average discharge is about 10,000 gallons per day and is considered insignificant in its effect on local water quality because of tidal action and dilution ratios. All present and future systems will comply with state rules and regulations.

The National Park Service recognizes the potential for fuel and oil spills in the area. The sensitive nature of the resources in the park and preserve and the difficulty of containing spills on the water make oil and fuel spills of special concern. To minimize damage to the resources in and around the park, the Park Service will continue to work with the U.S. Coast Guard and state agencies to develop contingency plans for responding to spills.

AIR QUALITY

The Clean Air Act, section 162(b), designates Glacier Bay as a class II air quality area. This authorizes the prevention of significant air quality deterioration and gives special responsibilities to managers of class II air quality areas to do this.

Empirical air quality data for Glacier Bay is not currently available. However, a comparative analysis of climatological conditions concluded that Glacier Bay has a very low tolerance for air pollution because of frequent temperature inversions and minimal mixing of air layers (Benson et al. 1978).

The Alaska Department of Environmental Conservation maintains standards applicable to class II areas (18 AAC 50) and to marine vessels. Within 3 miles of the coastline visible stack emissions may not reduce visibility to 40 percent for longer than three minutes in any one hour, except during initial startup when the limitation is extended to six minutes.

GEOLOGY

Geologic Setting

Bedrock geology of the Glacier Bay area is complex because it is composed of slices of terrain moved hundreds of kilometers from the south along three major, northwest-trending, lateral faults: the Chatham Strait fault, the Border Ranges fault, and Fairweather-Queen Charlotte fault.

Widespread folds, metamorphism, and intrusions have complicated the stratigraphic record. Groupings of similar lithographic and structural pictures have differentiated five geologic provinces. These include the Coastal, Fairweather, Geikie, Muir, and Chilkat provinces (Geological Survey 1971). The highest range in the park is the Fairweather Range, with Mount Fairweather the highest peak at 15,300 feet. The region's northwesterly structural grain has been generated by the northwest-trending faults and fold axes. The bedrock ranges in age from at least early Paleozoic to middle or late Pleistocene, with ample evidence of volcanic activity, intrusive rock formations, and faulting.

Although no evidence of recent volcanic activity has been found, major movement occurred along the Fairweather fault during the July 10, 1958, earthquake. This quake (Richter magnitude 7.9) caused moderate property damage in Yakutat (130 miles to the northwest) and was reportedly felt as far as Seattle, Washington (Streveler et al. 1980). It was also supposedly the largest fault displacement on land in the United States since the April 18, 1906, California earthquake. The quake resulted in five deaths, and it caused 30 million cubic meters of rock to plunge into Lituya Bay, generating a surge of water that rose 1,690 feet on the opposite wall of the inlet.

Glacial History

The park and preserve area reflect a history of valleys filled with ice that has alternately retreated and advanced in response to climatic fluctuations. The earliest observations by La Perouse (1786) and Vancouver (1794) recorded the presence of glaciers at the mouth of Glacier Bay (cited in Bohn 1967). Subsequent observations by John Muir in 1879 recorded a retreat 32 miles up bay to a point at the mouth of Muir Inlet. In the following 90 years the ice has retreated another 24 miles. Current observations indicate that some glaciers within the Fairweather Range are advancing while those in the Chilkat Range are retreating.

Within the park there are currently 16 tidewater glaciers, that is, glaciers with termini washed by tidewater. Calving (ice fall) is frequent, and considerable amounts of ice often plunge into the sea. The Brady Glacier is the largest within the park, being an estimated 188 square miles in size. Most glaciers originate between elevations from 8,000 to 15,000 feet (see Significant Resources map).

Mineral Resources

A geologic reconnaissance of the former monument was published in 1978 by the U.S. Geological Survey at the request of the National Park Service. The work included reconnaissance-type geologic mapping and geochemical studies of metal distribution and concentrations to determine gross appraisal of mineral potential. Field studies did not cover a large part of the Fairweather Range, the area west of it, nor a small area northeast of Tarr Inlet. The Geological Survey report states,

> Glacier Bay National Monument contains a few mineral deposits that are likely to be minable in the near future, but which are well enough known to be evaluated; some that probably would be minable with economic or technologic changes; and many that are insignificant. The economic potential for petroleum, coal, and nonmetallic commodities in the Monument is low.

A layered gabbro complex extending over a 100-square-mile area near the park's southwest margin is known to contain at least one significant concentration of copper-nickel sulphides--the Brady Glacier mineral deposit. Some minor concentrations of minerals have been discovered and mined along coastal beaches. Of primary interest are concentrations of ilmenite, magnetite, gold, and platinum. Placer mining occurred primarily southeast of Lituya Bay between 1894 and 1917 (Streveler et al. 1980). At present a small-scale gold recovery operation is located at Ptarmigan Creek (LeRoy No. 1).

MAJOR TERRESTRIAL ECOSYSTEMS

The Glacier Bay environment is undergoing rapid change. As recently as 200 years ago the entire bay was filled with a glacier that terminated in Icy Strait. At that time few plant and animal species inhabited the area. As the ice retreated, pioneer plants and animals proliferated, eventually being replaced by seral and climax communities. This process is continuing in the wake of glaciation, with accompanying rapid changes in species distributions, population characteristics, and trophic relationships.

Of the 16 major land and marine ecosystems identified by the Joint Federal/State Land Use Planning Commission for Alaska, four land ecosystems are found in and around the park and preserve: wet tundra, coastal western hemlock/Sitka spruce forest, alpine tundra, and glaciers and icefields. (The following descriptions are primarily derived from unpublished NPS documents on file at the park.)

Wet Tundra

This ecosystem is located in one area of the park near Gustavus, where little topographical relief exists. Standing water is present in some locations during the summer, and a high water table exists in many areas. Dominant ground cover species include sedges and cottongrass, which usually form a mat. A few woody and herbaceous plants consisting of lodgepole pine, shrubby willow, and Sitka alder occur on the drier sites above the water table.

The soils supporting wet tundra are composed of thin organic soils overlying silty and sandy sediments. The sediments are underlain by water-laid gravels, sands, clays, and silts from outwash and marine sources.

Mammals inhabiting this ecosystem include bear, wolf, coyote, moose, and river otter. Birds include ravens and a variety of songbirds, waterfowl, and raptors. Large numbers of sandhill cranes stop in open marshes during migration.

Coastal Western Hemlock/Sitka Spruce Forest

This ecosystem occurs along the park's western and southern periphery and is dominated by mature western hemlock and Sitka spruce. The recently deglaciated shore of Glacier Bay as far north as Adams Inlet is primarily Sitka spruce forest less than 150 years old. Black cottonwood and Sitka alder are common along the streams, rivers, and beach fringes. Sitka spruce occurs more frequently than hemlock where there has been soil disturbance and an opening of the canopy. Throughout the system, the forest understory is composed of a thick moss layer, blueberry, Sitka alder, devil's club, skunk cabbage, and ferns.

Common mammals of this ecosystem include black bear, wolf, coyote, porcupine, marten, and red squirrel. Birds include the blue grouse, raven, hermit thrush, chickadee, fox sparrow, and bald eagle.

Soils of lower slopes are typically shallow, gravelly, and well drained. Poorly drained mucky peat soils occupy higher slopes and depressions interspersed throughout the timbered areas. The muskeg ecosystem of shrubs, sedges, and mosses is common in poorly drained lowland areas. These soils support lodgepole pine and some mountain hemlock. Decomposition of dead vegetation by soil organisms is inhibited by cool soils, resulting in more annual production than decomposition and favoring the accumulation of peat.

The park's major developed area, Bartlett Cove, is located in this ecosystem.

Alpine Tundra

The alpine tundra ecosystem is found on mountains in the park above treeline (approximately 2,500 feet in elevation). This system consists of barren rocks and rubble interspersed with woody herbaceous and shrubby plant communities. Plant mats consist of low heath shrubs, where snow lingers into late spring. Various alpine grasses are present as well as willows and dwarf blueberry. Vegetation regeneration is often extremely slow; some lichens may require over 60 years to recover after overuse or destruction.

Soils in this ecosystem are shallow, gravelly, silt loams over till, with intermittent deep permafrost.

Common mammals include black and brown bear, wolverine, mountain goat, marmot, and voles. Common birds include ptarmigan, ravens, water pipits, and juncos.

Glaciers and Icefields

This system is characterized by mountainous areas with heavy precipitation where accumulation of one season's snowfall is not entirely melted before the next season's snow begins to accumulate. Characteristics of glacial runoff include high year-round average flows, distinct day-to-night differences in discharge, high silt content in streamwater, and occasional flooding. All these characteristics have pronounced effects on Alaskan streams. Some plant communities grow on glacial moraines. Algae and iceworm webs occur on glaciers.

Glaciers carve larger drainages from narrow valleys and deposit materials upon the land surface. Coarse rock materials loosened by moving ice are carried forward in the ice to the glacial front or are ground to smaller size by the moving ice masses. From early spring to late winter, meltwaters carry rock materials downstream to form terraces and outwash deposits. Surface materials at glacial fronts are deposited as moraines, which are invaded by lichen and moss species, horsetail, willow, fireweed, and Dryas. These early plants are then followed by alder, willow, soapberry, and cottonwood.

Glaciers provide important rest areas and relief from insects for mountain goats and other mammals during the warm summer months. In dry summers, glaciers provide sources of free-running water, which normally does not exist at high elevation. This area is infrequently used by birds such as snow buntings and rosy finches.

MAJOR MARINE ECOSYSTEMS

Three major marine ecosystems have been identified in and around the park and preserve: continental shelf, wave-beaten coasts, and fjord estuaries.

Continental Shelf

This ecosystem in Glacier Bay is the offshore zone up to a depth of 650 feet and extends from Cape Fairweather in the north to Cape Spencer in the south in the Gulf of Alaska. Marine productivity on the shelf may exceed 12,000 pounds of dry matter per acre per year. Shelf depths are shallow enough that abundant marine life occurs on the bottom. Detritus is consumed on the bottom by various animals or is recycled to simple nutrients by enzymatic and bacterial action.

Filter feeders such as clams and bryozoans as well as bottom dwellers such as crabs, sea urchins, starfish, and bottom fish occur in this ecosystem. Free-swimming animals include various invertebrates, fishes, seals, sea lions, and several species of whales. Many species of oceanic birds and shorebirds also occur.

The continental shelf ecosystem supports roughly 9 percent of the ocean's fisheries. Waters of the park and preserve in this system are used for fishing, and several bays, such as Lituya Bay and Graves Harbor, are used as shelter during storms. Waters in the ecosystem are extensively used by man for intracoastal travel, freighting, and some small-boat recreation. The continental shelf is sufficiently shallow to allow for mineral exploration and offshore drilling.

Wave-Beaten Coasts

Approximately 125 miles of the Gulf of Alaska coast is included within the park and preserve and consists of sandy and gravel beaches from Dry Bay to Icy Point and rocky coast from Icy Point to Cape Spencer. Estuaries--generally wide, short indentations along the coast and with depths of less than 300 feet--support larvae of many marine invertebrate species. Plant productivity is high, particularly from kelp and clinging intertidal seaweed. This system is in a delicate balance with a small number of species significantly affecting the trophic structure. There is a high incidence of clinging and intertidal animals such as snails, limpets, chitons, barnacles, and mussels.

Many estuaries are highly productive of various species of animals, so fishing is productive. Beaches are usually narrow, and wind is often severe.

Fjord Estuaries

Dundas Bay and Glacier Bay are included within fjord estuaries. This system is protected from direct pounding of sea waves. Clayey silt from turbid glacial outwash is deposited up to 2.4 meters thick annually. This rate is highest in the upper portions of inlets. Kelp and clinging intertidal seaweeds are common.

Fresh water entering the bay results in generally low surface salinities, especially in glacially influenced inlets during the summer. Outflow of fresh, cold surface water is offset by an influx of dense, warmer saline water. Vertical mixing within the water column during winter increases surface salinities. By June, high nutrient levels in the euphotic zone and longer days combine to trigger phytoplankton blooms, which appear to be most intense in the lower bay. Fish and wildlife in the Glacier Bay/Cross Sound area include harbor seals and porpoises, whales, sea otters, halibut, crabs, five species of salmon, shrimp, and a variety of seabirds.

ENDANGERED SPECIES

Endangered and threatened animal species are listed in the Federal Register (vol. 45, no. 99, May 1980). The endangered species of primary concern in Glacier Bay is the humpback whale (Megaptera novaeangliae). Humpback whales are migratory and use southeast Alaskan waters during the summer months to take advantage of concentrations of euphausiids, herring, and capelin. Winter months are spent in more southern areas such as Hawaii and Mexico, although some individuals overwinter in southeast Alaskan waters. Calving and breeding reportedly occur in the southern latitudes, with Alaskan waters used as a major feeding area. Glacier Bay has only been a prominent feeding area for whales since the glacial retreat. The retreat has allowed land and marine succession to advance to a point where ample prey species exist for the humpback whale.

Whale fluke photographs identified 122 individual humpback whales in southeast Alaska in 1981 and 167 in 1982. Recent population estimates for southeast Alaskan waters are 300. Records from 1967 to 1977 showed that 10-24 whales stayed in the Glacier Bay area for much of the summer to feed and rear calves. Then in 1978 most of the whales departed by mid July. In 1979 a few whales entered the bay but remained only a short time. Since then between three and seven individually identified whales have stayed for four weeks or longer.

The reason for the decreased use of Glacier Bay is not known. Possible causes have been attributed to increased vessel use, underwater noise levels, varying levels of preferred prey species, or other unknown factors. Research efforts were intensified in 1981 to evaluate potential factors affecting whale use of the bay. Areas of investigation within the bay and elsewhere include distribution and abundance of whale food and feeding behavior, acoustic characteristics of vessels and the bay, and comparative behavioral responses of whales to vessels. Research in this area is continuing through 1984, and monitoring activities will be conducted in succeeding years.

Other endangered whale species occasionally frequent the outercoast area, including the blue whale (Balaenoptera musculus), finback whale (Balaenoptera physalus), gray whale (Eschrichtius robustus), right whale (Balaena glacialis), sei whale (Balaenoptera borealis), and sperm whale (Physeter catodon). Actual observations within the bay, however, are commonly limited to the humpback, minke (Balaenoptera acutorostrata), and killer (Orcinus orca) whales.

Recent observations have confirmed that the threatened arctic peregrine falcon (Falco peregrinus tundrius) has nested within the park. The observation was made in a more remote area of the park, well outside the influence of existing developed areas.

No endangered or threatened plant species are known to occur in the park or preserve. Cypridium montanum was previously considered as a candidate for future listing. However, because of the abundant habitat in southeast Alaska, it will be withdrawn.

CULTURAL ENVIRONMENT

Glacier Bay's prehistory and history have been documented by Robert E. Ackerman, The Archeology of the Glacier Bay Region (1968); Frederica de Laguna, Under Mount St. Elias (1972); Bruce Black, "A History of Glacier Bay National Monument" (1958); and Dave Bohn, Glacier Bay: The Land and the Silence (1967). A historical and archeological base map was prepared as part of a 1965 master plan and was based on the Ackerman surveys of 1963-1965; a historic structure survey was carried out in 1976. A reconnaissance survey of cultural resources of the lower Alsek River, which was added to the national preserve in 1980, was initiated in the summer of 1981. Although hampered by high water in the river, the reconnaissance team noted numerous fishing camps and commercial sites.

Various surveys have identified more than 60 distinct sites or structural complexes dating predominantly from the recent historic past. There is potential for significant archeological finds in stable unglaciated areas within Glacier Bay National Park and Preserve that have not yet been surveyed, as illustrated by Ackerman's work at Ground Hog Bay on Excursion Inlet just east of the park. Lithics from that site may date back 10,000 years. In addition, de Laguna's study of the Yakutat Tlingit provides an important cultural history of the Tlingit peoples who frequented the Glacier Bay region--from Yakutat, Hoonah, and the interior Tlingit-Athabascan villages.

There are currently two historic structure complexes on the park's List of Classified Structures. The Harbeson cabin and woodshed, dating from the 1930s and 1940s, is located on the east shore of Dundas Bay. These wood-frame structures are in fair to poor condition and are listed as structures that may be preserved and maintained (category C). The Dundas Bay cannery complex, located on the west shore of Dundas Bay, consists of the cannery building, boiler, and ramp. Dating from 1898, these wood and masonry remains range from poor to deteriorated condition and are also listed as category C. The Cape Spencer lighthouse, located just within the park's boundary, is listed on the National Register. There are currently no other historic or archeological sites or structures within Glacier Bay that are on or have been determined to be eligible to the National Register of Historic Places.

Based upon previous studies and current information, the thematic sequence of Glacier Bay's prehistory and history is as follows:

prehistory
Tlingit homeland
European exploration and rivalry
Russian influences
American exploitative period
Glacier Bay as a natural curiosity and scientific laboratory
preservation
scientific studies, tourism/recreational use, and preservation challenges

PREHISTORIC LIFEWAYS

The first signs of man's habitation of the Glacier Bay region appear approximately 10,000 years before the present (B.P.), when the land was recovering from the massive glacial onslaught of the last stages of the Pleistocene period. On the nearby Baranof Islands, the Hidden Falls site has been dated at 9,000-10,000 years B.P. At Ground Hog Bay, outside and southeast of the park boundary, Ackerman discovered a prehistoric site, with artifacts dating back 10,000 years. Preliminary testing at that site presents a picture of man in the early postglacial period striving to use the floral and faunal resources of the locality with chopping tools, scrapers, flake tools, and some kind of large stone-tipped projectiles. Ackerman states that the dating of this site is tentative, although the range is accurate, and that much work remains to be done before precise and defensible dates can be established.

How long this culture lasted or how long man remained at the site is unknown, for after this there is a long void of archeological evidence. Sometime towards the end of the thermal maximum or the beginning of the Little Ice Age (approximately 2,000 years B.P.), evidences of a house, microlithic tools, and heavy woodworking tools were found. Another long gap in the prehistoric picture then occurs, ending with the withdrawal of the glaciers approximately 200 years ago. Here the evidence becomes more concrete, based upon Ackerman's extensive field research.

Ackerman and his colleagues covered virtually all of Glacier Bay's open coastline, usually in protected areas of the bays. The following description of findings is adapted from their final report.

Within the national monument, many sites were found, but they were either late historic Tlingit fishing camps or traces of exploitation of mineral or fishing resources by Europeans. No sites were found in the coastal region, which can be explained by the steep cliffs and minimal beach frontage, nor were any sites found in the fjordlike inlets and bays. Lituya Bay was the one area that offered a suitable but risky location for village settlement, but it was wiped clean by the 1,690-foot high, eathquake-caused wave that rose from the back of the bay in 1958. From Cross Sound and Icy Strait toward the mainland, and more protected waters, Ackerman and his colleagues detected subtle changes. The winds were softer and the atmosphere gentler, in sharp contrast to the exposed coast. Numerous sites were found eastward along the shore from Excursion Inlet to Point Couverden, and for the first time they found winter villages, indicating this was a semipermanent settlement area.

In the Excursion Inlet area evidence was found of two villages, both European and Indian camps, and a split log burial house. Farther south along the shoreline toward Point Couverden, a large house (presumably Tlingit), camps, graveyards, and two villages (Village Point and Grouse Fort) were discovered. The Tlingit established permanent settlements here, with the large houses and competing kin groups familiar to the late historic period, and they sent out hunting and fishing parties.

Clearly the major settlements in the Glacier Bay region were in the Excursion Inlet/Point Couverden area and in the Port Frederick area

(Chichagof Island), where the present Tlingit village of Hoonah is located. The area within the former monument appears to have been used for hunting and fishing. Scattered permanent camps near the salmon streams indicate recognized kin claims to fishing sites. A notable exception to this pattern appears in the Dundas River valley, where the small village of Listi and the Tlingit Christian cemetery indicate a more permanent settlement. This settlement had to be comparatively recent (since the late 1800s) because of the relatively late cessation of outwash deposition, thus precluding any older occupation.

