

Kobuk Valley
National Monument

DEPARTMENT OF THE INTERIOR

Final
Environmental Statement

Proposed
KOBUK VALLEY
NATIONAL MONUMENT
Alaska



Prepared by
Alaska Planning Group
U.S. Department of the Interior

Royston C. Hughes

Royston C. Hughes
Assistant Secretary of the Interior
Chairman, Alaska Task Force

SUMMARY

( ) Draft (X) Final Environmental Statement

Department of the Interior, National Park Service

1. *Type of Action*: Legislative and Administrative

2. *Brief Description of Actions*:

The Secretary, Department of the Interior, proposes that, via Congressional action, the Kobuk Valley National Monument be established from lands and waters removed from public domain under provisions of the Alaska Native Claims Settlement Act and the Salmon Wild River be designated under the provisions of the Wild and Scenic River Act. The Secretary also proposes a master plan to guide the administration of this national monument and wild river by the National Park Service.

3. *Summary of Environmental Impact*:

The proposal may affect: (A) the integrity of the ecosystem and landscape within the proposed boundaries, including the wildlife, vegetation, water quality, and visual aesthetics; (B) the continuation of subsistence use of the area by the Natives and commercial and sport fishing, mining and mineral entry, tourism, communication, and transportation; and (C) the socio-economic and cultural environment of the local area following development of visitor facilities and programs and visitor use of the area.

4. *Alternatives Considered*:

A. No Action
B. Alternative Land Management Philosophies
   1. Dominant Use Management for Historical and Cultural Values
   2. Dominant Use for Wildlife Values
   3. Wilderness Designation
   4. Multiple Use Management
C. Alternative Boundaries
   1. Add a Portion of the Kiana and Ambler Village Withdrawal Lands
   2. Add a Portion of the Ambler Village Withdrawal
   3. Delete the Salmon River Watershed from the Proposed Monument
   4. Delete the Baird Mountains and the Salmon River from the Proposed Monument
   5. Exclude all Lands North of the Kobuk River
   6. Exclude all Lands North of the Kobuk River, except the Salmon River Watershed
   7. Delete a Portion of the Baird Mountains and the Hunt River Watershed
   8. Add the Upper Squirrel River Watershed

5. *Comments Have Been Requested from the Following Agencies*:

Federal:

Advisory Council on Historic Preservation
Department of Agriculture
*Forest Service
*Soil Conservation Service

*Department of Commerce
National Oceanic and Atmospheric Administration
Department of Defense
*Alaska Command
*Corps of Engineers
Department of the Interior
*Alaska Power Administration
*Bureau of Indian Affairs
*Bureau of Land Management
*Bureau of Mines
Bureau of Outdoor Recreation
*Geological Survey
Office of Land Use and Water Planning
U.S. Fish and Wildlife Service
Department of Transportation
*Federal Aviation Administration
*Federal Highway Administration
*Environmental Protection Agency
State
Alaska State Historic Preservation Officer
*Governor of the State of Alaska (State Clearinghouse)
Other Agencies
Ambler Village Council
City of Kotzebue
Kiana Village Council
Kobuk Village Council
Noorvik Village Council
Selawik Village Council
Shungnak Village Council
Native Organizations
Alaska Federation of Natives
Alaska Native Foundation
*Ivisaapaagmiit Corporation
Kiana Native Village Corporation
Kobuk Native Village Corporation
Kotzebue Native Village Corporation
Mauneluk, Inc.
Noorvik Native Village Corporation
*NANA Regional Corporation, Inc.
Selawik Native Village Corporation
Shungnak Native Village Corporation
Other Organizations
*Alaska Conservation Society
Alaska Historical Commission
*Alaska Oil and Gas Association
Alaska Professional Hunters Association
Alaska Sportsmen's Association
Alaska Wilderness Council
*Friends of the Earth
National Audubon Society

*National Parks and Conservation Association
*National Wildlife Federation
Sea Grant Program
*Sierra Club
*The Wilderness Society

*Comments have been received and are attached.

6. *Date Made Available to CEQ and the Public*:

Draft Statement: December 18, 1973.
Final Statement:

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I. DESCRIPTION OF THE PROPOSAL

The Secretary, Department of the Interior, proposes:

(A) Legislative establishment of Kobuk Valley National Monument and designation of Salmon Wild River, to be managed by the National Park Service; and

(B) Administrative action to adopt a conceptual master plan for management of the monument so established.

The proposal area includes 1,854,556 acres in northwest Alaska. (See Proposal Boundaries map.) The western boundary of the proposal area, referred to hereafter as the monument, would extend within 70 airline miles of Kotzebue, on the coast. Kotzebue, the commercial center of northwest Alaska, is 185 miles northeast of Nome. The National Park System contains no area with the scenic, biological, ecological, and human resources of this portion of interior and western Alaska. Extending 56 miles east-west and a maximum of 64 miles in a north-south direction, the monument would preserve nationally significant wilderness, wildlife, cultural, and historical values, including 81 miles of the Kobuk River and most of its tributaries. Within the monument would be 11,238 acres of inland waters.

A. LEGISLATIVE PROPOSAL

As a result of actions prescribed by the Alaska Native Claims Settlement Act (85 Stat. 688), the Secretary proposes congressional establishment of a Kobuk Valley National Monument to be administered as a natural area of the National Park System, and designation of a Salmon Wild River to be included in the National Wild and Scenic River System.

Other proposed legislation provisions include: (1) That the area be withdrawn from appropriation or entry under the public land laws, including the mining and mineral leasing laws; (2) That except as may be otherwise prohibited by Federal or State law, existing traditional subsistence uses of renewable resources will be permitted until it is determined by the Secretary that utilization of these resources is neither economically or physically necessary to maintain human life nor necessary to provide opportunities for the survival of Alaskan cultures centering on subsistence as a way of life.

