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A Master Plan

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# Wrangell - St. Elias National Park

Alaska

Color Scans

11/19/2002

W R A N G E L L - S T .   E L I A S

N A T I O N A L   P A R K ,

A L A S K A

MASTER PLAN

Prepared by:

Alaska Planning Group  
National Park Service  
Department of the Interior  
Washington, D.C.

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## INTRODUCTORY NOTE

This draft conceptual master plan was prepared to accompany legislative proposals resulting from actions required by the Alaska Native Claims Settlement Act. Its publication should not be construed as representing either the approval or disapproval of the Congress or the Secretary of the Interior. The purpose of releasing this report at this time is to provide information for further consideration of the proposal by the public, the Congress, the Secretary of the Interior, the National Park Service, and other governmental agencies. Comments received will be considered by the National Park Service in the preparation of further drafts of this plan.

Errata: The Area of Ecological Concern that is beyond the southwest edge of the proposal should extend 2 townships farther, to the southwest corner of T16S, R3W.

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## PROLOGUE

### INTRODUCTION TO THE REGION

The Wrangell-St. Elias region is a 19-million-acre geographic unit situated in southcentral Alaska. It is adjacent to Canada and includes the upper portion of the Alaska "panhandle." To the west lies a growing complex of roads and towns. But this rugged land mass has retained much of its primitive character. Across the international boundary lie the Kluane National Park and Territorial Game Sanctuary of Canada. Together, these vast American and Canadian units comprise a mountain kingdom of unparalleled grandeur.

Israel C. Russell, explorer and geologist, was among the first men to view the full sweep of this country. From the shoulder of 18,000-foot Mount St. Elias he wrote in 1891:

I expected to see a comparatively low, forested country, perhaps some sign of human habitation. What met my astonished gaze was a vast, snow-covered region, limitless in expanse, through which hundreds, perhaps thousands of bare, angular mountain peaks projected. There was not a stream, not a lake, and not a vestige of vegetation of any kind in sight. A more desolate and utterly lifeless land one never beheld.

Russell had glimpsed the largest concentration of peaks exceeding 14,500 feet elevation in North America, overshadowed by such giants as the one on which he stood and 19,850-foot Mount Logan in adjacent Canada. Under Russell's "limitless snows" is the largest glacier complex on the continent. Here are found the 127-mile-long Bagley Icefield and its great piedmont lobe named after the first non-Native explorer to

see its foreland--Vitus Bering. Here also is a second, even larger piedmont glacier named for Don Alessandro Malaspina. It alone exceeds Rhode Island in size.

Russell's gaze encompassed only parts of the coastal St. Elias and Chugach mountains. Far inland there stretches another assemblage of great mountain peaks--the Wrangells--also ice-scoured and glacier-laden, but showing evidence in its western portions of volcanic fires not long quenched. In fact, steam and ash still issue from the crest of Mount Wrangell and warm mineral springs flow from the foot of its neighbor, Mount Drum.

Fire and ice, sculptors of the Wrangells, have combined in the process of their artistry to discard vast amounts of material. Much of it now forms a broad sloping apron of lava and debris descending to the Wrangell-St. Elias region's major river, the Copper. North and east of the Wrangells, the Chisana and Nabesna rivers have breached a series of foothills--mountains in their own right, but overshadowed in this country of giants--to deposit more of this material over a second large, lake-strewn lowland in the upper Tanana valley.

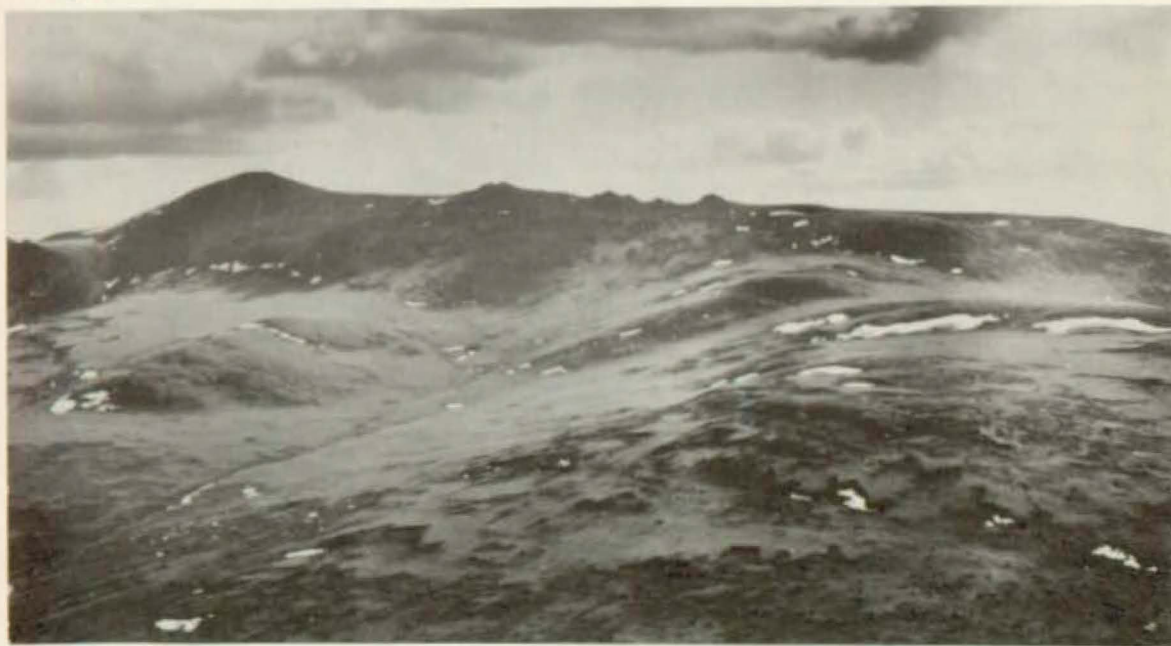
Elsewhere in the Wrangell-St. Elias region, lowlands are either sandwiched between mountains and sea, or occur as valleys and plateaus winding into a maze of serrated uplands. These subdued lands are not dominant visually in most portions of the region, but they are the crucial places. Here a large proportion of the region's very substantial natural resources are found. Here the landscape is muted and cloaked in a living blanket.



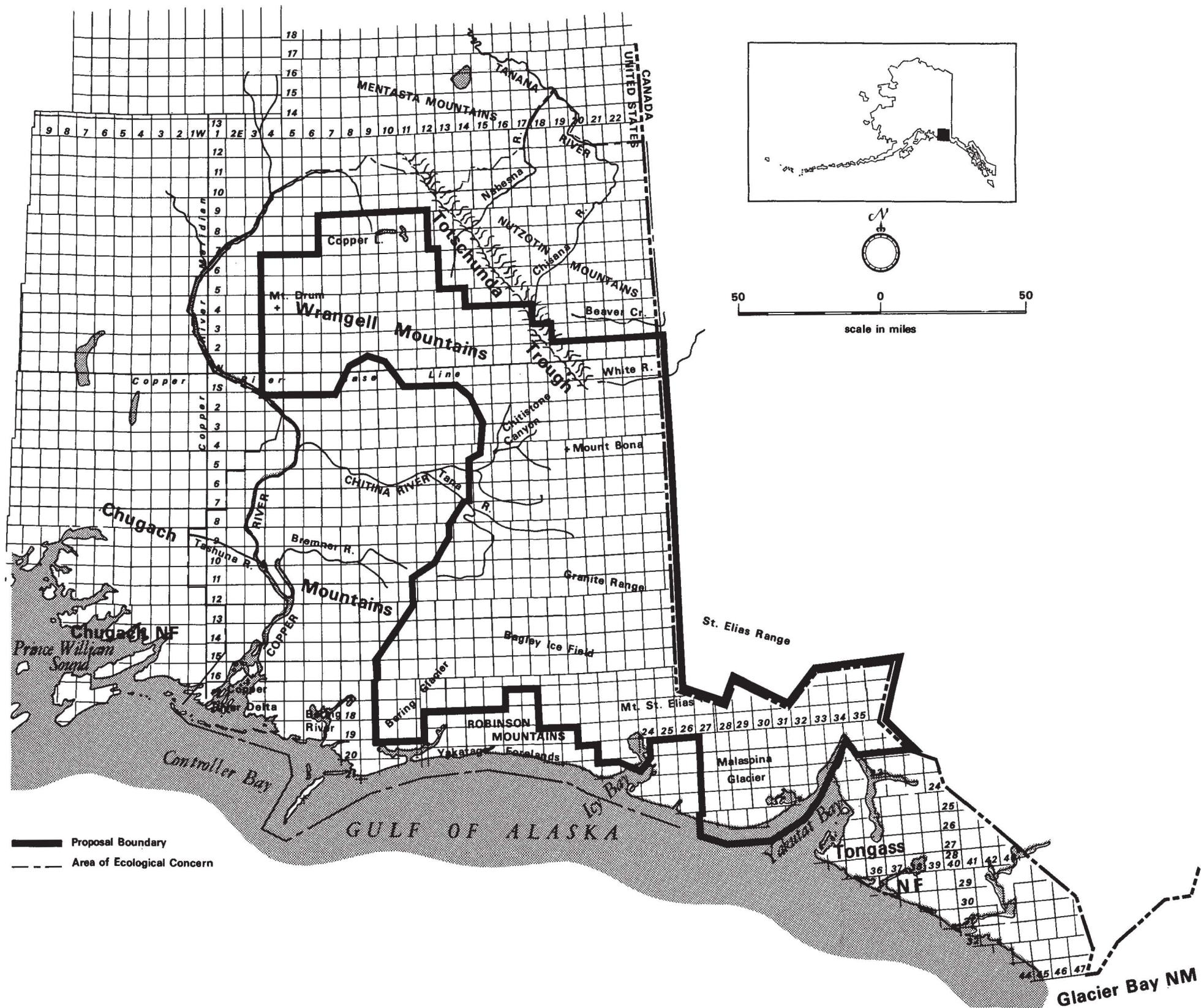
Wrangell-St. Elias. . .North America's  
Mountain Kingdom



Rolling tundra-clad uplands in the Solo Flats area north  
of the White River include portions of a caribou calving  
ground.



# Place Names





Here man can feel at home, can recreate in a friendly surrounding, and can experience a wholeness in which he, the life around him, and the great mountains nearby are participants.

Together the continent's greatest icefield ranges and majestic mountain peaks with their lowland context form a unit containing park values of the first magnitude.

#### THE PARK AND ITS PURPOSES

Wrangell-St. Elias National Park would comprise 8.6 million acres of this vast region. The park would extend 160 miles north from the Gulf of Alaska and contain the country's largest glacier system, superlative alpine scenery and wilderness, and abundant wildlife, including brown-grizzly and glacier bears, sea otter, and sea lions, and large populations of sheep, moose, caribou, and timber wolf.

The park would be bounded on the southeast by Tongass National Forest and Yakutat Bay, on the south by State lands and Chugach National Forest, on the west by Native lands and the southern unit of the proposed Wrangell Mountains National Forest, on the north by Native lands and northern unit of the Wrangell Mountains National Forest, and on the east by Canada's Kluane National Park and Territorial Game Sanctuary.

The National Park Service (NPS) would manage the park as a Natural Area and preserve its scenic, wildlife, scientific, historic, and recreational resources for the enjoyment of present and future

generations. The NPS proposes cooperation with the Forest Service and other owners of adjacent lands within an Area of Ecological Concern (AEC), which should be managed so as to complement park values. The AEC includes the State lands to the south, the Native lands on the west and north, the proposed Wrangell Mountains National Forest, and the Copper River delta portion of the Chugach National Forest. Environmental protection of adjoining and nearby lands is especially necessary since the Alaska pipeline's 10-mile-wide corridor from the North Slope oil fields to Valdez passes within 20 miles of the park's western boundary.

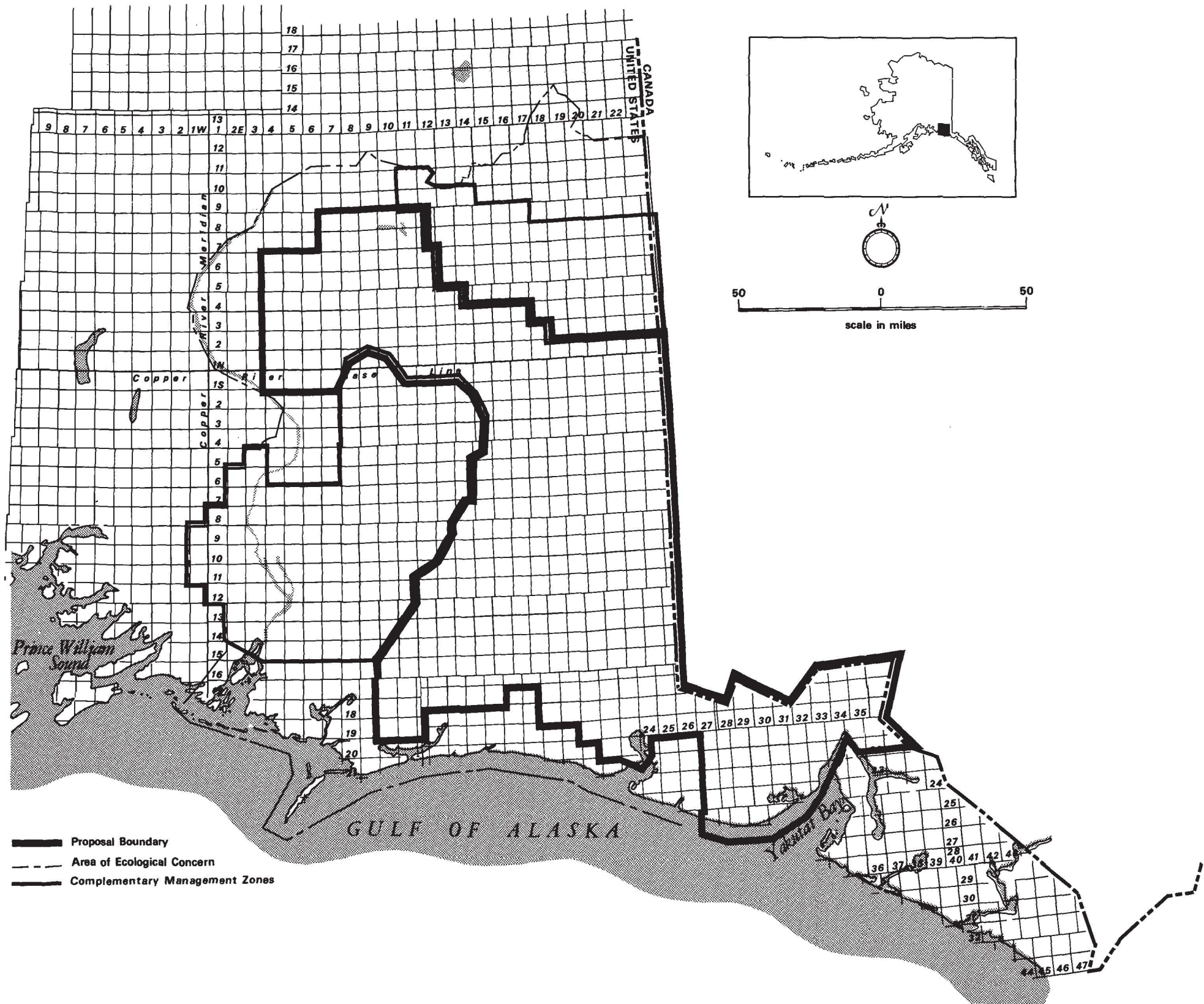
A nearby village, Glennallen, is within 200 miles of Anchorage by paved highway. Chitina, to the south, is within 300 miles of Anchorage, also by paved highway. A 50-mile secondary road links Chitina with McCarthy, on the park's western boundary. Northway's paved airport north of the park near the Canadian border, and Gulkana, Glenallen's airport, are accessible to jet service from Anchorage, less than an hour's flight away. Northway is about 80 miles by highway from Koidern in Canada, near Kluane National Park.

#### Park Purposes

Wrangell-St. Elias National Park would be formed primarily from public lands withdrawn by the Alaska Native Claims Settlement Act and presently administered by the Bureau of Land Management. The park is to be established for the following purposes:

1. To retain unspoiled for public use and benefit the grandeur and setting of the mountain kingdom of the Wrangell, Chugach, and St. Elias

# The Boundary





Ranges and portions of its associated lowlands.

2. To assure continuance of the natural ecological relationships essential for perpetuation of viable populations of wildlife, most notably sheep, caribou, large carnivores, and coastal species.
3. To provide for public enjoyment and outdoor recreation that is compatible with retention of the park ecosystems in a pristine state.
4. To provide leadership and coordination in the management of nearby lands and waters through cooperation with the owners and managers of such properties.
5. To provide for research and related educational opportunities in northern ecosystems and landscapes.
6. To protect and interpret the area's historic sites, structures, and objects, and ways of life, for public understanding.
7. To provide the United States counterpart of Canada's Kluane National Park, as suggested by the Canadian Government in 1942, the two adjoining parks, thus forming one of the world's largest parklands of an international character.

## THE REGION

### General

The Wrangell-St. Elias region covers 19 million acres. This corner of south central Alaska along the Canadian border includes the Wrangell Mountains and Copper River Plateau physiographic provinces and substantial portions of the Chugach-Kenai Mountains and panhandle St. Elias Range provinces.

This region, with adjacent Canadian lands, contains the largest concentration of peaks over 14,500 feet elevation in North America. These include Canada's 19,850-foot Mount Logan, second highest peak in North America, and 18,008-foot Mt. St. Elias, second highest in the United States.

Rivaling the mountains in scenic grandeur are the valleys of the Copper, Chitina, and Bremner Rivers, and, along the coast, massive glaciers and dense rain forest.

### Regional Components

The general Wrangell-St. Elias region extends roughly from the Tanana and Copper Rivers on the north to the Gulf of Alaska on the south, from the Canadian border on the east to Tazlina and the Tazlina River on the west, and (along the coast) from Yakutat on the east to Valdez on the west.

Within this region are the proposed 8.6-million-acre Wrangell-St. Elias National Park along the Canadian border, the proposed two-unit 5.5-million acre Wrangell Mountains National Forest north and west of the

State lands and substantial portions of Chugach National Forest south of the park, extensive State and Native lands north and west of the park and around Valdez, and the 10-mile-wide Alaska pipeline corridor entering the region at its northwest corner and extending southward on the west side of the Copper River to Chitina and Valdez.

The region includes an Area of Ecological Concern which encompasses the two-unit national forest, part of the Chugach National Forest, and State and Native lands. Cooperative agreements within the AEC will be sought to assure preservation of national park values.

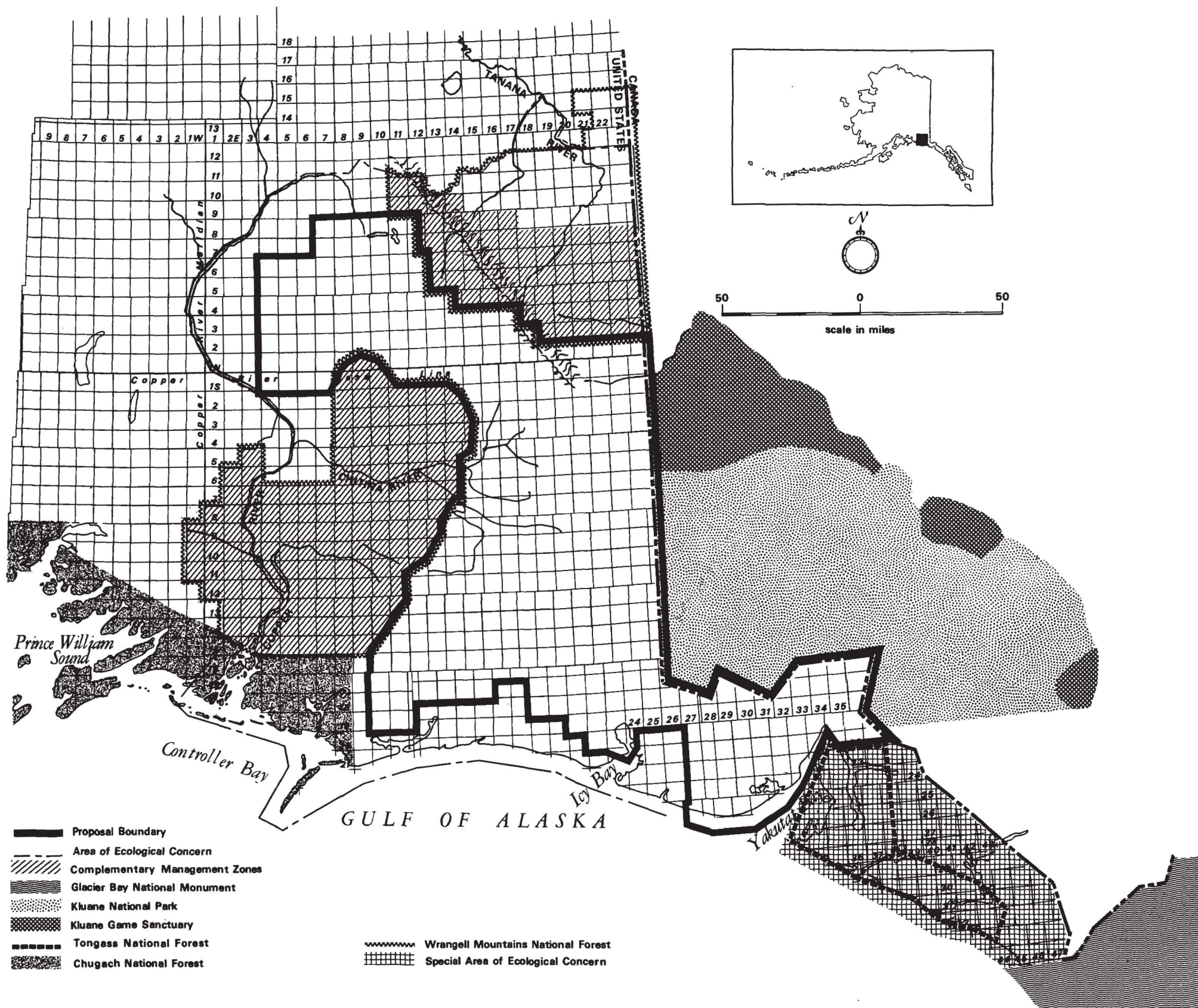
#### Geologic Setting

Most of the region lies within the Pacific Mountain System physiographic division, only the northeastern corner being within the Intermontane Plateau division. The terrain is extremely rugged with high snow and ice-clad mountains of elevations up to 18,000 feet dominating the landscape. Lowlands are extensive only in the region's center and along its western and northeastern fringes. Elsewhere they are either sandwiched between mountains and sea, or occur as narrow valleys and plateaus grading into seemingly endless mazes of serrated peaks and uplands.