Ackerman's work reflects the general patterns of prehistoric life in southeastern Alaska. Small winter villages of a semipermanent nature formed the hub of life. The natives followed a seasonal hunting, fishing, and gathering pattern, leaving the winter villages to occupy recognized but fluctuating fishing and hunting camps. Tlingit folklore relates stories recalling and explaining the periodic destruction of villages and camps by natural forces such as shock waves. Dry Bay also had a permanent Tlingit village, indicating that the Alsek River was important in Tlingit and regional history.

HISTORIC LIFEWAYS

The prehistoric pattern of life was affected by gradual intrusions of European cultures into the area. As early as July 1741, Russian ships of the Bering expedition sailed in the vicinity of Glacier Bay's outer coast. Most important for cultural history was the expedition's discovery of sea otters in Alaskan waters, which led to Russian expansion eastward to Alaska and exploratory probes by European nations interested in the valuable furs.

Forty-five years later, in July 1786, the French explorer Jean Francois La Perouse arrived at Lituya Bay with two ships. During his 26-day stay, contacts were made with the Tlingits, trade was initiated, and the ship companies took advantage of the nearby resources to resupply and refit the ships. To frighten the Tlingits into submission, La Perouse "endeavoured to convince them of the superiority of our arms; for which purpose I fired a cannon, to show them that I could reach them at a distance, and pierced with a musket-ball, in the presence of a great number of Indians, several doubles of a cuirass they had sold us, after they had informed us by signs that it was impenetrable to arrows or poignards" (Bohn 1967).

In 1788 a Russian galleon exploring the northern coastline made a brief stop at Lituya Bay. The Tlingits were contacted and informed, through a Koloshi interpreter, that they were now part of the Russian Empire and subjects of Catherine the Great. After brief trading and fishing, the Russian ship set sail.

The next verified visit to the Glacier Bay region took place in 1794, when George Vancouver, captain of HMS Discovery, arrived at Port Althorp on Cross Sound. Proceeding across the ice-cluttered and fog-shrouded sound, Vancouver's men reached Cape Spencer and then turned east to chart the coastline. Proceeding cautiously, they sighted what became

known as Taylor Bay, Brady Glacier, Dundas Bay, and finally Glacier Bay. There was little of the latter bay to discover in 1794. The terminus of the glacier had just started to recede and at that time reached to the vicinity of Rush Point, 65 miles south of its present terminus. A few native canoes met the English on their exploration, and Vancouver noted that "excepting a few indifferent sea otter skins, these people brought with them no articles for traffic" (Bohn 1967).

A series of trading ventures by American and Russian seamen occurred between this initial contact period and the establishment of Russian sovereignty over the Alexander Archipelago in 1799. The Russians, however, did not venture far from their post at Sitka, so the region was left open to inroads by American and British trading enterprises. In 1840 an agreement established between the Russian American Company and the English government permitted the Hudson's Bay Company access to the area from 54°40' north to Cape Spencer. The company had established 36 hunting stations along the coast by 1849. The trade agreement with Britain was maintained until 1865, shortly after which the territory became the possession of the United States.

The effect of the transfer of Alaska to the United States was felt almost immediately in southeastern Alaska, although considerably less so in the rest of the territory. U.S. Army troops were garrisoned at Sitka, Tongass, and Fort Wrangell between 1867 and 1877. Between 1877 and 1879 the troops were withdrawn, but in response to the threat of a Tlingit uprising in 1878, the U.S. Navy maintained a ship in the area from 1879 to 1896, and a detachment of marines was based at Sitka.

The discovery of gold brought an influx of miners. In August 1880, a group of miners met on Willoughby Island in Glacier Bay and organized the Berry Mining District. Although the mining boom bypassed Glacier Bay for the most part, prospectors continued to do some placer mining in the Lituya Bay region in the 1890s, and prospectors were reported in the region as late as 1898. In Glacier Bay proper, small-scale mining operations were taking place as late as 1938.

Other development in the region included a saltery at Bartlett Cove in the late 1890s, several fox farms, and the Dundas Bay cannery, started in 1898. By 1900 the community supporting the cannery operation included some 40 houses ranged along the shore for 61 employees. By 1935 the cannery was abandoned. In the meantime prospectors, fishermen, traders, and settlers drifted in and out of the area, some living off the land for a few years before disappearing, and some establishing permanent pioneer-style homes carved out of the wilderness.

Glacier Bay's later history has been closely tied to the glaciers themselves, which have served as subjects of scientific investigations and tourist attractions since the 1880s. When John Muir made his first trip to Glacier Bay in 1879, he made extensive reconnaissances of the Glacier Bay region, being fascinated by the land, the people, and most of all by the glaciers. As the result of his explorations and the subsequent publicity, the Glacier Bay region was changed forever.

In 1883, the first tourist ship entered the harbor--the start of regular excursions for the Pacific Coast Steamship Company. The small fishery camp at Bartlett Cove became a stopping point for the excursions, and it slowly grew into a tourist-supply point. By 1890 the steamship excursions into the bay had become well known, with up to 230 passengers arriving on each ship. The steady retreat of the glaciers and the corresponding opening of Glacier Bay itself created an even more enticing tourist attraction. Ships were now able to sail very near the terminus of the glaciers, affording passengers awesome views of sheer cliffs of ice towering above their heads.

In the meantime, scientific curiosity about the rapidly retreating glaciers prompted scientists to begin a study of the phenomenon. John Muir returned to the region in 1890 and established a base camp, complete with a prefabricated wooden cabin. Botanists, geologists, ornithologists, and other experts studied the slow reclamation of the lands vacated by the glaciers, while other scientists argued about the extent and rapidity of the glacial retreat. The early scientific studies culminated in the Edward Harriman expedition of 1899, which was financed by the railroad magnate and was composed of scientists, artists, photographers, and naturalists (including John Muir).

This early era of tourism and scientific study abruptly ended on September 10, 1899, when the coast of Alaska was jarred by a violent earth tremor, which had an epicenter 150 miles northwest of Glacier Bay. The bay became an almost solid mass of floating ice. The saltery at the cove could not be reached by ship for two weeks, and the cannery boats operating out of Dundas Bay were unable to make regular trips. The terminus of Muir Glacier collapsed, calving enormous quantities of ice and creating an unbroken ice pack from shore to shore and extending more than 10 miles out from the glacier. For the next several years, tourist steamers were not able to get closer than 5 to 7 miles to the glacier's terminus, although in 1907 a ship was able to get within 1 mile. The quantities of floating ice in the following years, however, was so great that excursions to Glacier Bay were finally eliminated from cruises in the region.

When Glacier Bay National Monument was established in 1925, the area once again began to develop slowly as a prime tourist attraction.

SOCIOECONOMIC ENVIRONMENT

THE REGION

The area surrounding Glacier Bay National Park and Preserve is rural, with a number of small communities accessible by boat or plane within 50 miles of the park. Juneau, the capital of Alaska, is approximately 55 miles east of the park and had a population of 22,000 in 1980. Gustavus, just outside the park boundary, has a year-round population of 80-100 and a summer population of 250-300.

Employment is seasonal in the Glacier Bay vicinity. The primary industries within the region are fishing, timber production, and tourism.

VISITOR USE

Access

The majority of park visitors (76 percent in 1983) come on cruise ships that leave from West Coast and Canadian ports. Approximately 8 percent of the visitors arrive by commercial airline in Gustavus and use lodge facilities and services in Bartlett Cove as part of a package tour. (Concessioner buses travel a 10-mile road and provide access to Bartlett Cove and the lodge.) About 3 percent of the visitors arrive by private boat. The rest tour the park by scheduled or chartered tour service from outside the park.

Preserve users come by aircraft primarily through the Yakutat area or by river raft from Canada along the Tatshenshini/Alsek corridor. A few fishermen arrive by boat from the Yakutat area. The Visitor Access map (in the back pocket) shows traditional access routes to and within the park and preserve.

Water corridors are the primary means of access to the park's major scenic, biologic, and geologic features. Private and commercial vessels provide access for hikers to especially difficult terrain.

Any right-of-way proposals that might be considered under revised statute 2477 (43 USC 932) will be resolved in a manner consistent with the enabling legislation of the park and preserve and other applicable laws.

Visitor Trends and Activities

Visitation has grown rapidly since the early 1970s. Total annual use increased two and one-half times from 1970 to 1978. Until 1982 visitation increased at an annual rate of 5 to 10 percent; in the past two years visitation seems to have leveled off. The major element in this rapid growth has been the increase in numbers and sizes of commercial cruise ships, whose passengers account for approximately 76 percent (73,000 in 1983) of total park visitation (see table 1). Since 1981, cruise ship

Table 1: Glacier Bay Annual Visitation

Year	Cruise Ship Passengers	Cruise Ships	Lodge Visitors	Lodge Overnight Stays	Charter/ Private Boaters[b]	Overnight Back-country Users	Miscellaneous Use with Cruise Ship Crews[c]	Miscellaneous Use without Cruise Ship Crews[b]	Total without Cruise Ship Crews	Total with Cruise Ship Crews
1969	1,636[d]	NA	2,120	NA	1,090	105	1,349	NA	NA	6,300
1970	16,676[d]	NA	1,599	NA	496	85	10,884	NA	NA	29,740
1971	14,802[d]	NA	1,461	NA	400	118	8,927	NA	NA	25,708
1972	13,330[d]	NA	2,895	NA	955	186	7,309	NA	NA	24,675
1973	18,481[d]	43	3,174	NA	952	296	13,058	NA	NA	35,961
1974	41,531[d]	57	3,212	NA	644	452	2,049	NA	NA	47,888
1975	42,479	113	5,021	NA	1,058	400	23,117	3,598	48,791	71,908
1976	46,488	115	6,747	9,983	941	510	30,064	3,594	54,671	84,735
1977	74,870	139	7,678	11,518	1,602	561	35,783	4,841	84,726	120,509
1978	64,022	124	11,756	17,634	2,096	600	30,926	4,022	78,626	109,552
1979	70,895	127	7,824	11,737	6,433	576	36,710	6,806	85,907	122,617
1980	81,115	137	7,410	11,114	2,128	651	39,050	4,847	91,521	130,571
1981	69,615	118	8,726	12,881	2,890	803[f]	37,271	4,816	82,103	119,374
1982	74,808	105	6,738	9,650	3,568[e]	1,276	45,096	5,941	86,390	131,486
1983	72,541	93	7,409	8,962	5,430	930	NA	10,066	96,376	NA

NA - not available

a. Includes all visitors to the lodge, not just overnight guests.

b. Includes passengers on small charter tours.

c. Miscellaneous users include day visitors, Glacier Bay Explorer passengers, charter fishing boat passengers, campers, commercial fishermen, scenic overflight passengers, day users, prospectors and miners, fuel patrons, U.S. and Canadian naval vessels, commercial film crews, contractors, and barge operators.

d. Includes cruise ship crews.

e. Reflects improved counting techniques on commercial fishing and charter boats.

f. Includes Alsek River use (not included previously).

numbers have been regulated by the National Park Service, resulting in a stabilization of visitor numbers. Other factors that have led to higher visitation include the expansion of the lodge from 20 to 55 cabin units, the operation of a 64-passenger overnight vessel by Glacier Bay Lodge, Inc., more charter boat tours, and increases in river float trips and other uses in the preserve.

Currently visitors make only minimal winter use of the park. Commercial air service to Gustavus is discontinued when the lodge closes in the fall, and winter activities are largely confined to area residents or a few commercial and private boaters.

Backcountry users account for only 3 percent of the Glacier Bay visitors; however, the number of backcountry visitors has increased from about 100 in 1971 to 930 in 1983. Backcountry use increased at a rapid rate during the early 1970s; since 1975 backcountry use has increased at a slower rate.

Fishing, hunting, and trapping attract users to the preserve during the regulated seasons.

Lodge guests totaled about 1,500 in the early 1970s, and almost 9,000 in 1983. Most of the increase in lodge use occurred between 1975 and 1978. Since 1981, when 12,881 visitors stayed at the lodge, use has decreased slightly.

Virtually all visitor use occurs between May and October. The amount of time visitors stay in the park varies considerably between types of visitors. Cruise ship passengers form the largest group. They are generally on a one- or two-week cruise, and they spend one day (an average of 11 hours) in Glacier Bay. Lodge visitors who are on commercial tours form the next largest group, and typically they spend one day and night in the park. These visitors have indicated that the glaciers are the most impressive sight, followed by mountains, whales, and seals.

In 1985 two types of commercial tours for lodge visitors will be offered. On one tour, visitors will fly to Gustavus around 5 p.m. and will be bused 10 miles to the lodge, where they will stay overnight in concessioner-operated cabins. At 7 a.m. on the following morning they will board the Thunder Bay tour boat, which is operated by the same concessioner. The Thunder Bay will tour the Muir Inlet glaciers and return to Bartlett Cove at about 3:30 p.m. Visitors will disembark at the main dock, and most will later be bused to the Gustavus airport to leave that evening.

On the other tour, visitors will arrive in Gustavus on a midmorning flight and will be bused directly to the main dock at Bartlett Cove where they will board the Glacier Bay Explorer, an overnight tour boat operated by the lodge concessioner. This boat will leave the dock about 11:30 a.m., touring the west arm of the bay, staying overnight in the same area, and returning to Bartlett Cove about 7 a.m. the next day. Visitors will either be bused from the lodge to Gustavus to leave on the midday flight or will embark on the Thunder Bay for a tour of Muir Inlet, returning to Bartlett Cove about 3:30 p.m. and leaving on the 5 p.m. flight from Gustavus.

Fewer visitors come to Glacier Bay in concessioner-operated tour boats from Juneau or other towns in the region. One such boat provides an overnight tour for one, two, or three days, with visitors on the shorter tours being transferred to and from the Gustavus airport. Most visitors, however, typically spend only one very long day in the park.

Together Bartlett Cove and wilderness campers account for almost 2 percent of all visitors. Campers stay considerably longer than other visitors, with the average being five nights.

Based on a 1978 survey, backcountry users are typically young, well-educated, and do not live in Alaska. They are seeking a wilderness experience and also the opportunity to see tidewater glaciers. Over 75 percent of the visitors said they had at least an "excellent" backcountry trip and only 2 percent had a "fair to poor" trip. Over 60 percent did not feel crowded on their trip. Eighty-three percent felt some crowding, with the number of vessels and aircraft sighted contributing the most to that perception.

Without restrictions on visitation other than existing vessel regulations related to avoidance of impacts on whales, overall visitor use would probably continue to increase by about 10 percent per year if accommodations were available. The cruise ship industry has indicated that, based on demand and regional port capacities, the maximum probable annual number of cruise ship entries over the next five years would be about 135, if these entries were allowed by the National Park Service.

COMMERCIAL FISHING

Use of saltwater areas within Glacier Bay National Park and Preserve for commercial fishing has occurred since before the original monument was established in 1925. Four area communities (Hoonah, Elfin Cove, Pelican, and Gustavus) largely depend on commercial fishing in waters adjacent to the park. ADF&G figures for salmon catch areas include Icy Strait and Glacier Bay. For a five-year period ending in 1979-1980, they show an average annual salmon catch of 2,160,000 pounds, valued at $4 million, a portion of which comes from Glacier Bay. For the same five-year period, catches of tanner, king, and Dungeness crab solely from park waters averaged 344,000 pounds annually. The 10-year period ending in 1977 saw an average annual catch of halibut of 1,120,000 pounds (about 16 percent of the southeast Alaska catch) from an area mostly within park waters.

In addition to fishing in the main bay, a commercial trolling fleet operates along the outer coast of the park in the Gulf of Alaska. Some shrimp fishing (pot fishing only) is done in Lituya Bay. Many of the coves and bays of the outer coast harbor fishing boats during stormy periods, and commercial fish buyers anchor in these areas, operating under NPS permits. A purse seine fishery for chum salmon is operated in Excursion Inlet during open seasons.

In the preserve at Dry Bay, commercial fishing has been a predominant use on the Alsek, East Alsek, and Doame rivers. A gill net fishery has

existed for many years. The state of Alaska manages the catch, while the National Park Service manages use of the land. A fish-processing plant, several roads and airstrips, numerous temporary camps established by approximately 40-50 commercial gill net fishermen, and about 20 permitted fish camps (cabins and outbuildings) are located in this area. Prior to 1981 this area was under the jurisdiction of the U.S. Forest Service as part of Tongass National Forest.

The trend in commercial fishing is reasonably stable, with annual fluctuations dependent on allowed commercial harvest limits established by the state and the International Pacific Halibut Commission. There is a potential for developing interests in trawling and other forms of bottom fishing. At Dry Bay the fishery has increased approximately threefold since 1969 in the number of fishermen establishing temporary camps during the height of the season each year.

NATURAL RESOURCES

The terrestrial resources of Glacier Bay are essentially unaltered by man, and therefore provide an excellent opportunity for research (see Significant Resources map). The area is of great scientific interest because of the records of catastrophic events that have been kept. Extensive ground measurements and photographs of glacier termini have documented this dynamic system, and related long-term studies of vegetation changes have greatly influenced plant succession theory. Continuous study for over 65 years has made Glacier Bay one of the most valuable plant succession study sites in the world. Maintaining this continuity of research is of international importance.

In recognition of the significance of natural resources, this plan reflects a sensitivity to the preservation of the natural scene through compatible and complementary design of facilities. Also cooperative resource planning and management with the state is the subject of a master memorandum of understanding, approved by the Alaska Department of Fish and Game and the National Park Service in October 1982 (see appendix D).

The "Department of the Interior Fish and Wildlife Policy: State and Federal Relationships" (43 CFR 24) further addresses intergovernmental cooperation in the preservation, use, and management of fish and wildlife resources. For the life of this General Management Plan, the Park Service will manage these resources in accordance with the provisions of the memorandum of understanding, departmental policy, and current law.

CARRYING CAPACITIES

The Park Service recognizes the importance of developing carrying capacities for visitor use throughout the national park system to avoid the degradation of natural and cultural resources or the quality of visitor experiences through overuse. The Park Service will work to determine those capacities for Glacier Bay National Park and Preserve and will discuss them in more detail in subsequent action plans.

Resource carrying capacities are usually based on the occurrence or disappearance of threshold phenomena (e.g., the disappearance of certain animal or plant species or rapid decreases in occurrence); they often require extensive onsite research efforts to determine. Sociological carrying capacities, often based on perceptions of crowding, are highly subjective and usually require extensive visitor surveys. Therefore, the development of carrying capacities for Glacier Bay National Park and Preserve will require several years for baseline data to be gathered. At the present time, only one resource carrying capacity (the summer population of humpback whales) and one sociological carrying capacity (a visitor perception of crowding in the upper bay) are being approached simultaneously, and regulations have been promulgated to prevent further impacts (see discussion of vessel use restrictions under "Use and Development").