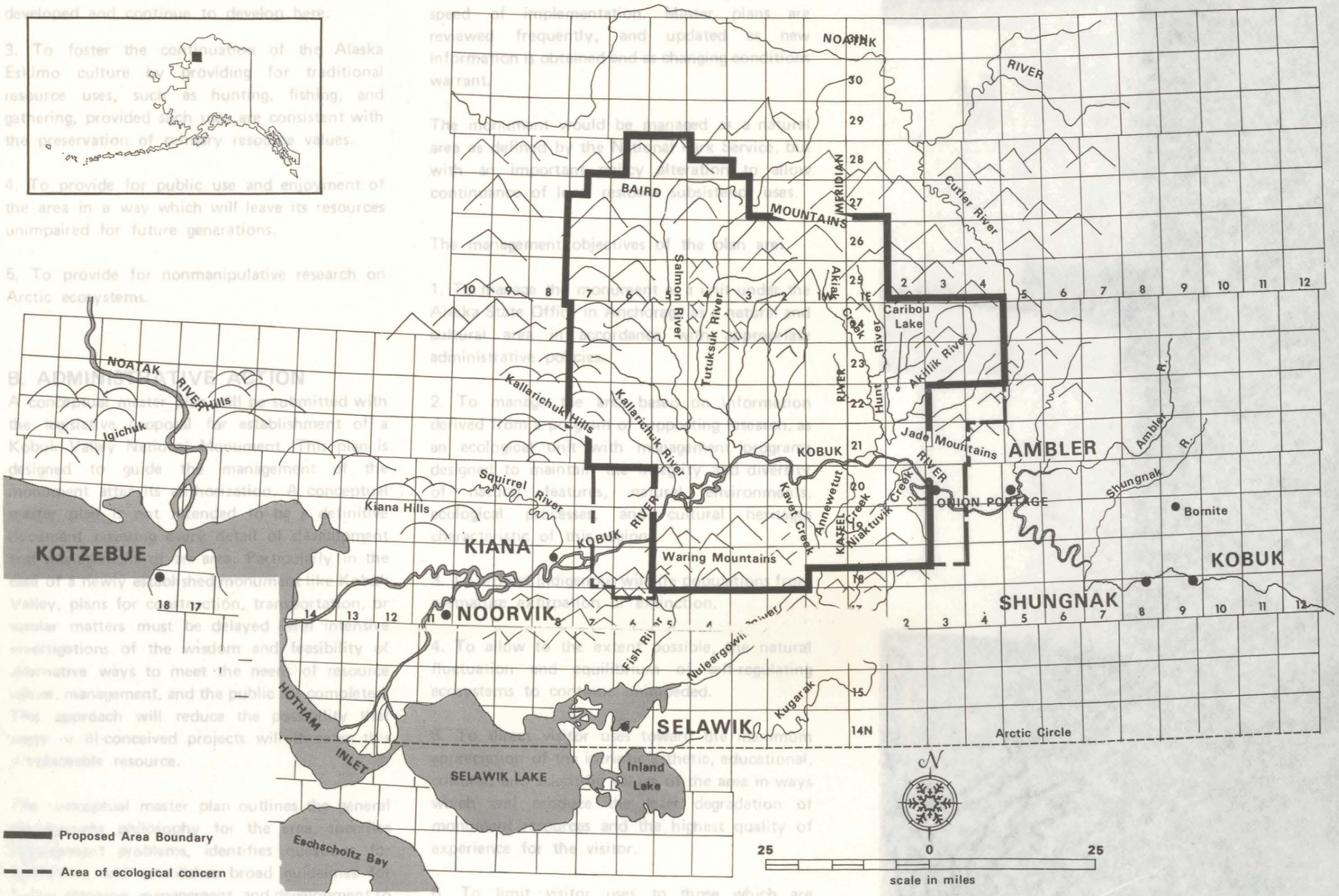
If it is demonstrated that continued subsistence uses may result in a progressive reduction of animal or plant resources which could lead to long range alterations of ecosystems, the managing agency, following consultation with the Alaska Department of Fish and Game, communities and affected individuals, shall have the authority to restrict subsistence activities in part or all of the monument; (3) That within 3 years after establishment, a study will be made and a report will be submitted by the Secretary of the Interior concerning the qualifications of any area within the monument for inclusion in the National Wilderness Preservation System. Any wilderness designation will be accomplished by legislation in accordance with procedures stipulated in the Wilderness Act; (4) That the monument be closed to sport hunting, and; (5) That any lands that are within the Onion Portage Archeological District but not selected by a Native corporation pursuant to the Alaska Native Claims Settlement Act shall become part of the Kobuk Valley National Monument.