The region can be divided into seven physiographic subunits, three of which are mountainous, the others characterized by lowlands.

Largest and most centrally located of these subunits is the Wrangell-St. Elias mountains complex comprised of contorted Paleozoic and Mesozoic



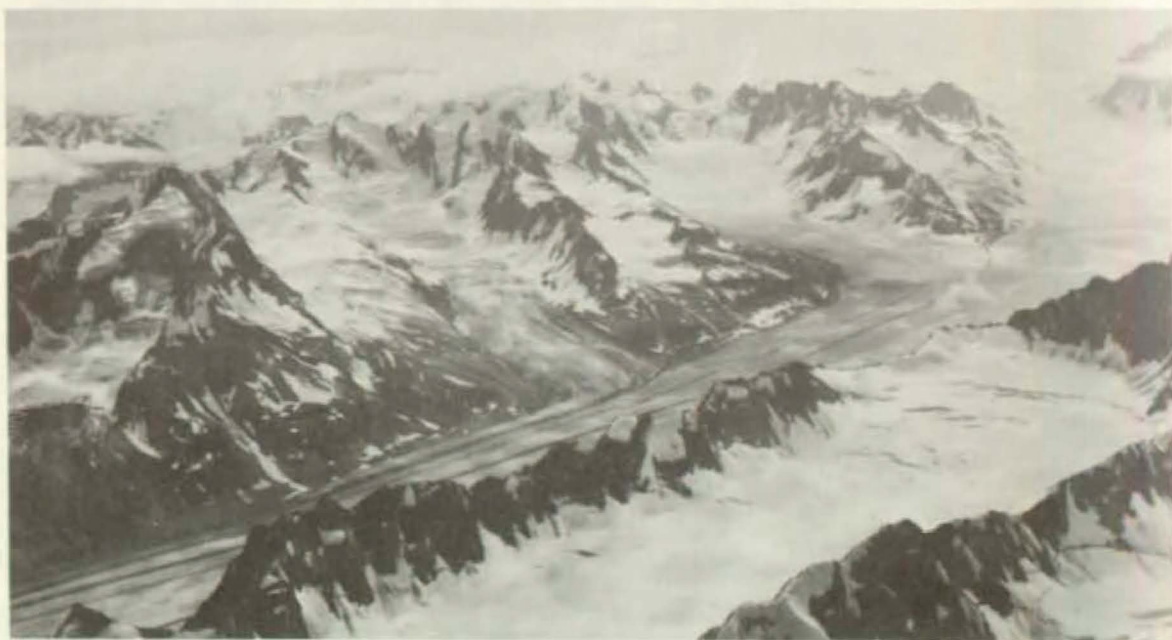






Mt. Drum dominates the western Wrangells and typifies the aspect of this young, volcanic and glacier-scoured range.

A portion of the central Chugach Range. Topography of the St. Elias Range is similar, but often occupied by more extensive icefields.



sedimentary and igneous rocks which have undergone a complex process of uplift and, in the Wrangell's area, inundation by volcanic extrusives since late Tertiary time. Major ash eruptions have occurred as recently as 1,500 years ago. Vapors and ash still issue occasionally from Mt. Wrangell's summit and warm mineral springs or "mud volcanoes" occur on the flanks of its higher Mount Drum.

Strata ranging in age from Permian to Tertiary age contain excellent fossil assemblages. Certain Mesozoic volcanic strata and their contact zones with Triassic limestones have proven to be important hosts for metallic ore--particularly of copper, silver, and gold. Within this subunit lies the largest concentration of peaks exceeding 14,500 feet in the United States.

To the south and west of the Wrangell-St. Elias mountain complex, across an intervening mosaic of lowlands and foothills, rises a second subunit of the region--the Chugach Mountains. Uplift of predominantly Mesozoic sedimentary rocks along east-west trending fault zones there is resulting in a parallel series of ridges attaining maximum elevations of 13,000 feet. To the south, these ridges give way abruptly to hills and raised marine terraces carved into Tertiary sediments rich in plant and animal fossils. These sediments also contain perhaps the oldest known post-Mesozoic glacial deposits in North America and feed naturally occurring oil seeps.

These hills in turn yield to the region's third subunit, the gulf coastal plain, which consists of a narrow band of flat lands recently claimed from the sea floor by uplift.

Northward, across the Wrangell-St. Elias mountains lies the fourth subunit, the Nutzotin-Mentasta portion of the Alaska Range. Here rocks similar to those underlying the Wrangells and in part veneered by recent volcanics are dissected into a complex of ridges and plateaus which the Nabesna River splits into the Mentasta and Nutzotin mountains. Among notable stratigraphic units is a sequence of probable Miocene to Pliocene glacial deposits similar in age. Elevations in this subunit rise to a maximum of 9,000 feet, then decrease abruptly at the Denali Fault, perhaps the most important crustal break in Alaska, although mostly inactive at present in this area.

North of the Mentasta-Nutzotin ranges stretches the Tanana Lowland, the fifth subunit. It is an undulating plain, with scattered groups of hills on the south, and contains the upper Tanana River, including the lower portions of its two major headwater rivers, both glacier-fed, the Nabesna and Chisana. Most of the plain is dotted with lakes and extensive areas of marshes.

To the south of the Mentasta-Nutzotins lies the Totschunda Trough and White River Valley. This is a portion of a long, linear depression known in Alaska as the Coastal Trough and in adjacent portions of the Yukon Territory as the Duke Depression. Cutting across this trough, and forming approximately the northern boundary of a heavily mineralized zone, is the Totschunda Fault, one of the most active fault zones in Alaska. The Nabesna and Chisana Rivers cut across both the trough and adjacent Mentasta-Nutzotin Mountains.





Mount Saint Elias  
Snow peak, lifting its shoulders more than  
three miles above the sea.

Of all the region's lowlands, those forming the Copper River Basin, the seventh subunit, are the most extensive. They issue from the flanks of the Wrangells, manifested westward as a broad, evenly-sloping foreland reaching minimum elevation at the Copper River, and to the southward as the Chitina Valley--formed by the coalescence of numerous tributary valleys.

These major physiographic units correspond directly to features well known in the lower 48 states: the Chugach-St. Elias mountains are analagous to the U.S. Coast Range; the Totschunda Trough-Duke Depression to the Puget Sound-Central Valley of California; the Mentasta-Nutzotins to the Cascade-Sierra Nevada; and the Intermontane Plateau to the Basin and Range or "Great Basin" province.

The following discussion is adapted from the 1973 Report of the Wrangell Mountain Projects of the University of California at Santa Cruz.

Features of geologic interest are distributed throughout the Wrangell region. The area of the headwaters of the Nizina, Chitistone, and White Rivers near Skolai Pass is particularly diverse, clearly exposing the shifting crust of the earth and exhibiting evidence of continuously evolving life and changing climate. Many of the geologic features and processes of eastern Alaska are concentrated in this one small area. The geologic record exposed in the Nizina and Chitistone Canyons can be partially illustrated by comparison with Yosemite and Zion Valleys, which are roughly the same size. (See chart)

The Wrangells are composed of a highly varied set of rock types, with many clearly exposed in the Skolai Pass area. A fairly full range of marine and continental sedimentary rocks are exposed throughout the southern flanks of the mountains, and are notable in the area between Skolai Pass and McCarthy. These include sandstones, shales, conglomerates, a variety of limestone, dolomites and other carbonates, and cherts. A number of thin beds are composed almost entirely of large fossilized shell fragments. Extensive volcanic rocks of three widely separated ages compose much of the bulk of the Wrangells. The volcanics were erupted as a variety of flows, ashfalls, and glowing avalanches. Acidic, intermediate, and basic intrusives ("granitics") of many textures are exposed as stocks, lenses, sills, dikes, and bodies of many sizes and shapes, notably near the Chitistone and Kuskulana Rivers. A wide variety of low and medium grade metamorphic units are found throughout the Wrangells and Chugach. Highly metamorphosed rocks, sometimes mineralized, are frequently found near the intrusive bodies.

The Wrangells include a wealth of exposed deformational structures that reflect at least three major episodes of mountain building. Over the entire area, rock units are folded, faulted, twisted, and stretched, often in a spectacular manner. Deformation occurs at all scales, with intensively folded limestones crenulated into foot-wide horseshoes lying within sweeping overthrusts. The impressions of a totally moving landscape is affirmed by this imposing catalog of deformational features, which likely cannot be matched anywhere in the country.

\* Moderate and large displacements.

\*\* The Chitistone-Nizina area includes records of perhaps twenty-five percent of geologic time since the Precambrian. Although few valleys of their size show as diverse and broad a fossil record, some large mountain areas in eastern Alaska incorporate a more lengthy record of geologic time than the Wrangells.



# GEOLOGIC FEATURES IN YOSEMITE, ZION AND CHITISTONE-NIZINA VALLEYS

This sketch list enumerates the clearly-visible geologic elements of special interest in and near each valley. The valleys are of roughly the same size and form, and have reputations as geologic spectaculars.

	YOSEMITE	ZION	CHITISTONE-NIZINA
<b>ROCK TYPES</b>			
Sedimentary		X	X
Plutonic	X		X
Volcanic			X
Metamorphic	X		X
<b>STRUCTURAL ELEMENTS</b>			
Essentially Flat-lying Beds		X	X
Folded Sequences		X	X
Anticlinal		—	X
Synclinal		—	X
Homoclinal		X	X
Overturned			X
Isoclinal			X
Faulting Types*			
Normal	X	X	X
Reversed	X	X	X
Thrust			X
Strike-slip (sideways)		X	X
Extensive Batholithic Areas	X		
Intrusive Contact Belts	X		—
<b>CURRENT LANDSHAPING PROCESSES</b>			
Stream Processes	X	X	X
Wind Processes		X	—
Solution Processes		X	
Alpine and Periglacial Processes	X		X
Glacial Processes	X		X
Exfoliation, Shattering, etc.	X	X	X
<b>MISCELLANEOUS FEATURES OF INTEREST</b>			
Dikes and Sills	X		X
Postpiling (columnar jointing)	X		X
Moraines, Eskers, etc.	X		X
Cirques and Tarns	X		X
Glaciers	—		X
Rock Glaciers			X
Exfoliation Domes	X		
Limey Encrustations		X	
Active Landslides	X	X	X
"Booming" of "Dumping" Lakes			X
Waterfalls	X	X	X
<b>PALEONTOLOGICAL RECORD</b>			
			**
Postglacial	X	—	X
Glacial	X		X
Late Tertiary			X
Early Tertiary		X	
Late Mesozoic		X	X
Early Mesozoic		X	X
Late Paleozoic			X

KEY: X classic examples, of educational and interpretive value  
 — examples observed, but poorly developed geologically



The landforms of the region have been shaped over the past several million years by ice, frost, meltwaters, and wind--the geomorphic agents associated with glacial and near-glacial environments. A broad range of subtly differing glacial environments and landforms have been concentrated within the region by the sharp temperature and precipitation variation between the coast and the interior basins. There is growing evidence that glaciation began here during the Miocene, the earliest recorded glaciation on the continent. The region remains the most active glacial area in North America.

The Wrangell Mountain Region can be compared to the canyon country of the Southwest in offering a valuable combination of scenery and geology. Whereas the mesas and canyons of the Southwest are imposingly monumental and statuesque, the Wrangells are strikingly mobile and ever-changing in an equally classical and enduring sense.

#### Regional Population

Although there are no permanent residents in the national park, the general region surrounding the park has a population of more than 5,500 based on the 1970 non-Native census and the July 1973 Native enumeration. About 32 percent of the 2,800 people in the five coastal villages and 57 percent of the 1,300 people in the 13 interior villages are Natives.

The changes that these villages will undergo because of construction of the Alaska pipeline through or near them are likely to be extensive. Valdez, the pipeline terminus and oil shipping port, may increase its

population several fold. The 1973 descriptions that follow (populations in parentheses) should be read in this context:

#### Principal Communities

Cordova (1,440) is a modern coastal town on Orca Inlet, an arm of the Gulf of Alaska 20 miles west of the mouth of the Copper River. Founded in 1906 as a port and terminus of a railroad to the Kennicott copper mines north of McCarthy, Cordova is now primarily a fishing village. Many of the 438 Tlingits, Eskimos, and Eyaks comprising the Native population engage in commercial fishing.

Valdez (952) is 45 miles northwest of Cordova and 115 miles east of Anchorage. It is a modern fishing town and port at the head of Valdez Arm, an indentation off Prince William Sound. Except for radio, cable TV, and a bowling alley, Valdez has the same essential services as Cordova, plus a library and theater.

Valdez is now beginning to undergo the drastic changes accompanying its conversion from a coastal fishing village to pipeline terminus and oil tanker port. The Valdez boom and population increase undoubtedly will bring a heavy increase in park visitation. Some 3,000 construction workers are expected to be based in Valdez alone.

Valdez provides access to the interior over the Richardson Highway, is a regular stop on the Cordova-Whittier-Kenai sea ferry system, and has scheduled jet service to Anchorage. About 10 percent of the 1973 population was Native.

Chitina (66), about 100 miles northeast of Valdez over the Richardson and Edgerton Highways, is a former mining and railroad town on the west bank of the Copper River near its confluence with the Chitina River. The village is within 20 miles of the park boundary to the north and 50 miles over unimproved road from McCarthy on the park boundary to the west. The town has an airstrip nearby. A recently abandoned Indian village site overlooks the town. Chitina numbers 34 Natives in its population, but few Natives live in the village.

McCarthy (12), near the west boundary at the narrow waist of the park, is the former Kennecott copper mining town. The year-round population consists of an estimated three to six families centered around a lodge, craft shop, and bush air charter office.

Copper Center (300) is within 15 miles of the park's western boundary and about 40 miles north of Chitina. The Native population is 187. The Ahtna Native Regional Corporation headquarters and a private boarding school are located in Copper Center.

Glennallen (394) is near the lower junction of the Glenn and Richardson highways about 200 miles from Anchorage, with an excellent view of Mount Drum. The community is within 30 miles of the park and numbers 68 Natives in its population.

The Alaska pipeline will pass virtually through or near Glennallen, Copper Center, and Chitina.

Northway (192) is of principal importance because of its paved airfield 50 miles from the park border. With Northway Junction on the Alaska Highway, Northway is the largest community near the north end of the park. The village is about 40 miles from the Canadian border. Northway has some non-Native as well as 192 Native residents. It is within 20 miles of the Wrangell Mountains National Forest northern unit and about 50 miles from the park boundary. Northway has school, church, and clinic facilities. (See Table)

#### Regional Transportation

Roads: The western and northern portion of the Wrangells region is equipped with one of Alaska's best paved-road nets. The park is within a day's drive, over good highways, of Anchorage, Fairbanks, and Valdez. Major highways include the 200-mile Glenn Highway from Anchorage to Glennallen, the 100-mile Richardson-Glenn Highway from Valdez to Glennallen, the 50-mile Edgerton Highway from Copper Center to Chitina, the 140-mile Glenn Highway from Glennallen to Tok on the Alaska Highway, and the Alaska Highway from Tok some 80 miles to the Canadian border. Secondary roads link Northway and Tetlin to the Alaska Highway. The secondary road from the Glenn Highway to Nabesna has been continually improved over the last few years.

The unimproved road from Chitina to McCarthy, the other major surface access route to the park, is now passable by automobile as far as McCarthy. A small segment of the road from McCarthy to Nizina (May Creek area) is seasonally maintained in semi-usable condition, but



the steel bridge over the Nizina River is not usable.

About 40 miles of road have been completed from Cordova north to an intended junction with the Richardson Highway from Valdez. An injunction has halted construction. Construction of a highway from Chitina to the new Cordova road has been completed to the confluence of the Teikel and Copper Rivers.

Use of snowmobiles and other off-road vehicles (ORV's) throughout the region is rapidly increasing. Their present use is a subject of concern to land and wildlife managing agencies.

Air Service: Bush flights are often the only means of access in this rugged terrain, especially to the more remote or high-altitude destinations. At least 30 landing strips are scattered through the region, including fields at Nabesna, McCarthy, and nearby Nizina (May Creek). Most of the village runways are 1,100 to 3,700 feet long, with gravel or turf surfaces suitable for light aircraft. Northway's paved airport accommodates jet planes as do major airstrips at Gulkana, Cordova, and Yakutat. An improved airport at McCarthy now accommodates larger aircraft. Amphibious and float-equipped aircraft land on the many lakes in the summer; in the winter, ski-equipped plans can land on most of the same lakes.

Water Transportation: The State ferry system links Valdez and Cordova to the railroad transshipment points of Whittier, Seward, Kodiak, and Homer on the Kenai Peninsula. A marine ferry service eventually may link the coastal communities from Cordova to Yakutat.

The Copper and Chitina Rivers are not deep enough for commercial navigation, but hunters, prospectors, and other outdoorsmen use canoes and rafts on both streams.

#### Regional Economic Factors

Commercial fishing for salmon is the mainstay of the market economy at Cordova, Yakutat, Valdez, and other coastal areas. Commercial timbering is also important economically to Yakutat and Cordova. In the interior, unemployment is high in the winter after the construction and tourist seasons.

In 1970 the region's labor force averaged 1,800, dropping from 2,200 in the summer to 1,550 in the winter. The Natives do not participate equally in the local cash economy. Tourist and roadside businesses are owned principally by non-Native residents. The Athapascan people experience barriers to wage employment and sources of cash income. These barrier factors include inadequate education and training, poor health, distance from employment, and discrimination. A survey of able-bodied adults conducted in the fall of 1969 showed more than 50 percent employment in the predominantly non-Native communities of Glennallen and Tok, compared to employment of 12 of 59 in Northway, 4 of 24 in Tetlin, 1 of 10 in Chistochina, and 17 of 60 in Gakona--all mainly Native towns.

The Natives also have encountered competition for subsistence resources and have received increasing exposure to the material standard of living of non-Native people. Yet this standard is beyond the reach of many Natives. The consequences are apparent in community life.

Some villages face serious community mental health problems.

Alcoholism is a problem of increasing concern. Recent efforts of the Native regional and village corporations to initiate community educational, health, and social service programs and projects, and to develop broader economic opportunities for their people suggest a potential revitalization of village life.

Government is a major employer and source of cash income. Federal and State agencies responsible for land and resource management, social services, education and health programs, and provision or regulation of public services and facilities have stations and offices in the principal communities.

In the Cordova-McCarthy area government employment constituted approximately 34 percent of the total agricultural wage employment in 1971. In the Valdez-Chitina-Whittier labor area, which includes many of the small interior villages of concern here, government employment in 1971 constituted more than 50 percent of total non-agricultural employment.

Government assistance programs contribute to the income of needy people. In 1972 approximately 195 individuals or families were receiving assistance under the categorical programs. Average annual household income from these payments, judging from October figures, was about \$1,972.



## REGIONAL AND PARK RESOURCES

### Physical Environment

The airborne visitor to the Wrangell-St. Elias region views a continuing series of stupendous mountain and glacier systems as he flies northwest from Yakutat near the Canadian border. Dominated by 18,000-foot Mount St. Elias in the background, Malaspina Glacier awes the viewer with an expanse of snow and ice larger than the State of Rhode Island.

Malaspina stretches along the coast nearly 50 miles and back into feeder glaciers of the St. Elias Mountains 30 miles from the Gulf of Alaska.

Up the coast the Tyndall and Guyot Glaciers flow seaward in the shadow of St. Elias, the country's second highest peak. Westward beyond the coastal Robinson Mountains the Chugach Mountains occupy the entire interior landscape in a world of icy heights. The Bering Glacier, almost as large as the Malaspina, dominates the coastal area. The glacier bears the name of the first non-Native to view northwest North America--Vitus Bering, a Dane sailing for Russia, who sighted Mount St. Elias in 1741. The Bagley Icefield, which spawned the Bering Glacier, is a dominant feature of the eastern Chugaches. Nearly 100 miles to the east the Copper River interrupts the Chugach Range and empties into the Gulf of Alaska in a delta 20 miles wide.

North of the Chugaches, the Chitina River flows eastward from the Canadian border to become the principal tributary of the Copper whose broad valley it matches in spectacular scenery. The Copper's 250-mile north-south course and the 112-mile Chitina are the region's principal drainage agents.

Chitina's scenic valley is overshadowed, however, by another mighty alpine range to the north, the Wrangell Mountains. Ice-scoured and glacier-laden, the Wrangells show evidence in their western portions of volcanic fires not long quenched. Steam and ash still issue from Mount Wrangell, and warm mineral springs flow from the foot of its neighbor, perpetually snowclad Mount Drum.

The region's lowlands are either sandwiched between mountains and sea, or occur as valleys and plateaus winding into a maze of serrated uplands. These subdued lands are not dominant visually in most portions of the region, but they are crucial to the ecosystem and to man. Here a large proportion of the region's substantial natural resources are found. In this muted landscape man can feel at rest in friendly surroundings and can experience a wholeness in which he, the life around him, and the great mountains nearby are participants.