WILDLIFE MANAGEMENT

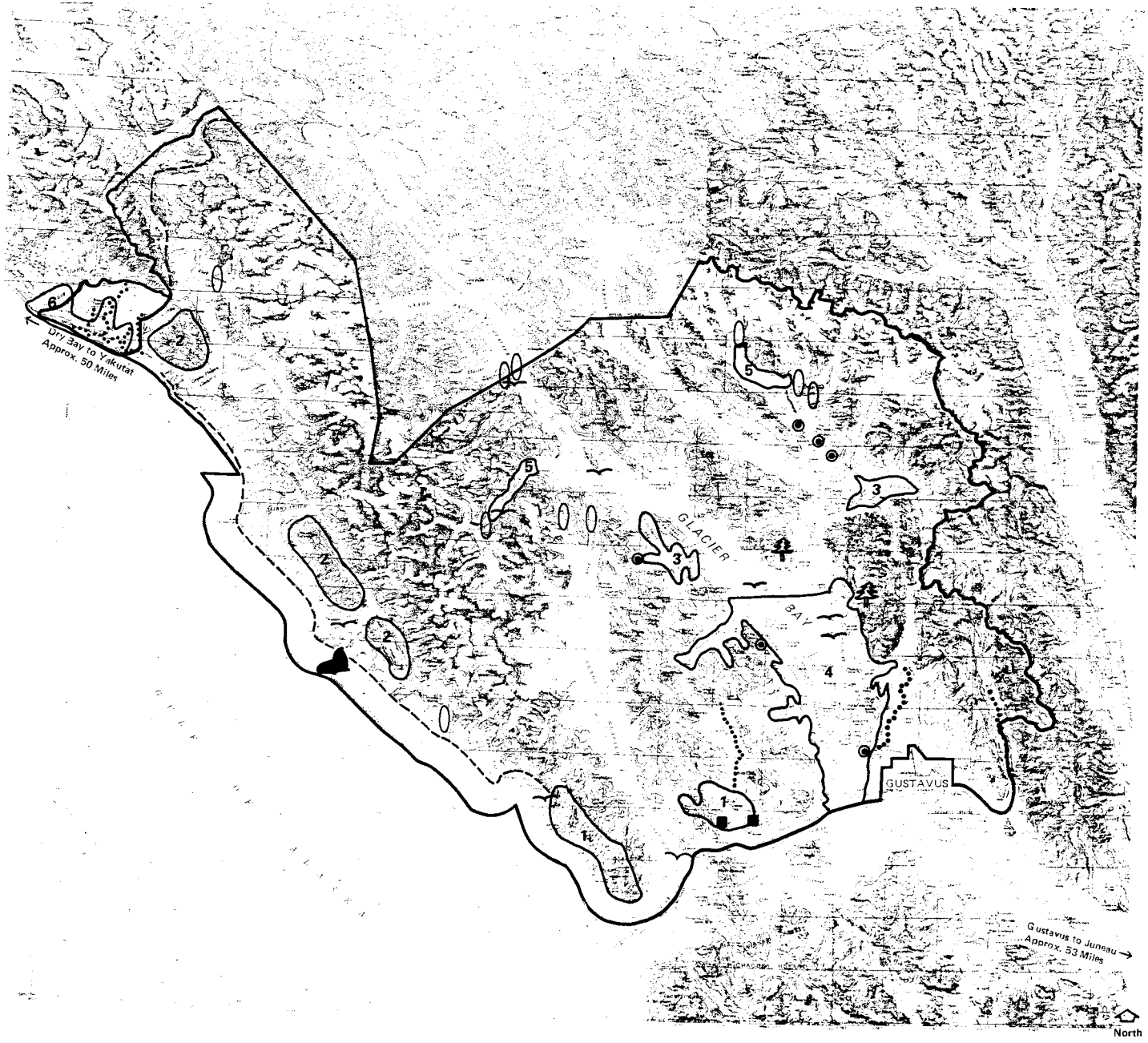
In cooperation with the National Park Service, the state of Alaska is responsible for establishing fishing, hunting, and trapping regulations in the park and preserve and for maintaining healthy fish and wildlife populations, according to state law. The state licenses both commercial and sport fishermen, along with sport hunters, and it sets seasons and bag limits. The Park Service will cooperate with the state wherever possible in setting seasons and limits that are compatible with park and preserve management and philosophy.

Subsistence harvest of fish, wildlife, and related resources on federal lands and waters in Alaska is now controlled by the Alaska Department of Fish and Game under provisions of ANILCA. Under ANILCA, the lands and waters within the national park area, including the 523,000-acre parcel added to the park in 1980, are closed to subsistence uses. Sport hunting, fishing, trapping, and subsistence uses are to be allowed on the 57,000-acre national preserve at Dry Bay and along the lower Alsek River. These uses are subject to state and federal laws. ANILCA requires that such harvest activities remain consistent with the maintenance of healthy populations of fish and wildlife.

ANILCA also requires the park and preserve to be administered by the secretary of the interior for a wide variety of purposes, including the protection of natural fish and wildlife populations and habitats. When the taking of fish and game conflicts with other established purposes of the park and preserve, the Park Service may promulgate regulations concerning consumptive uses and manipulation of resources that are more restrictive than the laws and regulations of the state (Kleppe v. New Mexico, 426 U.S. 529 [1976]). During congressional hearings before the passage of ANILCA, the following policy statement was made:

> It is contrary to the National Park Service concept to manipulate habitat or populations to achieve maximum utilization of natural resources. Rather, the National Park System concept requires implementation of management policies which strive to maintain the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystem, and that concept should be maintained. . . .
>
> It is expected that the National Park Service will take appropriate steps when necessary to insure that consumptive uses of fish and wildlife populations within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years. Accordingly, the National Park Service will not engage in habitat mainpulation or control of other species for the purpose of maintaining subsistence uses within National Park System units. (Congressional Record, Aug. 18, 1980, p. S 11135-36.)

The state has provided the Park Service with resource management recommendations for Glacier Bay National Park and Preserve. These recommendations suggest management of game species for sustained-yield harvest. The Park Service cannot adopt such objectives for the park for



1 Rich Biological Estuarine and Rocky Coastline Ecosystems with Diverse Intertidal and Subtidal Marine Life

2 Possible Biological Refugium Unoccupied by Glacier Ice During Wisconsin Time

3 Waterfowl Molting Area (Canada Geese)

4 Area Frequented by Humpback Whales (note: NPS management jurisdiction includes significant marine habitats)

5 Harbor Seal Pupping Area

6 Major Migratory Bird Staging Area (swan wintering area)

Important Salmon Spawning Stream

Wildlife Migration Corridor (outer coast beaches represent a major bird flyway and an important travel route for bears, otters, wolves, and moose)

Active Tidewater Glacier (may be advancing or retreating)

Remnant Forest Above Neoglacial Ice Levels

Interstadial Stumps Uncovered by Retreating Ice

Sea Lion Haul-out Site

Colonial Seabird Nesting Site (other bird nesting areas, including peregrine falcon and bald eagle, scattered throughout coastal zone)

Classified Historic Structure

SIGNIFICANT RESOURCES

GLACIER BAY NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

0 5 10 Miles
0 5 10 15 Kilometers

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reasons expressed above and because Glacier Bay National Park is closed to hunting. Such objectives may be adopted for the preserve if management actions do not conflict with the preserve's purpose (i.e., natural succession rather than manipulation of habitats).

The Park Service will continue to permit and cooperate with ADF&G research projects on fish and wildlife populations in Glacier Bay National Park and Preserve that are compatible with the park's management objectives. For example, the National Park Service and the Alaska Department of Fish and Game are cooperating in conducting moose and goat surveys in the Dry Bay area. The Park Service will keep the department informed of other fish and wildlife research to be conducted. The following surveys are examples of ongoing research in Glacier Bay National Park and Preserve that will be continued:

colonial bird-nesting sites
eagle nests
bear habitat
whale sightings
insect infestations

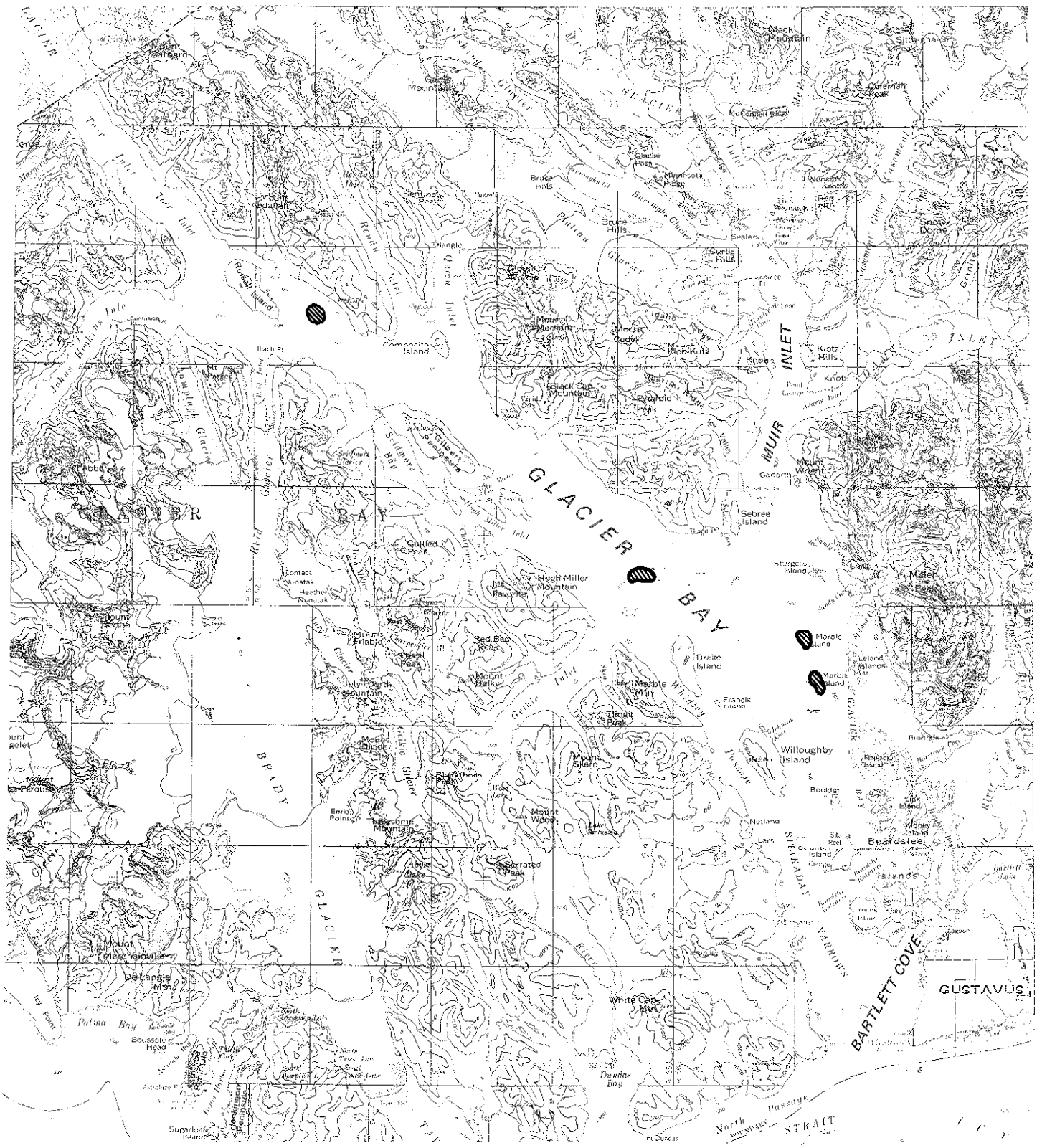
Significant habitat areas such as Adams Inlet, Hugh Miller Inlet, and Dry Bay will be monitored to determine wildlife population trends. Seasonal movements of mammals as well as the significance of the Alsek River as a migration corridor will be evaluated. The Marble Islands and several other small islets will continue to be closed during the bird-nesting season (see Island Closure map). The Park Service will seek permanent closures for these islands during the nesting season.

A specific concern is the potential for bear/human conflicts, particularly along shoreline areas frequented by both visitors and bears. To minimize potential conflicts, and to maintain an undisturbed bear population, existing populations will be evaluated in terms of numbers, general condition, ranges, and habitat use. Also relevant studies will be reviewed to determine habits and behavior of black and brown bears.

Information about food and garbage cleanup and storage will continue to be provided to visitors to prevent conflicts with black and brown bears. Problem bears (those that continually raid campgrounds and campsites, threaten visitors, and do not respond to "scare" techniques) will be treated in a manner consistent with the park's 1978 "Bear Management Plan." For example, there is an electric fence around the fish plant's solid waste facility at Dry Bay. The 1978 plan will be reviewed in cooperation with the Alaska Department of Fish and Game.

During the last few years, harbor porpoise census work has been done in the park. Also research on the population, distribution, and essential habitat for harbor seals will continue to be conducted. Studies have also examined interactions between seals and vessels, resulting in the development of guidelines for tour boat operations in the vicinity of seals.

The endangered humpback whale will be protected through the promulgation of vessel regulations, in cooperation with the National Marine Fisheries Service. (See the discussion of vessel use regulations under "Use and Development.")



ISLAND CLOSURES

GLACIER BAY NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

0 10 Miles
0 10 Kilometers

North

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FISHERIES MANAGEMENT

Commercial Fisheries

Commercial fishing has been an activity of considerable economic importance in park and preserve waters in recent years. Cross Sound, Icy Strait, the outer coast (Gulf of Alaska), and the Dry Bay vicinity have been the most important areas. Glacier Bay proper, the park's principal visitor use area and the focus of most park visitor activities, is also considered an important fishing area that is used by commercial fishermen when areas closer to home ports are not producing or when weather conditions are favorable. Traditional commercial fishing methods include trolling, long lining and pot fishing for crab, and seining (Excursion Inlet only) in park waters and setnet fishing in preserve waters (Dry Bay area). In addition, several permanent "fish camps" (cabins), many temporary ones, a fish-processing plant, and several airstrips have been developed in the Dry Bay area to support the fishing industry.

The Alaska Department of Fish and Game will continue to regulate commercial fishing in Glacier Bay National Park and Preserve, which is consistent with ANILCA and state law. Traditional commercial fishing practices will continue to be allowed throughout most park and preserve waters. However, no new (nontraditional) fishery will be allowed by the National Park Service. Halibut and salmon fishing and crabbing will not be prohibited by the Park Service. Commercial fishing will be prohibited in wilderness waters in accordance with ANILCA and the Wilderness Act.

The National Park Service, in cooperation with other federal and state agencies, will continue to identify areas where commercial fishing may conflict with other park user groups or may pose a threat of resource damage. For example, commercial fishing for species preyed upon by whales may reduce available food stock, thus detrimentally affecting the endangered humpback whales. The National Park Service, therefore, will continue to prohibit commercial fishing for these species.

Currently, the Alaska Department of Fish and Game reports commercial fish harvest statistics for Glacier Bay combined with those of a portion of Icy Strait and Cross Sound. The National Park Service will continue to work with the department to establish Glacier Bay as a separate statistical reporting unit or subunit for all species taken in the park. Catch data for Glacier Bay specifically will provide excellent reference for changes in fisheries and natural effects of the evolution of marine ecosystems as they continue to occur following the retreat of tidewater glaciers.

If such a realignment of statistical units is not feasible, the Park Service may establish a registration system for all commercial fishermen using Glacier Bay proper. This would allow data to be gathered for management information and analysis; a cooperative system with the Department of Fish and Game is preferable. The system would require only registration and catch reporting and would not be a limited permit system. The Park Service and Department of Fish and Game have already agreed to a memorandum of understanding for mutual review and analysis of regulations, harvest quotas, and other matters related to the

management of park and preserve ecosystems (see appendix D). Other cooperative efforts will be pursued with the National Marine Fisheries Service and the International Pacific Halibut Commission.

To achieve the intent of ANILCA and other NPS mandates, the National Park Service will manage resources and visitor use so as to maintain habitats and natural and healthy fish populations. The Park Service will not allow the introduction of nonnative species or hatchery fish, lake fertilization, or the erection of artificial fish passageways on NPS lands. NPS guidelines allow for the maintenance of established fish migration routes and spawning areas. Use of park salmon brood stocks for enhancement activities outside the park boundaries may be permitted on a case-by-case basis.

ANILCA and the Wilderness Act prohibit the commercial exploitation of natural resources in areas officially designated as wilderness by Congress. Therefore, following promulgation of regulations, the National Park Service will prohibit commercial fishing in all current wilderness waters, specifically including Rendu Inlet, Hugh Miller Inlet (also including Scidmore Bay, Charpentier Inlet, and Weird Bay), Adams Inlet, the Beardslee Islands, and the northwest arm of Dundas Bay. Except for the Beardslee Islands, these areas represent developing estuarine systems where limited commercial fisheries exist. They are inhabited by a variety of marine life and provide important breeding and brooding habitat for marine mammals and birds. Their scenic settings offer a primitive recreational opportunity for park visitors. Areas designated in the future as wilderness by Congress will also be removed from commercial fishing. Those areas removed from wilderness will be reopened to commercial fishing.

The National Park Service will conduct or encourage studies of biological features such as kelp bed dynamics, fish and shellfish communities, and animal behavior such as territoriality and migration. Surveys of salmon-rearing streams and intertidal habitat will continue.

Sport Fisheries

Sport fishing is highly important to the Alaskan way of life. This use in Glacier Bay has been fairly stable over the past five years, after a rapid increase for the previous 10 years because of the construction of the Glacier Bay Lodge and the growth in visitor use. Anglers include local residents and visitors who fish from private or charter fishing vessels that enter the bay under permit. Such fishing pressure occurs primarily in the lower bay, from the entrance northward through Sitakaday Narrows into the mid-bay area. The taking of salmon and shellfish, including crabs, for personal use is considered a "sport" use by the Park Service and is also a traditional use in Glacier Bay.

Sport fishing will continue to be allowed subject to ADF&G and NPS regulations. Sport harvest of any aquatic species threatened by excessive harvest pressure may be regulated in the future. However, the National Park Service will work closely with the Alaska Department of Fish and Game for the establishment of such regulations. Stream surveys

will be conducted by the Park Service or the Department of Fish and Game to ascertain their importance as spawning rivers. No fisheries enhancement will be provided within park and preserve boundaries.

VEGETATION MANAGEMENT

Subsistence collection of plants (stems, roots, leaves, and flowers) for food will be allowed in the preserve. Fruits and berries, as specified by the superintendent, may be picked in the national park and preserve for personal consumption.

Population trends of the spruce bark beetle will be closely monitored. Approximately 4,000 acres within the lower area of the bay contain significant amounts of dead and defoliated Sitka spruce. Standing diseased or dead trees within the developed area of Bartlett Cove will be closely evaluated and removed if they are considered hazardous to park resources, visitors, employees, or adjacent landowners. The removal of dead trees will substantially reduce the probability of wider infestation by the spruce bark beetle in the developed area.

In accordance with NPS policy and ANILCA, no timber harvest, commercial or otherwise, will be allowed on park lands. The Park Service will not use park timber for construction materials. Salvage of beach logs will not be allowed within the former Glacier Bay National Monument boundaries. However, if nonpark resources in the future cannot provide sufficient firewood for local use, the National Park Service will consider salvage of beach logs in designated areas.

The Glacier Bay region has no history of significant wildfire. Because of the high precipitation, moist ground conditions, and climate, natural and man-caused fires are infrequent and insignificant. Therefore, no detailed fire management plan is necessary. Fires in developed areas resulting from unusually dry conditions will be suppressed. Naturally caused fires in wilderness areas will not be suppressed unless they threaten adjacent lands and development.

Exotic plants may be eradicated in the Bartlett Cove developed area, although no formal program is necessary. Road rights-of-way in the preserve may be cleared periodically to maintain user safety.

CULTURAL RESOURCES

The majority of cultural resources in Glacier Bay National Park and Preserve are archeological. The few recent historic resources are in an advanced state of decay due to the wet climate. In addition, the legendary landscape of the native peoples is an intangible cultural resource.

Archeological remains, while often difficult to locate because of the extremes in terrain and dense vegetation, represent cultures in southeast Alaska throughout man's prehistory on the continent. Some of the archeological sites in Glacier Bay may prove to be extremely important in deciphering the early prehistory of the New World.

The few historic period resources that do remain are of some local and typological interest for interpretive purposes and for the study of reciprocal impacts between the dynamic environment and human users, but these remains are generally in poor condition or are inaccessible. Other historic themes are secondary and are well represented elsewhere in southeast Alaska.

Because most cultural resources are either in a generally poor condition, or are inaccessible, management emphasis will be on the dynamic natural setting of Glacier Bay rather than on its human artifacts. Therefore, no specific "historic zones" will be designated because such designation will not aid in the management of resources.

Management actions taken over the next 10 to 15 years will supplement the cultural resource data base as follows:

A comprehensive plan will be initiated to evaluate prehistoric resources of Glacier Bay. This will be accomplished by first identifying all significant archeological sites and then by conducting selective archeological investigations in typical, environmentally stable areas to help develop a more thorough overview of the prehistory. Significant archeological sites or districts will be nominated to the National Register of Historic Places.

In-park compilation of ethnohistorical and historical data will be continued for interpretive purposes, with concentration on observations of and reactions to Glacier Bay's natural phenomena. Tlingit history (ethnography and ethnology) will be incorporated into interpretive programs and displays.