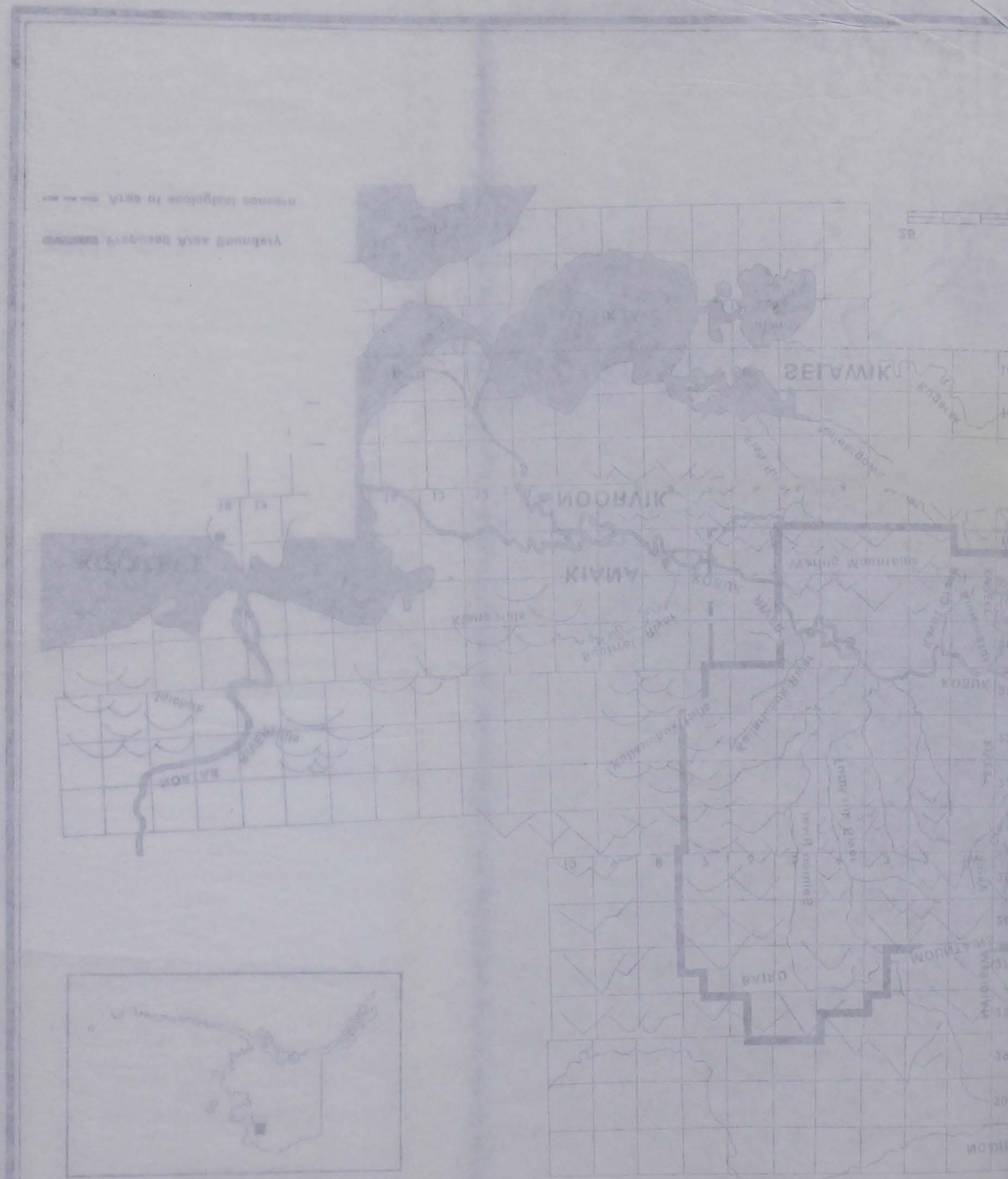
The purposes for which this proposal is made are:

1. To perpetuate, for public benefit and enjoyment, indigenous plant and animal communities, geological features, and scenic values, by means of the preservation of the ecological relationships and natural processes of this representative sample of arctic Alaska.

2. To preserve and protect the area's archeologic and historic sites, structures, and objects, and to

PROPOSAL BOUNDARIES





encourage research of the area's cultures, which developed and continue to develop here.

3. To foster the continuation of the Alaska Eskimo culture by providing for traditional resource uses, such as hunting, fishing, and gathering, provided such uses are consistent with the preservation of primary resource values.

4. To provide for public use and enjoyment of the area in a way which will leave its resources unimpaired for future generations.

5. To provide for nonmanipulative research on Arctic ecosystems.

B. ADMINISTRATIVE ACTION

A conceptual master plan will be submitted with the legislative proposal for establishment of a Kobuk Valley National Monument. This plan is designed to guide the management of the monument after its authorization. A conceptual master plan is not intended to be a definitive document covering every detail of development and management of an area. Particularly in the case of a newly established monument like Kobuk Valley, plans for construction, transportation, or similar matters must be delayed until intensive investigations of the wisdom and feasibility of alternative ways to meet the needs of resource values, management, and the public are completed. This approach will reduce the possibility that hasty or ill-conceived projects will threaten this irreplaceable resource.

The conceptual master plan outlines the general management philosophy for the area, specifies management problems, identifies questions for resolution, and establishes broad guidelines for future planning, management, and development so that the monument's resources are fully protected while providing for appropriate public use. The plan covers the next decade or so of the monument's administration, depending upon the speed of implementation. Master plans are reviewed frequently, and updated as new information is obtained and as changing conditions warrant.

The monument would be managed as a natural area as defined by the National Park Service, but with an important policy alteration to allow continuance of local resident subsistence uses.

The management objectives of the plan are:

1. To manage the monument as a unit under the Alaska State Office in Anchorage as a natural and cultural area in accordance with appropriate administrative policies.

2. To manage the area based on information derived from a program of supporting research, as an ecological unit with management programs designed to maintain the integrity and diversity of natural features, natural environments, ecological processes, and cultural heritages characteristic of this region.