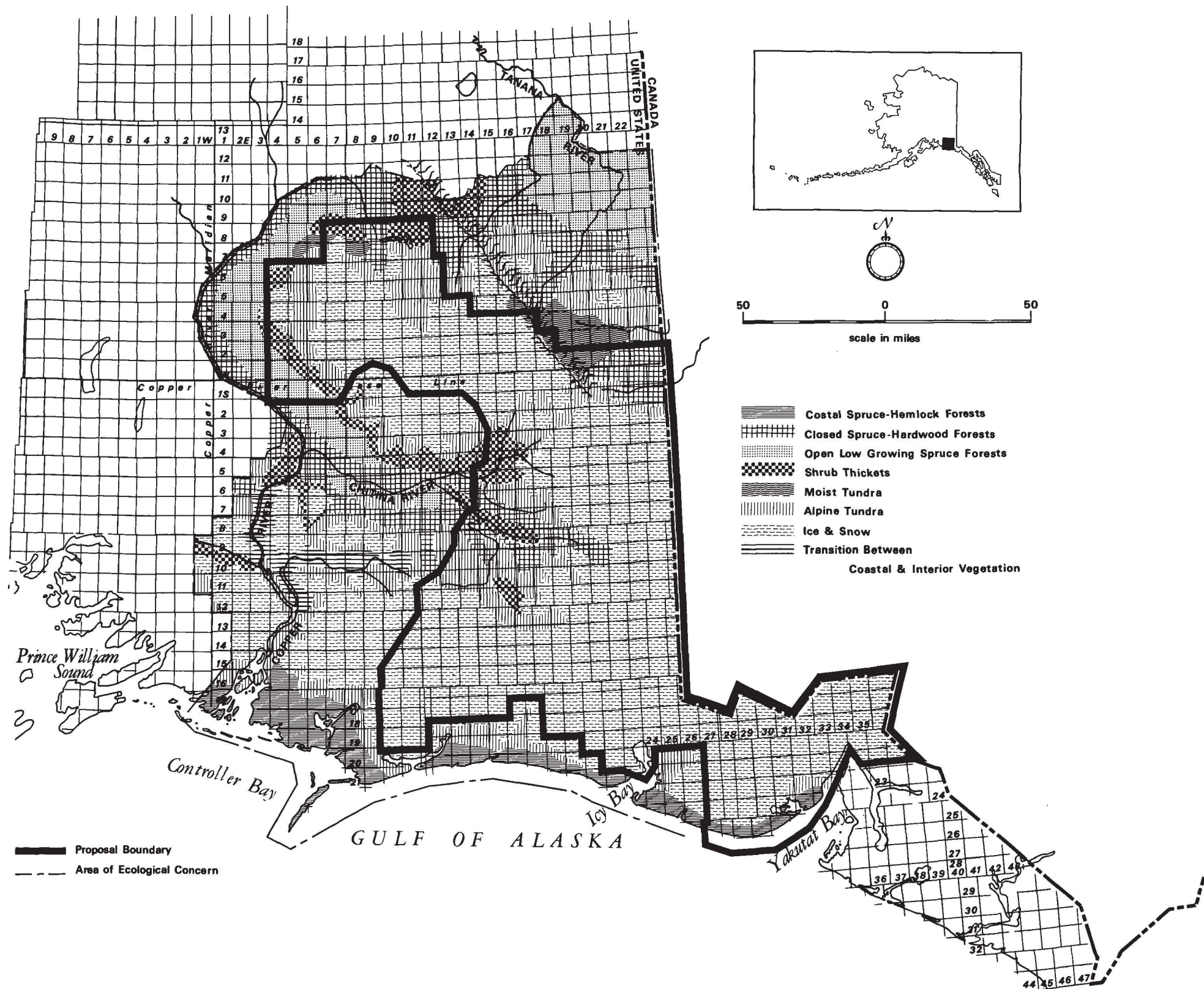
Glacial ice, mountain building activity, and latitude have produced a young, unstable, and cold environment. These environmental factors do not favor biotic diversity.

Restricted diversity in turn diminishes the ability of the region's natural system to absorb sudden change. It is on such systems that technological man has his most drastic impacts. Care and restraint are key words in any sensitive management plan for the region--care and restraint, based on knowledge of the natural system and the coastal and interior subunits which comprise it.

The national park contains the Malaspina Glacier and most of the Bering



# Vegetation





Glacier; Mount St. Elias and most of the St. Elias Mountains in the United States; one third of the Chitina Valley, most of the Wrangell Mountains glacial systems and all of the major Wrangell peaks. The NPS shares Mount Blackburn, highest mountain in the Wrangells (16,523 feet) with the Forest Service. The boundary with the national forest passes through the creast of this part of the Wrangells, placing the northeast half of Mount Blackburn in the national park and southwest half in the national forest.

### The Coast

South of the coastal mountains, precipitation falls in substantial amounts throughout the year, averaging 100 inches or more per year near sea level. The climate produces lush vegetation. Dense, moss-carpeted rain forests of western and mountains hemlock, and Sitka spruce dominate the mature plant communities on well-drained coastal lowlands.

The sea affects animal distribution through its influence on climate, vegetation, and food supply. Inshore waters support a wide variety of fishes, invertebrates, and algae, which in turn provide the food base for marine mammals--notably harbor seals (which pup in Icy Bay), sea lions, sea otters, two kinds of porpoise, and killer whales. At the margin between land and sea, the marine food base becomes available to terrestrial animals. Many species, notably coyotes, wolves, foxes, and members of the weasel family, take extensive advantage of it.

The numerous coastal lakes and streams provide spawning grounds for at least four of the five Pacific salmon species, as well as habitat for steelhead and cutthroat trout, and Dolly Varden char. Substantial

populations of black and brown bear prey heavily on these fishes, as do mink, otters, and eagles, while foxes, coyotes, ravens, and a host of other scavengers profit from the leavings. Moose, beaver and waterfowl (including trumpeter swans and Canada geese) are abundant in and near aquatic areas.

Coastal mountain meadows support large mountain goat populations and provide foraging grounds for bears, including the rare glacier bear.

The only lowland link between coast and interior is the Copper River which retains much of its coastal character as far north as Wood Canyon. Half-way between the coast and the Chitina River, the Copper River valley broadens transversely into the extensive Bremner valley system, in which an unusual mixture of coastal and interior biotic communities occur.

### The Interior

Coastal lowlands and climate end abruptly at the base of the Chugach and St. Elias Mountains, except where this barrier is interrupted by the Copper River and its lower tributaries.

In the interior, the moderating influence of the sea is minor. Temperatures may vary from summer highs over 90° to 60° below zero. North America's lowest recorded temperature, minus 81° F., occurred in an adjacent portion of the Yukon Territory. Precipitation in the interior is generally light, averaging 8 to 12 inches annually on the lowlands and 23 inches in such places as Kennecott, at the foot of the Wrangells. Higher totals occur in the mountains.

All interior forest types are susceptible to fire during the frequent summer

dry spells. Fire occurrence has greatly accelerated since the advent of prospectors in the late 1890's.

#### Historical Resources

At least four abandoned Native village sites date from periods prior to the 1800's. Interior Athapascan and coastal Tlingit and Ugalakmiut (Eskimo) people represent the Native inhabitants of the region.

McCarthy and the Kennecott mining community outside exit adjacent to the park offer prospects for interesting historical interpretation. (See Appendix III).

#### Wildlife

The Wrangell-St. Elias region is one of the last extensive habitats of animals traditionally associated with the American wilds.

The brown (grizzly) bear, is seen occasionally in the interior, and in substantial numbers, (along with the black bear) preying heavily on the salmon, trout and Dolly Varden char in coastal lakes and streams. Mink, otter, foxes, coyotes, bald eagles, ravens and other species benefit from the leavings.

The coastal mountain provide important foraging grounds for bear, including the rare glacier bear, a bluish color phase of the black bear. The population appears to center around Yakutat but the glacier bear's range extends as far west as the Copper River.

The abundance of wolves and wolverines in both the interior and along the coast testifies as eloquently as any single fact to the wild character of the region. Wolves, as well as foxes, coyotes and most members of the weasel family, patrol the beaches extensively. Moose, caribou and



mountain sheep are the chief prey of wolf packs in the interior.

Moose, the region's prevalent lowland ungulate, are common below the 6,000-foot level, especially in brushy or bog areas. Some moose and mountain goats along the coast seek out strips of beach vegetation freed from snow by high tides.

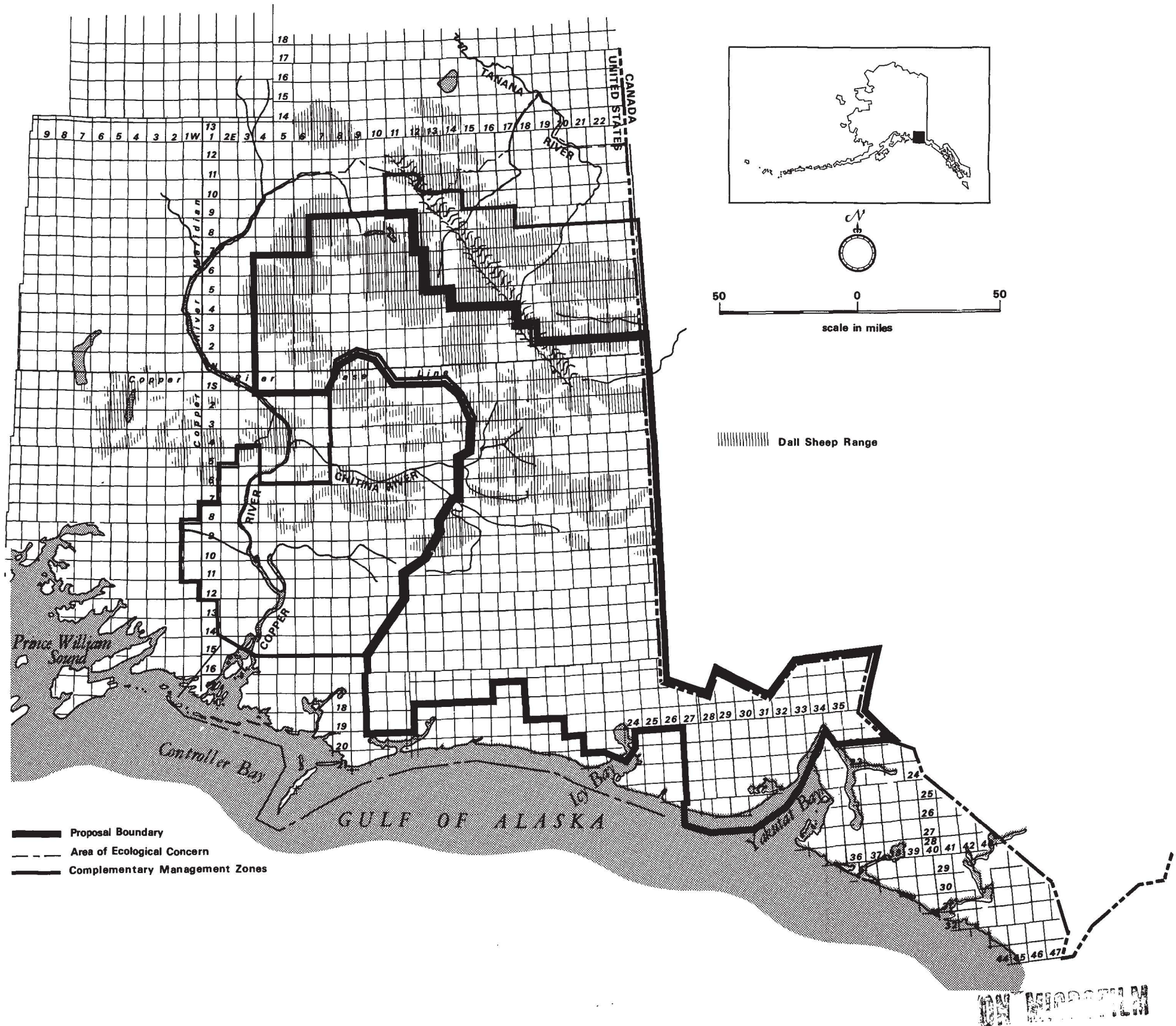
The Chisana herd of barren ground caribou and portions of the Mentasta and Nelchina herds range into the region. The Chisana herd of about 3,000 moves into the White River area where some calving occurs. The Mentasta herd of about 5,000 ranges to the Copper River lowlands and western slopes of the Wrangells. Some calving takes place on the west slopes of Mount Sanford.

Large portions of the Nelchina Herd of close to 20,000 range south across the Copper River lowlands into the western Wrangells. Thousands of caribou migrate along the Nabesna road. Others pass around Mount Drum and range south of Copper Center within 10 miles of that village. The caribou depend on lichens and other ground cover of mature forests, bogs, and tundra-ecosystems easily altered through overuse by the caribou or man.

Dall sheep reach their peak abundance at the fringes of the Wrangells and westernmost St. Elias Mountains. The world's largest Dall sheep specimen was taken here. The alpine and subalpine portions of the rugged uplands north of the Bremner River are the preferred sheep habitat. Heavy hunting pressures apparently will induce the species to cross lowlands to other heights.

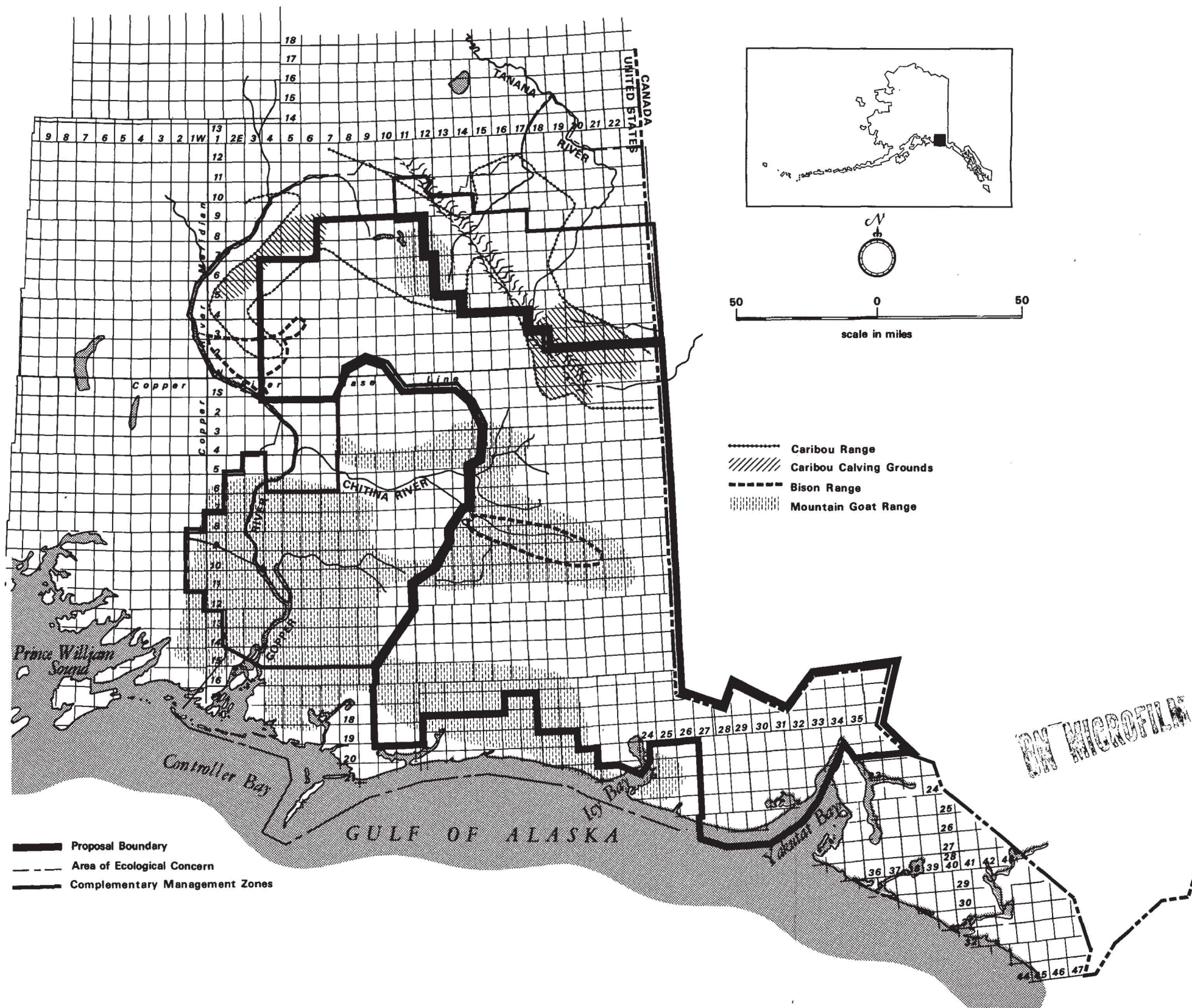
Small herds of bison live in the Copper River Valley where bison were released in 1950 and in the Chitina Valley where releases were made in 1962. The

# Dall Sheep Range





# Caribou, Bison, and Goat Range





Copper herd numbered more than 100 in 1970. Mountain goats are numerous near the coast, and a small population lives in the Chitina Valley.

Significant populations of waterfowl nest along the northeast edge of region. The steady growth of the trumpeter swan population in the Wrangells has been helpful in removing this species from the endangered species list. A 1968 census along the coast and lower Copper River counted 1,170 trumpeter swans, nearly half of the known Alaska population.

The Yakutat fox sparrow and Dixon's rock ptarmigan, both possibly rare species requiring more study, live along the coast. The status of the interior subspecies of the endangered peregrine falcon also is unknown. Three species of ptarmigan and four species of grouse inhabit the region.

The inshore waters and tidal zone with their algae, invertebrates, dead salmon (after spawning,) and other fishes nourish a broad assortment of marine and land animals.

Harbor seals (which pup in Icy Bay) sea lions, sea otters, harbor and Dall porpoises and killer whales are prevalent. Seals range up the Copper River as far as Wood Canyon, 62 miles northeast of Valdez.

The region's fishery includes spawning waters for at least four of the five Pacific salmon species, and habitat for the cutthroat and steelhead trout and Dolly Varden char. The Copper River contains king and other salmon. In the larger lakes are king, silver and red salmon including landlocked reds, rainbow and lake trout, Dolly Varden char, pike, grayling, long-nose sucker, round and humpback whitefish and freshwater sculpins. Some of these species radiate into contiguous rivers and streams.

#### Subsistence Resources

Moose and salmon are the principal subsistence resource foods harvested. The Ahtna Native Regional Corporation reports the following annual subsistence harvest for food purposes for the last several years prior to 1973: 215 moose (150,500 pounds), 581 caribou (87,150 pounds), 7,100 hare (21,300 pounds),

61 black bear (9,150 pounds; 2,170 muskrat (4,340 pounds), 35 Dall sheep (3,500 pounds), 210 porcupines (2,100 pounds) and 216 ground squirrels (216 pounds). The moose and caribou totals include harvests of non-Natives and of Ahtna Natives living in Anchorage.

The total annual mammal food harvest was supplemented by 3,315 pounds of wildfowl and nearly matched by 264,820 pounds of fish. The wildfowl included 285 geese (1,140 pounds), 800 ptarmigan, 455 ducks and 920 spruce hens and grouse. The fish take included 21,700 red salmon (108,500 pounds), 4,730 king salmon (85,140 pounds) and 5,150 silver salmon (36,050 pounds). The figures include catches by non-Natives and Anchorage Ahtna Natives.

The average annual hunting harvests solely for fur purposes consisted of 304 lynx, 200 red fox, 145 mink, 87 weasels, 86 martens, 57 wolves, 56 wolverines, 48 coyotes, 23 land otters, and 4 brown-grizzly bears.

Ahtna's annual subsistence food harvest also included 8,260 pounds of blueberries, cranberries, blackberries, salmonberries and other berries and 1,050 pounds of wild vegetables, roots and grasses.

The Tlingit people of Yakutat participate in both the subsistence economy and the market economy. They hunt seal, deer, mountain goat, ducks and geese, and collect clams, chitons, kelps, seaweed, gull eggs, berries and plants. The Tlingits are especially adept fishermen.

#### Commercial Fishing and Fur Resources

The Copper and Bering River salmon catch of about 900,000 a year accounts for 2 to 3 percent of the total State salmon catch. The 894,000 salmon taken in 1965 had a value to fishermen of \$1.5 million. In 1971 the



total salmon catch for Prince William Sound, the Copper and Bering Rivers plus 2.7 million other fish, and 1.3 million shellfish from the same area was 42.8 million at a value to fishermen of \$8.2 million. This income is vital to Cordova, Valdez and Yakutat whose commercial salmon fisheries and seafood processing plants provide substantial employment.

Commercial trapping is of limited significance. In 1971 beaver trapping by 27 region and non-region residents yielded 144 beaver pelts. Sale data are unavailable.

#### Recreation Resources

Tourism, recreation and attendant services are important to the region's market economy. The transportation-communication-utilities sector provided jobs for 33 people in the Cordova-McCarthy labor areas in 1971 and for 64 people in the Valdez-Chitina-Whittier area.

Sports hunting and fishing is a major business stimulant, requiring big game guides, air charter services, lodging and supplies. Of Alaska's 237 registered guides, 205 are licensed to hunt in the Wrangell region.

Twenty guides list addresses in or adjacent to the region and at least 10 live in the region. Along with 50 to 100 backcountry residents, these guides derive most of their income from guiding and the recreation field. Licensed guides are required for all nonresident big game hunters.

#### Sport Hunting Resources

Most of Alaska's non-Native hunters and fishermen consider their yearly take of moose, caribou, waterfowl, salmon and other fish and game resources

vital to their lifestyle, health and families. Except for some Dall sheep and grizzly bear trophy seekers, hunting is generally for meat, regardless of the hunter's income level.

Snowmobiles and all-terrain vehicles have encouraged mechanized forays into the bush with accompanying detriment to the ecosystem, the wildlife and traditions of sportsmanship. The Nabesna Road and the Chitina-Strelina road are the principal access routes to the western and southern Wrangells. The Copper and Chitina valleys are major air routes.

Some fly-in moose and bear hunting takes place in the Malaspina area. Cabins maintained by the Forest Service near Yakutat are generally booked to capacity in the late summer and early fall.

Dall sheep, moose, caribou, grizzly bear, and, to a limited extent, mountain goat and bison are the chief big game quarry of hunter sportsmen in this region. The most intense hunting of the Dall sheep, the hunters' No. 1 objective, is in the upper Chitina Valley and northward through the McCarthy-Chitistone-Skolai and upper White River and Chisana areas to the upper Copper River. The prime sheep country is shared about equally by the park and national forest areas.

Nearly one-third (356) of the total State kill of 1,079 Dall sheep in 1971 occurred in the Wrangell region. Of the total region sport harvest of 1,212 for 1969-72, 760 or 63 percent were taken in what is now the national park and 420 or 35 percent in what is now the national forest. The other 2 percent was taken in the Ahtna Native withdrawal lands. On

the basis of its 63 percent total of all Wrangell sheep taken, the park area thus would have provided some 20 percent of the 1971 State total.

The Wrangells attracted 717 Dall sheep sport hunters in 1971 of whom 186 were nonresidents. Less than half of the 717 were successful. About 400 hunted in the park boundaries, about 100 of them nonresidents requiring guide services. Most of the others also required substantial services.