Subsistence studies, evaluations, and recommendations will be completed in conjunction with fisheries investigations of the Dry Bay area and in cooperation with the Alaska Department of Fish and Game.

The park maintains a list of classified structures (LCS) that describes significant buildings within the park. The list will be updated as necessary to add or delete properties. Existing and potential LCS properties will be evaluated for adaptive use or

interpretive potential. Structures identified for "passive" protection or benign neglect will be photographed, recorded, marked as necessary, and allowed to deteriorate. Active preservation of historic remains within Glacier Bay National Park and Preserve is not in the best public interest because of the expense involved and the limited significance of the resources, their deteriorated condition, and their inaccessibility.

Continuing cultural resource surveys and clearances/mitigations will be conducted to avert resource damage by park development projects (special surveys may be necessary for mining program clearances).

If through future conveyances private inholdings are acquired, they will be surveyed for historical, architectural, archeological, and contemporary native American resources before decisions or actions are taken that may affect them.

Development proposals that relate to cultural resources will reflect a sensitivity to the preservation of the historical/cultural scene through compatible and complementary design. All developments with potential for ground disturbance will be preceded by archeological clearances. Before proposals with potential for impacts on traditional sites are approved, local native Americans will be consulted. Projects will be designed to avoid or to have minimal adverse effects on cultural resources.

ARCHEOLOGICAL SITES

The protection of archeological sites and districts will be based on historic preservation laws, NPS policies and standards, and professionally accepted techniques.

Sites will be recorded, selected sites will be monitored to determine continuing natural and human impacts, selected sites will be tested to evaluate them and plan further preservation actions, and data will be recovered at sites that could be affected by development or use. All data recovery, such as controlled surface collection and excavation, will be done according to current NPS policies and professional standards. Data recovery will also be designed to obtain the most information with the least destruction of archeological resources.

Inholdings or other areas that may be transferred that are not specifically covered by current archeological inventories will be surveyed. This information will be used to plan protection or preservation actions, if needed. Although current inventory surveys have increased the knowledge of Glacier Bay archeological resources, considerably more work remains to be done. Archeological resources near campsite locations and trails will need to be evaluated for the possible monitoring and mitigation of human or natural indirect impacts.

Surface collection will be undertaken to professionally record and preserve artifacts that may be subject to adverse impacts because of vandalism or proposed development actions. This surface collection will be conducted only by a professional archeologist, who will determine whether this activity meets existing professional and NPS standards.

HISTORIC STRUCTURES

Historic structures and sites, such as native villages, historic cabins, or trails, will not be reconstructed. Interpretation for visitors will be provided through other techniques.

Certain stuctures on the park's list of classified structures (the Dundas Bay cannery, ramp, and boiler, and the Harbeson cabin and woodshed) will not be preserved because of relatively low historical significance, advanced deterioration, and excessive costs. These structures will be recorded and allowed to deteriorate naturally, with their sites eventually reverting to a natural condition. Some removal of hazardous elements may be necessary for safety and to avoid an attractive nuisance. Park users will be alerted to the potential hazards associated with these structures, which are chiefly in the backcountry and have value as "discovery" sites. All work will conform with management policies and compliance requirements.

The Muir cabin site at Muir Point will be permanently marked and recorded. The site will be commemorated through interpretive means.

The archeological deposits at historic sites will be clearly identified. Any actions affecting them will be designed for minimal adverse effect and will be preceded by professionally adequate data recovery.

CONTEMPORARY NATIVE AMERICAN CONCERNS

To keep communication open and to provide for an exhange of concerns, the Park Service will maintain a dialogue with the Tlingit people. The ongoing identification of areas of sacred and traditional importance to local native Americans will be continued by professional archeologists and anthropologists. As new information is obtained, it wll be added to the confidential inventory of these sites. Measures will also be taken to ensure that mutually acceptable methods of protection and preservation are adopted, in conformance with NPS management policies and legislation.

Input and active participation in methods to interpret native American culture will be encouraged.

If local native Americans wish to sell crafts, the Park Service will encourage concessioners to develop outlets for their work.

COLLECTIONS

Park collections, consisting of records, a library and archives, and museums, will be managed in accordance with the park's "Scope of Collections Statement" and relevant NPS guidelines and policies.

LAND PROTECTION

WILDERNESS SUITABILITY REVIEW

ANILCA designated 2,770,000 acres of Glacier Bay National Park as wilderness, under conditions of the 1964 Wilderness Act. This accounts for almost all of the land area within the park. The Bartlett Cove developed area, Blue Mouse Cove, Cenotaph Island, and an area on the south shore of Alsek Lake are the major exceptions. Five marine areas are also designated as wilderness--Rendu Inlet, Hugh Miller Inlet (including Scidmore Bay, Charpentier Inlet, and Weird Bay), Adams Inlet, the northwest arm of Dundas Bay, and the area within the Beardslee Islands. Section 1110 of ANILCA allows "the use of snowmachines, . . . motorboats, airplanes, and nonmotorized surface transportation" on public lands designated as wilderness. These uses are subject to reasonable regulation "to protect natural and other values."

The following proposals represent the results of a wilderness suitability review conducted during the general management planning process, as required by ANILCA. The proposals are based on alternatives discussed in the Draft General Management Plan/Environmental Assessment, but they have been modified to reflect suggestions from the public, organizations, and governmental agencies. Because these changes were not discussed in their current format in the draft plan, subsequent documents in compliance with the National Environmental Policy Act (NEPA) will be developed by the Park Service for public/agency review before the final recommendations are submitted to Congress. These changes, which are shown on the Land Status and Wilderness Recommendations map (back pocket), include the following:

Alsek Lake--Alsek Lake should be redesignated as park wilderness, representing a wilderness addition of approximately 8,400 acres. No changes in current use restrictions are recommended except that no motorized vessels should be allowed on the Alsek River above Gateway Knob.

Deception Hills--This area should be redesignated as preserve wilderness rather than park wilderness. No change in designated wilderness acreage would be necessary (see discussion of park/preserve boundary change below).

Beardslee Islands--The entire marine area surrounding this island group should be redesignated as park nonwilderness. This would result in the deletion of approximately 18,400 acres of designated wilderness waters, and it would allow for the continuation of traditional commercial fishing in the Beardslees without affecting current use.

Muir Inlet and Wachusett Inlet--These two inlets should be redesignated as park wilderness, representing a wilderness addition of approximately 30,900 acres. This action would consolidate the majority of park wilderness waters in one area. A limited number of motor vessels would continue to be allowed in Muir Inlet, but Wachusett and Adams inlets would be closed to motorized use to

preserve the scenic setting and to provide a primitive recreational opportunity for park visitors. Motor vessels might be phased out over a period of years. The wilderness designation would protect marine environments from motorized vessel use and provide for ecological research relating to the reestablishment of salmon-rearing streams. Impacts on traditional commercial fishing would be minimal.

Hugh Miller Inlet--This 1,660-acre marine area should be deleted from wilderness designation to allow for traditional commercial fishing at the mouth of the inlet, which would not affect the wilderness character of interior waters. Scidmore Bay, Charpentier Inlet, and Weird Bay would remain in wilderness status.

Dundas Bay--The entire bay should be redesignated as park nonwilderness, resulting in approximately 6,300 acres being deleted from marine wilderness. This would allow for the continuation of traditional conmmercial fishing access without visitor impacts because little or no visitor use is now made of the bay.

PARK/PRESERVE BOUNDARY CHANGES

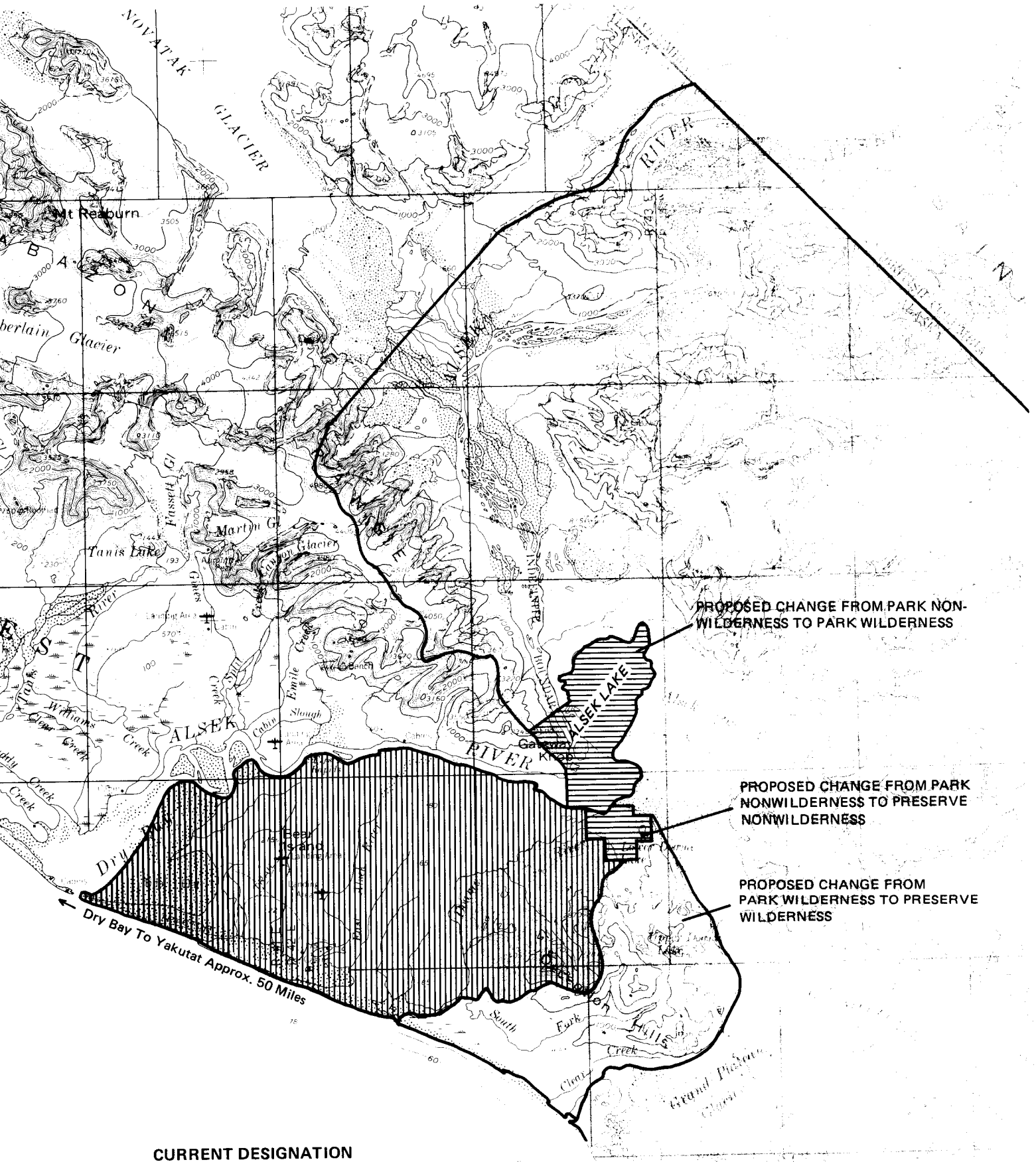
In the Dry Bay area, the eastern boundary between the preserve and the park, as established by ANILCA, divides an area used by bears and moose, both of which are traditionally taken by sport hunters in the area. This boundary is extremely difficult to locate in the field. In the past, motorized surface vehicles have been used for access by hunters with commercial guides. This type of use is not permitted in park wilderness areas, according to section 1110 of ANILCA. Therefore, the Park Service proposes that the park boundary be moved southeastward to follow the easily discernible western extreme of the Grand Plateau Glacier. This action would add about 24,000 acres to the preserve. Wilderness designation for the new preserve area should be retained. Under the provisions of ANILCA, preserve wilderness may be managed for motorized access and hunting (see Proposed Park/Preserve Boundary Changes map).

The National Park Service is considering, as a separate issue, a 14,000-acre land exchange with the state of Alaska for state-owned lands within Wrangell-St. Elias National Park and Preserve. As a part of this transfer, approximately 6,000 acres of park lands in the Gustavus area would be transferred to the state. These lands consist of upland areas adjacent to existing developed lands and 1,900 acres of submerged lands. This parcel also includes an area that has been identified as a potential site for a hydroelectric generating facility for Gustavus and Bartlett Cove (see discussion under "Non-NPS Projects"). This proposal could result in the deletion of 6,000 acres of designated wilderness.

MANAGEMENT ZONING

Park Zones

Five categories will be used to zone Glacier Bay National Park: nonwilderness waters, wilderness lands, wilderness waters, development,



Proposed PARK/PRESERVE BOUNDARY CHANGES

GLACIER BAY NATIONAL PARK AND PRESERVE

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

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and special use. Any zone may be subdivided to meet management needs or to further delineate future resource areas. The locations of the zones at the time of the release of this plan are shown on the Management Zoning map. Congressional action will be necessary for some of the wilderness revisions, boundary modifications, and land transfers recommended in this plan.

Nonwilderness Waters Zone--This zone will include most of the marine waters of Glacier Bay National Park and Preserve. Restrictions on vessel use will be promulgated as a result of past and ongoing whale research.

Wilderness Lands Zone--Most of the land area in the park will be included in this zone. It will be managed in accordance with the Wilderness Act, ANILCA, and NPS wilderness management policies.

Wilderness Waters Zone--This zone will include the areas of Muir, Wachusett, and Adams inlets and the Hugh Miller Inlet complex. Special management considerations for wilderness waters are discussed under "Fisheries Management."

Development Zone--Lands in this zone will be managed for park development and intensive public use that substantially alters the natural environment. Parking lots, public roads, buildings, and park utilities will be included in this zone.

Special Use Zone--This zone will include lands and waters to be used by other agencies or interests for purposes not permitted in the other zones. These include two valid mining claim groups (zones for mining operations may be adjusted to site needs described in NPS-approved plans of operations). The Sitka Southeast Telephone Company has a special use permit for servicing and maintaining the telephone system between Bartlett Cove and Gustavus. The U.S. Coast Guard has a special use permit authorizing maintenance of existing navigational aids. Special use permits are also provided for the Dry Bay fish camps and processing plant.

Preserve Zones

Glacier Bay National Preserve will be zoned into the following three categories, in addition to the nonwilderness waters zone described above:

Special Use Zone--This zone will be the designated area for temporary fish camps during commercial seasons. Also sites for support activities for commercial fishing will be authorized in this area.

Wilderness Zone--Lands in the Deception Hills area now designated as park wilderness will be redesignated as preserve wilderness.

Natural Zone--All the remaining lands in the preserve will be included in this zone.

MINING CLAIMS

The 1976 Mining in the Parks Act (16 USC 1901) repealed former mineral entry provisions within Glacier Bay and several other national park system areas. The act instructed the National Park Service to survey mining claims within these areas to determine their validity. At that time there were 212 recorded claims. The survey has been completed, and the report to Congress notes only two valid claim groups (NPS 1979b). One group lying beneath the Brady Icefield and known as the Nunatak lode claim group has 20 patented claims (400 acres) for nickel and copper. The other claim is the unpatented LeRoy No. 1, a small gold claim near Ptarmigan Creek in Glacier Bay's west arm.

Several other mineral claim groups declared invalid as a result of the survey are in various stages of adjudication. One of the largest claim groups involves 134 placer locations north and south of Lituya Bay.

All valid claims fall under comprehensive regulations affecting mining activities, as specified in 36 CFR 9a. New access provisions resulting from the provisions of ANILCA are in 36 CFR 13.15. Currently, the LeRoy No. 1 claim is being operated under an NPS-approved plan of operations on a season-by-season basis. Such plans must be approved prior to the operation or sampling of any other valid claim. The Park Service will investigate land exchanges as a method of acquiring extraction rights from holders of valid claims.

PRIVATE LANDS AND OTHER PROPERTIES

Two private tracts of land encompass approximately 198 acres on the shoreline near Gustavus. The land has been logged in the past, is unimproved, and is used on a limited basis. No acquisition of these properties by the National Park Service is deemed necessary at this time.

The Bureau of Land Management has recently decided to review the files on 21 Alaska native allotment claims (2,926 acres), and a private tract of 147 acres near Point Gustavus was recently awarded as a native allotment. This review, which may take several years, has been brought about by a new determination of the regulations concerning use and occupancy. The claims are for 80- to 160-acre sites and are located in Excursion Inlet, Dundas Bay, and Glacier Bay proper (see Land Status and Wilderness Recommendations map). Following the review, the National Park Service will analyze potential impacts on park resources of any allotments conveyed to claimants. Before December 1985 a land protection plan will be prepared to ensure satisfactory protection of conveyed or adjacent lands. Such a plan will address all nonfederal lands within park boundaries. It will describe management intent for the protection of park resources, and it will evaluate all feasible land management strategies, such as scenic easements, land bank agreements, cooperative agreements, and fee acquisition. The plan will emphasize alternatives to fee acquisition where practicable, in accordance with Department of the Interior land protection policy.

PRESERVE ZONES

- SPECIAL USE
- NATURAL

PARK ZONES

- NONWILDERNESS WATER
- WILDERNESS LAND
- WILDERNESS WATER
- DEVELOPMENT
- SPECIAL USE
- PRIVATE (INHOLDINGS)

Note: Recommended changes for wilderness designations are shown on the Land Status and Wilderness Recommendations map. If such changes are effected by Congress, management zoning will be changed.

MANAGEMENT ZONING

GLACIER BAY NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

North

0 5 10 Miles
0 5 10 15 Kilometers

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The locations of private lands and native allotments are shown on the Land Status and Wilderness Recommendations map (in the back pocket).

NON-NPS PROJECTS WITH POTENTIAL EFFECTS ON THE PARK

Establishment of ferry service to Gustavus, by way of the Alaska marine highway system, has been considered by the state. If such service was provided, the number of vehicles and visitors would increase at Bartlett Cove. This increase would tax the capacity of the existing and planned roads and facilities well beyond design limits. Therefore, the development of vehicle ferry service to Gustavus should not precede the development of adequate lodging, fueling, and other services by private interests. If ferry service was provided to Gustavus, a park-and-ride operation from that area to Bartlett Cove could be established. However, additional analysis would be necessary to determine whether adverse impacts might result from such a service. That analysis should be conducted cooperatively by the Park Service, the Alaska Department of Transportation, and the community of Gustavus.

The state of Alaska has held hearings on a proposal to construct a highway east of the park that would run along the west side of Lynn Canal and connect with a proposed shuttle ferry system operating from Juneau to Haines. It is unclear how such a road would affect resource management or visitor use. Because the terrain between the proposed road and the park is steep and rugged, it seems backcountry visitors would be predisposed to gain access from the east instead of the west. If the highway was built, the Park Service would analyze potential impacts of the project and modify this General Management Plan accordingly, if necessary.

Within the last few years the state has sold lots in the Gustavus area, and the year-round population of 80 to 100 (summer population approximately 250 to 300) is expected to grow, with some impacts on park areas and facilities near the boundary.

A proposal has been made to develop a small hydroelectric plant at Fall Creek, just inside the park boundary near Gustavus (see Management Zoning map). The U.S. Army Corps of Engineers has initiated a feasibility study for this project. The study was scheduled for completion in May 1983; however, a final report has not been received. If the project is feasible and desirable to Gustavus residents, Congress may approve such use of the water. A hydroelectric power plant could affect the population growth rate of Gustavus, and it could affect park operations. Potential effects on the park would be separately evaluated before any final decision. The site of the power plant is included in the NPS Gustavus land package being considered for exchange with the state of Alaska for state-owned lands within the boundary of Wrangell-St. Elias National Park and Preserve.

USE AND DEVELOPMENT

INTERPRETIVE PROGRAMS

Major interpretive objectives and themes are contained in the park's 1976 "Interpretive Prospectus." The primary goal is to foster in visitors an understanding of the dynamic relationship of glaciation and biological succession. Secondary themes include the interpretation of individual plant and animal species and human history. However, the interpretive program will also help achieve management objectives by providing for visitor safety and resource protection. Overall, interpretive efforts will continue in the direction and intensity of existing programs, as described below.