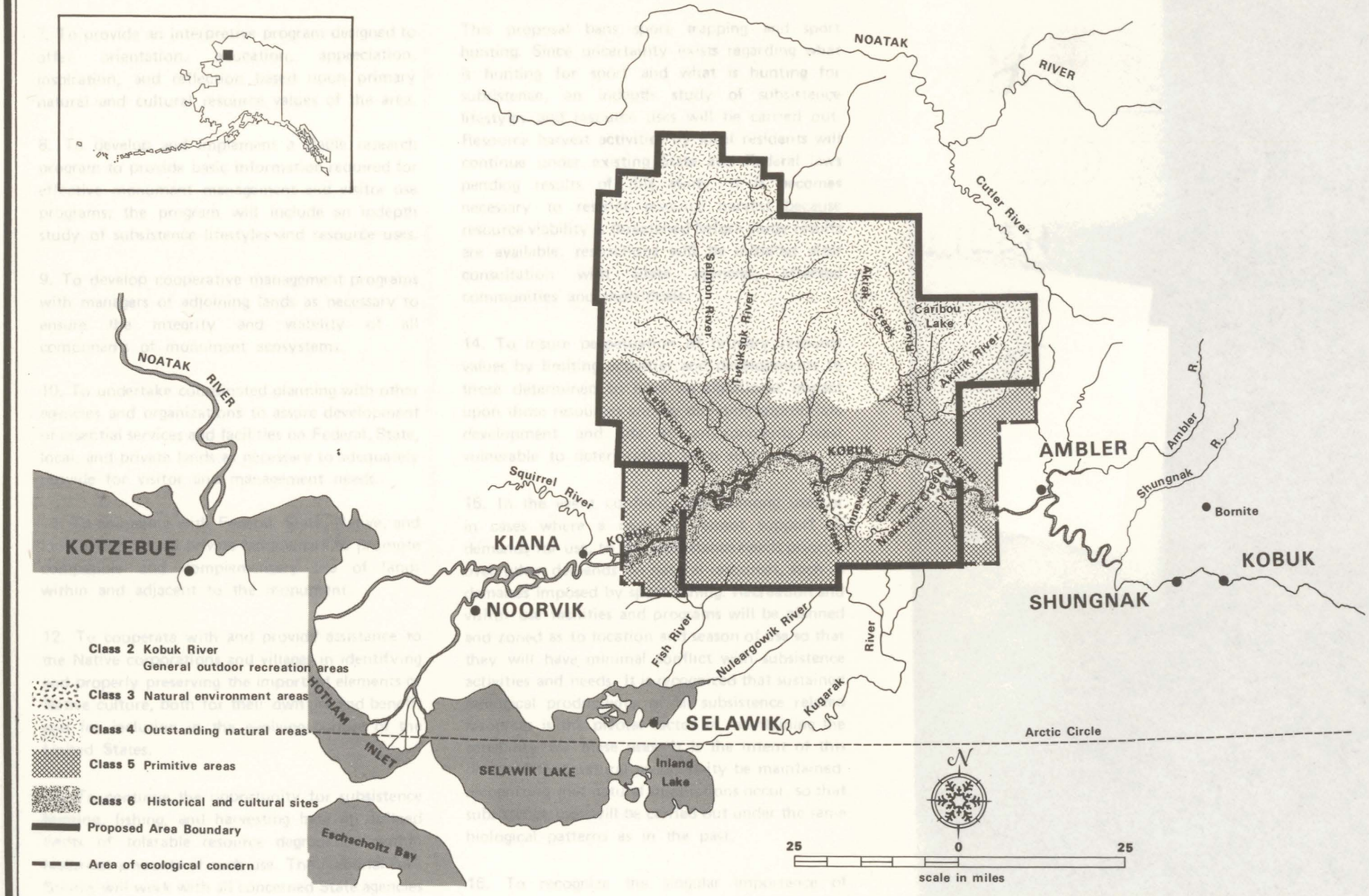
3. To protect indigenous wildlife populations from premature extirpation or extinction.

4. To allow to the extent possible, the natural fluctuation and equilibrium of self-regulating ecosystems to continue unimpeded.

5. To direct visitor uses toward the maximum appreciation of the intrinsic esthetic, educational, cultural, and scientific values of the area in ways which will produce the least degradation of monument resources and the highest quality of experience for the visitor.

6. To limit visitor uses to those which are necessary and appropriate to the purposes of the monument. The nature and extent of such uses shall be determined by definition and application

LAND CLASSIFICATION



of tolerable limits of natural resources degradation.

7. To provide an interpretive program designed to offer orientation, education, appreciation, inspiration, and reflection based upon primary natural and cultural resource values of the area.

8. To develop and implement a viable research program to provide basic information required for effective monument management and visitor use programs; the program will include an indepth study of subsistence lifestyles and resource uses.

9. To develop cooperative management programs with managers of adjoining lands as necessary to ensure the integrity and viability of all components of monument ecosystems.

10. To undertake coordinated planning with other agencies and organizations to assure development of essential services and facilities on Federal, State, local, and private lands as necessary to adequately provide for visitor and management needs.

11. To cooperate with Federal, State, Native, and local agencies and private landowners to promote compatible and complementary use of lands within and adjacent to the monument.

12. To cooperate with and provide assistance to the Native corporations and villages in identifying and properly preserving the important elements of Native culture, both for their own use and benefit and for inclusion in the evolving culture of the United States.

13. To continue the opportunity for subsistence hunting, fishing, and harvesting base on defined limits of tolerable resource degradation within historical amounts of such use. The National Park Service will work with all concerned State agencies (including the ADF&G), communities and affected individuals in arriving at an equitable and workable definition of, and management plan for subsistence resource uses in the proposal area.