The regional take of moose by sport hunters in 1971 was 563, well over 6 percent of the total State kill of 8,682. The park area yielded 31 moose(6 percent); the north side of the Chitina Valley in Wrangell Mountains National Forest yielded 19. Corresponding totals for the two previous years were 39 (park) and 22 (forest) in 1970 and 19 and 11 in 1969. Moose sport hunters in the region numbered 1,462, about 90 of them (6 percent) using what is now the park. Non-resident hunters numbered 211.

Sport hunting accounted for 35 caribou taken in the region in 1971-72. All were taken from the Chisana herd, most of them in the national forest and possibly a few in the park boundaries. Few caribou are taken from the Mentasta and Nelchina herds in this region. The State caribou take was 12,481.

Sport hunters killed 37 brown-grizzly bear in 1970, 42 in 1969 and 49 in 1968. The proportion taken in the park boundaries is not known. The mountain goat sport kill in the park area is estimated at 10 per year. Bison, all from the Copper River herd, provided 14 quarry for sport hunters in 1970, all outside the park boundaries.



The region's best sport fishing is near the coast. The Situk River near Yakutat is nationally known for its salmon fishing (all five Alaska species) and trout fishing (rainbows and steelheads). Sport fishing in the eastern Copper River delta is also excellent and is certain to increase in both areas.

In recent years, dipnetting for salmon at Chitina on the Copper River has become a popular recreational activity for people from Fairbanks and Anchorage and for other visitors. Any Alaska resident may obtain a subsistence permit for dipnetting salmon. While dipnetting contributes vitally to the food supply of many low-income permittees, it has become basically recreational fishing to many other people from outside the region. The State estimates that the current personal use fishing takes 5 to 10 percent of the annual red salmon run up the Copper River.

Expectations of a great sport fishery in the interior do not appear to be warranted. The State has conducted a lake-stocking program for several years, and several larger lakes and lake systems such as Tebay, Long, Copper, Tanada and Strelna now support an appreciable fishery. Fish populations in the interior generally, however, do not appear to be large.

#### Timber, Crops and Grazing

Commercial timbering in the interior is of minor proportions. The Copper River area beyond the national park and national forest contains forest stands of commercial significance but the park and national forest stands together probably would not be adequate to sustain even a medium-sized sawmill.

Of 10 interior sawmills in the general vicinity of the national forest and park,

mostly along the highway, only 2 were producing lumber for sale as of 1968, and only 1 was reported active in 1973.

The Cordova area, however, has produced about 250,000 board feet annually for the last 10 years. Logging and sawmill operations provide six to eight jobs. The Forest Service reports 400 million board feet of commercial timber are available in the Bering River-Katalla area, 120 million on Montague Island, and abundant high-density commercial stands near Port Fidalgo, Simpson Bay and along the coast between Cordova and Valdez, principally on Native withdrawal lands. Timber harvest here would be small for the most part, requiring 4 to 6 employees per million board feet.

In the Yakutat region, logging east of Icy Bay has removed about 2.5 million board feet on about 100 acres. A Yakutat logging camp employs about 10 men. A 1967 Forest Service sale of timber for pulp mill processing near Juneau would take some 50 million of the 67.5 million board feet allowable annually in the Yakutat area and probably provide 50 jobs there. Litigation has halted consummation of the sale.

Logging on several hundred acres of Tongass National Forest and on State lands near Yakutat has provided an important source of income and employment for Yakutat and Cordova in the last decade.

Subsistence home gardening is about the only agricultural activity in the region. The climate and marketing factors are not favorable to commercial farming. Establishment of the park <sup>may</sup> / restrict grazing on the park portion of 300,000 acres where 250 horses are feeding under grazing permits. Much of this acreage includes national forest and other lands.

## Metalliferous Minerals

Minerals have shaped much of the region's human history and patterns of resource use. The metalliferous mineral resources of the region, including those in the national park and national forest, are of national significance. Mineral explorations are continually occurring and it is likely that new deposits will be located in addition to the known deposits of copper, silver, gold, lead, antimony, zinc, molybdenum, mercury and nickel.

Commercial production has yielded immense quantities of copper, gold, and silver, and some lead. From 1908 to 1937 the Kennicott mine north of McCarthy produced more than 1.2 million pounds of copper. At 1970 prices, the value of this mine's mineral production exceeded \$500 million. Mines at the foot of Root Glacier and along McCarthy Creek have produced 10 million ounces of silver.

Systematic investigation has been carried on for several years along a belt extending eastward from Chisana to Horsfeld. Disseminated mineralization in the Horsfeld area is scheduled to be further investigated by drilling. Other deposits exist at Baultoff and Carl Creek. These lands are in the national forest.

Although neither of the deposits known as Orange Hill and Bond Creek in the national forest is considered fully explored, sufficient systematic core drilling has been accomplished to indicate that these nearly contiguous deposits amount to about 1 billion tons of ore containing 8 billion pounds of copper together with molybdenum, silver, and gold. Both deposits are amenable to bulk-tonnage mining. At April 1973 prices, the values of this deposit of 400 million tons of 0.4 percent copper is estimated at \$1.6 billion.

Most mineral exploration has been conducted outside the park area. Exploration and small scale production have been almost continuous since the Kennecott Mines closed in 1938. Major companies have been investigating nickel deposits



in the Spirit Mountain area. Figures released in 1972 showed placer production in the Nizina-Chisana-Chistochina District through 1960 totaled at least 345,000 ounces of gold and 34,500 ounces of silver. As recently as 1966 the Wrangell Consolidated Mining Company bought land from the Kennecott Copper Corporation, installed a concentrating plant and build access roads and an airfield. Ore was flown to Chitina and trucked to Vancouver, Canada for delivery to a Japanese firm. The operation closed after two years chiefly because of transportation costs.

The Dan Creek Ventures, Inc., is planning to resume full scale mining operations in the area with \$750,000 Canadian backing. Inexco Mining Company, benefiting from the improved Chitina-McCarthy road, is drilling cores on 116 claims.

Mineral claims in the Chitina-McCarthy area and surrounding mountains totaled 1,792 in May 1972 and have undoubtedly increased since then. The figure includes 148 claim groups, most of them for copper, gold and silver but one or more each for lead, iron, zinc, antimony, molybdenum, bismuth, mercury, platinum, tin and coal. The Bureau of Mines considers the potential good.

About 80% of the very high mineral potential lands lie outside the park. Any extensive mining in the region is certain to have some environmental effects including possible detrimental effects on the regional ecosystems.

#### Coal, Oil and Geothermal Resources

The region contains .06 percent of Alaska's coal reserves. The deposits are centered chiefly in the Carbon Mountain area near the southwest corner of the park along the national forest boundary and in the Katalla area of Chugach National Forest. The deposits amount to more than 75 million tons of recoverable bituminous and anthracite coal of 10,000 B.T.U./lb. heating quality.

Although the region contains parts of two petroleum subprovinces, their oil potential appears low. Only relatively small portions contain petroleum or natural gas that might be recoverable in part. Appraisal is entirely dependent upon drill tests.

Oil exploration has been active in the last few decades despite abandonment in 1933 of a small field near Katalla near the park's western margin after production of 154,000 barrels. Five exploratory wells drilled in the park areas along Icy Bay and on the Malaspina foreland in 1961 and 1962 were unsuccessful.

The potential sites for geothermal energy in the region are Mount Gordon and the west flank of Mount Wrangell. Both are in the proposed national park, however, where development is unlikely.

#### Hydroelectric Resources

Creation of the national park and national forest will cause reconsideration of the drowning of sizable portion of the Copper and Chitina Valleys.

Construction of a 1,400-foot dam in Wood Canyon of the Copper River, 62 miles northeast of Valdez, plus two other dams and water impoundment, have been proposed for hydroelectric power purposes.

The dams and three reservoirs would inundate priceless wildlife habitat, river fisheries and complex ecosystems now proposed to be preserved for the benefit and enjoyment of mankind.

## THE PLAN

### THE CONCEPTUAL APPROACH

Interest in the superlative recreational and wilderness values of the Wrangells region has led to forty years of public discussion of its future management.

This plan will primarily emphasize concepts: The landscape and its protection; the visitor, and how to serve his needs and interests; the functions required to carry out these tasks. The general development and regional transportation maps in this document indicate the existing circulation pattern and points of access, and the existing network of human use locations. Also indicated on these maps, as well as in the general development plan, are a framework of access points and facilities which illustrate the present thinking of the planners as to the trend and character of upcoming development. It must be clearly emphasized that this scheme is illustrative - it is not intended to be read as a precise plan to be carried out exactly to its full completion. This master plan is conceptual, and is not intended to be definitive.

The plan is intended as a planning tool. Particularly in the case of a newly established park like Wrangell-St. Elias, plans for transportation, construction, and similar matters must be delayed until the completion of intensive investigations of the wisdom and feasibility of alternative ways to fully determine and protect resource values and meet the needs of management and the public. This procedure will involve public participation at each stage, and close on-the-ground coordination of planning between the National Park Service and the Forest Service, lest irreplaceable resources be threatened by hasty or ill-conceived projects. The conceptual master plan outlines the



general management philosophy for the areas, identifies management problems and questions to be resolved, and establishes broad guidelines for future planning, management, and development, to assure that the resources are fully protected while optimum public use is provided.

Park operation and management programs should be revised frequently to take into account visitors' social needs and changes of natural conditions within the area. Thus, park planning becomes a continuous refinement of programs as new knowledge of the park's physical and social resources becomes available. Also, as the pattern of visitor activities develops, a careful evaluation of physical resources must be made to measure the tolerance of the soil, vegetation, and wildlife to human use. Evolving visitor needs and activity patterns may require new and varied techniques for interpretive and recreational management.

Master plans are frequently reviewed and are generally updated at least every ten years, or when new data is obtained and as changing circumstances warrant.

The characteristics of the terrain in the Wrangells region have created such a great diversity of situations that this plan proposes to divide planning and management of the park into discrete planning units.

Details will be discussed later. The concept requires coordination in the managing of each unit between NPS lands and other ownerships which comprise an integral part of each unit. Thus the aim will be to fit park planning into planning and management of the region, rather than

to attempt to create an artificial planning unit to correspond to the boundaries of the park.

#### MANAGEMENT OBJECTIVES

NPS management objectives are a major force in directing and shaping the future resource character and human use of the entire region. The following objectives were formulated with this responsibility in mind:

##### Resource Management

1. Insure retention of the Wrangell-St. Elias landscapes and living systems in a natural state.
2. To the extent possible, allow the natural fluctuations and equilibrium of self-regulating ecosystems to continue unimpeded.
3. Develop and implement a viable research program to provide basic information required for effective park management and visitor use programs, and possibly including a cooperative program with Alaskan universities.
4. Place early emphasis on identification of especially fragile areas through appropriate research.
5. Regulate use levels and types in accordance with the landscape's capacity to absorb man-caused impacts, in order to retain the greatest possible opportunity for quality and variety of experience.
6. Protect and interpret historic sites in and adjacent to the park.

### Visitor Use Management

1. Provide opportunities for visitors to become physically, intellectually, and emotionally involved with intact landscapes and aware of historical perspectives.
2. Increase each visitor's understanding of his place in nature and his responsibilities toward the world ecosystem in which he lives.
3. Deemphasize traditional formally structured interpretation in favor of providing a climate of ideas and attitudes conducive to personal discovery of park values.
4. Provide for non-mechanized sport hunting in portions of the park, subject to controls on the numbers of users in each area to provide a high quality experience, and subject to the tolerance of wildlife populations to use pressures.

### Cooperative Management

1. Coordinate wildlife management and habitat maintenance in the region with the Alaska Department of Fish and Game and the Forest Service, Department of Agriculture, particularly with respect to mineral access and use and transportation developments on lands surrounding the park.
2. Cooperate closely with Canadian officials of the Kluane National Park and Game Sanctuary in coordinating policies, on-the-ground management, and provision of interpretive and other visitor services, including cooperative informational facilities.



3. Involve residents of the region, as well as village and regional Native corporations as concessioners and participants in NPS management.
4. Undertake coordinated planning with other agencies and organizations, especially the Forest Service and Ahtna regional and village Native corporations to assure development of essential services and facilities on Federal, State, local, and private lands as necessary to provide adequately for visitor and management needs, while insuring the integrity and viability of all components of park ecosystems.
5. Recognize the singular importance of transportation in sound land use planning, and cooperate with others in the development of an efficient and energy-conserving transportation system to serve the park and the region.
6. Cooperate closely with the Forest Service concerning all aspects of land use planning in areas of complementary concern.

#### COOPERATIVE PLANNING AND MANAGEMENT

##### Areas of Ecological Concern

Areas of Ecological Concern are those lands and waters adjacent to but not proposed for inclusion in the park which contain resources which are part of the total ecosystem, and which, if compromised, would endanger resources in or directly related to the park. The National Park Service will seek to enter into cooperative agreements with the landowners to assure that these lands and waters are managed in such a manner which will insure that the resource values are fully protected.

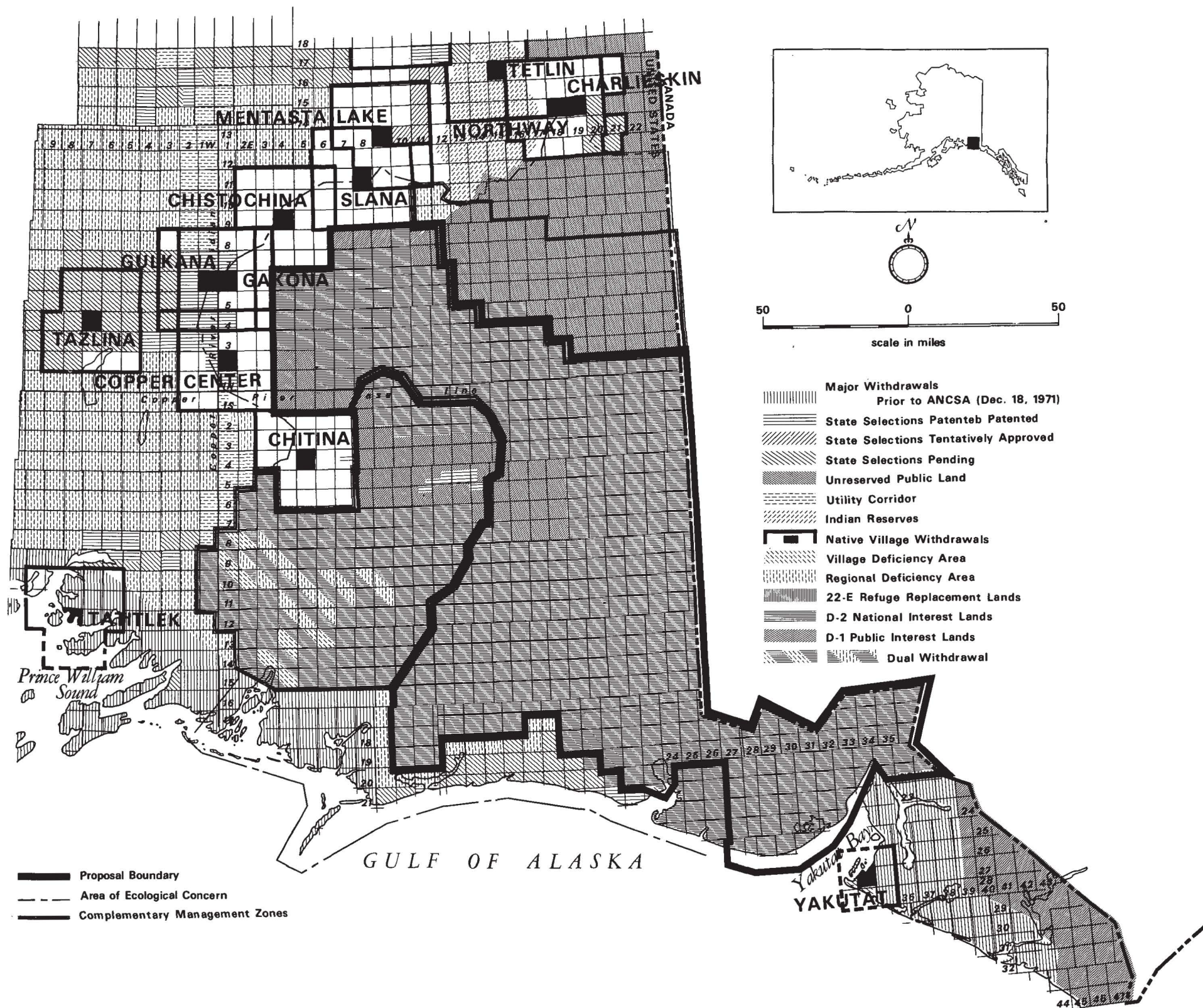
Since every planning unit involving the park also contains lands geographically related which are outside the park, such cooperation is deemed critical to fulfilling the purposes for which this park is to be created. These areas of ecological concern will be further discussed in relation to the discussion of planning units.

The entire Wrangell-St. Elias region is part of an interrelated, interacting "web of life" of which man is also a part. Too often man has not related himself to this system. Instead, he has allowed economic determinants alone to guide development, location, form, and growth. Today's ecological crisis is a direct result of man's contempt for natural life processes--the very processes that should be the most important criteria for land-use planning.

This conceptual master plan considers the Wrangells region as an organic entity, of which the Park Service administers only a part. Today, each agency, Native corporation, and individual in the region has his own vision of what the future of its portion of the region should be. These visions differ widely, and even suggesting the complete accommodation of all of them is unrealistic. This plan proposes that these diverse interests work together toward a comprehensive plan that would recognize the need to preserve as well as develop. The future transportation web would be a critical portion of this plan. Such comprehensive coordinated planning, based upon the capability of the resource to sustain change, could provide the foundation for quantitative as well as qualitative change.



# Land Status



ON MICROFILM



### U.S. Forest Service

In recognition of the outstanding resources and recreational values of the major portion of the Wrangell Mountains National Forest and their relationship to the adjacent Wrangell-St. Elias National Park, and in order to achieve the best possible land use planning, a number of cooperative agreements will be sought jointly by the Forest Service and National Park Service. The purpose of these agreements would be to recognize the different objectives of each jurisdiction while fostering united action on common problems and the development of complementary management programs. Because of various ownerships and jurisdictions, it is clear that coordination in planning must include the State of Alaska, appropriate Native corporations, and the private sector as well.

Matters of joint concern between the Forest Service and National Park Service include minerals and wildlife management, scenic landscape management, forest fire, insect, and disease control, road and airfield construction, outdoor recreation administration, historic preservation, off-road vehicular use, residential and commercial land use controls, and information and interpretive facilities and services.

In recognition of the singular importance of transportation in sound land-use planning in general, and in forests and parks specifically, both agencies will carefully coordinate access and transportation planning, and seek to involve the State of Alaska as well as local interest in such planning.

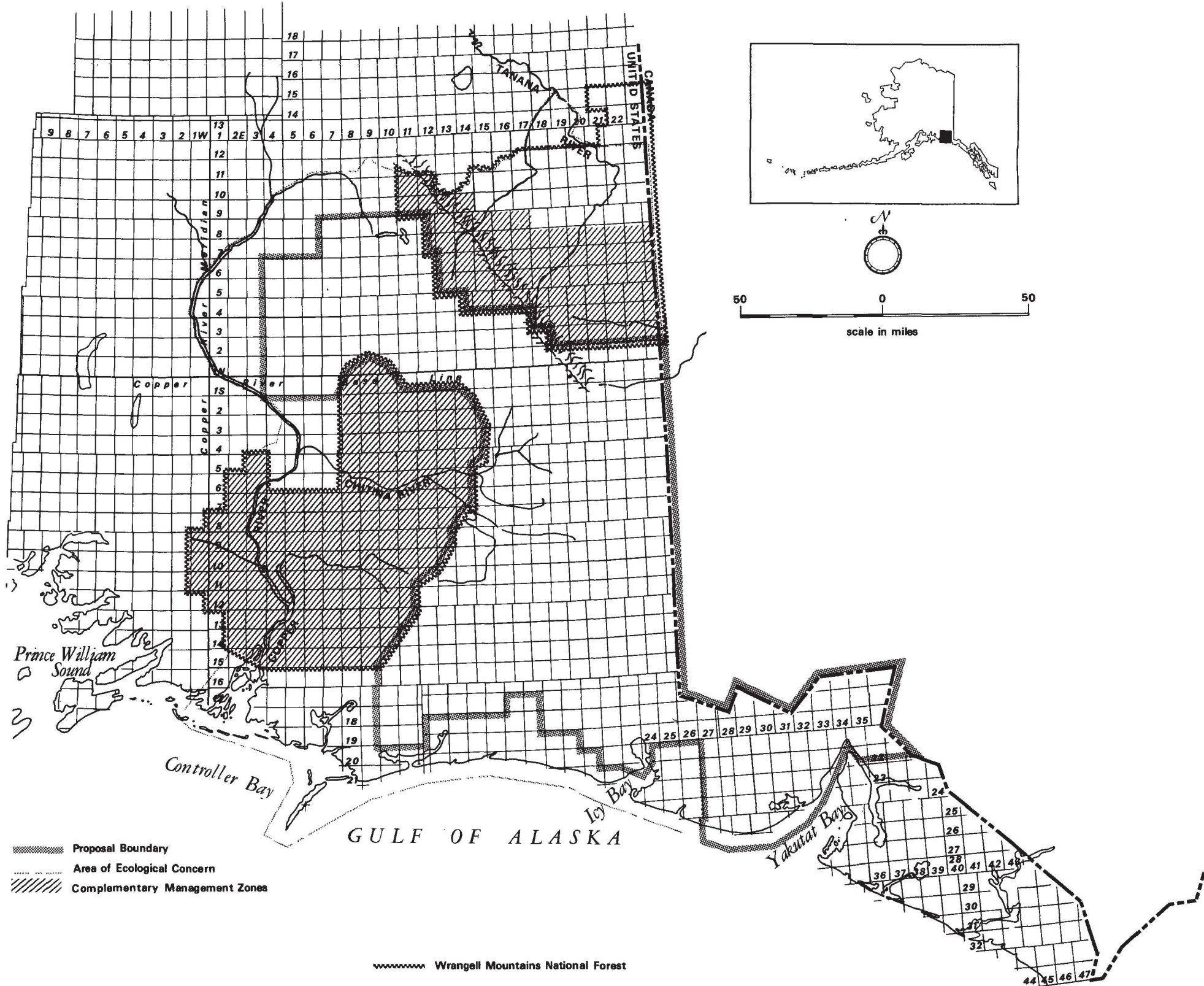
Cooperative agreements will afford the opportunity for the two agencies to share expertise in the formulation of coordinated land use plans and visitor facilities.