A unique aspect of the Glacier Bay interpretive program is the provision of personalized interpretation to 80 percent of the park visitors at the site of the park's major resources. This is accomplished by NPS interpreters on board both commercial cruise ships and tour vessels. Such interpretation is a living and traveling experience, with minimal impacts on the resources. The cooperative program with the cruise ship companies allows seasonal interpreters to board ships for a full day of interpretive programs (10-13 hours). Interpreters use the public address system, meet informally with passengers on deck to answer questions, and present movies and slide programs. Modular displays that can be carried on board and used to give a better overview of Glacier Bay's dynamic processes are being prepared by the Harpers Ferry Center. New publications concerning the park and a film on glacial processes are also being prepared.

Interpretive programs offered on concessioner vessels are much the same as those offered on cruise ships. Glacier Bay Lodge, Inc., operates the Thunder Bay, a daily tour boat, and the Glacier Bay Explorer, an overnight vessel. Interpreters will be aboard the overnight vessel operated by Glacier Bay Yacht Tours in 1985.

These in-depth interpretive services will be continued. As before, cruise ship and tour boat operators will be encouraged to make donations to defer NPS expenses, including salary and transportation costs to and from the cruise ships or tour boats.

Interpretive activities in the Bartlett Cove area will continue to center around the lodge and campground, as described below under "Bartlett Cove Development Concept." Existing services include exhibits within the lodge, guided and unguided nature trails and walks, and auditorium programs. There are two signed and maintained trails in the Bartlett Cove area (see Visitor Access map). The forest trail begins in the lodge area, connects to the campground, and returns along the shoreline. Daily guided walks are provided along this trail. The Bartlett River trail passes through the rain forest and then follows the river for 1½ miles. These trails will continue to be maintained and upgraded as required.

Information about how to minimize impacts of use will continue to be distributed to backcountry users. A video program to be shown at the Bartlett Cove visitor contact station is being developed for this purpose.

Curatorial space will be provided in the present maintenance shop once it has been remodeled as an administrative building. Collected and stored items will include both natural and cultural specimens and artifacts, as described in the park's approved "Scope of Collections Statement."

Interpretive programs outside the park, such as school presentations in local communities, will include informal discussions with residents of Elfin Cove, Hoonah, Pelican, Yakutat, Juneau, and other communities. Canadian cooperation will be sought for interpreting natural features along the Alsek River.

The Glacier Bay Agency of the Alaska Natural History Association has sales outlets at Glacier Bay Lodge, on cruise ships, and at the Bartlett Cove information station. Annual sales in 1983 were approximately $53,000. The association staff consists of a year-round business manager and a seasonal employee.

The association aids the National Park Service in its interpretive and visitor services and other operations by developing and printing interpretive sales materials on Glacier Bay and other NPS areas. It also prints an annual interpretive newspaper, brochures listing visitor activities, and other free information; the association donates publications for visitor information on the concession-operated tour boats. Another service is the sponsoring of an annual photo contest to get slides for NPS use. Funding is provided for a "minimum impact" program given to campers, for purchasing library, museum, and interpretive materials, for supplemental interpretive staff at the lodge and on cruise ships, for film processing for interpretive use, and for other purposes. The association requires work space for one employee plus about 250 square feet of stock storage on site.

A joint U.S. Forest Service/National Park Service visitor information station is currently operated in the Centennial Building in Juneau. This contact function will be continued. As required by ANILCA (sec. 1305), the Forest Service, Park Service, and state are conducting a study to determine the best location for an interagency visitor center in southeast Alaska.

COMMERCIAL VISITOR SERVICES

Section 1307 of ANILCA states that persons who on or before January 1, 1979, were adequately providing visitor services may continue to do so under certain terms and conditions, as long as the services are consistent with the reasons for which the area was established.

A 10-year concession contract with Glacier Bay Lodge, Inc., ending in January 1986, provides for overnight accommodations, meals, beverage service, charter fishing service, and scheduled bay tours by two tour boats. The National Park Service owns the lodge, cabins, and all internal facilities and equipment, and the concessioner owns the quarters used by its employees. This contract must be renewed or renegotiated before 1986.

Aerial sightseeing tours are provided from Bartlett Cove and Gustavus by Glacier Bay Airways and from Yakutat by Gulf Air Taxi under concession permits (see Visitor Access map). The permit for Glacier Bay Airways authorizes booking services in the lodge and onsite advertisement. Use of Glacier Bay Airways by the National Park Service for search and rescue, patrolling, and resource management needs is facilitated because of the desk location in the lodge, making communications faster.

Kayaking and backpacking trips are offered by Alaska Discovery, Inc., under a concession permit (see Visitor Access map). Trips vary from three to 10 days. These services will be continued.

Guided sport fishing and hunting trips are available in the preserve.

At present, six U.S. companies operate commercial river trips on the Alsek River under concession permits. Because much of the river is within Canada, an interim river management plan for the Alsek River allows for 16 U.S. and 16 Canadian commercial trips each year. Cooperation will also be maintained with the Alaska Department of Fish and Game, which manages commercial fishing on the river at Dry Bay.

BACKCOUNTRY USE

Access to the backcountry is primarily by charter airplane, charter boat, kayak, and concession-operated tour boats (see Visitor Access map). Kayaks are becoming more popular as a means of travel in the park and can be rented locally with or without guide service from Alaska Discovery, Inc., an NPS concessioner. During 1981 there was a significant increase in kayakers, to slightly more than 50 percent of all backcountry users. Kayakers tend to spend a week or more in the backcountry; other campers normally stay one or two nights.

The number of recreation backcountry user nights has increased from 1,927 in 1976 to 3,581 in 1983. Most camping takes place within ¼ mile of shore. Travel on land is normally limited to stretches of beach because dense alder thickets or rough mountainous terrain makes interior hiking difficult.

The heaviest use month is July, when up to 32 people have been observed camping at Reid Glacier at the same time. Riggs Glacier has received similar levels of use. The park's distance from large population centers, wet and foggy weather, and high travel costs limit rapid increases in backcountry use.

Backcountry management approaches will preserve desired ecological conditions while limiting constraints on backcountry users. The Park Service will encourage visitors to voluntarily disperse so as to minimize impacts of existing uses without requiring an allocation permit system or the designation of campsites.

Management practices necessary to ensure opportunities for primitive recreation appropriate to an Alaska wilderness park are identified below. A draft backcountry management plan is being prepared concurrently with

this management plan. The final backcountry plan will discuss in more detail the following NPS management procedures:

campsite and trail monitoring to provide baseline data for measuring resource changes, specifically degradation

a voluntary backcountry user registration system to gather visitor use information

an education program dealing with minimum-impact camping practices

the prohibition of motorized use in portions of the wilderness area

the prohibition of shelter and trail development in designated wilderness areas

limitation of group size to a maximum of 12

a backcountry visitor drop-off boat service to provide flexible and varied access into the backcountry

backcountry use by individual visitors (commercially guided trips would be needed for only about 20 percent of total use), with the use of commercial guides being encouraged for less accessible areas

prohibition of helicopter and fixed-wing aircraft drops for mountaineering trips

A seasonal backcountry ranger station has been established in Muir Inlet to provide needed visitor services and to monitor backcountry use. This primitive floating ranger station is located upon rafts in Goose Cove during the summer. Use of these facilities will continue as long as Muir Inlet is not designated as wilderness. An additional ranger station may be required as backcountry use increases in the west arm to facilitate patrols and visitor contact. A modest live-in vessel may be acquired for this purpose.

A backcountry drop-off boat service will be instituted to make the entire bay, especially the west arm, more accessible to backcountry users. Currently, kayakers and backpackers are transported on the concession vessel Thunder Bay to and from a few selected areas in Muir Inlet, such as at Riggs Glacier, for a fee equivalent to a round-trip ticket plus a $16 charge. The concessioner used the Glacier Seal in 1984 to drop campers off at Reid Inlet. A similar service will be provided in the West Arm in 1985. Some backcountry users with folding boats are transported up bay by aircraft operators at greater cost. A new camper drop-off service vessel will be used primarily for this function, but it may also provide additional services. This vessel will be operated by an NPS concessioner.

Drop-off points will be limited to beach locations least susceptible to man-caused damage. Some of the best locations are those that experience natural scouring by icebergs or periodic flooding by streams. In these areas man's trampling is insignificant compared to the recurring natural activity. Drop-off sites will be assigned to tour boats for backcountry

camping and short day excursions. The objective will be to disperse use to areas most resistant to human use.

ALSEK RIVER USE

Under ANILCA (sec. 202 (1)), the National Park Service is authorized to protect a segment of the Alsek River and to ensure a quality wilderness experience. The legislative reports for ANILCA further state that the National Park Service must take steps to ensure that overuse of the river does not occur and that a quality wilderness experience is protected. An Alsek River interim management plan has been implemented and calls for data gathering to define the ecological and social carrying capacities of the various ecosystems and to develop a statistical profile of river users. Carrying capacities and regulations necessary to provide a quality wilderness experience will be determined and contained in the final river management plan. The Park Service is conducting a sociological study of river users in the Tatshenshini/Alsek rivers corridor to obtain information necessary to develop a final river management plan.

The interim management plan for the river has established a concession permit system for the Tatshenshini/Alsek rivers to provide NPS control of commercial river trips. Studies to develop a long-range plan that will establish levels of use consistent with providing a quality wilderness experience, as directed by the legislative history of ANILCA, are continuing. To minimize conflicts between boaters, floaters, and fishermen, no motorized vessels will be permitted above Gateway Knob. When the final river management plan is completed, more specific recommendations may be made.

Planning for and management of the Tatshenshini/Alsek corridor will continue to be conducted in close cooperation with Canadian agencies because all river trips originate from British Columbia and the Yukon Territory of Canada. About 70 percent of the entire trip is within Canada.

The Submerged Lands Act of 1953 and the Alaska Statehood Act of 1958 provide for state ownership of the beds of navigable waters to the "ordinary high water mark." Determination of what waters are navigable is an ongoing process in Alaska at both the administrative and judicial levels. If the Alsek River is determined navigable, the National Park Service will work cooperatively with the state to perpetuate the natural ecosystems and to provide for public use.

USE OF GLACIER BAY NATIONAL PRESERVE

Before the passage of ANILCA, the preserve area was managed by the U.S. Forest Service as part of Tongass National Forest. During that time a fish-processing plant, several roads and airstrips, 40-50 temporary fish campsites, and about 20 "permitted" fish camps (cabins and outbuildings) were established in the area. Since this area was transferred to NPS management, four more cabins and expansions to two existing ones have been authorized by the Park Service.

ANILCA provides for the continued exercise of valid commercial fishing rights and privileges, including the use of public lands for cabins, motorized vehicles, and aircraft landings on existing airstrips in the preserve. It also specifies that the disposition and use of cabins be compatible with the purpose for which the preserve was established ("to protect a segment of the Alsek River, fish and wildlife habitats and migration routes"). The act emphasizes the need to protect area resources by preventing land use levels from expanding significantly beyond 1979 levels and by not allowing new uses.

During the 1981 public workshops for this plan, a 25 percent increase in the use of public lands was discussed as a figure to define ANILCA's "significant" level of increase. No objection to this figure was voiced. The National Park Service has subsequently determined that a 25 percent increase will be used initially as the measure of significant expansion at Dry Bay.

No additional roads or airstrips will be authorized because the present level of development is satisfactory for access to fish campsites and the fish-processing plant. These access points are also adequate for recreational and subsistence purposes in the preserve, including hunting, fishing, and trapping.

Commercial fishermen will continue to be required to camp within a designated special use zone. Temporary camps within this zone will not require an NPS permit. The Park Service will coordinate with the Alaska Department of Fish and Game in determining this zone so as to mitigate environmental impacts.

The Park Service will coordinate with the Alaska Department of Environmental Conservation to ensure that effluent and solid wastes generated by the existing fish-processing plant are disposed of according to state guidelines.

Primitive camping facilities and pit toilets for river floaters in the preserve at the pullout location near the Dry Bay fish-processing plant provide minimum conveniences for visitors waiting out inclement weather for plane pickups (typically one or two days). A change in the side channel may require the pullout point to be relocated in the future.

The East Alsek River cabin, which was previously used as a Forest Service recreation cabin, will continue to be available for traditional public use. An NPS cabin will be constructed near the main Dry Bay airstrip to provide dependable and safe housing for the Dry Bay ranger.

Two commercial operators who provide meals, lodging, and access to fishing areas have operated in the preserve for several years and are being recognized as concessioners under section 1307 of ANILCA. Two licensed commercial hunting guides traditionally operate in the preserve in districts designated by the state of Alaska. One currently holds an NPS commercial license; the other will be granted a similar license. The Park Service will investigate the appropriateness of having fishing and hunting guides operate as NPS concessioners. There is no evident demand for major commercial services in the preserve; therefore, to maintain the pristine atmosphere, no major developments are proposed.

There is some evidence of glacial surges causing blockage of the Alsek River and subsequent flooding downstream in recent history (150 years ago). The Park Service will investigate this phenomenon to determine if it is recurrent and whether or not it would pose a hazard to people and structures in the Dry Bay area.

SUBSISTENCE USE

Subsistence harvest of fish, wildlife, and related resources on federal lands and waters in Alaska is controlled by provisions of ANILCA. The subsistence provision provides two guiding precepts for overall management. First, all federal lands in Alaska must be managed so as to minimize possible adverse impacts on local rural residents who engage in subsistence activities. Second, and central to ANILCA's subsistence provision, subsistence activities are not to be fostered or promoted, rather the Park Service is to provide and protect the opportunities for local rural residents. The state has indicated a willingness, through the Boards of Fisheries and Game, to provide a definition of "local residents" and to regulate subsistence uses within the preserve.

Closure to hunting and subsistence harvest of fish, wildlife, and plant resources is a longstanding management policy within national parks and monuments in the United States. Specific language in ANILCA (sec. 816) adheres to this policy for resource protection. However, the statute also makes special exceptions for seven parks and monuments in Alaska by allowing the continuance of established subsistence uses by rural residents. It is important to note that lands and waters within Glacier Bay National Park are not included in this special subsistence exemption, and therefore remain closed to such uses (Congressional Record, Aug. 18, 1980, p. S 11133; Nov. 12, 1980, p. H 10539).

ANILCA also expanded the existing unit at Glacier Bay by the establishment of a 57,000-acre preserve at Dry Bay and along the Alsek River. The designation as preserve, rather than park, is crucial because it allows for continued sport and subsistence hunting, fishing, and trapping, in accordance with state and federal laws. The Park Service will recommend to Congress that the preserve boundary be modified to be aligned with natural features so subsistence users can more easily distinguish when they are within the preserve (see "Park/Preserve Boundary Changes" section). This action would add approximately 24,000 acres of designated wilderness to the preserve.

Subsistence use of resources within the preserve is accorded the preferential protection applicable to all federal lands open to harvest under ANILCA. Subsistence uses, for example, shall be given preference over other consumptive uses when it is necessary to limit harvest to ensure the conservation of fish and wildlife populations. The law also requires that such harvest activities remain consistent with the maintenance of healthy populations of fish and wildlife. Continuing studies will gather subsistence use data necessary for making resource allocation decisions if they become necessary.

VESSEL USE

Six concession permits have been issued to companies operating cruise ships entering the bay each summer. These companies currently are Westours, Paquet Cruises, World Explorer, Sitmar Cruises, Royal Lines, and P & O Cruises. Glacier Bay Lodge, Inc., operates two tour boats and three fishing boats in the bay. A smaller overnight vessel operated by Glacier Bay Yacht Tours, Inc., originates in Juneau and is operated on a regular schedule. Fourteen sightseeing and fishing charter boat operations based outside the park are also under concession permit. In addition private vessels visit the bay. Overall vessel use increased during the 1970s, with large cruise ships reaching a peak of 139 in 1977 and small craft entries nearly doubling. However, the number of vessels in the bay at one time has been restricted because of potential effects on humpback whales (see "Endangered Species" section above).

When considering an action that could affect an endangered species, federal agencies are required under section 7 of the Endangered Species Act of 1973 to seek formal consultation with the National Marine Fisheries Service (NMFS) or the U.S. Fish and Wildlife Service. In 1979 the National Marine Fisheries Service issued a biological opinion, stating "that if the amount of vessel traffic in Glacier Bay was allowed to increase without limit or if the existing restrictions on the operation of vessels within the Bay were removed, the associated disturbance would be likely to jeopardize the continued existence of the southeast Alaska humpback whale stock." It also indicated that the National Park Service should seek additional research to better understand this complex situation, should limit boat traffic to 1976 levels, and should control activities of boats that could affect whales.

The National Park Service subsequently issued regulations to control vessel use and traffic in Glacier Bay as an appropriate and prudent management tool to protect humpback whales. Vessel use limits allow the entrance of 89 cruise ships (a maximum of two per day) into the bay between June 1 and August 31; no more than 339 private vessels can enter the bay during the same period (a maximum of 21 per day); and the number of commercial tour boats is limited to 1976 levels. Except for commercial fishing or charter vessels actively fishing, no motorized vessel may intentionally be positioned within 1/4 mile of a whale, and no vessel may pursue or attempt to pursue a whale. Within whale waters all vessels larger than 16 feet, except those actively engaged in fishing, must operate on a mid-channel course and at 10 knots or less.

The National Marine Fisheries Service also contracted and administered for the National Park Service (under a reimbursable agreement) three research projects in Glacier Bay and adjacent waters in 1981 and 1982. These projects accomplished the following:

Accoustical research measured underwater sound propagation and ambient noise characteristics.

Humpback whale prey research measured zooplankton and fish distribution and abundance in and around whale-feeding sites.

Whale behavior research investigated behavior responses of humpback whales to vessels.

In 1983 the National Park Service funded further whale prey research by the National Marine Fisheries Service. The Park Service also continued whale population and distribution studies. Cumulative research findings have provided detailed information about changes in whale behavior associated with nearby vessel activity. Based on available information, both agencies have concluded that unrestricted vessel use of Glacier Bay may affect the endangered humpback whale.

Because of the additional information from these efforts, the National Park Service reinitiated section 7 consultation for the endangered humpback whale. The resulting 1983 biological opinion issued by the National Marine Fisheries Service concluded:

> Although the amount of vessel traffic that would be likely to displace the whales from Glacier Bay is unknown, NMFS believes that some increase in vessel traffic can occur in Glacier Bay without jeopardizing the southeast Alaska humpback whale stock. This belief is based upon NPS' ability to control both the amount and operation of vessel traffic in the Bay and to monitor the effects of any increase. . . .
>
> We believe that no additional vessel traffic should be allowed unless the number of individual whales that enter Glacier Bay remains equal to or is greater than the 1982 level. If under these conditions, the NPS proposes to increase total vessel use from the present level, NMFS believes that an initial increase of no more than 20 percent for the large ship and small vessel categories would be prudent.

Humpback whale use in Glacier Bay during 1983 was significantly lower than in 1982. Therefore the 1984 total vessel use limits and vessel operational restrictions were kept essentially the same as 1983 (no more than two vessels per day and a maximum of 89 cruise ship entries between June 1 and August 31). Future vessel use limits and whale water designations will be provided for annually under 36 CFR 13.30. This will allow for more efficient management of vessel use in light of forthcoming scientific information and evolving management concerns. Cruise ship entries will be limited to no more than two per day throughout the year. The superintendent, however, will have the authority to reschedule entries if necessary due to unforeseen problems affecting cruise ship schedules. Tour boats will be limited to three per day.

Many of Glacier Bay's hundreds of miles of waterways and outer coast provide access to forested coves, rocky beaches, and glaciated inlets. Most of these will remain open to motorized vessel passage to offer visitors a unique opportunity to see these resources without adversely affecting them. In several areas, however, proposed regulations will allow only nonmotorized vessel access. This will satisfy a need for wilderness waters, and it will help protect marine and terrestrial species sensitive to the larger motorized vessels.