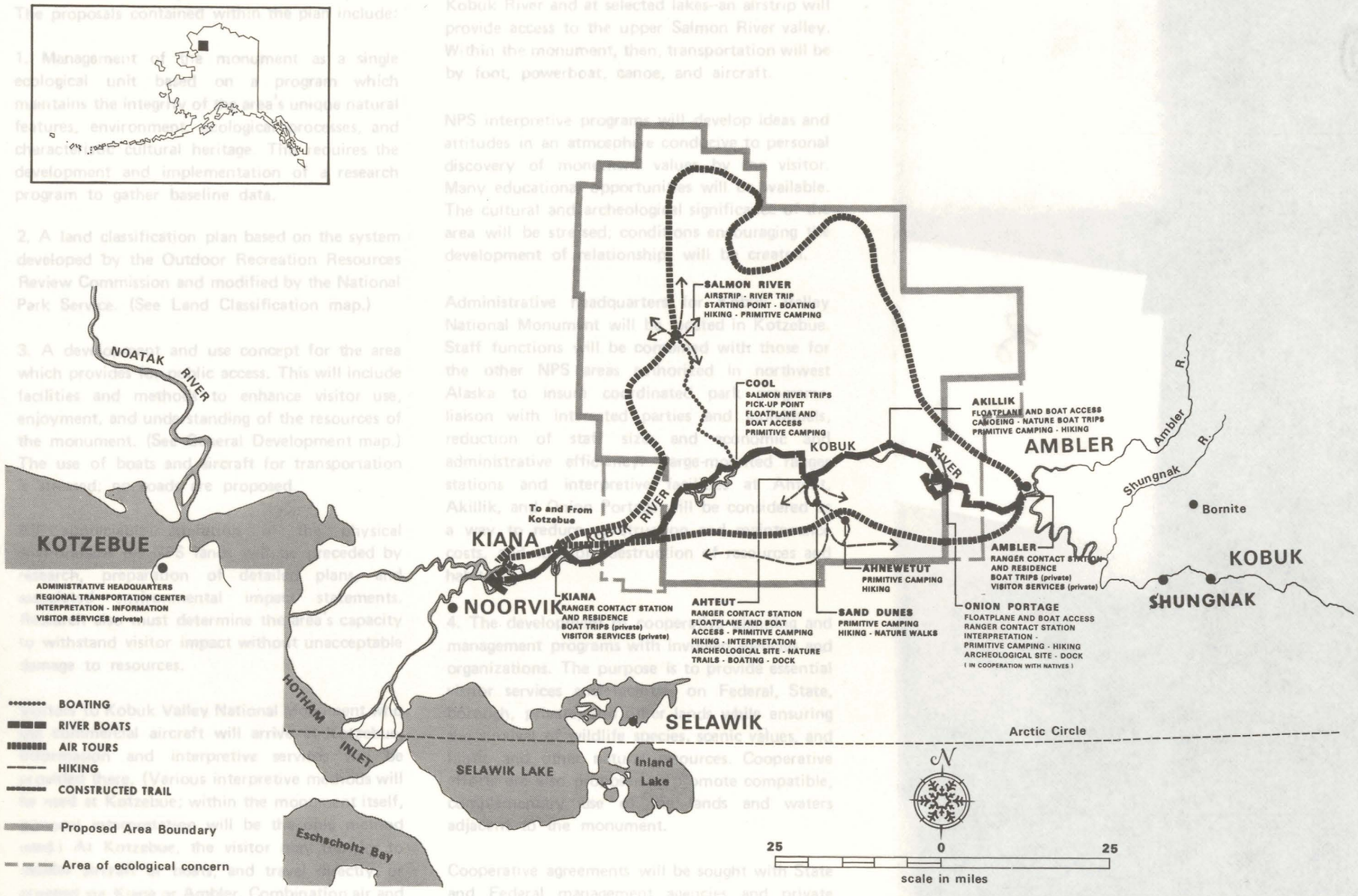
This proposal bans sport trapping and sport hunting. Since uncertainty exists regarding what is hunting for sport and what is hunting for subsistence, an indepth study of subsistence lifestyles and resource uses will be carried out. Resource harvest activities by local residents will continue under existing State and Federal laws pending results of this study. If it becomes necessary to restrict resource harvest because resource viability is threatened before study results are available, restrictions will be initiated after consultation with State agencies, affected communities and individuals.

14. To insure perpetuation of primary resource values by limiting activities and developments to those determined to have no significant impact upon those resources and by directing appropriate development and use to environments least vulnerable to deterioration from such uses.

15. In the event conflicts occur among uses or in cases where a resource cannot support all demands for use, to give subsistence needs priority over other demands on natural resources, such as demands imposed by sport fishing. Recreation and visitor use facilities and programs will be planned and zoned as to location and season of use so that they will have minimal conflict with subsistence activities and needs. It is recognized that sustained biological productivity of all subsistence related resources is the pivotal factor in maintaining the capability for these uses. It is the intent of this proposal that natural productivity be maintained, recognizing that natural fluctuations occur, so that subsistence uses will be carried out under the same biological patterns as in the past.

16. To recognize the singular importance of transportation in sound land use planning and cooperate with others in the development of an

GENERAL DEVELOPMENT




SELAWIK
NOORVIK
KIANA
KOTZEBUE
KOBUK

efficient and energy conserving transportation system to serve the monument and the region.

The proposals contained within the plan include:

1. Management of the monument as a single ecological unit based on a program which maintains the integrity of the area's unique natural features, environment, ecological processes, and characteristic cultural heritage. This requires the development and implementation of a research program to gather baseline data.

2. A land classification plan based on the system developed by the Outdoor Recreation Resources Review Commission and modified by the National Park Service. (See Land Classification map.)

3. A development and use concept for the area which provides for public access. This will include facilities and methods to enhance visitor use, enjoyment, and understanding of the resources of the monument. (See General Development map.) The use of boats and aircraft for transportation is stressed; no roads are proposed.

All appreciable alteration of the physical environment on NPS lands will be preceded by research, preparation of detailed plans, and associated environmental impact statements. Research also must determine the area's capacity to withstand visitor impact without unacceptable damage to resources.

Visitors to Kobuk Valley National Monument who use commercial aircraft will arrive at Kotzebue. Information and interpretive services will be provided there. (Various interpretive methods will be used at Kotzebue; within the monument itself, personal interpretation will be the only method used.) At Kotzebue, the visitor may transfer to smaller aircraft or boats, and travel directly, or proceed via Kiana or Ambler. Combination air and boat travel will offer a variety of low-impact transportation alternatives. Although float-equipped aircraft will offer the greatest mobility--with landing areas designated along the Kobuk River and at selected lakes--an airstrip will provide access to the upper Salmon River valley. Within the monument, then, transportation will be by foot, powerboat, canoe, and aircraft.

NPS interpretive programs will develop ideas and attitudes in an atmosphere conducive to personal discovery of monument values by the visitor. Many educational opportunities will be available. The cultural and archeological significance of the area will be stressed; conditions encouraging the development of relationships will be created.