#### State of Alaska

Cooperation will be needed with several agencies of the government of the State of Alaska. The Division of Parks could be involved in historical preservation and perhaps in recreation planning and provision of facilities and waysides in the Chitina Valley. The Alaska Department of Fish and Game will be closely involved in wildlife management related to hunting and fishing on lands within and adjacent to the proposed park. State Troopers will cooperate with law enforcement officials of the federal agencies. The Department of Highways, presently constructing or upgrading two major highways in the region, must work closely with all concerned state and federal agencies if significant values in the area are to be retained. Other highways are tentatively proposed by this Department through the park and the region (see Regional Transportation maps). The southern boundary of the park abuts state selection pending lands along the Pacific coast which provide foreground and wildlife habitat whose management will directly affect park ecosystems, and opportunities for visitors to enjoy the coastal area.

Fifty miles of open Pacific Ocean (Gulf of Alaska) coast, as well as portions of two fiords, Icy Bay, and Disenchantment Bay, are included within the proposed park. The NPS administers the land above mean

# The Park and the National Forest





high tide. While the park boundary includes tidal and submerged lands to three miles offshore, the State of Alaska retains jurisdiction over this zone. In view of wildlife values, and potential activities adverse to maintaining these values, a cooperative agreement will be sought to formalize agency responsibility and assure adequate means of protection.

#### Native Lands

Ahtna, Inc., (Native Regional Corporation) and its village corporations will own lands adjacent to the western boundary of the proposed park. These corporations have indicated an interest in working very closely with NPS. Involved could be projects to provide technical assistance to train people in skills related to NPS functions, to place qualified people in NPS staff positions, to cooperate in construction or use of administrative and recreational facilities in places on either Native or park lands, to operate NPS concessions, to provide necessary services for visitors, to provide guiding or horse livery service, to coordinate management of their lands with adjacent federal lands, and to participate in NPS planning.

Doyon, Inc., (Native Regional Corporation) will be welcome to participate in similar activities on lands between the northern boundaries of the park and the Alaska Highway, as well as to be involved in the cooperative program at a proposed joint visitor center on the Alaska Highway near the Canadian border. Chugach Native Regional Corporation may select lands in the Icy Bay area, on which cooperation and joint facilities could be provided.

## Canada

Adjacent to the proposed park on the Canadian side of the border lies the newly-authorized Kluane National Park, and surrounding it, the long-established territorial Kluane Game Sanctuary. Canadian park officials have indicated a desire to coordinate programs wherever possible between the two sides of the border. Of particular interest is the potential for cooperative interpretation at the visitor center proposed on the Alaska Highway near the Canadian border.

## RESOURCE MANAGEMENT

The only adequate basis on which to frame a resource management program is the knowledge gained from a thorough and ongoing program of management-oriented resource surveys and research. This plan, therefore, calls for two such studies. They are closely interrelated, and both should involve landowners outside the park as well as professional expertise elsewhere.

The plan proposes a natural resources management study to determine the impact tolerances of landscapes, physical and biological resources, and ecosystems. Included would be a comprehensive biological and socio-economic research program to better understand the operation of the presently unaltered ecosystems in this northern environment, and how best to provide for visitor use in them.

Related to this study should be a thorough analysis of alternative transportation systems on a regional and cooperative basis in order to examine impact-capacity relationships with both visitors and any commercial requirements, and to achieve visitor access to the Wrangells

region while maintaining strict environmental standards. In recognition of the singular importance of transportation in sound land-use planning, the Park Service and Forest Service will carefully coordinate access and transportation planning, and seek to involve the State of Alaska as well as local interests in such planning.

#### Resource Use

Adherence to the management objectives outlined indicate that most consumptive resources should be precluded. Certain exceptions are (1) uses relating to valid existing rights on mining claims and private lands (purchase of such lands could occur); (2) subsistence uses; (3) sport hunting in designated zones; (4) sport fishing; (5) limited grazing by horses used for park-related recreational purposes. It is intended that the above uses would be strictly regulated in order to provide landscape protection compatible with park values.

#### Transportation Resources

The existing highway system provides extensive vistas of the northern and western Wrangell Mountains from the upper Copper River area. Good road access is available to Chitina. Back country roads exist from Slana into Nabesna on the north side of the Wrangells, and from Chitina into McCarthy (bridges reopened in fall 1973) in the Chitina Valley. The State proposes to further upgrade the latter road, as well as construct a road along the old railroad right-of-way between Cordova and Chitina, but final decisions on these projects have not yet been made.



Within the proposed park, a network of four-wheel drive roads exists in the May Creek-Dan Creek area. However, the bridge across the Nizina River connecting this network to McCarthy is not usable.

Primary access into the core of the region is by air. McCarthy has an excellent airstrip. Numerous regularly used landing sites for both wheel and float planes are found throughout the region, on lakes, gravel bars, ridges, and bush strips. Nearly all access now contemplated within the park would use this existing network.

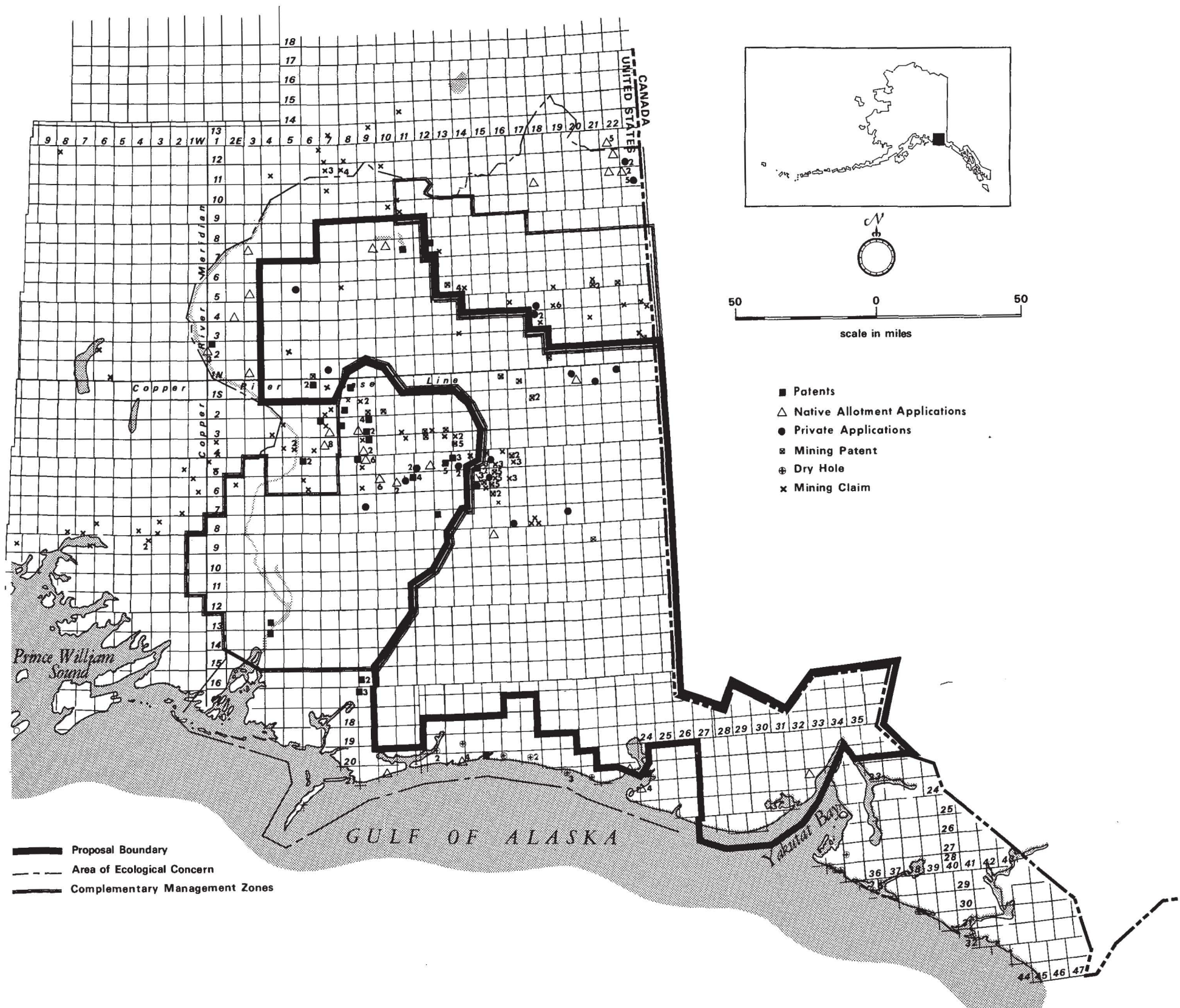
#### Mineral Use

Roughly four-fifths of lands in the region that are believed to be highly mineralized lie outside of proposed park boundaries. A number of active mineral claims are being worked within park boundaries in the upper Chitina Valley. Valid existing rights, including reasonable measures to allow access, will be allowed. Upgrading of surface access routes will generally not be permitted, unless considerable justification can be provided for the need of such action. These claims and patents will be purchased at fair market value on an opportunity basis, especially if serious damage is occurring to resources of prime importance.

All federal lands within the park will be withdrawn from all forms of appropriation under the public land laws, mineral leasing laws, and mining laws.

#### Subsistence Uses

At present, subsistence uses within park boundaries are believed to be minor, primarily for moose, fish, and wood products for local use.





Except as prohibited by law, existing traditional subsistence uses of renewable resources will be permitted until it is demonstrated that these uses are no longer necessary for human survival. If the subsistence use of a resource demonstrates that continued subsistence uses may result in a progressive reduction of animal or plant resources which could lead to long-range alterations of ecosystems, the NPS, following consultation with communities and affected individuals, shall have the authority to restrict subsistence activities in all or part of the park.

#### Grazing

Several grazing leases presently permit horses to use forage within certain sections of the proposed park. Existing grazing activity could be terminated at the expiration of existing leases or after five years, whichever period is the longer. However, horses kept within the park in connection with recreational guiding operations could be allowed to continue such uses, subject to the tolerance of the vegetation and to lack of competition with wildlife.

#### Fish and Wildlife Utilization

The high value placed on the Wrangells by sportsmen is recognized. The present plan calls for regulated hunting within the park, with zoning to control areas of use. The NPS will place controls on periods of use and on access so that undue pressure does not occur on the resource in any given area, and so that a high quality experience may be obtained by the hunter or other user of such lands. At the end of ten years, and at five year intervals thereafter, the Secretary of



the Interior is to report to the public and the Congress as to the status of such hunting, and make whatever recommendations regarding its continuance or zones of occurrence as he determines advisable. The present intent is that high quality hunting experiences would continue to be available in portions of the Wrangells region. Use of mechanized vehicles for hunting would be restricted to initial access and departure, and air access sites would be rotated to distribute harvest and land use pressures.

Sport fishing would continue also in the park. However, regulations would be imposed if considered necessary to allow for survival and adequate reproduction of fish populations. Consideration will be given to designating selected freshwater drainages as ecological reserves, in which the only fishing would be "fishing for fun," i.e., with barb-less hooks and all catches returned to the water. In all cases where fish and wildlife management are involved, the NPS will consult with the Alaska Department of Fish and Game.

#### Historic Values

Considerable historic resources exist within the area, mainly related to the mining efforts of the early twentieth century. Some of these, such as Chititu, are within park boundaries. The NPS plans a vigorous program of identification, research, and interpretation of historic and archeologic sites, both within and adjacent to the park. Upon identification and evaluation, cultural resources that qualify will be nominated to the National Register of Historic Places, and thereby be

afforded procedural protection under law. The NPS will work in close cooperation with the Forest Service, private owners, local governments, Natives, and the State of Alaska in protecting and interpreting sites in the historic McCarthy mining district.

#### Fire Management

Human-caused fires, and wildfires occurring in areas where they might destroy resources or values of importance to man will be vigorously fought. A cooperative agreement is suggested whereby the NPS, the Forest Service, and the Bureau of Land Management determine the most effective means of utilizing their manpower in order to most effectively control such fires.

A plan will be developed in cooperation with adjacent landowners to determine management policies on fires, and to determine when and where fires would be controlled, or allowed to burn. Early attention will be given to research concerning fire and its role in ecosystem management. Fire is a naturally occurring element in the environment of interior Alaska which has had a major role in shaping the present structure of many biotic communities. It is probable that fire should be retained in this role to the extent that it does not conflict with human safety, property protection, local scenic considerations, or scientific values.

#### Human Impacts

At present, human uses of the more accessible portions of the park area are increasing rapidly, most notably near airplane landing sites. Reopening of the middle Chitina Valley to surface access will cause a

sharp additional increase in such pressures. Research is planned to determine acceptable levels of human impact. Appropriate activities must be defined and the intensity of each use controlled to limit the impact to that which will not exceed a predetermined level of resource degradation.

### Research

The primary importance of research as the primary means of gaining the knowledge on which to base planning and management, has been emphasized throughout this plan. In order to facilitate effective management, a number of research projects of varying scope and duration are needed. Some can be conducted by the park staff; others will provide topics for graduate theses, as well as student projects in local schools; and still others will require the services of outside specialists. Both management-oriented and baseline research of a non-manipulative nature will be encouraged. Every possible cooperative effort should be made to insure that the needed research is conducted efficiently and in a manner that will have direct benefit, where that is its purpose, upon resource management. The possibility of developing a research or possibly even field education program in cooperation with Alaskan universities will be investigated.

Research will also be required in support of the interpretive program, particularly in the fields of geology, biology, and history. Research may continue at the station near the summit of Mount Wrangell, on ice-related and volcanic phenomena.



It is intended that several natural scientists will be placed on the resident NPS staff. The park, by being largely protected from man-related alteration, will remain a yardstick against which alterations in other similar country can be measured.

#### Land Classification

A sound system of evaluation and classification for lands and waters in a national park is a prerequisite for master planning. This is necessary to provide for the proper recognition and protection of park resources, and to plan for visitor enjoyment of the area. The system also serves as the basis for recommending lands for special-use classification, and provides a basis for many other master plan judgments as well.

The land classification system used is similar to that prepared by the Bureau of Outdoor Recreation. Under this system, lands and waters may be segregated into any one of six classes, based upon present NPS policy, landscape features, and proposed resource use.

#### Class I: High Density Recreation Areas

None.

#### Class II: General Outdoor Recreation Areas

All major visitor use areas and transportation corridors fall into this classification. Included are jeep roads and development sites in the May Creek area and in the Tanada Lake area.

#### Class III: Natural Environment Areas

These lands are essential to the preservation, interpretation, and

management of irreplaceable resources and are the transition between Classes I and II and the more restrictive IV, V, and VI. Facilities and visitor uses are permitted on a limited basis. Generally motor-boats will be allowed on Class III waters. The general May Creek and Tanada Lake areas, as well as other backcountry development sites are included in this category.

#### Class IV: Outstanding Natural Areas

Included are unique or outstanding natural features, areas of high wildlife or scientific significance, major geological formations, or particular features of the proposed park, including the Wrangell Mountain massif, Mount St. Elias, Malaspina Glacier, Icy Bay, Hubbard Glacier (which calves into the sea), Chitistone and Nizina canyons, Chetaslina Canyon, and the Jacksina Basin.

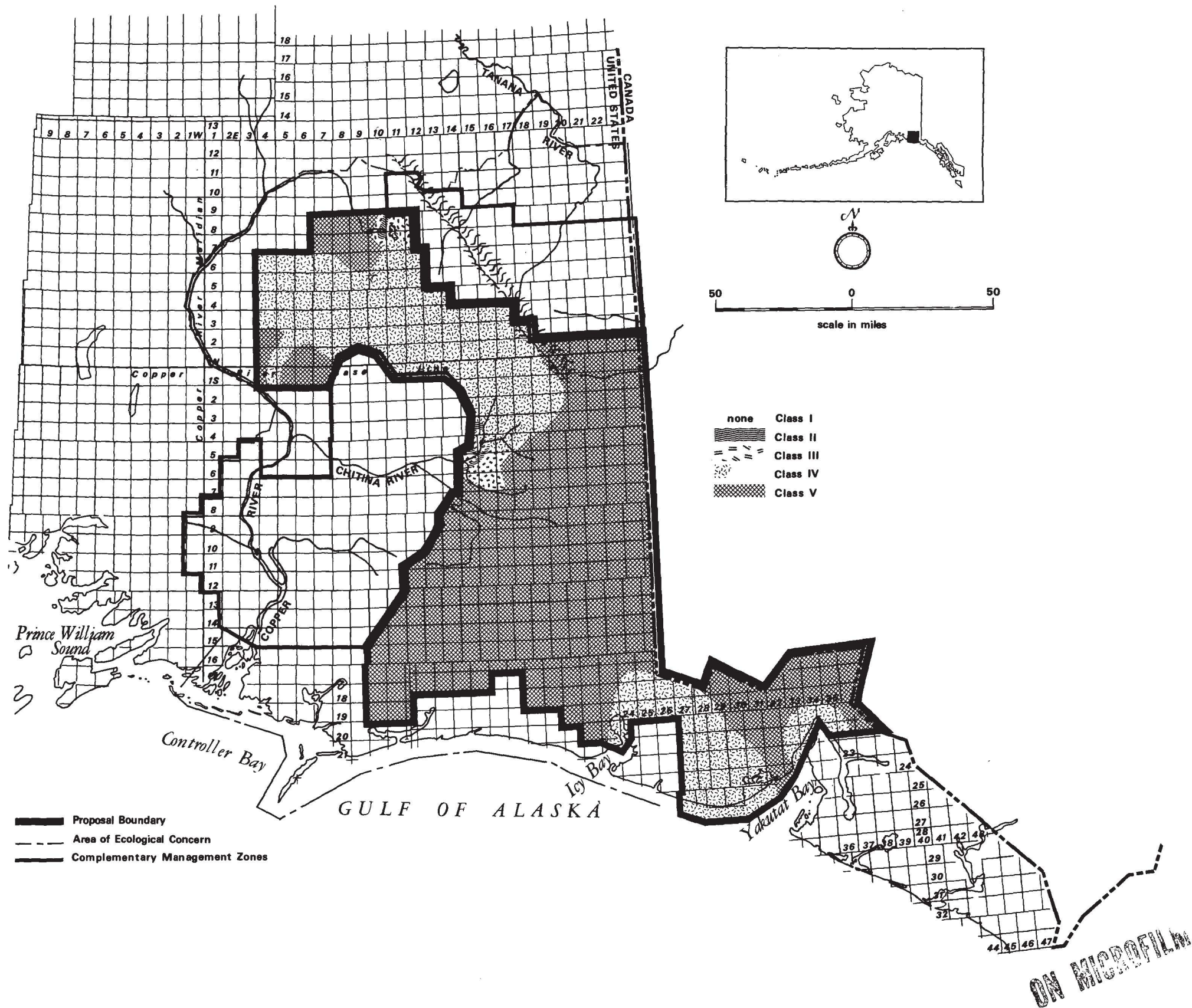
#### Class V: Primitive Areas

These are lands which do not meet the criteria for the previous class, but which should remain undisturbed. This vast roadless and completely natural area, coupled with Class IV areas, will comprise the back country.

#### Class VI: Historical and Cultural Sites

These include historic trails, Indian village sites, ghost towns, and other sites of cultural significance. While no sites are designated at this time, it is expected that future studies will suggest certain sites for this classification.

# Land Classification





## Wilderness

The proposed park contains extensive wild lands suitable for consideration as wilderness designation as part of the National Wilderness Preservation System. The legislation establishing this park would direct that the Secretary of the Interior submit a report to Congress within three years after establishment concerning the qualifications of any area within the park for inclusion in the System.

Subject to final determination by the Congress the landing of aircraft and use of motorboats will be permitted as means of access to designated wilderness units subject to restrictions deemed necessary by the Secretary of the Interior. Use of motorized, over-the-snow vehicles for subsistence purposes may be permitted within wilderness areas in Alaska. When such uses are recommended for continuation following wilderness designation, the levels of use and types of equipment utilized prior to the enactment date of the Alaska Native Claims Settlement Act will be permitted to continue for subsistence purposes. Should such uses be shown as adversely affecting the plant and animal resources in a progressive and depleting manner, additional restrictions may be promulgated by the Secretary after consultation with representatives of subsistence users. Such designation would have no effect on whether or not sport hunting is allowed. Fire control facilities and related mechanized access would be permitted. Trailside shelters could be permitted where needed for protection of the resource, or safety of the visitor, but would not be permitted solely for visitor comfort and convenience.

### Outdoor Recreation Resources

The quality of available outdoor recreation in the Wrangells region as well as its setting offer a variety of potential experiences and activities equal to any in the United States. The combination of flanking lowlands varying from boggy lake-strewn flats rich in wild-life to sharply incised canyons, as well as the geologic processes that people can watch in action, suggest the range of this resource.

The paved highway along the upper Copper River provides a viewing platform southeastward up to the Wrangell summits. The McCarthy and Nabesna back-country roads offer more enclosed but still expansive views, and room to partake of roadside activities. In certain areas, four-wheel drive or off-road vehicle use including snowmobiles can be enjoyed compatibly with local landscape character. The jeep road nearly to Nikolai Pass allows one to reach an overlook into the Nizina and Chitistone Canyons and providing a 360-degree view within the core of the region.

Sport hunting for trophy sheep is presently among the primary recreational uses, usually involving bush planes for access. In more open areas, particularly north and east of the Wrangells, openness of terrain and diverse wildlife populations provide opportunities for a variety of mammal and bird hunting. The primarily recreational "subsistence" salmon dip net fishery in the Copper River is supplemented by limited sport fishing, although relatively few clear-water streams occur in the area.

Rock hounding and gold panning have great potential in the region outside the proposed park, particularly in the mineralized belts on the north and south slopes of the Wrangells. More serious amateur geologists can explore a fascinating range of formations and processes, as previously indicated.

Aerial viewing can be safely enjoyed, especially in the often-clear skies north of the Wrangells. Extensive portions of the region can be experienced by most people only in this manner. Noteworthy is the fact that portions of this region have terrain suitable for ready access without improved facilities for float or wheel planes. Such access points provide foci from which to experience adjacent country. Drainage and topographic configuration is such that many isolated pockets exist, where one can have a high probability of obtaining isolation, itself a vanishing resource.

The historic McCarthy and Nizina mining district provides a unique opportunity in that one may experience many of the features of the wilderness, including isolation from the pressures of an automobile-oriented society, while still having access to the amenities offered by lodges and other public services. This area provides for a visitor who has sufficient time, the opportunity to partake of a lifestyle influenced both by a sense of the history of the mining days and the independence of the local residents.