Although current vessel use limitations are based on only one factor (use of Glacier Bay by the endangered humpback whale), other factors will be considered in the future if the limits are revised. Continued biological research studies will help identify levels of vessel use that may affect other biota or processes. Limitations on vessel use should also take into account the physical limits of the environment, such as anchorage space or potential air quality degradation, and adverse sociological impacts on visitors. The park resource management plan will determine what studies are needed to provide further information about other biota or processes, and carrying capacity studies will establish physical and sociological thresholds. Together, all this information will provide managers with a sound basis to establish a reasonable vessel carrying capacity.

AIRCRAFT USE

Several charter operations have attempted to stimulate interest in scenic flights over Glacier Bay, and the number of flights has grown; but current economic conditions and insurance requirements for air taxi permits may affect the availability of services. Most flights are made at low elevations (1,500-4,000 feet) and originate from Juneau, Haines, Gustavus, or other local areas. At the present time Glacier Bay Airways has a concession permit to operate booking services for aerial sightseeing tours out of the lodge at Bartlett Cove; this single operation is satisfactory for services originating and terminating within the park. Gulf Air Taxi, Inc., operating from Yakutat, holds a concession permit to provide similar services in the park and preserve.

A commercial use license will be required for future landings in the park by all commercial aircraft operating from bases outside the park. This requirement conforms to concession policy and law. Commercial and private aircraft will be allowed to land in Bartlett Cove, but only the concessioner will be allowed to originate trips there. Only concession permittees will be allowed to originate trips within the park or preserve. No special facilities or services will be provided for aircraft by the Park Service.

Regulations limiting aircraft landings have been proposed through the public meeting regulation process. The two regulations proposed in 36 CFR 13.65(a) are as follows:

> All beaches within Glacier Bay and all beaches from Cape Fairweather south to the mouth of DeLangle Mountain Creek are closed to aircraft landings and snowmachines, except that airplanes may land on the beach for 2 miles immediately to the northwest of La Perouse Glacier.
>
> The water and shorelines of Vivid, Bartlett, and Adams Island lakes are closed to aircraft landings.

Excessive aircraft noise can interfere with the use and enjoyment of parks and can adversely affect wildlife. The Park Service will work with air taxi operators and local aircraft organizations to reduce this problem.

BARTLETT COVE DEVELOPMENT CONCEPT

The lodge and walk-in campground at Bartlett Cove make up the only developed area within Glacier Bay National Park and Preserve that provides land-based overnight accommodations (see the Bartlett Cove Existing Development map). Access to Bartlett Cove is either by watercraft, floatplane, or vehicle over a 10-mile gravel roadway from the unincorporated community of Gustavus (see Visitor Access map). Gustavus is served by scheduled commercial airline flights during the summer. Visitor seasons generally run from Memorial Day to Labor Day.

Existing park facilities are grouped along the southwestern shore of the inner cove. Facilities in Gustavus include three NPS-employee residences, which are on land leased from the state of Alaska. Some facilities are also maintained in Juneau. Existing park facilities are described in table 2.

The total development package described in this plan will approach the sociological carrying capacity for Bartlett Cove visitation and the physical carrying capacity of the existing utility infrastructure. Therefore, after the proposed development has been completed, all future visitor facilities should be provided by private enterprise outside the park boundaries. In addition, any new development will be contingent upon its compatability with a carrying capacity study.

Visitor Use

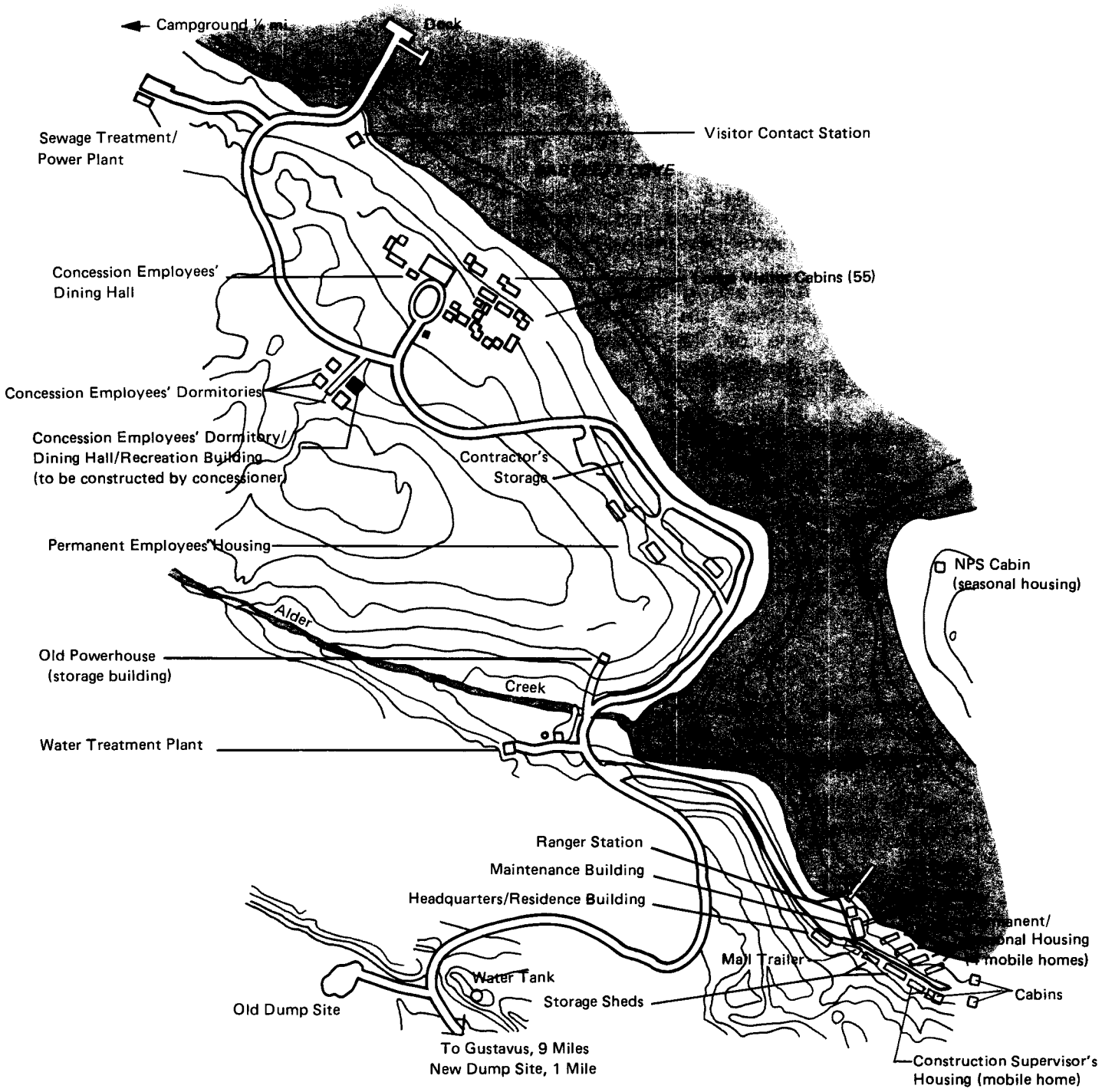
Bartlett Cove will continue to be the focus for overnight visitor accommodations in Glacier Bay National Park and Preserve. Access will continue to be primarily by water and by air through Gustavus.

Visitor contact will continue to be focused at the dockside station and the interpretive facilities on the second floor of the lodge.

The Bartlett Cove campground accommodates individuals and families as well as groups. Capacity is reached only two or three times each season. The campground may be expanded when necessary to meet future needs. Any expansion will be undertaken incrementally (up to a maximum of 30 additional sites) and to the west, away from the lodge.

The forest trail and Bartlett River trail will continue to be maintained and upgraded as required. A new trailhead for the river trail will be established near the new administrative offices.

Equestrian use will not be permitted except within the Gustavus/Bartlett Cove road corridor. Horses are not now used for access to the park nor is such use traditional and widespread in southeast Alaska. Detrimental impacts associated with regular horseback use include soil compaction, denudation, trail erosion, excrement deposition, and the introduction of exotic plants as a result of seeds eaten by horses. Because the park was established to preserve an important research area for plant ecology, it is inappropriate to subject the area to impacts.



EXISTING FACILITY

PROPOSED FACILITY

BARTLETT COVE
EXISTING DEVELOPMENT

GLACIER BAY NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

0 400 800 Feet
0 245 Meters

North

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Table 2: Existing NPS and Concession Facilities

Facilities	Existing Space sq ft	sq m
Bartlett Cove		
NPS administrative/maintenance facilities		
Administrative offices	1,100	102.2
Maintenance garage/shop with marine railway	2,250	209.0
Ranger station	200	18.6
Post office trailer	500	46.5
NPS seasonal staff housing		
4 trailers	840 ea.	78.1 ea.
1 cabin ("gray cabin")	950	88.3
2 A-frames	320 ea.	29.7 ea.
1 island cabin	400	37.2
1 trailer ("toad hall")	500	46.5
NPS permanent staff housing		
1 duplex with laundry above administrative offices	750	69.7
2 single-family detached units	1,600 ea.	148.6 ea.
1 duplex, 2 two-bedroom units	1,000 ea.	92.9 ea.
Other facilities		
1 house trailer (DSC project supervisor)	500	46.5
Water treatment plant with 100,000-gallon steel reservoir	1,750	162.6
Old power plant (storage)	500	46.5
New power plant/sewage treatment plant	2,625	243.9
Bartlett Cove dock, tank farm, and pumphouse		
Concession facilities (NPS owned)		
Main lodge	6,825	634.1
55 cabin units	400 ea.	37.2 ea.
Employee dining room	300	27.9
Concession facilities (concessioner owned)		
3 two-story buildings for housing approximately 70 employees	1,225 ea. floor	113.8 ea. floor
Juneau		
1 single-family unit	1,600	148.6
1 warehouse	650	60.4
Office space (Federal Building)	800	74.4
Visitor information station (Centennial Building)*	375	34.8
Dock		
Gustavus		
3 single-family units	1,000 ea.	92.9 ea.

*Space shared under cooperative agreement with U.S. Forest Service.

Docking and Fuel Facilities

The main dock at Bartlett Cove was originally constructed in 1957. It provides fuel oil and gasoline sales to private and commercial boat owners, Gustavus residents, and commercial fishermen; it also provides mooring space for concessioner and NPS boats. The fueling facilities are now used to near capacity, occasionally resulting in shortages and rationing. At the present time, fuel lines, electric lines, ropes, and ladders are being replaced; vapor return lines and fuel tanks are being upgraded to meet current safety codes; and safer mooring sites for NPS and concession vessels are being developed.

Existing launching facilities for vessels are inadequate, and there is no safe, efficient barge unloading system. The existing marine railway to the boat shop in the inner cove is rarely usable (only during extreme high tides) because it, like other structures in the cove, has risen several feet since construction because of "isostatic rebound." At the current rate of rise, the railway will become totally unusable within the next 10 years. Launching vessels from trailers or with a front-end loader necessitates the use of existing beaches at high tide, oftentimes completely submerging wheels, hubs, and axles in saltwater and mud, resulting in excessive maintenance problems. Access into the inner cove itself is currently restricted to high-tide periods. As the submerged land rises, making the inner cove shallower, these access periods are becoming shorter. The existing launching ramp near the main dock will be improved to eliminate the need for using the marine railway. A dock on the inner cove is used for NPS boats.

An expansion and improvement project for the main dock and inner cove dock is scheduled for spring 1984. Improvements to the main dock include the following:

addition of floating docks and finger, fuel, and seaplane floats to accommodate NPS, concessioner, and visitor vessels

construction of a floating fish-cleaning station for visitor use

installation of a new hoist, storage shed, and site improvements such as handrails

extension of electrical power, water, and metered fuel lines to the new floats

Improvements to the inner cove dock include adding 56 feet of floating pier, two finger floats, and electrical extensions.

These actions will improve boating safety and access, accommodate increasing usage, improve pedestrian safety on the docks, and reduce the danger of fuel spills. An environmental assessment for the dock improvements was released for public and agency review in June 1983. A finding of no significant impact was signed by the NPS Alaska regional director on July 22, 1983.

A state ferry vehicle access dock will not be provided at Bartlett Cove because necessary parking and vehicle service facilities are not compatible with the park.

The Park Service's primary goal with regard to facilities is to serve park visitors; consequently, barges loaded with goods bound for Gustavus will not be provided unloading space at the NPS dock from May 15 through September 30. The Park Service will continue to provide emergency facilities. Also, the following interim priorities will be used to determine fuel allocations during periods of unusually low supplies or delivery delays:

NPS patrol and supply vessels, vehicles, and for emergency needs
park concession vessels
park visitor vessels
miscellaneous park permittee charter vessels
commercial fishing boats and private vehicles

A private firm began selling fuel in Gustavus in fall 1983.

If Gustavus and its needs grow, the Park Service will encourage the community to provide its own public docking facilities. Harbor facilities are available for local boaters at Hoonah, Elfin Cove, Pelican, and Juneau. Constructing a regional marina at Bartlett Cove would greatly increase vessel traffic in the lower bay and would conflict with NPS vessel management objectives discussed previously.

NPS Operations Facilities

New facilities will be provided, as shown on the Development Concept map, to adequately accommodate current and expanded administrative operations, maintenance, and housing. To minimize impacts on the Bartlett Cove rain forest and the visitor experience, a new service (maintenance) area will be constructed approximately 1,500 feet south of the existing administrative offices, just west of the road to Gustavus and on the old NPS waste disposal site. This site has been previously disturbed and is large enough to accommodate NPS and lodge concessioner needs. The development will be screened from the roadway by the existing moraine and vegetation, thus minimizing visitor awareness of the facility.

Implementation will occur in three phases:

Phase I--Maintenance functions will be relocated to the newly constructed facilities. The new boat ramp will be constructed to replace the function served by the marine railway. The existing maintenance shop will be converted to administrative offices and storage. Seasonal housing and three permanent employee units will be constructed near the old powerhouse site and existing permanent residence sites respectively. Utility capacities will be upgraded as necessary. Existing seasonal housing in the inner cove area will be removed, and the area will be restored to natural conditions. The Bartlett River trail will be rerouted to a new trailhead near the new administrative offices.

Phase II--Resource and sociological carrying capacity studies will be conducted for the Bartlett Cove area. Visitor use trends will be assessed as well as the load capacity of the existing infrastructure to determine the need for an expansion of visitor facilities. Private development trends in Gustavus will also be evaluated to see if future facilities could be located there. If warranted at Bartlett Cove, a maximum of 15 cabins (30 beds) may be constructed along with a hostel (also 30 beds).

Phase III--If housing needs cannot be met privately in Gustavus, additional NPS permanent housing will be constructed after existing structures have served their useful life.

Table 3 contains space requirements for the new maintenance area, and table 4 shows NPS residential facility requirements. Appendix C contains cost estimates for development.

The existing or new power-generating equipment will be relocated from the present sewage treatment plant to the new maintenance facility. The feasibility of a heat exchange system to convert waste heat to additional electricity in summer (cogeneration) and to heat the maintenance facility during winter will be evaluated in an engineering study undertaken subsequent to this management plan. The optimum size and operating scenario for the generators will also be determined, including the load potential for the visitor facilities described above. Space made available in the sewage treatment plant by the removal of electrical generators and control equipment may be used for improvements to the sewage treatment system. A flow equalization tank is needed at the present time.

The residential trailers for the NPS construction project supervisor and construction employees will be relocated to the new maintenance area or to an administrative site in Gustavus. Utility connections for the trailers will be designed with the new facilities.

The existing Gustavus-Bartlett Cove road is inadequate, as evidenced by frequent chuckholes and a washboard surface. These conditions have resulted in several accidents and numerous near-accidents in recent years. This road will be improved from the Bartlett Cove developed area to the park boundary. Improvements will include a new gravel base and surface as well as adequate drainage structures. This project is to be undertaken in cooperation with the Federal Highway Administration and was scheduled to begin in FY 1984. The Alaska Department of Transportation has been and will continue to be consulted about this project.

The old maintenance shop will be converted to offices. Once new residential facilities are completed, the second floor of the existing headquarters building will also be converted to offices. The two buildings will house the following administrative spaces, which will be designed at a later date:

superintendent's office
chief of operation's office
chief of interpretation's office
chief of maintenance's office (including drafting table and filing space)
concession specialist's office
resource manager's office
library/conference room
administrative officer's office
secretary's office (including related storage space)
interpretive materials storage
interpreters' work space
post office
miscellaneous storage and utilities
curatorial space
research laboratory space
district ranger's office
rangers' work space

Solid wastes and sewage sludge will continue to be disposed of at the existing NPS solid waste facility ("new dump") 1.3 miles east of the Bartlett Cove developed area. The Park Service will determine if a solid waste compactor would significantly extend the life of the facility and, if so, what type of unit and power requirements would be necessary. The Park Service supports the concept of a cooperative solid waste facility that would also serve the needs of Gustavus area residents.

Concession Facilities

Approval for additional facilities will be based on an analysis of several factors, including carrying capacities (both resource and sociological capacities for Bartlett Cove and Glacier Bay), visitor use trends, private development trends in Gustavus, and infrastructure/utility capacities.

If authorized, the following projects to increase visitor service facilities in the Bartlett Cove area may be undertaken following the construction of NPS facilities previously described:

construction of a maximum of 15 visitor cabins

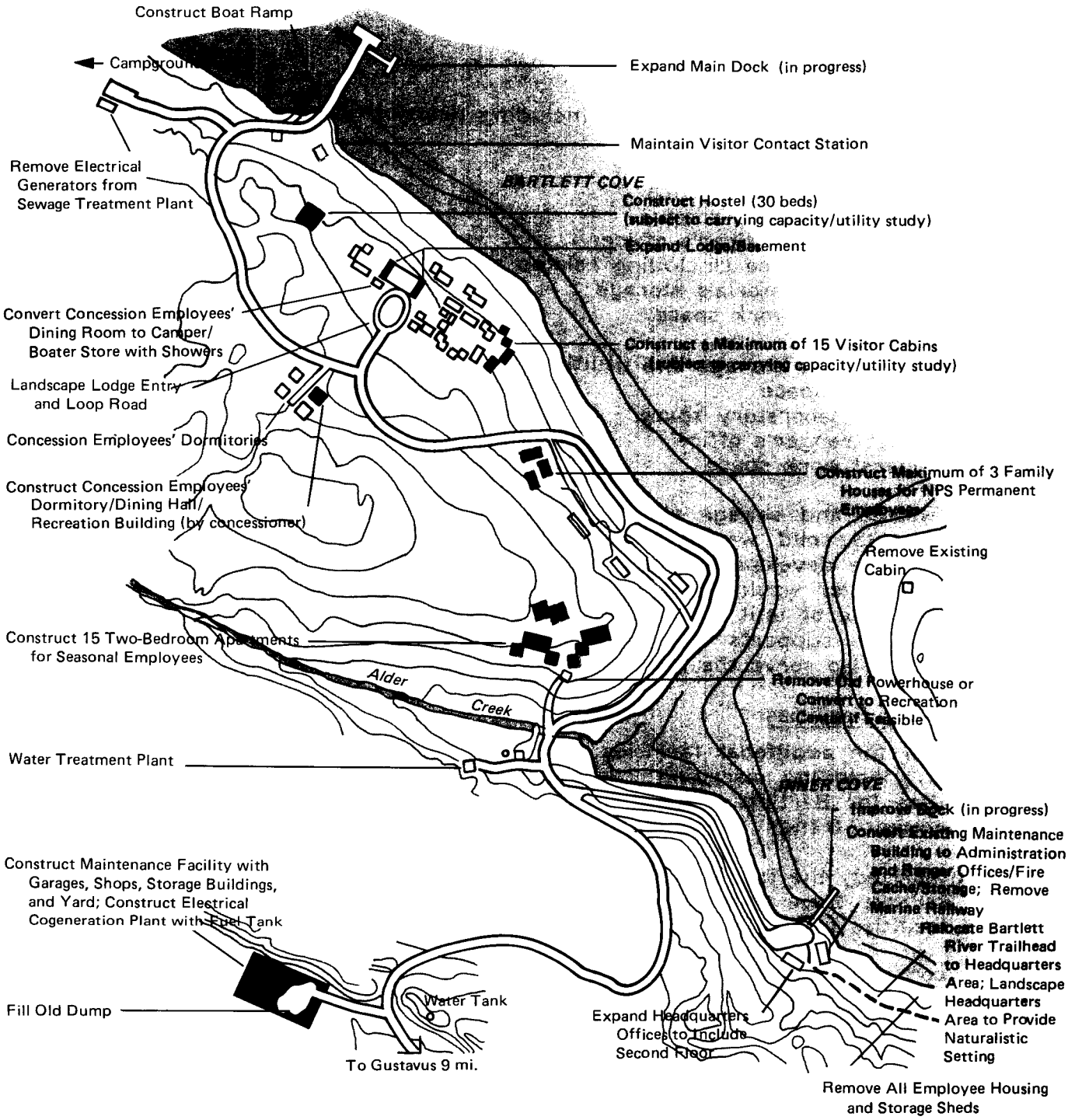
construction of a 30-bed hostel

addition to lodge building for expansion of the kitchen, dining room, lounge, and audiovisual room, and for basement storage

conversion of the existing concession employees' dining room to a small camper/boater store

provision of a combination bathhouse/laundry

The small camper/boater store and a combination bathhouse/laundry may be provided at the lodge; these could be supported by fees and operated by the concessioner. The lodge entrance will be redesigned and landscaped. Utility needs for future development will be considered when Bartlett Cove utility capacities are upgraded during phase I.