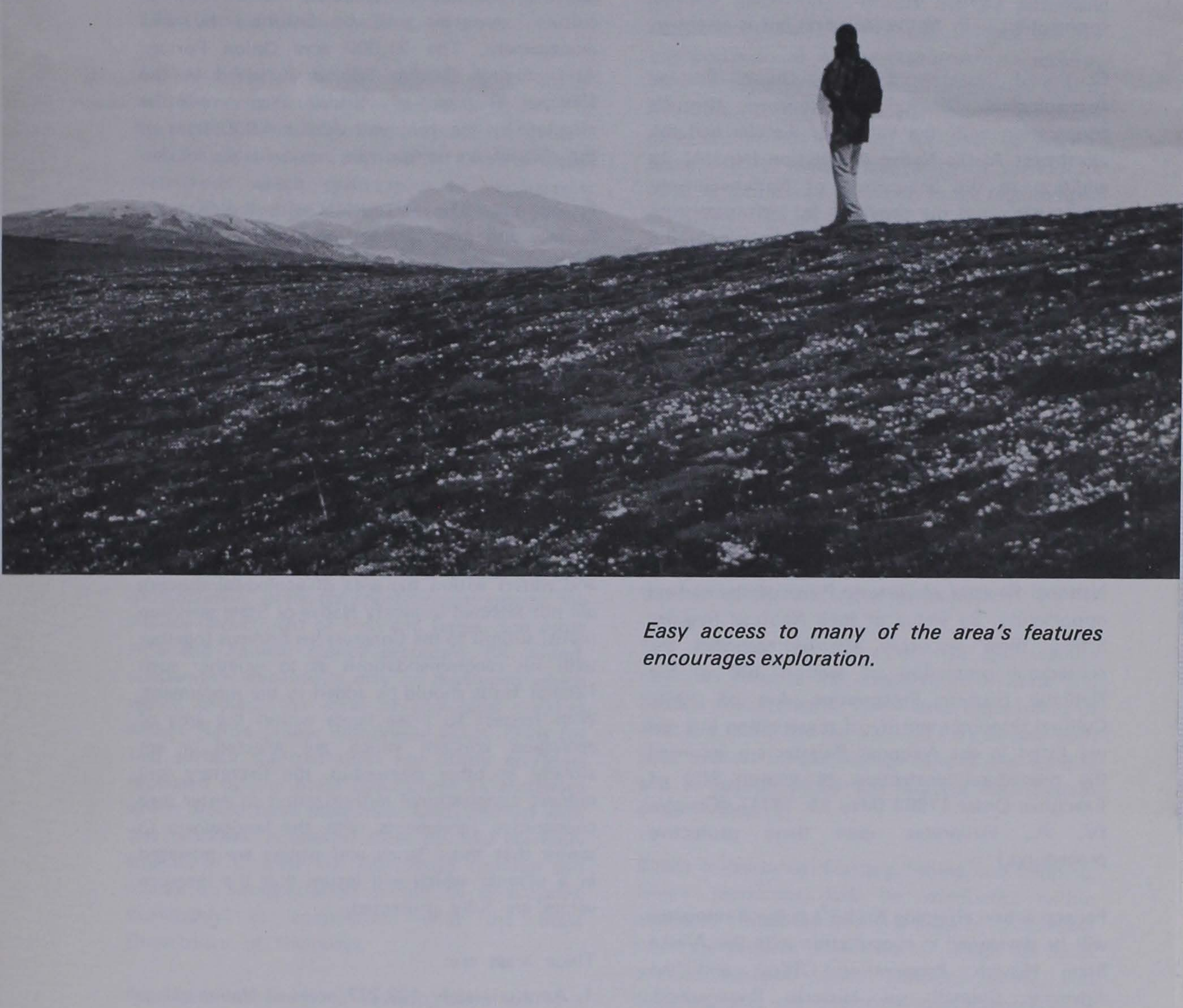
Administrative headquarters for Kobuk Valley National Monument will be located in Kotzebue. Staff functions will be combined with those for the other NPS areas authorized in northwest Alaska to insure coordinated park programs, liaison with interested parties and individuals, reduction of staff size, and economic and administrative efficiency. Barge-mounted ranger stations and interpretive facilities at Ahteut, Akillik, and Onion Portage will be considered as a way to reduce construction and maintenance costs, and to avoid destruction of resources and habitats.

4. The development of cooperative planning and management programs with involved agencies and organizations. The purpose is to provide essential visitor services and facilities on Federal, State, borough, private, and other lands while ensuring the survival of wildlife species, scenic values, and biotic and other natural resources. Cooperative efforts are also proposed to promote compatible, complementary use of the lands and waters adjacent to the monument.

Cooperative agreements will be sought with State and Federal management agencies and private landowners to develop an overall management and



A 25-square-mile sea of sand, the Great Kobuk Sand Dunes, laps at the base of the Waring Mountains.



Easy access to many of the area's features encourages exploration.

land use strategy to maintain the population (within natural fluctuations) and integrity of the Arctic caribou herd. The plan stresses cooperation with and assistance to Native corporations. Again, since the perpetuation of Native culture is an important part of the proposal, regular cooperation with Native corporations is essential.

Continued research on the Onion Portage Archeological District is proposed through cooperation with the village of Ambler and the Northwest Alaska Native Association (NANA). In addition to the acquisition of Native cultural information and the provision for visitor use, the program will involve local Native people in the effort to deepen the understanding of the area's cultural heritage.

5. A vigorous program of identification, research, and interpretation of archeologic and historic sites. Anthropologists believe the proposal area includes many imperfectly identified historic, archeological, and architectural resources of great significance.

Upon identification and evaluation, cultural resources that qualify will be nominated to the National Register of Historic Places at the earliest opportunity. By virtue of their National Register listing, these resources will be accorded the procedural protection of section 106 of the National Historic Preservation Act of 1966. Cultural resources worthy of preservation but not yet listed in the National Register are accorded the procedural protection of section 2(b) of Executive Order 11593 (May 13, 1971). (Chapter IV, A., elaborates upon these protective procedures.)