In this region of vast icefields, only a limited opportunity exists for people to touch and explore as well as look at such features. But



a few areas such as the Kuskulana Glacier are both accessible and and relatively safe for human use.

Beyond the fringes of the high mountains lies the realm of the mountaineer. Those who are willing to submit themselves to the discipline of that calling have before them an unlimited variety of challenges.

Winter uses such as cross-country and possibly limited downhill skiing can be enjoyed in the Chitina Valley and the Nabesna area. Opportunities exist due to scenic but open terrain for ski-touring in the Mentasta-Nutzotin mountains.

There are opportunities for wildlife observing and photography, notably in the Tetlin marshes near the Alaska Highway, in the Jacksina-Mt. Drum area of the northwest Wrangells, and perhaps best of all in the rolling tundra uplands of the Beaver Creek-Chisana-White River country east of the high peaks. Caribou and sheep, as well as grizzly bears, can be readily observed.

Relaxed lake-oriented vacations are especially attractive in the Chitina Valley in places such as the Strelna Lakes, which Ahtna Native Corporation has an interest in possibly developing, and in the Tanada Lake area. Rustic but comfortable accommodations, with scenic views and water-oriented recreation available, can satisfy even the least active visitor of suitable temperament.

In contrast, for active water enthusiasts, the Chitina and Copper Rivers offer float trips safe for experienced boaters. Commercial float trips down the Copper are now providing even the less adventurous with opportunities to experience this form of travel and its window into the wilderness. Other rivers such as the Tana will challenge highly-skilled white-water river runners. The clear Beaver Creek, with its isolation and lush vegetation, offers a possible clear-water float trip. Both kayaks and rubber rafts appear suitable for use on these rivers. The Copper River trip is of special interest due to the exceptional opportunity to observe wildlife at close hand, including goats; to walk on river-edge glaciers; and to observe the gradual transition from the interior spruce-birch woods to the coastal rain forests.

Studies by the Bureau of Outdoor Recreation have concluded that the Bremner, Copper, and Chitina presently qualify as potential additions to the National Wild and Scenic Rivers System.

Although all three rivers are glacial in origin and are located in relatively close proximity to one another, they are in fact distinctive and the values of each river are not duplicated elsewhere in Alaska.

The Bremner is located in one of the more remote, inaccessible sections of Alaska and, consequently the river valley retains its primitive values, completely unaltered by man. The heavy Sitka spruce forest found along the Bremner is unique for an inland area. Wildlife abounds in this rugged environment. The nature of the topography and lack of access combine to maintain the primitive values and, as

a result, the opportunity to observe wildlife in its natural habitat is outstanding. The Bremner is a good example of a glacial river. It offers contrasting stretches of turbulent whitewater in constricted canyonlands and braided meanders where the valley broadens. Bremner Glacier at its source, Twelvemile and Threemile Canyons with their hazardous stretches of whitewater in the middle reach and the expanse of sand dunes at the mouth where the Bremner flows into the Copper are outstanding features worthy of protection.

The Copper River is the largest glacial river in southcentral Alaska. From its origin in the glaciers on the north side of the Wrangell Mountains, the river flows northwest and then south for 275 miles through some of the most spectacular mountain scenery in North America. The river itself is cold, silty, and everchanging, providing an unending challenge to boaters and canoeists. A large run of red salmon and lesser runs of king and silver salmon ply the waters of the Copper supporting a commercial fishery near the river's mouth. Bald eagles, bear, moose, and wolves are found along the river. Hair seals may be observed in the river as they follow migrating salmon upstream. Of all the river's attributes, however, the spectacular and unmatched scenery is its most outstanding feature.

The Chitina River is silt laden and generally braided, characteristic of a glacial stream, and is an avenue through an exceptionally scenic region. The glaciers at its source combined with the geologic features along its course are worthy of interpretation. Near the source of the



Chitina, the second highest mountain in North America, Mt. Logan, can be seen from the valley floor. Towering mountains, steep cliffs, and beautiful waterfalls characterize its path in the headwaters as it flows past the "Jewels of Alaska"--the magnificent Wrangell Mountains. The immediate river banks range from forested slopes or open gravel bars to rock palisades as it flows towards the Copper. The Chitina is accessible by light aircraft at two locations where primitive landing strips are available. A trail extends to the river bank from the north; however, the river is not road accessible. In addition to the expected wildlife in this section of Alaska, a small herd of bison roams the Chitina valley between the Tana River and Barnard Glacier. The wildlife, mountains, river character, lakes, and the primitive setting of simple vastness offer spectacular recreation opportunities.

Back country hiking, along with camping and related esthetic experiences, is a rich field of endeavor on the flanks and passes of the high mountains, and throughout the Mentasta-Nutzotin region to the north. Much of the country north and east of the Wrangells is open and easily traversed, while trails or routes must often be searched out in the denser brush and rugged terrain in the Chitina Valley uplands and southward.

With the exception of the Nizina mining district and isolated camps and prospecting sites, the interior of the region possesses the qualities of wilderness. The Chitina drainage above its confluence with the Nizina River, along with the entire eastern Chugach Range, forms a

continuous block of wilderness which is among the least visited parts of the State. Travel is by boat on the rivers, or by foot in the river corridors and in the foothill ranges below the high mountain icefields. The low density of use is in itself an important feature of this area, permitting the experience of long-lasting seclusion to a degree rarely available elsewhere.

The Beaver, White, Chisana, and Nabesna drainages north and east of the Wrangell crest, through rugged country, provide easier travel in a primitive setting, although they contain a higher density of guiding and prospecting camps, and experience greater airplane use. Extended backpacking trips, including hunting or fishing if desired, are well suited to the terrain of open spruce forests and tundra. Horse travel is very feasible in this area, although recent local overuse has severely compacted bottomland vegetation in favored use areas such as around Horsfield Creek.

The south slope of the Wrangells is sharply incised by deep canyons such as Chetaslina, Kotsina, and Chitistone-Nizina. Most of these places, as well as undisturbed uplands in the Gilahina-Lakina area are relatively accessible from the newly reopened Chitina-McCarthy country road. While rugged, they are perhaps the scenic and experiential climax of the region.

The marshy subalpine Hanagita Valley and lakes, and the more open Tebay Lakes area offer possibilities for extended camping, as well as a lengthy continuous route for backpacking, though brush is tangled in this moister country.

Usable lands in the region are limited. Such lands are arbitrarily defined as lowlands, valleys, canyons, or mountain slopes which appear to be traversable on foot without requiring mountaineering competence or equipment. Lands within the proposed park meeting this criteria occur approximately as follows:

Upper Chitina Valley	500,000 Acres
White River-Solo Flats	350,000 Acres
Jacksina uplands-Copper and Tanada Lakes	450,000 Acres
West slope of Wrangells	300,000 Acres
Icy Bay-Malaspina coast	150,000 Acres
Total in park	<u>1,750,000 Acres</u>

Thus the total of lands within the proposed park generally suitable for backcountry recreational use totals 1,750,000, which is only 1/5 the acreage of the park. Within the Secretary's withdrawal area as a whole (proposed national forest as well as the proposed park), these lands total about 4,360,000 acres. Since only 40 percent, or well under half of such usable lands are in the NPS unit, close coordination with the Forest Service to maintain the outstanding quality of backcountry recreation will be essential. Each one of the above listed areas can be considered a distinct unit for use and planning purposes. Each such unit lies partially within and partially outside the park. Thus the future of recreational quality within all portions of the region will depend on cooperation between land owners. (See Primary Use Areas Map)



## PLANNING UNITS

The proposed park is vast in size, yet the areas suitable for general use are widely separated from one another. It is for this reason that the cooperation planned between NPS and the Forest Service will be so valuable in order to best provide access and facilities for the visitor, while adequately protecting the resource. It is also for this reason that the park has been divided into planning units, each of which extends beyond park boundaries to encompass each related geographical unit in its entirety. The overall policy direction and support services for the park will be provided by the state office of the NPS in Anchorage. Park headquarters will be located along the Glenn Highway west of the Wrangells, probably in the area of Copper Center. Other NPS administrative sites will be oriented primarily toward the planning unit within which they are located. Visitor use and park administration facilities will be more thoroughly discussed in the next section.

### Upper Tanana Valley (Tetlin-Northway)

This tract includes no proposed NPS lands. Most of it is proposed for Forest Service jurisdiction. It includes Tetlin Native lands. Bureau of Sport Fisheries and Wildlife involvement is anticipated, due to high waterfowl value. The area extends from the northern foot of the Nutzotin Mountains (Alaska Range) to the Alaska Highway. It encompasses a generally flat, well-wooded plain, with scattered hills, and extensive areas of pothole lakes and bogs. It is the northern foreground for the mountain scene viewed by the visitor entering Alaska along the Alaska Highway.



Lake-strewn forest and bog provide  
a lowland setting for the Wrangell  
Mountains near Copper Lake.



The Copper River and its basin as seen from the  
vicinity of Gulkana, on the Glenn Highway.

The area is entered primarily by small aircraft, mostly floatplanes.

Opportunities exist for lake-oriented camping and observing the abundant and varied wildlife. The clusters of lakes may have potential for short canoe trips as well.

A joint informational facility is proposed along the Alaska Highway, from which information on recreational opportunities on public lands in the area will be provided, as well as interpretation of the programs of various resource-managing agencies in Alaska, and if possible, adjacent Canada. Air access will be provided by charter service, probably primarily out of Northway.

#### Chisana (Chisana-White River)

The friendly and diverse Chisana country is proposed to be primarily under Forest Service management, with NPS lands in the southeasternmost White River portion. Included are the Nutzotin Mountains, the range resembling the Sierra Nevada, which borders the Tanana Valley and provides a craggy foreground to the scene looking toward the great snow domes of the Wrangells. It includes the Totschunda Trough which divides the Nutzotins from the Wrangells, and the intermountain portions of the Chisana, Beaver Creek, and White River drainages. Much of the country consists of mountains with open landscapes ideally suited for extended foot travel. Horseback use is favored in this area as well. The uplands between Beaver Creek and White River are moist tundra, and contain caribou.



The NPS and the Forest Service recognize this as an area which contains high mineral potential as well as important recreational and critical wildlife habitat values that are integrally related to both jurisdictions. Here too, special coordination efforts will be mutually undertaken to assure proper use and protection of these resources. Recognizing the importance of the Northern Wrangells and adjacent lands as significant wildlife habitat, the NPS will attempt to coordinate its wildlife programs, particularly in those portions available for hunting, with wildlife management policies on Forest Service lands.

At present, access to this area is primarily by plane, although some off-road vehicle use occurs. The latter use would probably be excluded on NPS lands. Two Park Service development sites are tentatively proposed, at Ptarmigan Lake and along the White River. The NPS portion of the area would be the remotest area of lowland country in the park suitable for backcountry enjoyment.

#### Western Wrangells (Nabesna-Jacksina)

The northwest and western slopes of the Wrangells would be primarily within the proposed park, the lands nearest the Copper River would be under the ownership of villages within the Ahtna Native corporation, and some proposed Forest Service lands are in its northwestern end in the Nabesna area. One of the two road access corridors into the Wrangells region passes through this unit, between Slana and Nabesna. A remarkable high basin, dissected by rushing streams and containing mesa-like highlands, provides the sources of the Copper and Jacksina

Rivers, holds significant Dall sheep populations, and contains two highly scenic lakes, Copper and Tanada.

The Forest Service and NPS consider the Slana to Nabesna corridor as being similar to the Chitina Valley in that it too is a key access and experience area for both the forest and the park. Concern for maintaining the quality of this area and opportunities for appropriate visitor uses of it are of joint interest.

It is within this planning unit that primary cooperation between the NPS and the Ahtna village and regional corporations will be most feasible. Such efforts could, for example, involve this group in providing visitor services and facilities relating to park-oriented enjoyment.

The flanks of the Wrangells in this unit are well-suited for upland foot travel, although parts of it are difficult to reach. They form the foreground for the impressive view from the Glenn Highway across the Copper River up to the Wrangell crest. A variety of visitor facilities is envisioned within the unit, perhaps primarily relating to the road corridor itself and the Nabesna area. Lake-oriented lodging of a comfortable nature is tentatively proposed for the Tanada Lake area within the park. Such a facility would also be a major trailhead and provide interpretive facilities. Backcountry use could be augmented by provision of a trailside shelter cabin in upper Jacksina Creek. A ranger station and information center at Slana would oversee protection of NPS lands in the unit.

Chitina Valley (includes Tebay-Hanagita)

This wide valley penetrates deeply into the knot of great mountains comprising the core of the region. Lands within it are about equally divided, from foot to head, between the Ahtna Natives, the Forest Service, with State and private lands in the McCarthy area. A secondary road, recently reopened by the State, extends from Chitina to McCarthy. Beyond McCarthy, a network of jeep roads on both sides of the Nizina River are separated, due to the bridge across the Nizina being unusable.

The valley is divided by the wide and braided Chitina River, suitable for float trips, but not crossed by any road. It contains scattered clumps of rugged high hills, and holds innumerable lakes and ponds, many well-suited to recreational enjoyment. The intensive mining activity of past decades has left its mark in many places, both changing the landscape and vegetation cover, and leaving fascinating remnants of an historic era some of whose participants still remain in the valley. At its head are dramatic canyons, most notably the Chitistone gorge, which leads toward Skolai Pass and the remote White River.

The Chitina Valley is an area of particular concern to both agencies. It is jointly recognized as the key experience area insofar as it relates to recreational use of the forest and the park. Here the intermixing of high potential mineral resources with exceptional scenic and recreational values calls for close cooperation with the State, the Ahtna Regional Native Corporation and with private landowners to insure that the quality



diversity of wildland-related experience continue to be available.

This will involve:

- Recognition by the State of Alaska that this area is "of more than local significance" and warrants the establishment of suitable planning and zoning controls on private lands to maintain scenic integrity, prevent unplanned commercial development along the Chitina-McCarthy Road, and retain the historic setting and atmosphere of McCarthy and the surrounding mining district.
- Close cooperation with the mining industry in developing effective means of carrying out mineral exploration and extraction, particularly in regard to routes and means of access in key recreation and scenic locations, and in areas identified as critical wildlife habitat.

A remarkable array of recreational opportunities are available in this valley, from fishing in the subalpine Tebay Lakes to walking on the Kuskulana Glacier. Tentative consideration is being given to providing a means of convenient surface access from the lower valley up to the Kuskulana Glacier area. In addition to being one of the scenic climaxes of the entire region, the area is suitable for cabin use (many old miners' cabins remain) and as a trailhead. This area is within the proposed national forest. Focus of the upper valley will be the McCarthy area, which offers an array of historical and scenic values

on lands already long-since altered by man, and thus suitable for intensive human use. Part of this old mining region lies within the park.

Although no decision has yet been made as to the desirability of restoring the Nizina Bridge, the NPS intends to provide a practical means of access to the May Creek (Nizina) area across the river, and if possible, surface transportation to points of interest in the May Creek area.

The Chitistone-Nizina Canyons represent another scenic climax for the entire region. Therefore the NPS will seek to determine a means by which every visitor will have the opportunity to view and experience these canyons.

To preserve the feeling of wildness still present in the depths themselves, it is proposed to exclude motor vehicles from the canyon bottoms. Two approaches will be considered in order to give visitors the opportunity to behold this area. First, surface access from May Creek to Dan Creek could allow a canyon-bottom vista of the Mile High Cliffs up canyon. Second, surface access along an old mining road to the Nikolai Pass area could allow visitors to overlook the canyon area from atop the great cliffs. The exact locations and forms of access to the canyon area will be determined by detailed on-the-ground study.

The NPS tentatively proposes to provide six visitor-use sites on its lands in the upper Chitina Valley, perhaps including shelter cabins.

Ranger stations are contemplated outside park boundaries in Chitina, at the mouth of the valley, and at McCarthy, the focal point for activities in the middle and upper valley.

Lower Copper River (not titled on Primary Use Areas map)

Included in this unit are a network of flat-bottomed, mountain-rimmed narrow valleys containing the lower portion of the Copper River, and its major intermontane tributaries, most notably the Bremner and Tasnuna Rivers. The Copper River is ideal for float trips, and commercial river raft trips have been offered in recent years. The Tasnuna is the access route to Valdez and Prince William Sound. The Bremner is a remote defile, portions of which contain forests intermediate between those of the coast and the interior, as well as much wildlife. This unit would be mostly under Forest Service management, with Chugach and Ahtna Native corporations owning certain lands.

Road access presently is only to the fringes, but the State of Alaska is presently attempting to construct a road up the entire Copper and Tasnuna canyons (presently halted by litigation). The future form of access is uncertain, so visitor use plans cannot be foreseen. Since the NPS will manage no lands in the unit, it will maintain no facilities. Float trips and wildlife observation will be major uses, and the Bureau of Sport Fisheries and Wildlife is expected to be involved in wildlife matters, particularly relating to the trumpeter swans which nest in the unit.



Gulf of Alaska Coast (includes Copper River Delta)

This lengthy stretch of moist coastal forelands extends from Cordova east to Yakutat Bay. The area comprises an expanse of marshes, lakes lying adjacent to vast glaciers, beaches, and two scenic fiords. Portions of it are or are proposed to be owned by the NPS, Forest Service, State of Alaska, and Chugach Native corporation. The area possesses outstanding wildlife values for large land mammals, marine mammals, and water birds.

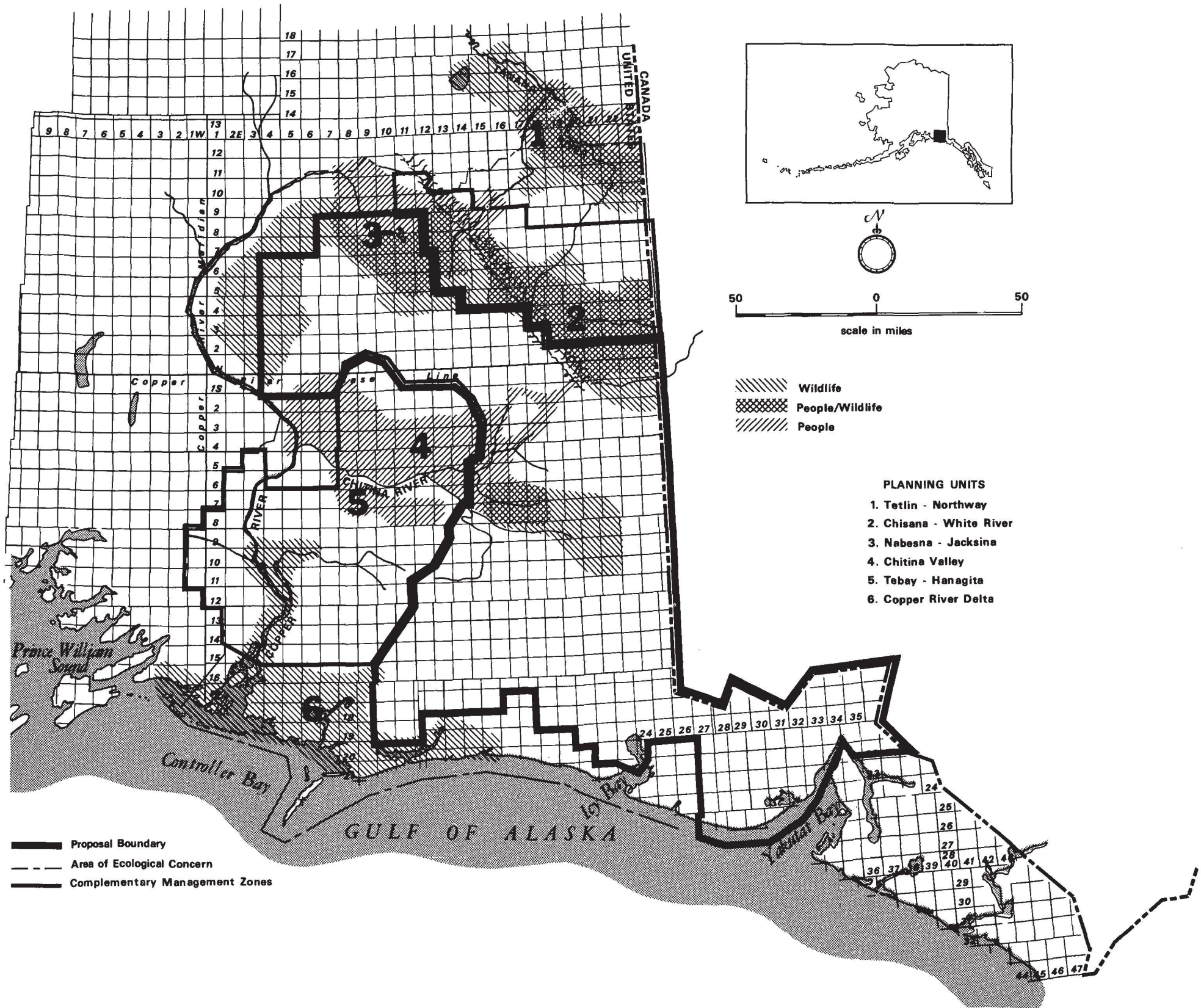
Present access is primarily by air, although the State maintains a road across the Yakataga forelands which is not connected to the statewide road system, and has recently repaired the Million Dollar Bridge across the lower Copper Delta. The Forest Service maintains one of America's noteworthy wildlife reserves, the Copper Delta Game Management Area, in cooperation with State and other Federal agencies. This plan suggests that the State consider providing ferry access to Icy Bay, as well as Yakutat and Cordova, on a proposed route across the stormy Gulf of Alaska.

The NPS tentatively suggests a visitor-use site where the character of the moody coast may be experienced. Such a site could be in the Chaix Hills above Icy Bay, in cooperation with the Chugach Native corporation. Ranger stations are proposed at Yakutat and Yakataga. The former is in an already popular recreation area managed by the Forest Service. The latter is on State lands, and could possibly also provide visitor facilities.