EXISTING FACILITY

PROPOSED FACILITY

BARTLETT COVE DEVELOPMENT CONCEPT

GLACIER BAY NATIONAL PARK AND PRESERVE
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

0 400 800 Feet
0 245 Meters

North

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Table 3: Space Requirements for Maintenance

Function	Space Required sq ft	sq m
Boat equipment repair shop (including 2 bays with lifts)	1,200	111.5
Paint shop (including miscellaneous storage)	2,000	185.8
Mechanic's shop (vehicle maintenance, welding booth, 2 bays with lifts)	1,600	148.6
Tool storage room	100	9.3
Carpentry/wood shop	1,000	92.9
Plumbing/electrical shop	250	23.2
Bay for ambulance-type vehicle and other rescue equipment	250	23.2
Generator and control rooms	1,000	92.9
Miscellaneous indoor storage (exclusive of overhead storage space in areas of building with high ceilings)	1,000	92.9
Miscellaneous utilities (heating, machinery, restrooms with toilets, shower, wash basin, and lockers)	250	23.2
Fire cache and truck storage (may not be located at maintenance area)	750	69.7
Construction staging area	12,000	1,114.8
Construction supervisor's office and residential trailer locations	2,000	185.8
Construction employees' trailer locations (6)	6,000	557.4
Covered storage	1,500	139.4
Outdoor storage	12,000	1,114.8
Concessioner maintenance facilities	8,000	743.2

Table 4: New NPS Residential Facilities

Facility	Space Required sq ft	sq m
Permanent staff and dependents' housing 3 three-bedroom units*	1,600 ea.	148.6 ea.
Seasonal housing 15 two-bedroom apartments	800 ea.	74.3 ea.
Bunkhouse with kitchen and bath facilities for 10 people (backcountry rangers, researchers, visiting personnel, etc.)	1,000	92.9
Recreation building	2,000	185.8

*The seven existing units will not be replaced until the end of their useful life.

All new visitor facilities will be designed for access by handicapped visitors. All proposed expansions or improvements to existing visitor facilities will include upgraded access for the handicapped wherever feasible.

A new concession employees' dormitory, with a kitchen and dining/recreation hall, will be built by the concessioner adjacent to existing dormitories. This facility has already been approved by the National Park Service. It is recommended that the concessioner provide adequate landscaping to screen these facilities from the adjacent road and the lodge visitor use area.

Space will be provided for the development of concessioner maintenance facilities at the new maintenance area.

NPS OPERATIONS AND STAFFING

An administrative office for Glacier Bay National Park and Preserve was previously maintained in Juneau and an operational office at Bartlett Cove, with the superintendent and administrative officer occupying the Juneau office during the winter and the Bartlett Cove office during the summer. Since fall 1983 these functions are based year-round at Bartlett Cove. Other permanent and seasonal staff will continue to be stationed at Bartlett Cove, Yakutat, and Juneau. A district ranger living in Yakutat also works for Wrangell-St. Elias National Park and Preserve. The visitor information service provided at the Centennial Building in Juneau will be continued. A procurement clerk will continue to be based at the Juneau office.

An NPS residence, warehouse, and dock located at Indian Point, 14½ miles west of downtown Juneau, will still be operated by the Park Service. The house was used as the superintendent's winter residence; the warehouse provides storage for supplies and equipment awaiting shipment to the park; and the dock provides a Juneau home berth for the NPS vessel, the Nunatak. The dock location saves time and fuel that would otherwise be spent if the Nunatak had to load in the downtown port area. As a courtesy, the National Park Service has also allowed ADF&G vessels to moor at the NPS dock. The dock will be maintained, and the Juneau residence will be the quarters for the vessel captain.

The Nunatak, a 65-foot vessel capable of sleeping 10, provides regular supply service to the park. In addition to food, it carries virtually all the material supply items for park operations, such as lumber, paint, and engine parts. Trips are normally twice a month. The Nunatak is also used for patrols and research support, and it ferries supplies to the backcountry ranger stations at Lituya Bay and Goose Cove. An administrative review of the Nunatak operations was conducted by the Park Service in 1982. All activities are considered essential to park operations and are cost-effective.

To carry out the program described in this plan, some staffing increases will be necessary. Table 5 lists existing and future staffing levels for Glacier Bay National Park and Preserve.

During the 1983 visitor season, a total of 52 permanent and seasonal staff members were employed at Glacier Bay National Park and Preserve. Of those, approximately 10 own property in the local area. Additionally 10 were employed through the NPS local hire program. The Park Service will continue to seek the expertise of local residents as staffing funds are available.

Table 5: NPS Staffing Requirements

Position	Existing/Proposed Permanent	Seasonal
Superintendent	1/1	
Secretary	0/1	
Information/receptionist	0/1	
Concession Specialist	1/1	
Resource Management Specialist	1/1	
Marine biologist	0/1	
Biologist's aid		1/3
Administrative Officer	1/1	
Procurement clerk	1/1	
Clerk/typist	1/2	1/2
Boat Captain	1/1	
Deckhand	1/1	
Chief of Operations	1/1	
District ranger--Bartlett Cove	1/1	
Subdistrict rangers--resource management, visitor protection, law enforcement		6/10
District ranger--Yakutat	0/1	
Subdistrict rangers		1/2
Chief of Maintenance	1/1	
Maintenance workers and operators	3/5	
Laborers		3/4
Chief of Interpretation	1/1	
Supervisory interpretive ranger	0/1	1/0
Interpretive rangers*		16/20*
Park aids		2/3
Totals	15/23	31/44
Grand Total	46/67	

*Includes one interpretive ranger stationed at the Juneau Centennial Building visitor contact station and one at the cooperative visitor center proposed by ANILCA in southeast Alaska.

APPENDIX A: LEGISLATION

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

[No. 1733—Feb. 26, 1925—43 Stat. 1988]

WHEREAS, There are around Glacier Bay on the southeast coast of Alaska a number of tidewater glaciers of the first rank in a magnificent setting of lofty peaks, and more accessible to ordinary travel than other similar regions of Alaska,

AND, WHEREAS, the region is said by the Ecological Society of America to contain a great variety of forest covering consisting of mature areas, bodies of youthful trees which have become established since the retreat of the ice which should be preserved in absolutely natural condition, and great stretches now bare that will become forested in the course of the next century,

AND WHEREAS, this area presents a unique opportunity for the scientific study of glacial behavior and of resulting movements and development of flora and fauna and of certain valuable relics of ancient interglacial forests,

AND WHEREAS, the area is also of historic interest having been visited by explorers and scientists since the early voyages of Vancouver in 1794, who have left valuable records of such visits and explorations,

NOW, THEREFORE, I, Calvin Coolidge, President of the United States of America, by virtue of the power and authority in me vested by section two of the act of Congress entitled: "An Act for the preservation of American Antiquities", approved June 8, 1906 (34 Stat., 225), do proclaim that there is hereby reserved from all forms of appropriation under the public land laws, subject to all prior valid claims, and set apart as the Glacier Bay National Monument, the tract of land lying within the following described boundaries, to wit:

Beginning at the most southerly point of North Marble Island in approximate latitude 58°40′ north and approximate longitude 136°4′ west as shown on Coast and Geodetic Survey chart No. 8306; Thence southeasterly to the most westerly point of the largest island at the entrance of Bear Track Cove in approximate latitude 58°34′ north and approximate longitude 135°56′ west; thence following the mean high water of the southerly shore to the most easterly point of said island; thence east on a parallel of latitude to the crest of the divide between the waters of Bear Track Cove and Bartlett Cove; thence northeasterly along this divide to the summit of the divide between the waters of Excursion Inlet and Glacier Bay; thence northerly along this divide to the crest of the divide between the waters of Glacier Bay and Lynn Canal; thence northerly and westerly along this divide to the International Boundary line between Alaska and British Columbia; thence southwesterly along the International Boundary line to the summit of Mt. Fairweather; thence southeasterly to the summit of Mt. Lituya; thence easterly and southerly along the divide between the waters of the Pacific Ocean and the waters of Glacier Bay and Icy Strait to the summit of Mt. La Perouse; thence easterly across Brady Glacier to the summit of the mountain marked 4480 on Coast and Geodetic Survey chart No. 8306 in approximate latitude 58°33′ north and approximate longitude 136°38′ west; thence northeasterly to the summit of the mountain marked 4030 on said chart in approximate latitude 58°34′ north and approximate longitude 136°33′ west; thence northeasterly to the most southerly point on the north shore of Geikie Inlet; thence northeasterly following the mean high water of this shore to the most easterly point of land at the entrance of Geikie Inlet, thence southeasterly to the place of beginning, containing approximately 1,820 square miles.

Warning is hereby given to all unauthorized persons not to appropriate or injure any natural feature of this monument or to occupy, exploit, settle or locate upon any of the lands reserved by this proclamation.

And I do also proclaim that my order No. 3983 of April 1, 1924, withdrawing the public lands within the hereinafter described limits pending determination of the area therein which should be set apart for national monument purposes, is hereby revoked:

Beginning at the western extremity of Cape Fairweather on the west coast of Alaska, thence in a northeasterly direction to the summit of Mt. Fairweather on the international boundary between Canada and the United States, thence following such boundary easterly, northeasterly and easterly to Monument No. 157 of the survey of such boundary by the International Boundary Commission approved June 9, 1923; thence east following the latitude of said monument to an intersection with the right bank of Chilkat Inlet; thence southerly along the right banks of said inlet and Lynn Canal to Icy Strait; thence westerly along the north shores of Icy Strait and Cross Sound to the Pacific Ocean; thence in a general northwesterly direction along the shore of the Pacific Ocean to Cape Fairweather, the place of beginning containing approximately 2,560,000 acres.

And I do further proclaim and make known that pursuant to Public Resolution No. 29 of February 14, 1920 (41 Stat., 434), as amended by Resolutions Nos. 36 and 79, approved January 21 and December 28, 1922, respectively (42 Stat., 358, 1067), it is hereby ordered that the public lands in that portion of the area last above described not included in said Glacier Bay National Monument by this proclamation, subject to valid rights and the provisions of existing withdrawals, shall be opened only to entry under the applicable homestead laws by qualified ex-service men of the war with Germany, under the terms and conditions of said resolutions and the regulations issued thereunder, for a period of ninety-one days beginning with the sixty-third day from and after the date hereof, and thereafter to appropriation under any public land law applicable thereto. Subsequent to the date hereof and prior to the date of restoration to general disposition as provided herein, no rights may be acquired to the lands so restored by settlement in advance of entry, or otherwise except strictly in accordance herewith.

The Director of the National Park Service, under the direction of the Secretary of the Interior shall have the supervision, management, and control of the Glacier Bay National Monument, as provided in the act of Congress entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (39 Stat., 535), as amended June 2, 1920 (41 Stat., 732).

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 26th day of February in the year of our Lord one thousand nine hundred and twenty-five, and [SEAL] of the Independence of the United States of America the one hundred and forty-ninth.

CALVIN COOLIDGE.

By the President:

CHARLES E. HUGHES,
Secretary of State.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

[No. 2330—Apr. 18, 1939—53 Stat. 2534]

WHEREAS it appears that certain public lands, part of which are within the Tongass National Forest, adjacent to the Glacier Bay National Monument, in Alaska, have situated thereon glaciers and geologic features of scientific interest; and

WHEREAS a portion of the aforesaid public lands contiguous to the said monument are necessary for the proper care, management, and protection of the objects of scientific interest situated on the lands included within the said monument; and

WHEREAS it appears that it would be in the public interest to reserve all of the aforesaid public lands as a part of the said monument:

NOW, THEREFORE, I, Franklin D. Roosevelt, President of the United States of America, under and by virtue of the authority vested in me by the act of June 4, 1897, 30 Stat. 11, 34, 36 (U. S. C., title 16, sec. 473), and the act of June 8, 1906, c. 3060, 34 Stat. 225 (U. S. C., title 16, sec. 431), do proclaim that all of the following-described lands which lie within the Tongass National Forest, in Alaska, are excluded therefrom, and that, subject to valid existing rights, all the following-described lands in Alaska are hereby added to and made a part of the said Glacier Bay National Monument:

Beginning at the summit of Mount Fairweather, on the International Boundary line between Alaska and British Columbia; thence southeasterly along present southern boundary of Glacier Bay National Monument to the point of the divide between the waters of Glacier Bay and Lynn Canal where said divide is forked by the headwaters of Excursion Inlet; thence easterly and southeasterly along the divide between the waters of Excursion Inlet and Lynn Canal to a point in approximate latitude 58°27′ N., longitude 135°18′ W., where said divide meets a subsidiary divide between streams flowing into Excursion Inlet; thence westerly and northwesterly along said subsidiary divide to the east shore of Excursion Inlet; thence due west to the center of the principal channel of Excursion Inlet; thence southerly along the center of the principal channel of Excursion Inlet to its junction with the Icy Passage; thence westerly and southwesterly along the center of Icy Passage, North Passage, North Indian Pass, and Cross Sound to the Pacific Ocean; thence northwesterly following the general contour of the coast at a distance of 3 nautical miles therefrom to a point due west of the mouth of Seaotter Creek; thence due east to the north bank of Seaotter Creek and easterly along the north bank of Seaotter Creek to its headwaters; thence in a straight line to the summit of Mount Fairweather, the place of beginning. Containing approximately 904,960 acres.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have the supervision, management, and control of the monument as provided in the act of Congress entitled "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916, 39 Stat. 535 (U. S. C., title 16, secs. 1 and 2), and acts supplementary thereto or amendatory thereof.

IN WITNESS WHEREOF I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 18th day of April in the year of our Lord nineteen hundred and thirty-nine, and of the Independence of the United States of America the one hundred and sixty-third.

[SEAL]

FRANKLIN D. ROOSEVELT.

By the President:

CORDELL HULL,

Secretary of State.

Public Law 96-487
96th Congress

An Act

To provide for the designation and conservation of certain public lands in the State of Alaska, including the designation of units of the National Park, National Wildlife Refuge, National Forest, National Wild and Scenic Rivers, and National Wilderness Preservation Systems, and for other purposes.

Dec. 2, 1980
[H.R. 39]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Alaska National Interest Lands Conservation Act".

Alaska National Interest Lands Conservation Act.
16 USC 3101

* * * * * *

ADDITIONS TO EXISTING AREAS

SEC. 202. The following units of the National Park System are hereby expanded:

16 USC 410hh-1.

(1) Glacier Bay National Monument, by the addition of an area containing approximately five hundred and twenty-three thousand acres of Federal land. Approximately fifty-seven thousand acres of additional public land is hereby established as Glacier Bay National Preserve, both as generally depicted on map numbered GLBA-90,004, and dated October 1978; furthermore, the monument is hereby redesignated as "Glacier Bay National Park". The monument addition and preserve shall be managed for the following purposes, among others: To protect a segment of the Alsek River, fish and wildlife habitats and migration routes, and a portion of the Fairweather Range including the northwest slope of Mount Fairweather. Lands, waters, and interests therein within the boundary of the park and preserve which were within the boundary of any national forest are hereby excluded from such national forest and the boundary of such national forest is hereby revised accordingly.

Glacier Bay National Monument.

* * * * * *

GENERAL ADMINISTRATION

SEC. 203. Subject to valid existing rights, the Secretary shall administer the lands, waters, and interests therein added to existing areas or established by the foregoing sections of this title as new areas of the National Park System, pursuant to the provisions of the Act of August 25, 1916 (39 Stat. 535), as amended and supplemented (16 U.S.C. 1 et seq.), and, as appropriate, under section 1313 and the other applicable provisions of this Act: *Provided, however,* That hunting shall be permitted in areas designated as national preserves under the provisions of this Act. Subsistence uses by local residents shall be allowed in national preserves and, where specifically permitted by this Act, in national monuments and parks. Lands, waters, and interests therein withdrawn or reserved for the former Katmai and Glacier Bay National Monuments are hereby incorporated within and made a part of Katmai National Park or Glacier Bay National Park, as appropriate. Any funds available for the purposes of such monuments are hereby made available for the purposes of Katmai National Park and Preserve or Glacier Bay National Park and Preserve, as appropriate. Notwithstanding any other provision of law, no fees shall be charged for entrance or admission to any unit of the National Park System located in Alaska.

16 USC 410hh-2.

Post, p. 2483.

* * * * * *

COMMERCIAL FISHING

SEC. 205. With respect to the Cape Krusenstern National Monument, the Malaspina Glacier Forelands area of Wrangell-Saint Elias National Preserve and the Dry Bay area of Glacier Bay National Preserve, the Secretary may take no action to restrict unreasonably the exercise of valid commercial fishing rights or privileges obtained pursuant to existing law, including the use of public lands for campsites, cabins, motorized vehicles, and aircraft landings on existing airstrips, directly incident to the exercise of such rights or privileges, except that this prohibition shall not apply to activities which the Secretary, after conducting a public hearing in the affected locality, finds constitute a significant expansion of the use of park lands beyond the level of such use during 1979. 16 USC 410hh-4.

WITHDRAWAL FROM MINING

SEC. 206. Subject to valid existing rights, and except as explicitly provided otherwise in this Act, the Federal lands within units of the National Park System established or expanded by or pursuant to this Act are hereby withdrawn from all forms of appropriation or disposal under the public land laws, including location, entry, and patent under the United States mining laws, disposition under the mineral leasing laws, and from future selections by the State of Alaska and Native Corporations. 16 USC 410hh-5.

* * * * * *

DESIGNATION OF WILDERNESS WITHIN NATIONAL PARK SYSTEM

SEC. 701. In accordance with subsection 3(c) of the Wilderness Act (78 Stat. 892), the public lands within the boundaries depicted as "Proposed Wilderness" on the maps referred to in sections 201 and 202 of this Act are hereby designated as wilderness, with the nomenclature and approximate acreage as indicated below: 16 USC 1132.

(1) Denali Wilderness of approximately one million nine hundred thousand acres; 16 USC 1132 note.

(2) Gates of the Arctic Wilderness of approximately seven million and fifty-two thousand acres; 16 USC 1132 note.

(3) Glacier Bay Wilderness of approximately two million seven hundred and seventy thousand acres; 16 USC 1132 note.

(4) Katmai Wilderness of approximately three million four hundred and seventy-three thousand acres; 16 USC 1132 note.

(5) Kobuk Valley Wilderness of approximately one hundred and ninety thousand acres; 16 USC 1132 note.

(6) Lake Clark Wilderness of approximately two million four hundred and seventy thousand acres; 16 USC 1132 note.

(7) Noatak Wilderness of approximately five million eight hundred thousand acres; and 16 USC 1132 note.

(8) Wrangell-Saint Elias Wilderness of approximately eight million seven hundred thousand acres. 16 USC 1132 note.