Federal action affecting Kobuk's cultural resources will be developed in consultation with the Alaska State Historic Preservation Officer and the Advisory Council on Historic Preservation. Mutually agreeable practices will mitigate adverse effects whenever possible. Qualified investigators will be permitted to research the monument's cultural resources in conformance with the procedures of the Antiquities Act of 1906. In addition, Antiquities Act sanctions against unauthorized appropriation or destruction of cultural resources will be enforced by area management. The 21,000 acre Onion Portage Archeological District, which is listed in the National Register of Historic Places, will be affected by the proposal. About 4,800 acres of the district are within the proposed boundaries.

6. Administrative agreements with the State to manage and protect the submerged lands within the proposal area.

7. Two areas of ecological concern adjacent to the proposed monument boundaries. Areas of ecological concern are those lands and waters adjacent to but not proposed for inclusion in the monument which contain resources that are part of the total ecosystem, and which if compromised, would endanger resources within the proposal area.

The Secretary of the Interior may, if such lands and waters within the area of ecological concern are not selected to satisfy Native or State selection rights, submit to the Congress his findings together with his recommendations as to whether such Federal lands should be added to the monument. With respect to those lands within the area of ecological concern which are selected or are already in other ownership, the Secretary will request congressional authorization to enter into cooperative agreements with the landowners to assure that those lands and waters are managed in a manner which will insure that the resource values are fully protected.

These areas are:

1. Approximately 123,277 acres of Native village withdrawal lands in the Ambler withdrawal,

adjacent to the eastern boundary of the monument. This area includes the Little Kobuk Sand Dunes, the major portions of Onion Portage Archeological District, and the upper portions of two small watersheds which drain into the eastern pportion of the monument; within this area are 2,595 acres of inland waters.

2. Approximately 96,254 acres of Native village withdrawal in the Kiana withdrawal, adjacent to the western boundary of the monument. This area includes the upper portions of several small watersheds which drain into the monument; within this area are 1,056 acres of inland waters.

The NPS will seek cooperative agreements, first, to guarantee watershed protection for both these areas, and second, to provide interpretation of Onion Portage. On the other hand, if these areas are not selected by the Native corporations, they should be added to the proposal area.

C. INTERRELATIONSHIPS WITH OTHER PROJECTS AND AGENCIES

This proposal is interrelated with other projects in the region. Important interrelationships are with Native village and regional corporations, the city of Kotzebue, State transportation proposals, the Alaska Department of Fish and Game, and other NPS and Federal agency proposals. As noted, cooperative agreements may be developed which would protect the areas of ecological concern within Native village withdrawal lands. Plans for two surface transportation and utility corridors proposed by the State Department of Highways which would cross monument lands conflict with this proposal. A map of these planned corridors appears in Chapter III. Alternative routings and modes of transportation should be investigated thoroughly in cooperation with the State Department of Highways.

As Alaska continues to develop, there will be a need for rights-of-way within corridors to adequately accomodate transportation and utility requirements. Studies to define these rights-of-way corridor needs are currently underway by the Interior Department but are not yet completed. It is possible that these transportation and utility corridor needs could impact the d-2 proposals. Applications for rights-of-way to facilitate the transportation of energy resources have recently been received by the Federal Government which, if issued, also might impact on the d-2 proposals. Actions pursuant to these applications, whether for a specific right-of-way within a corridor or other action, would be subject to the requirements of NEPA.

Section 17 of the Alaska Native Claims Settlement Act (ANCSA) established the Joint Federal-State Land Use Planning Commission for Alaska. Congress authorized the Commission to: "undertake a process of land-use planning, including the identification of and the making of recommendations concerning areas planned and best suited for permanent reservation in Federal ownership as parks, game refuges, and other public uses. . ." The recommendations of the Commission were submitted to the Secretary of the Interior in August 1973 and were carefully considered in developing this and other proposals.

The effective husbandry of fish and wildlife resources requires the cooperation of State and Federal Governments. The Alaska Department of Fish and Game and the National Park Service both have interest in the management of the wildlife and its habitat within the National Park System areas in Alaska.

Public (subsistence) hunting, fishing, and trapping, where permitted, will be conducted within statutory limitations and in a manner compatible with the primary objectives for which the lands are administered. Such hunting, fishing, and trapping, and the possession and disposition of fish, game, and fur animals, shall be conducted

in all other respects within the framework of applicable State laws, including requirements for the possession of appropriate State licenses or permits. The Secretary of the Interior may close all or any portion of land under NPS jurisdiction to public hunting, fishing, or trapping, in order to protect the public safety, to prevent damage to Federal lands or the resources thereon, and may impose such other restrictions as are necessary to comply with management objectives.

The National Park Service will consult with the State and will comply with State permit requirements except in instances where the Secretary of the Interior determines that such compliance would prevent him from carrying out his statutory responsibilities.

The National Park Service will seek to enter into written cooperative agreements containing the plans, terms, and conditions of each party in carrying out the intent of this regulation. Such agreements will be reviewed periodically by both parties, and when appropriate, adjusted to reflect changed conditions. They may deal with such matters as conduct of research, management of habitat, time-use zoning, means of access, coordination of management for populations of species which extend beyond park boundaries, and mechanisms of staffing, funding, and carrying out projects of mutual concern.

The monument abuts the U.S. Fish and Wildlife Service (USFWS) proposal for the Selawik National Wildlife Refuge. The FWS management of the adjoining lands will enhance the NPS proposal; compatible adjacent land uses include preservation of waterfowl habitat and protection of a portion of the range of the Arctic caribou herd.

The proposal for a Kobuk Valley National Monument is also interrelated with the other NPS areas, with headquarters at Kotzebue, which are proposed within the region: Cape Krusenstern National Monument, and Chukchi Imuruk National Reserve.