Planning Unit	Areas of Ecological Concern	Canyons and Bays	Glaciers	Mountains	Key Lowlands	Watershed Completions	Key Wildlife Populations	Unique Features	Development Sites or Access Corridors
1. Upper Tanana	E. Tanana Valley			N. Slope of Mentastas & Nutzotins	Tanana Valley	Major Portion Of Chisana	Chisana Caribou Herd	Unglaciaded Lowlands	Segment of Alaska Highway
2. Chisana Nutzotin	Chisana - Beaver Creek			Mentasta-Nutzotin South Slope	Beaver Creek Plateau, Cooper Pass	Tributaries to White River	Chisana Caribou Herd	Large clear-water drainage; extensive tundra	
3. Western Wrangells	Upper Nabesna River				Nabesna Glacier Foreland	Upper Nabesna River	Dense Sheep Population		Head of Nabesna Road
4. Western Wrangells	Upper Copper River				Mt. Sanford Foreland	Upper Copper R., South Side	Caribou Winter Range		Nabesna Road
5. Western Wrangells	Mt. Drum			West Slope of Mt. Drum				Mud Volcanos	
6. Chitina Valley	McCarthy Area				Portion of Central Chitina Valley	Minor Tributary Of Chitina River		Historic Structures	Part of Chitina-McCarthy Road
7. Chitina Valley	W. Chitina Valley	Wood Canyon	Kuskulana Glacier	Mt. Blackburn	Lower Chitina Valley	Chitina River		Chitina potential Wild River	Strelna Lakes part of Chitina-McCarthy Road
8. Lower Copper River	Lower Copper River	Copper River Canyon	Miles and Childs Glaciers		Braided River flats, Bremner	Lower Copper River	Goats, trumpeter swans along rivers	Major river cutting through coastal mts.	State-proposed Copper River Highway
9. Coast	Copper River Delta		Portions of Bering Glacier	Rugged Mountains	Delta of Copper River	Lower Copper River	Swam nesting; Dusky Canada Geese	High Density of breeding waterfowl	
10. Coast	Yakataga	Icy Bay	Portions of Bering Glacier	Robinson Mountains	Yakataga Beach; Bering Glacier Foreland	Duktoth R.; Others	Glacier Bear	Superb Beach	



# Primary Use Areas



ON MICROFILM



## CONCEPTUAL DEVELOPMENT PLAN

The previous section has discussed proposed or contemplated facilities in relation to the landscape units in which they would lie. This section will discuss how these facilities fit into the purposes and plans of the proposed park.

The discussion of the transportation framework and the facility sites related to it is intended to be conceptual. Specific site and facility designations are intended to illustrate the sorts and amounts of development considered appropriate in the light of existing knowledge. The NPS will avoid significant changes in the status quo, whenever possible, until sufficient environmental, social, and economic data are available to clearly outline the best procedure.

### Transportation Web - Access and Circulation

The objective is to provide the park visitor with a variety of ways to reach various sorts of country within the park, while creating minimum disturbance to the park environment. Primary access to the park will be by aircraft and road to the two major developed areas, Nabesna-Tanada and McCarthy-May Creek. From these developed areas, air corridors will radiate to landing sites in the back country. In the Chitina Valley, additional access will be provided by jeep trails. Though surface transportation is limited to the region's periphery and the Chitina Valley, a large number of imposing vistas can be enjoyed from these routes.

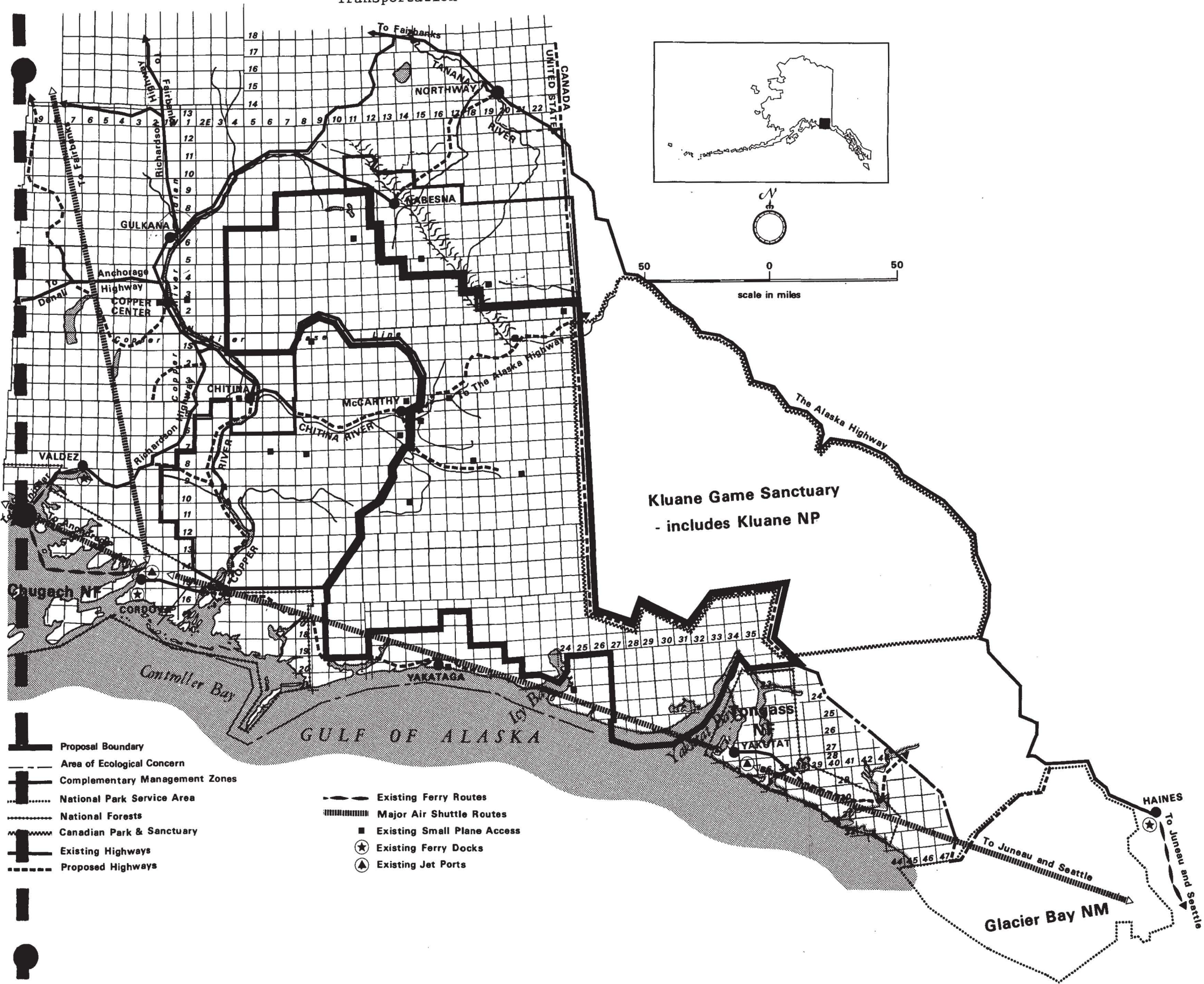
Aircraft: Cordova and Yakutat airports provide jet service; Northway and Gulkana airports could do so with minor improvement. From these airports, visitors would be shuttled by short-take-off-and-landing (STOL) aircraft, to peripheral major development sites and McCarthy. Secondary air shuttle service would be available from these locations into selected portions of the backcountry, where primitive strips will be maintained and certain lakes designated as landing areas. Use of such interior access sites could be rotated if considered desirable to prevent degradation of favored backcountry use areas. No new airstrips are presently envisioned.

Surface Access: The plan calls for heavy-use road travel for viewing around the periphery, which now exists, and low grade road access to single, developed area foci on both north and south sides of the Wrangells, the McCarthy-May Creek and Nabesna-Tanada Lake areas. Jeep trails radiate out from McCarthy to the south and east. Although repair of the bridge across the Nizina River is not recommended, at least until after formulation and adoption of a transportation and land use plan for the entire Chitina Valley, the NPS does contemplate providing jeep transportation within the May Creek area, which would be reached by air shuttle from McCarthy.

One six-mile stretch of new construction will be considered, in order to provide access from the Slana-Nabesna Road across proposed Forest Service and NPS lands to a major development site under consideration for Tanada Lake.



# Transportation







Small aircraft able to make use of primitive landing sites are the backbone of mechanized transportation into the Wrangell-St. Elias bush. The NPS aims to retain them in that capacity.

Snowmobile and off-road vehicle (ORV) use may be allowed near developed areas along designated routes during specified times. It is anticipated that snow-covered roads and certain frozen watercourses would provide the majority of such routes. Except for such designated times and routes, use of such vehicles would be strictly prohibited.

Boat: Except for Cordova, the region's coastal fringe is without ferry service. The NPS supports the present State of Alaska plans to include Yakutat in the Marine Highway system and suggests that it include Yakataga, via Icy Bay, as well. This would provide surface transportation to the southern periphery of the park without the necessity of an extensive land route through previously roadless country containing critical wildlife habitat.

Concession-operated or charter cruise boats could take visitors up the two spectacular glacier-headed fiords which would thus be made readily available, Icy Bay and Disenchantment Bay. This form of travel has little effect on the country through which it passes.

The Chitina and Copper Rivers, adjacent to the park, offer opportunities for splendid float trips by raft or small boat. The Tana River within the park, offers a challenging white-water run above the canyon at its lower end, which apparently has not been run.

Motorboat use presently exists on a number of lakes within the park, access to most of which is by floatplane. Such use could continue under suitable regulation on certain designated lakes. However, back-country lakes, such as Ptarmigan, are considered an integral part of the secluded wildlands surrounding them. To maintain this feeling of

seclusion, use of motors would be excluded from such lakes.

Trails and Routes: Foot trails, where needed, or marked foot travel routes, will radiate from most developed sites within park boundaries. Special consideration will be given to restoring historic trails which are now partially obliterated by slides, to allow access to such rugged places at Chetaslina and Chitistone Canyons. Certain sensitive areas such as the moist tundra in the Solo Flats region would remain trail-less, unless designated trail rights of way should become necessary to protect the landscape from overuse.

A number of guides in the region keep horses for recreation-related uses. Pack trips in appropriate areas would be encouraged, so long as the country is not overused. Use of horses would be carefully controlled in places where such use could be detrimental to prime resources, such as wildlife habitat. Where possible, primary horse and foot travel routes would be kept separate. Trail systems and related access and signing would be closely coordinated between the NPS and Forest Service. These trails and routes would accommodate persons with varying interests and degrees of strength and endurance. The visitor will be encouraged to get away from his car or access point, to walk, ride, climb, or merely stretch his legs, thus becoming better attuned to his natural environment.

#### Developed Sites

As already indicated, the intent of this plan is to provide a sufficient variety of access and facilities to please the visitor, but to locate such facilities insofar as possible on sites already modified by man.



Thus the rather extensive network of developments contemplated by the Forest Service and NPS in the Chitina Valley would be placed on previous human use locations. Only existing air access points would be used within the park. Where additional facilities are needed, they would be made portable if possible, thus seasonally removable. Sites subject to regular disturbance by nature would be used to the extent possible, since such sites can tolerate heavier use. Prime examples of such sites are river mouths and the more active portions of river flood plains, which are regularly scoured or silted over by nature.

#### Visitor Use

##### Concepts

Wrangell-St. Elias National Park will have peripheral access and developments suitable for day use. But because of the relative remoteness of most of the park, many park visitors are expected to stay in the park, or at least the region, for several days or more. More so than in most parks, a significant proportion of visitors is expected to use remote facilities or travel in the backcountry for considerably longer periods. Park use will be mainly seasonal, since the good summer weather lasts only from June through August, and most hunters are forced by deep snows to leave the country by October.

The overall concept will be to provide most development at the periphery, and progressively reduce it toward the park interior, thus allowing visitors a choice of either spending an active day with people in a natural environment or experiencing one alone in the wilderness.

Backcountry: Much of the park interior--the subalpine and alpine vegetated zones--is extremely fragile. Since there cannot be developments such as pavement and utility systems in these zones to absorb the brunt of visitor impact, careful initial planning is essential, because backcountry is--and must remain--the prime resource of the park. In general, lowlands and river edges can sustain more impacts than alpine meadows. Most backcountry facilities must therefore be located at elevations below the subalpine zone.

Unfortunately, in spite of their best intentions, many backcountry users contribute to the destruction of the very resources they came to find. Although specific restrictions and perhaps quotas may become necessary, the best resource protection will derive from the education of park users to respect the wilderness and appreciate its fragility and vulnerability.

A number of backcountry use sites may include shelter cabins. In some locations, administrative patrol cabins would also be located within the same areas; thus amounts and sorts of uses could be adequately monitored.

Horseback Riding: As already discussed, this is considered to be an appropriate use of portions of the proposed park. Extended pack trips could allow individuals to experience the wilderness who might not otherwise do so. As indicated, location and intensity of such use would be regulated.

Mountaineering: This activity recently has experienced a considerable increase in popularity. For no other human use is the park so ideally suited. The least possible amount of regulation will be placed upon this activity. But this means that mountaineering parties will have to be self-reliant, and prepare for handling their own emergencies as fully as possible. Park management should form close relations with mountaineering organizations in coordinated efforts aimed toward improved safety and minimum-impact camping.

Water Use: Only limited lake and stream fishing is found within the park. But much diversity of other water-oriented recreational experiences is available, along lakes and rivers which are abundant throughout the park lowlands.

Beachcombing: The ocean coast has extensive beaches which are extremely attractive. Some of these are accessible by plane, but the number of outflow streams from the Malaspina Glacier which cut through these beaches makes them unsuitable for extended hiking. The park coastal fringe is tough country, in contrast to the adjacent Yakutat area. Since wildlife relies on beaches and fringes of water-courses for travel, drinking, and feeding activities, human uses in critical habitats may have to be regulated. At present, the Malaspina coast is as deep a wilderness as any beach along the Pacific coast. Especially after storms, which are frequent along this coast, beachcombing holds a special fascination.



Wildlife Observation: The coastal fringe, as mentioned, is an outstanding place to observe wildlife, possibly including the rare and little-known glacier bear. Sheep are common on the higher flanks of the Wrangells. Caribou and grizzlies may often be watched north of the Wrangells, especially in the rolling highlands between the White River and Beaver Creek.

As indicated, sport hunting is presently planned over a considerable portion of the park, with changes in the future to reflect the wishes of the public. But this is still very wild country, and it has a good population of brown-grizzly bears. In this land, the animal may become the stalker as well as the stalked.

Winter Activities: Since open lands are scattered throughout the region's more accessible portions, a variety of snow and ice sports may be enjoyed. In this country, winter is frequently the quiet time, when the silt-laden winds of summer have abated. The Chitina Valley and Nabesna areas are ideal for cross-country skiing and snowshoeing. It is at this season when the secrets of wildlife become most readily discernible. As indicated, limited snowmobile use may be allowed in certain areas. One goal of park management, however, will be to provide visitors seeking solitude some areas of accessibility in which the sound of motors would be excluded.

#### Developments

Specific development sites contemplated have been discussed under the discussion on planning units. Most developes sites within park boundaries

will be visitor-oriented. Each will be designed within the context of the ecological guidelines: disperse use in the interior, favor already-disturbed sites, and avoid beaches and freshwater areas along the coast. Visitor use and developments will focus on the Chitina Valley and the Slana-Nabesna corridor. Other developments will be isolated and primitive. A major joint interpretive center will be operated on the Alaska Highway near the Canadian border. Visitor use sites, at this moment in time, are conceived at the following locations. It cannot be overemphasized that exact locations and degrees of development indicated are highly tentative. The reader may consider this outline as the preliminary step in the planning process, in which he too may become a participant.

Northern portion of park:

Alaska Highway: paved highway access; major interpretive facility; lodging available on private lands within the general area. Outdoor focus on distant vistas, lakes, and wildlife.

White River: bush air strip; possible shelter cabin; possible guiding service. Distant scenic vistas, open friendly forest, rich wildlife area.

Ptarmigan Lake: floatplane access; possible shelter cabin; excellent hiking area. Subalpine lake, outstanding wildlife area.

Tanada Lake: contemplated secondard road access; comfortable lodge being considered; lake-oriented recreation, limited fishing; trailhead. Scenic lowland lake, entry to Jacksina highlands-sheep country.

# GENERAL DEVELOPMENT PLAN

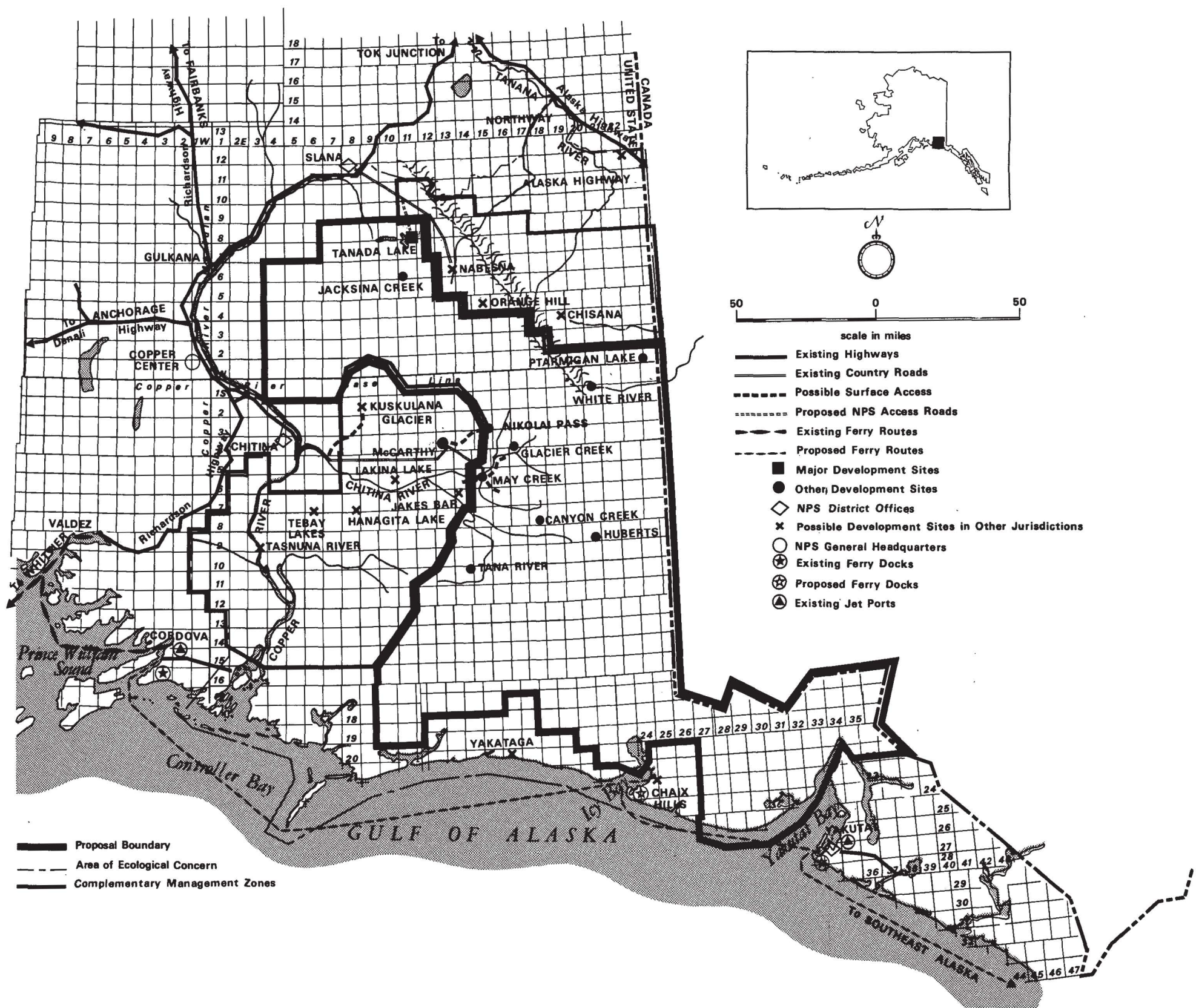
	NPS Administration	NPS Ranger Station	NPS Patrol Station	Perma.NPS Maintenance	NPS Shelter	Food/Groceries	Lodge(s)	Interpret. Campground	Cabins	Small Plane Access	Jeep Access	Jet Access	Road Access	Boat Access	Research Facilities
NORTHERN WRANGELLS															
*Alaska Highway										1				2	
Slana	1	1		1	1					1			1	2	1
Tanada Lake		1				1	1	1	1	1			1	1	
Jacksina Creek								1	1				2		
*Orange Hill													2		
*Chisana													2		
White River			1					1	1				2		
Ptarmigan Lake								1	1				2		
COPPER RIVER VALLEY															
Copper Center	1	1		1	1					1			2	2	
Chitina	1	1		1	1					1			2	2	1
*Tasnuna River													2		
CHITINA VALLEY															
*Tebay Lakes													2		
*Hanagita Lakes													2		
*Lakina Lake													2		
*Kuskulana Glacier													2	2	
McCarthy Area		1				1	1	1	1	1	2	2			
*Jakes Bar													2	2	
May Creek			1				1	1	1	1	2	2			
Glacier Creek								1	1		2	2			
Canyon Creek			1					1	1			2			
Huberts		1						1	1			2			
Tana River			1					1	1			2			
COASTAL															
Yakataga		1											2		1
*Chaix Hills													2		1
Yakutat	1	1		1	1					1			2	2	1

1. Additional or Updated Facilities Recommended by NPS.

2. Existing.

\* Other Jurisdiction--Facilities to Be Determined.





Jacksina Creek: floatplane air access to lake, but this site may be managed for foot access only; possible shelter cabin. Key sheep habitat, on hiking loop between Tanada and Nabesna, subalpine.

Chitina Valley (only sites within park are listed):

May Creek: shuttle air access from McCarthy; jeep transportation to Dan Creek (vista up Nizina Canyon), Chititu (old mining camp), Baultoff Lakes; shelter cabins, groceries, campgrounds. Old mining area at foot of mountains, trailhead, lake-oriented recreation.

Glacier Creek: air access to strip; possible shelter cabin. Stupendous views up Chitistone Canyon and Glacier Creek; takeoff for hiking the "Goat Trail" over Skolai Pass.

Canyon Creek: air strip along upper Chitina River; possible shelter cabin. Sheep area, canyon hiking, river views.

Huberts: air strip; possible shelter cabin. Region of valley glacier, near head of Chitina River, sheep area.

Tana River: air strip; possible shelter cabin. Possible float trip access point, views of Granite Range.

Nikolai Pass: being considered as jeep access point, possible interpretive exhibit. High, windy site for vistas up Chitistone Canyon into high peaks.

In addition to these sites in the park, see also discussion under "Planning Units," and see General Development Map. It is hoped that



a number of development sites will be cooperatively provided outside park lands, especially involving Native organizations.