APPENDIX B : COMPLIANCE

The proposals described in this plan are in compliance with Executive Order 11988, Floodplain Management (3 CFR 121, supp. 1977), and Executive Order 11990, Protection of Wetlands (3 CFR 121, supp. 1977). No proposed NPS development sites have been identified to be within coastal high hazard areas under the Alaska coastal zone management program. Therefore, a statement of findings is not required. A determination of consistency with the Alaska Coastal Management Act was made for the 1983 Environmental Assessment. The Alaska Coastal Zone Management Office concurred with this determination.

Some actions will directly affect the coastal area of the park, an estuary near Bartlett Cove, and marine mammals. These specific elements of the plan conform with the Estuary Protection Act (16 USC 1221 et seq.); the Marine Protection, Research, and Sanctuaries Act of 1972 (16 USC 1361 et seq.); the Marine Mammal Protection Act (16 USC 1361 et seq.); the Endangered Species Act (16 USC 1531 et seq.), and the Coastal Zone Management Act (16 USC 1451 et seq.). Requirements of section 10 of the Rivers and Harbor Act of 1899 as well as sections 401 and 404 of the Clean Water Act will be met.

The increments of water and air pollution parkwide are expected to be too small to measure or to require compliance with the Clean Water Act (33 USC 1251 et seq.) or the Clean Air Act. Water drawn for human consumption must be treated to meet state and federal standards, in conformance with the Safe Drinking Water Act.

There are federally listed threatened or endangered species of animals known to live in, and depend for the existence on, habitats within the park or preserve. Thus, consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service is required for compliance with the Endangered Species Act. Additional consultation will be achieved through the review of this plan by both agencies.

No prime or unique farmlands will be adversely affected by the proposals.

In accordance with the National Historic Preservation Act of 1966, as amended, cultural resources on federal lands within the park and preserve will be identified and evaluated. Future actions that affect cultural resources will conform to NPS policies, and the National Park Service will cooperate with the Alaska state historic preservation officer, in accordance with the requirements of section 106 the National Historic Preservation Act.

This plan complies with the Alaska Outdoor Recreation Plan. Consultations will be held with the outdoor recreation state liaison officer as necessary.

This plan has been developed according to NPS planning guidelines, wich have been derived from the National Environmental Policy Act (NEPA), and in accordance with the Alaska Native Claims Settlement Act and ANILCA.

As described in the "Finding of No Significant Impact" (see appendix E), only the wilderness boundary proposals have the potential for significant effects on the human environment. Therefore, the Park Service will complete its NEPA compliance requirements for the wilderness proposal if these recommendations are acceptable to Congress.

APPENDIX C: CLASS C (PRELIMINARY) COST ESTIMATES
(1984 Dollars)

New NPS Service Area--basic facilities (1,500 ft. west of existing administrative offices)	
Garage/shops (8,400 sq ft)	$1,008,000
Covered storage (1,500 sq ft)	30,000
Utility room (250 sq ft)	30,000
Outdoor storage (12,000 sq ft)	120,000
Fill for old dump (6,000 cu yds)	240,000
Paved boat ramp (60 ft x 10 ft, near main dock)	6,000
Utilities--underground connection (0.5 mi of electrical, water, sewer connections)	230,000
Space for concessioner maintenance facilities	80,000
Subtotal	$1,744,000
Administration Building/Headquarters	
Remodel shop for administrative building and expand headquarters onto second floor of existing building	$ 168,000
Employee Housing (NPS)	
Seasonal employee apartments (15 @ 800 sq ft each)	1,440,000
Permanent employee duplexes* (3 @ 1,600 sq ft each)	720,000
Recreation building (2,000 sq ft)	160,000
Bunkhouse (1,000 sq ft)	96,000
Subtotal	$2,416,000
Visitor Service Facilities	
Lodge expansions (2 at 800 sq ft each)	$ 240,000
Lodge basement expansion (1,536 sq ft)	500,000
Visitor cabins (15 at 400 sq ft each)	600,000
Hostel (30 beds; 3,000 sq ft total)	250,000
Campground expansion (20 sites)	10,000
Bear-proof cache	4,000
Shelter	12,000
Camper store conversion	25,000
Lodge kitchen conversion to electricity	99,000
Motor-sailer (backcountry ranger station)	150,000
Subtotal	$1,890,000
Total	$6,218,000

*Permanent employee quarters will not be necessary until maintenance of the seven existing structures in Bartlett Cove and Gustavus is no longer cost-effective. Alternative private housing opportunities may develop in Gustavus, possibly reducing this number.

APPENDIX D: NPS/ADF&G MEMORANDUM OF UNDERSTANDING

(copy)

MASTER MEMORANDUM OF UNDERSTANDING
BETWEEN
THE ALASKA DEPARTMENT OF FISH AND GAME
JUNEAU, ALASKA
AND
THE U.S. NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR
ANCHORAGE, ALASKA

This Master Memorandum of Understanding between the State of Alaska, Department of Fish and Game, hereinafter referred to as the Department, and the U.S. Department of the Interior, National Park Service, hereinafter referred to as the Service, reflects the general policy guidelines within which the two agencies agree to operate.

WHEREAS, the Department, under the Constitution, laws, and regulations of the State of Alaska, is responsible for the management, protection, maintenance, enhancement, rehabilitation, and extension of the fish and wildlife resources of the State on the sustained yield principle, subject to preferences among beneficial uses; and

WHEREAS, the Service, by authority of the Constitution, laws of Congress, executive orders, and regulations of the U.S. Department of the Interior is responsible for the management of Service lands in Alaska and the conservation of resources on these lands, including conservation of healthy populations of fish and wildlife within National Preserves and natural and healthy populations within National Parks and Monuments; and

WHEREAS, the Department and the Service share a mutual concern for fish and wildlife resources and their habitats and desire to develop and maintain a cooperative relationship which will be in the best interests of both parties, the fish and wildlife resources and their habitats, and produce the greatest public benefit; and

WHEREAS, the Alaska National Interest Lands Conservation Act (ANILCA) and subsequent implementing Federal regulations recognize that the resources and uses of Service lands in Alaska are substantially different than those of similar lands in other states and mandate continued subsistence uses in designated National Parks plus sport hunting and fishing, subsistence, and trapping uses in National Preserves under applicable State and Federal laws and regulations; and

WHEREAS, the Department and the Service recognize the increasing need to coordinate resource planning and policy development;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

(copy)

THE DEPARTMENT OF FISH AND GAME AGREES:

1. To recognize the Service's responsibility to conserve fish and wildlife and their habitat and regulate human use on Service lands in Alaska, in accordance with the National Park Service Organic Act, ANILCA, and other applicable laws.

2. To manage fish and resident wildlife populations in their natural species diversity on Service lands, recognizing that nonconsumptive use and appreciation by the visiting public is a primary consideration.

3. To consult with the Regional Director or his representative in a timely manner and comply with applicable Federal laws and regulations before embarking on management activities on Service lands.

4. To act as the primary agency responsible for management of subsistence uses of fish and wildlife on State and Service lands, pursuant to applicable State and Federal laws.

5. To recognize that National Park areas were established, in part, to "assure continuation of the natural process of biological succession" and "to maintain the environmental integrity of the natural features found in them."

THE NATIONAL PARK SERVICE AGREES:

1. To recognize the Department as the agency with the primary responsibility to manage fish and resident wildlife within the State of Alaska.

2. To recognize the right of the Department to enter onto Service lands after timely notification to conduct routine management activities which do not involve construction, disturbance to the land, or alterations of ecosystems.

3. To manage the fish and wildlife habitat on Service lands so as to ensure conservation of fish and wildlife populations and their habitats in their natural diversity.

4. To cooperate with the Department in planning for management activities on Service lands which require permits, environmental assessments, compatibility assessments, or similar regulatory documents by responding to the Department in a timely manner.

5. To consider carefully the impact on the State of Alaska of proposed treaties or international agreements relating to fish and wildlife resources which could diminish the jurisdictional authority of the State, and to consult freely with the State when such treaties or agreements have a significant impact on the State.

(copy)

6. To review Service policies in consultation with the Department to determine if modified or special policies are needed for Alaska.

7. To adopt Park and Preserve management plans whose provisions are in substantial agreement with the Department's fish and wildlife management plans, unless such plans are determined formally to be incompatible with the purposes for which the respective Parks and Preserves were established.

8. To utilize the State's regulatory process to the maximum extent allowed by Federal law in developing new or modifying existing Federal regulations or proposing changes in existing State regulations governing or affecting the taking of fish and wildlife on Service lands in Alaska.

9. To recognize the Department as the primary agency responsible for policy development and management direction relating to subsistence uses of fish and wildlife resources on State and Service lands, pursuant to applicable State and Federal laws.

10. To consult and cooperate with the Department in the design and conduct of Service research or management studies pertaining to fish and wildlife.

11. To consult with the Department prior to entering into any cooperative land management agreements.

12. To allow under special use permit the erection and maintenance of facilities or structures needed to further fish and wildlife management activities of the Department on Service lands, provided their intended use is not in conflict with the purposes for which affected Parks or Preserves were established.

THE DEPARTMENT OF FISH AND GAME AND THE NATIONAL PARK SERVICE MUTUALLY AGREE:

1. To coordinate planning for management of fish and wildlife resources on Service lands so that conflicts arising from differing legal mandates, objectives, and policies either do not arise or are minimized.

2. To consult with each other when developing policy, legislation, and regulations which affect the attainment of wildlife resource management goals and objectives of the other agency.

3. To provide to each other upon request fish and wildlife data, information, and recommendations for consideration in the formulation of policies, plans, and management programs regarding fish and wildlife resources on Service lands.

(copy)

4. To recognize that the taking of fish and wildlife by hunting, trapping, or fishing on certain Service lands in Alaska is authorized in accordance with applicable State and Federal law unless State regulations are found to be incompatible with documented Park or Preserve goals, objectives or management plans.

5. To recognize for maintenance, rehabilitation, and enhancement purposes, that under extraordinary circumstances the manipulation of habitat or animal populations may be an important tool of fish and wildlife management to be used cooperatively on Service lands and waters in Alaska by the Service or the Department when judged by the Service, on a case by case basis, to be consistent with applicable law and Park Service policy.

6. That implementation by the Secretary of the Interior of subsistence program recommendations developed by Park and Park Monument Subsistence Resource Commissions pursuant to ANILCA Section 808(b) will take into account existing State regulations and will use the State's regulatory process as the primary means of developing Park subsistence use regulations.

7. To neither make nor sanction any introduction or transplant of any fish or wildlife species on Service lands without first consulting with the other party and complying with applicable Federal and State laws and regulations.

8. To cooperate in the development of fire management plans which may include establishment of priorities for the control of wildfires and use of prescribed fires.

9. To consult on studies for additional wilderness designations and in development of regulations for management of wilderness areas on Service lands.

10. To resolve, at field office levels, all disagreements pertaining to the cooperative work of the two agencies which arise in the field and to refer all matters of disagreement that cannot be resolved at equivalent field levels to the Regional Director and to the Commissioner for resolution before either agency expresses its position in public.

11. To meet annually to discuss matters relating to the management of fish and wildlife resources on, or affected by, Service lands.

12. To develop such supplemental memoranda of understanding between the Commissioner and the Regional Director as may be required to implement the policies contained herein.

13. That the Master Memorandum of Understanding is subject to the availability of appropriated State and Federal funds.

(copy)

14. That this Master Memorandum of Understanding establishes procedural guidelines by which the parties shall cooperate, but does not create legally enforceable obligations or rights.

15. That this Master Memorandum of Understanding shall become effective when signed by the Commissioner of the Alaska Department of Fish and Game and the Alaska Regional Director of the National Park Service and shall continue in force until terminated by either party by providing notice in writing 120 days in advance of the intended date of termination.

16. That amendments to this Master Memorandum of Understanding may be proposed by either party and shall become effective upon approval by both parties.

STATE OF ALASKA
Department of Fish and Game

By /s/ Ronald O. Skoog
Ronald O. Skoog
Commissioner

Date 14 October 1982

U.S. DEPARTMENT OF THE INTERIOR
National Park Service

By /s/ John E. Cook
John E. Cook
Regional Director, Alaska

Date October 5, 1982

APPENDIX E: FINDING OF NO SIGNIFICANT IMPACT
DRAFT GENERAL MANAGEMENT PLAN/ENVIRONMENTAL ASSESSMENT

The Draft General Management Plan / Environmental Assessment for Glacier Bay National Park and Preserve was completed in April 1983. Based on the analysis and evaluation described in that document, as well as the public and agency response to the alternatives, it is the decision of the National Park Service to adopt a modified alternative A as the management plan for the park and preserve for the next 10 to 15 years.

Proposed management strategies will retain the primitive condition of the backcountry and provide for moderate levels of vessel use within Glacier Bay. As indicated in the assessment, vessel use regulations are a result of consultation with the National Marine Fisheries Service, in accordance with section 7 of the Endangered Species Act of 1973.

The National Marine Fisheries Service released a biological opinion in June 1983, which stated that existing levels of use (previously restricted to 1976 levels) did not jeopardize the current whale populations. These levels, as well as use restrictions within designated whale waters, will be retained until whale numbers reach 1982 use levels, whereupon vessel levels could be adjusted incrementally upward, if accompanied by careful monitoring of whale populations.

The plan will retain the existing levels and kinds of visitor facilities. A minor increase in visitor facilities will only be undertaken after carrying capacity and economic studies are completed and if the studies conclude that such an increase is needed and is compatible with park objectives. Although NPS maintenance, administrative, and residential facilities were originally proposed to be relocated, it was concluded that all NPS support facilities should be retained within the general Bartlett Cove area, as described in alternative C. Therefore, existing maintenance facilities and seasonal housing will be relocated to previously disturbed locations within the immediate vicinity.

Alternative A orginally recommended an expansion of Glacier Bay National Preserve, redesignating approximately 24,000 acres of established wilderness park lands. This proposal has been revised to include only a recommendation to redesignate the same acreage as preserve wilderness.

Also, the final plan recommends to Congress significant changes in wilderness waters designation (deletions and additions). Because the wilderness waters proposal is based on public and agency review and was not presented in the Draft General Management Plan / Environmental Assessment, the National Park Service will complete additional required NEPA documents on the wilderness issue before final recommendations are submitted to Congress.

Alternative B presented the minimum requirements in terms of staffing, facilities, and funding, and it represented a "no-action" alternative. It provided for ongoing maintenance and repair of existing facilities, but not for any increase in visitor services or methods for solving many existing management problems. No additional changes were recommended for other areas of the park. Current management problems would have remained under this alternative.

Alternative C presented actions to maximize resource protection while allowing for some increases in visitor use. Commercial fishing would eventually have been eliminated within Glacier Bay, cruise ship entries would have been limited, and visitor use would have been regulated through permit systems. NPS development would have remained in the same general locations except that a new maintenance facility would have been constructed approximately 1,500 feet from the inner cove.

Overall development in Bartlett Cove now affects approximately 10 acres. The proposed development will disturb an additional 7 acres, while 3 acres of previously disturbed land will be restored. The final net disturbance from development will be approximately 14 acres. Accommodations will not be increased significantly, so significant changes in existing services and numbers of visitors will not occur. Backcountry use is expected to continue its slow upward trend. Proposed numbers and types of vessels should not jeopardize existing summer whale populations, as per the 1983 biological opinion of the National Marine Fisheries Service. Modification of the park/preserve boundary, while retaining the wilderness designation, will not significantly affect the natural resources of the area and will reduce impacts on traditional users imposed by the park/preserve expansion of 1980.

Over 300 individuals, organizations, and agencies responded to the draft plan either at public meetings from April to July or by letter.

Public and agency reaction was mixed, with a balance of preservation-oriented responses (e.g., against deletion of wilderness land and water, against an increase in facilities, and against any proposal that might reduce the park's primitive character) and development- and use-oriented responses (e.g., favoring increased facilities and potential for significantly increased visitor use).

Based on the environmental analysis, the National Park Service has determined that the final plan is not a major federal action that significantly affects the human environment; therefore a general environmental impact statement is not needed. This determination was based on the following:

Development and use proposals will not significantly affect the physical, biological, social, and economic environments.

No irreversible or irretrievable loss of resources will occur because of plan implementation.

Impacts of wildernesss designation or modification will be analyzed in detail in subsequent NEPA documents as required.

There are no apparent adverse effects on wetlands and floodplains, and the plan is consistent with the Alaska Coastal Management Program.

Roger J. Contor
Regional Director, Alaska

August 1, 1984

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As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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United States Department of the Interior

NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503 - 2892

IN REPLY REFER TO:

H4217 (ARO-PCR)

Memorandum

To: Superintendent, GLBA

From: Chief, Division of Cultural Resources, ARO

Subject: Compliance Documentation for General Management Plan

The enclosed correspondence, documenting final compliance with Section 106 of the National Historic Preservation Act for the recently completed GLBA General Management Plan (GMP), should be added to your administrative record of the planning process. The GMP is now operational under the Programmatic Memoradum of Agreement (PMOA), copy attached. I know that you will sleep easier with the realization that this has transpired. It is now the responsibility of resource managers to ensure that all ongoing or planned actions affecting cultural resources, including studies, inventories, etc., are designed and implemented according to both the objectives set forth in the GMP and the policies and procedures outlined in NPS 28, Cultural Resources Management Guideline. This is spelled out in the PMOA item 7(c). The "documentary evidence" referred to in item 7(d) is the Assessment of Effect (XXX) form that should be sent to this office for review and approval prior to project implementation. If you have any questions on these matters, please give me a call, 271-4241.

Leslie Starr Hart

Enclosures

Advisory Council On Historic Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

Reply to: 730 Simms Street, Room 450
Golden, Colorado 80401

January 3, 1984

Mr. Roger Contor
Regional Director
National Park Service
2525 Gambell Street, Room 107
Anchorage, AK 99503-2892

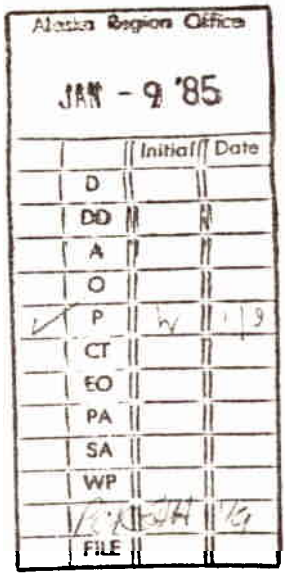
REF: General Management Plan, Glacier Bay National Park & Preserve, Alaska

Dear Mr. Contor:

The Council's Western Division of Project Review received and reviewed the above referenced document under the Programatic Memorandum of Agreement of September 1981. We have no objection to the directions and provisions set forth in this document.

Sincerely,

Robert Fink
Chief, Western Division
of Project Review



United States Department of the Interior

NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503 - 2892

IN REPLY REFER TO:
H4217 (ARO-PCR)

DEC 17 1984

Ms. Judith Bittner
State Historic Preservation Officer
Department of Natural Resources
Pouch 7001
Anchorage, Alaska 99501

O. H. A.
DEC 21 1984

Dear Ms. Bittner:

Enclosed are copies of the final General Management Plans for Kenai Fjords National Park and Preserve and Glacier Bay National Park and Preserve. In reviewing our files it appears that formal transmittals and notification of the final selections of these plans were not specifically provided to your office.

These documents reflect the participation of the State of Alaska and the Advisory Council on Historic Preservation in the development of cultural resource management schemes for both Kenai Fjords and Glacier Bay. Accordingly, we trust that you will concur in the plan.

To document compliance with Section 106 of the National Historic Preservation Act and the Programmatic Memorandum of Agreement please sign and date the concurrence line provided below and return this letter to this office. A copy of this letter is enclosed for your files.

Your cooperation and participation in the planning efforts for Kenai Fjords and Glacier Bay is appreciated.

Sincerely,

Robert Peterson
Acting Regional Director
Alaska Region

Enclosure

I Concur: Timothy R. Smith, Deputy SHPO 12/21/84
Date

cc:
Superintendent, Kenai Fjords
Superintendent, Glacier Bay