### Interpretation

One cannot be very enthusiastic or concerned about something unless he understands it. A significant factor in this plan is to create an interpretive program to provide the visitor with a wide range of onsite experiences.

Bringing people to the park is not enough. Off-site programs should be an active part of this interpretive effort, to stimulate local communities to a better awareness of the environment and people's relationships within it. The NPS will seek in particular to involve local school groups in the park-related programs.

All NPS activities related to the Wrangell-St. Elias region will aim to reinforce and direct rising public awareness of man's place in nature. Interpretation will be the activity most directly keyed to this goal.

Within the National Park, visitor attention will be focused on the landscape's pristine condition and the way in which natural systems function without man and perpetuate themselves. At peripheral visitor centers, interpretation will shift the spotlight to man. How has our species functioned in the Wrangell-St. Elias region? Have natural systems deteriorated under his influence? Can our society coexist with nature? How?

The approach to these subjects will be low key, the aim being to provide



an atmosphere of ideas conducive to personal discovery. The visitor is on vacation, not in school.

A major interpretive and information center is suggested on Forest Service lands along the Alaska Highway near the Canadian border. This center would involve not only the NPS and Forest Service, but other Federal and State resource management agencies who wished to participate. The staff of Kluane National Park in adjacent Canada would be strongly encouraged also to participate in this program, which would reach the visitor with an awareness of the country through which he was traveling, its nature, and the various approaches to managing it.

Other major interpretive facilities are to be provided in the areas from which most visitors will disseminate into the backcountry at visitor centers in the areas of Tanada Lake and McCarthy. Though indoor exhibits and audiovisual programs will be provided, all interpretive efforts will beckon the visitor outward into the country. A wide variety of guided walks, hikes, and mechanized tours would be aimed at providing the final stimulus to "go it alone."

Extensive interpretive use of the historic town of McCarthy and the Kennecott mine complex is suggested. At least three interpretive options exist: reconstruction; status quo preservation, perhaps accompanied by reestablishment of tramways to obtain vistas; or maximal retention of historic values in the course of modern mining activity. All options are presently contingent on cooperation by private owners, the Forest Service, and the State.

Information regarding the park's features, what to do, and where to go will also be provided at major airports and all administrative sites.

Backcountry developments will remain free of interpretive devices. Carry-along information in the form of a series of brief publications will be provided.

#### Park Administration

A network of administrative facilities is proposed to provide service to the visitor and protection to the resource. Insofar as possible, these sites are to be located peripheral to the park itself. A general headquarters and three district headquarters developments will be constructed on land acquired by the NPS in communities peripheral to the park. Two ranger stations will also be placed on lands outside park boundaries. Within the park itself, it is tentatively proposed to locate three ranger stations and three patrol cabins.

Headquarters: Copper Center is proposed as the site for park headquarters. The location is served by paved road from Anchorage, about 200 miles distant, and a paved airstrip near Gulkana. The site is near the junction of the Glenn and Richardson Highways. The Ahtna Regional Native Corporation, and various State and Federal agencies have offices nearby, thus providing an opportunity to cooperate in construction or sharing of office space.

District Headquarters: These sites are intended to provide facilities for administration of the northern Wrangells, Chitina Valley, and coastal portions of the proposed park.

Slana: located at junction between Glenn Highway and road to Nabesna, which leads to Tanada Lake gateway development. Provision for administering park north and east of Wrangells, and visitor information.

Chitina: located at junction of upper Copper River Road and road to McCarthy, which leads to Chitina Valley gateway developments. Historic and landscape considerations suggest that developments be located away from the present town toward the airfield or across the Copper River. Provision for administering upper Chitina Valley.

Yakutat: located in community served by jet aircraft, and proposed ferry access. Provision for administering Gulf of Alaska coastal portion of park.

Seasonal Ranger Stations: Five administrative facilities are proposed for seasonal use, though the two located on lands peripheral to the park might eventually require year-round occupancy. These five facilities are:

Tanada Lake: to serve and administer northern gateway visitor use area.

White River: to administer White River-Solo Flats backcountry area.

McCarthy area: to provide administration and visitor information service in vicinity of Chitina Valley gateway visitor use area.

Outside park.



Huberts: to administer backcountry upper Chitina Valley.

Yakataga: to administer Malaspina coast-Icy Bay area, and provide visitor information. Outside park.

Patrol Shelters: Patrol shelters are presently proposed in the Chitina Valley at May Creek, Canyon Creek, and Tana River. Future management requirements may lead to additional patrol shelters.

#### Priorities and Interim Management

Of key importance to favorable early acceptance of this new park venture and to its ultimate success is recognition of small-scale but immediate needs if the effort is to get off the ground.

Transportation: A regional transportation study has been proposed, with NPS involvement, covering the Wrangells region and extending into Canada. A viable park plan must be a part of the regional plan. The internal circulation plan, as now envisioned, may become outdated, so that coordinated transportation planning is an immediate need. Otherwise, present road construction may simply provide a fait accompli upon which future planning would be much more difficult. Park management, movement of supplies and equipment, and rescue operations must be accomplished mainly by aircraft. Early upgrading of needed existing airstrips and construction of ramps and docks where necessary for float-plane access is desirable, subject to appropriate controls on such construction and resulting use.

Administration: A park headquarters office must be established and placed in operation as soon as possible after park authorization. The headquarters staff is needed "on site" to develop close working relationships with local residents, leading to a public awareness of the park's purpose, applicable management policies, and opportunities for private enterprise to share in the development and operation of facilities and services. Relevant supportive facilities must be developed in the Anchorage office, to assure smooth incorporation of the new park into the existing NPS state office management structure.

Since many of the in-park facilities will be accessible by air only, lightweight building material and equipment will need to be acquired, so they can be hauled in by air. Simplified utility systems will be necessary to reduce maintenance costs. The NPS will need immediate capability to patrol the lands they will be managing, which requires adequate access to airplanes and adequate initial funding for patrols and related activities. Only by patrolling the park can the NPS protect the resource with which it is to be entrusted. In order to gain the basic inventory knowledge requisite to planning for park management, a planning team should be available for an initial effort. This team should include a resident natural scientist from the beginning.

Adequate employee housing and visitor accommodations are extremely limited in towns adjacent to the park, and non-existent within the park. Consequently, such facilities may initially need to be provided by the government prior to inviting additional visitors into the area, and locating park personnel there. Of particular importance is obtaining a site and providing such facilities

for staff in the McCarthy area.

Visitor use: Most visitor interest<sup>e</sup>, present facilities, and potential diversity of activities are in the northern Chitina Valley. Immediate coordination with Ahtna and the Forest Service should focus on initial development needs and administrative facilities in this area. The tentative proposals in this document will need to be supplemented by intensive planning followed by preparation of developed area plans and environmental statements required prior to implementing them.

Early identification of appropriate sites for development of facilities should select already disturbed areas wherever possible. This may involve the need to begin negotiations as soon as possible with the owners of mining claims, other private landowners, or the State, to assure acquisition of the most desirable site.

Since creation of this park will have focussed national and increased regional interest in the area, efforts should begin as soon as possible to increase the amount of air service available. Concession-operated arrangements for in-park transportation may be desirable.



## CONCLUSION

As urban populations increase, with resultant complex interactions and pressures, Americans are more and more demonstrating the desire for diverse surroundings. This desire no longer appears to be a luxury, but rather it is a necessity. People are suffering uneasiness because of rapidly changing problems over which they apparently have little control, and are looking to areas outside of their everyday surroundings.

Admittedly, a weekend's or a week's experience is only a partial solution to this growing demand for escape from a technocratic society. But with careful cooperative planning, the Wrangell-St. Elias region can offer better provision for the larger needs of man, for there is the opportunity here to foster a deeper understanding and awareness of the intrinsic values of life--physical, mental, spiritual, and cultural--that result from an in-depth experience in their natural world.

## APPENDIX I

### ECOSYSTEMS AND MAN

Glacial ice, mountain building activity, and latitude have combined to produce the Wrangell-St. Elias region's young, unstable, and cold environment. None of these factors favor biotic diversity. Species lists are consequently relatively short, the web of biotic interactions simple. Restricted diversity in turn diminishes the ability of the region's ecosystems to absorb sudden change. It is on such systems that technological man will have his most drastic impacts.

Boreal conditions do not favor rapidity of recovery. Biological processes cycle slowly in the cold; life's tenuous footholds on an austere landscape are, once loosened, difficult to reestablish.

One principle immediately emerges--the Wrangell-St. Elias country's carrying capacity with regard to man at his present cultural level is not great.

It is possible to obtain further guidelines for human activity in this delicate environment by consideration of differences between coastal and interior ecosystems. These differences will first be summarized.

Temperature extremes are far greater in the interior. Most biological activity is compressed into a three-month period which coincides with the time of maximum human use. Along the coast, the growing season is longer and the winter less severe (though deep snow and wind make winter a harsh time, nonetheless).

Food resources in the interior tend to be thinly scattered. Animal populations are consequently rather diffuse, except where the landscape enforces concentration. Coastal resources are concentrated along the beach and in fresh water.

Probably the major factor disrupting interior biotic patterns is fire. Along the coast, vast acreages have been disturbed by glacial ice and ice-generated meltwater. While many nonforested interior areas have apparently escaped major disturbance since the last major ice age 10,000 years ago, the vast majority of coastal lands were heavily disturbed during the last millennium.

Vast portions of the interior are underlain by permafrost, while coastal areas are free of it.

It is tentatively concluded from these generalizations that more productive coastal ecosystems tend to be less susceptible to deterioration by man. Here, the biota is subject to a less harsh set of environmental parameters, is arranged in a fashion that permits human avoidance of critical areas, and is already largely deflected from a stable condition by natural factors. The potential for molding human use patterns so that they become an integral part of developing natural systems is high. A principal rule of thumb for human activity in coastal areas is to avoid beaches and fresh water areas.

In the interior a shorter active season, fire susceptibility, scarcity of cover, and the prevalence of permafrost make it very difficult to avoid



biotic disturbance. It is significant in this context that Athapascan Indians, who lived successfully for millenia in the interior, developed few permanent facilities and diffused their activities over a vast area.

## APPENDIX II

### PREVIOUS RECREATIONAL STUDIES OF THE WRANGELL-ST. ELIAS REGION

In 1938 National Park Service officials, including Chief of Forestry John D. Coffman and Superintendent Harry J. Liek of Mount McKinley National Park visited the Chitina Valley near Kennecott, Territory of Alaska, to study the potentials of the valley and adjacent country for national park or national monument status. It was the opinion of the investigators that the region was superlative in its scenic beauty and attractiveness and that it measured up fully for establishment as a national monument or national park.

Later in 1938 Ernest H. Gruening, then Director, Division of Territories and Island Possessions, U.S. Department of the Interior, proposed establishment of a national monument in the vicinity of Kennecott in the Chitina Valley. This proposal was based on findings of the NPS study made earlier in the year. A proposed proclamation to establish the area as a national monument was forwarded to President Roosevelt by Secretary of the Interior Harold Ickes in 1940. On January 21, 1941, the White House determined that issuance of a proclamation would be inappropriate during the emergency which preceded World War II.

In July 1942 Superintendent Been, Mount McKinley National Park, made field investigations of the Kennecott, McCarthy, and Chitina areas. This same year the Canadian Government withdrew lands in Canada for possible park purposes and suggested to the Interior Department that an area on the Alaska side of the border might be established to form

an international park. The Department advised that the National Park Service would undertake studies and make recommendations.

The Service made a preliminary study of the Wrangell Mountains-Chitina Valley-St. Elias Range in 1944. Further studies and analyses were made in the 1950's but no concrete steps were taken toward establishment of the area. A 1952 proposal envisioned a large area generally embracing the Wrangell Mountains.

In 1964 the Interior Department publication, "Parks for America," included a recommendation that further study be given to proposals to establish a St. Elias-Wrangell Mountain National Park.

In 1966 Senator Ernest Gruening (Alaska) requested Secretary Udall to make a preliminary evaluation of the Copper River-Chitina Valley areas for the purpose of establishing a national parkway. Acting on this request, a National Park Service study team conducted a reconnaissance of the area in 1967 and reported on the potentials for a "Copper River-Chitina Valley Scenic Road System."

In 1968 the Alaska State Director, Bureau of Land Management, classified 23 million acres comprising the Copper River basin and its surrounding mountains for retention and management by the Federal Government "because of the outstanding qualities the area possesses."

Secretary of the Interior Walter J. Hickel, in June 1969, directed the Bureau of Outdoor Recreation to undertake a further study of the proposed parkway through the Copper River valley between Cordova and



Chitina. The study conducted that summer was expanded to include the road being planned for the Chitina River valley. This resulted in a March 1970 joint Bureau of Land Management-Bureau of Outdoor Recreation report and recommendation to the Secretary of the Interior proposing establishment of a "Wrangell Mountains National Scenic Area."

In a February 1971 report on "Alaska Recreation and Tourism Resources" by the Alaska Field Office, National Park Service, prepared for the Federal Field Committee for Development Planning in Alaska, the Wrangell Mountains-Chitina Valley-Chugach Mountains complex is identified as one of the State's "major potential recreation reserves."

Another recent report touching on the area is a "Recreation Impact Study" for the proposed trans-Alaska pipeline, issued by the Bureau of Land Management in April 1971. The pipeline would fall outside the western boundary of the park but within the Area of Ecological Concern.

An ongoing study sponsored by the University of California at Santa Cruz and the Sierra Club Foundation is centering on the wilderness values of the Wrangell-St. Elias region. A Phase One report was published in April 1972, and a second published report in June 1973.

### APPENDIX III

#### HISTORICAL RESOURCES

The awesome spectacle of the titanic, ice-covered Wrangell-St. Elias and Chugach mountain ranges bounding the southern coast gave early European and American explorers a forbidding impression of Alaska. This same region played a large role in the "icebox" or "Seward's Folly" syndrome that both fascinated and repelled American politicians and the public, retarding Alaska's development until the 20th century.

This vast, heavily glaciated mountain wilderness, including that portion in Wrangell-St. Elias National Park, has been visited only infrequently by adventurers. Innumerable peaks and glaciers, although aerially mapped, have never been climbed or fully explored on the ground. The significant human history of the region is largely confined to the seacoast and major river valleys.

Probably the first European to behold lands within the area of the proposed park was the great Danish-Russian sea captain, Vitus Bering. On July 16, 1741, he sighted a "high volcano," later named Mount Saint Elias, which now marks the international boundary at the southwestern corner of Yukon Territory. Yakutat Bay was first visited in 1786 by the French Admiral, LaPerouse, while Valdez Harbor and Puerto Cordova, now Orca Bay, were the discoveries of the Spanish Senor Don Calvador Fidalgo in 1790.

Russian explorers reached the mouth of the Copper River as early as 1781. Later expeditions out of Kodiak and Sitka penetrated the land far enough to sight and name an interior mountain for Governor Baron Von Wrangell. The Russians discovered the Chitina (the Indian name for copper) River, and were intrigued by the evidence of copper mining by the Natives; however, they were discouraged from exploiting the precious metal by the unrelenting hostility of the Copper River Indians.

Russian and earliest American sources indicate the presence of at least 10 Native villages on the fringes of the future park, 8 along the Copper River, 1 at Yakutat, and 1 on the Nizina River. All of these were evidently Indians of Athapascan linguistic stock, who were not enslaved by the Russians for furtrading or other commercial purposes, as were the Aleuts to the west and the Tlingits to the southeast.

American acquisition of Alaska in 1867 had a negligible impact on the interior for 3 decades, except for a series of official American explorations that began to unlock Alaska's secrets.

One American party ascended the Copper and its tributaries as early as 1865: the Western Union Telegraph Expedition, headed by Robert Kennicott, for whom a glacier and the later-famous copper mine were named. The first U.S. Army explorer going inland was Capt. W. R. Abercrombie, in 1884, who also pioneered the famous gold rush trail of 1898-1900 from Valdez to the Yukon.



In 1885, Lt. Henry T. Allen made a more thorough exploration of the Copper River and its tributaries before proceeding on the first overland expedition to reach the Arctic Circle. His was the first truly accurate description of the topography of the future park, as well as the first report of the presence of the Copper River Indian villages. Significantly, also, Allen made friends with the Indians, opening a peaceful era.

Topographical explorations of the Chugach and Wrangell areas were extended in 1891 by Lt. Frederick Schwatka of the U.S. Army and Dr. Charles W. Hayes of the Geological Survey. Other epic contributions toward geographic discovery and nomenclature were made in 1898 by Frank C. Schrader; in 1899 by Oscar Rohn; and later by D.C. Witherspoon, W.C. Mendenhall, and Fred H. Moffitt, all members of the Geological Survey. This agency has continued its contributions to our scientific knowledge of this region to this day.

Discovery of gold in the Klondike and other reaches of the upper Yukon in 1896-1898 touched off the last great American gold rush, and was the factor that aroused Alaska Territory from its long frozen sleep and brought significant numbers of Americans to the south Alaska coast for the first time.

Valdez, the most northerly year-round, ice-free port in the Western Hemisphere, became the jumping-off point for gold seekers coming up the new military road, or "Abercrombie Trail," via Copper River to Eagle

on the Yukon River. The trail, crossing the Chugach Range via Thompson Pass and upper tributaries of the Tiekol River before reaching the Copper, was a distinct improvement over the first gold route via Valdez Glacier and Klutina River.

In 1891, this trail also became the route of the first telegraph line in Alaska, erected by the Signal Service. Later, Gen. W.P. Richardson was commissioned to develop a wagon road from Valdez to Fairbanks, which saw heavy use by freight wagon, pack train, and dog-sled, and also the establishment of the famous Alaska "road houses," spaced 1 day's travel apart.

Construction of this route to meet automobile standards began in 1920, but hard-surfacing of the present Richardson Highway was not completed until 1957.

Although gold was the lure of the Yukon, it was primarily copper which led to the commercial exploitation of the Chitina and other upland valleys. The biggest strike became the famous Kennecott Mine, named (but slightly misspelled) for its proximity to the Kennicott Glacier below Regal Mountain at the head of Nizina River.

In 1906, the seaport of Cordova was established as the terminus of a new railroad designed to haul the ore a distance of 194 rugged miles. This new Copper River and North Western Railway cost \$24 million to construct and achieved fame in the novel by Rex Beach, "The Iron

Trail." Developed by the Wall Street tycoons, J.P. Morgan and Simon Guggenheim, this operation peaked in the 1920's, but came to a grinding halt in 1938 due to adverse economic factors.

In a sense, the history of the park region also came to a halt--or at least slowed down drastically--with the abandonment of the mine and railroad. Removal of the rails for scrap, collapse of bridges from flood waters, and deterioration of the railroad grade--climaxed by severe earthquake damage in 1964--again isolated the interior from all but the most rugged wilderness enthusiasts, occasional hopeful prospectors, and Government investigators relying largely on aircraft. At the same time, the withering of economic hopes gave impetus to dreams of conversion of this vast scenic wonderland to primary recreational or park use.

The following historical themes are indigenous to the park:

- Maritime exploration and discoveries of the 18th century
- Abortive Russian penetration of the interior in the early 19th century
- American Government surveys after 1867
- Mineral prospecting and fur-trading during the first 3 decades of American occupation
- Boom period of the Yukon gold rush, 1896-1900, when Valdez became a gateway to the interior, and trails were pioneered northward



- Era of systematic mineral exploration after 1900 and the discovery of the Kennecott Mine, railroad construction, and an era of prosperity
- Depression years marking railroad abandonment in 1938
- Current era of economic revival and conservation effort

As to actual historic sites and buildings, very limited recreational field studies suggest that the proposed park area--although overwhelmingly of natural wilderness character--does have identifiable features of historic value that could be dramatically interpreted to, and greatly appreciated by, future visitors.

Although extensive research is needed to pinpoint historic sites and structures, and fill in their background, a tentative inventory can be suggested:

- Historic Indian village sites
- Historic trails north from Valdez
- Prospector trails
- Abandoned homesteads and trapper cabins
- Native, Russian, and mining-camp cemeteries
- Ghost towns, including Chitina and McCarthy
- Abandoned mines and placers
- Buildings and works of the fabled Kennecott Mine
- Abandoned grade, crossings, and stations of the Copper River and North Western Railway

## ARCHEOLOGICAL RESOURCES

A relatively sparse aboriginal population is indicated for the Wrangell Mountains and the Copper River Basin. Little archeological work has been undertaken in this area, but the potential for discovery of significant sites is good.

A recent discovery of side-notched projectile points on a hilltop along the Tyone River, and from "blow-outs" near the Denali Highway, similar to those from the Anaktuvuk Pass region, indicates an aboriginal occupation as early as 7,000 years ago.

Concentrations of small archeological sites in the vicinity of the headwaters of the Gulkana River contain previously undescribed and unknown remains of a prehistoric culture that may be the earliest known for Alaska.

Test excavation of a site located on a bluff overlooking the Copper River (east bank) near the confluence of Fox Creek and the Copper River were made in the summer of 1973 by a member of the Anthropology Department of the University of Alaska. The site is of a late prehistoric/ protohistoric Athapascan (Ahtna) culture.

The excavations, conducted under contract with the National Park Service, located and mapped 14 housepits. One housepit yielded three levels of occupation, with the uppermost containing trade goods such as trade beads and some iron. It is premature to attempt any serious interpretation of the data thus far obtained, but this find suggests the potential

of the area to yield further information on the early occupants of the region.

A site at the confluence of the Tyone and Susitna Rivers is reported to be one of the largest inland Athapascan Indian sites prior to 1500 A.D.

Other sites of the same period are found south of Lake Louise and Susitna Lake, and on Mendeltna Creek near Tazlina Lake.

In more recent times, along the shores of the Gulf of Alaska, from Prince William Sound southward at least as far as Yakutat, the aboriginal population was comprised of both Eskimos and Indians.

An Indian group known as the Eyak lived on the Copper River Delta. Tlingit Indians, in the Gulf of Alaska-Northwest Coast Group of the panhandle, lived along the mainland from Yakutat Bay as far north as Comptroller Bay and Kayak Island.

Archeological studies indicate that this southernmost Eskimo group, now known as the Chugach, existed in this area for at least 500 years prior to the discovery of Alaska. Vitus Bering saw Chugach camps on Kayak and Wingham Islands in 1741, but Captain Cook was the first European to meet them when he visited Prince William Sound in 1778. Most of the Chugach villages were abandoned by the end of the 19th century.