D. BACKGROUND

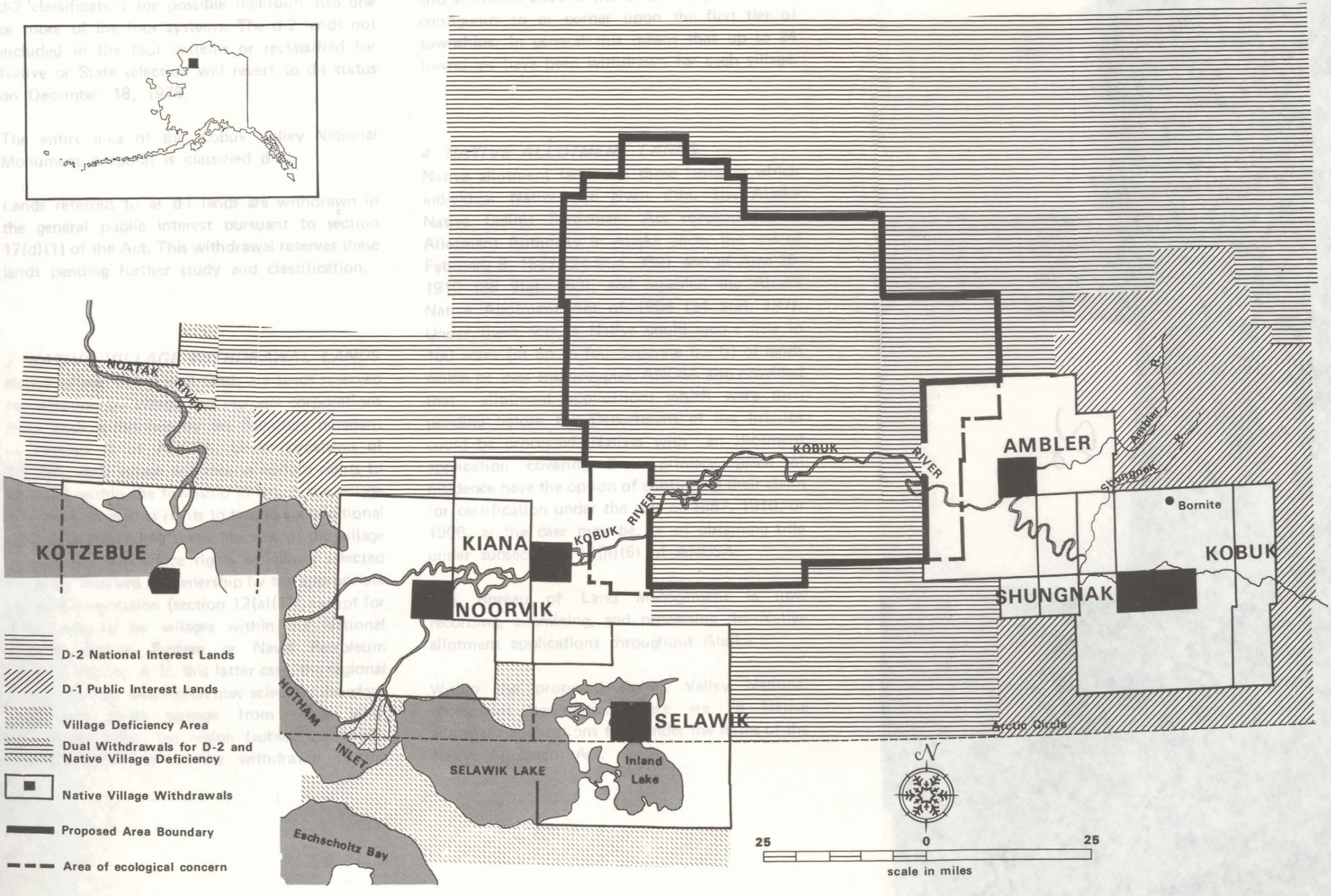
Criteria for lands meriting inclusion in the system of national parks have recently been clarified by the Department of the Interior: The National Park System should protect and exhibit the best examples of our great national landscapes, riverscapes and shores and undersea environments; the processes which formed them; the life communities that grow and dwell therein; and the important landmarks of our history.

The proposed monument contains tangible natural resources and a significant cultural heritage. The National Park System lacks a land unit representing the scenic, biologic, geologic, and human resources of this portion of interior and western Alaska, the Brooks Range, and the Waring Mountains of the Western Alaskan Province. (See Appendix I.) The entire Salmon River watershed, proposed as a wild river, lies within the monument boundaries. Included portions of the Kobuk River represent a major, slow-moving, biotically rich river with plant and aquatic animal communities. The Kobuk also has a major sheefish population. The Kobuk River, especially that portion within the proposal area, contains features unlike any other Alaskan river proposed for inclusion in the National Park System.

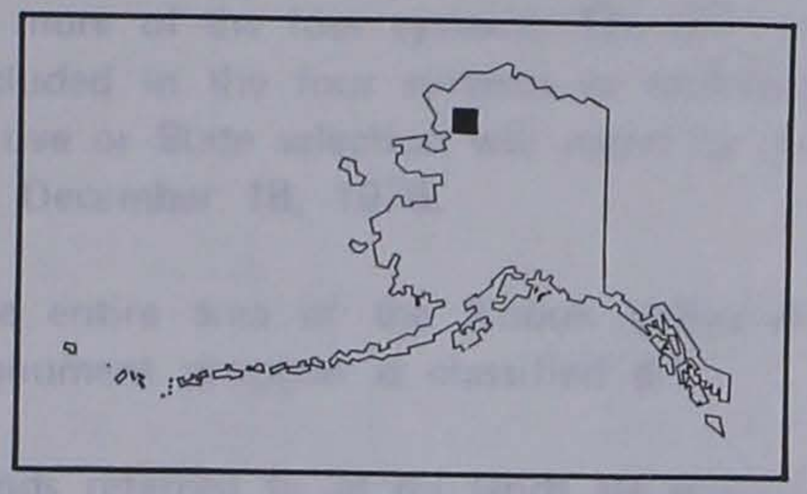
Important wildlife habitat may be found here, including fish-spawning areas, medium and high value waterfowl habitat, and significant portions of the range of the Arctic caribou herd. Key low-elevation passes in the Baird Mountains through which the caribou migrate, are especially significant monument features.

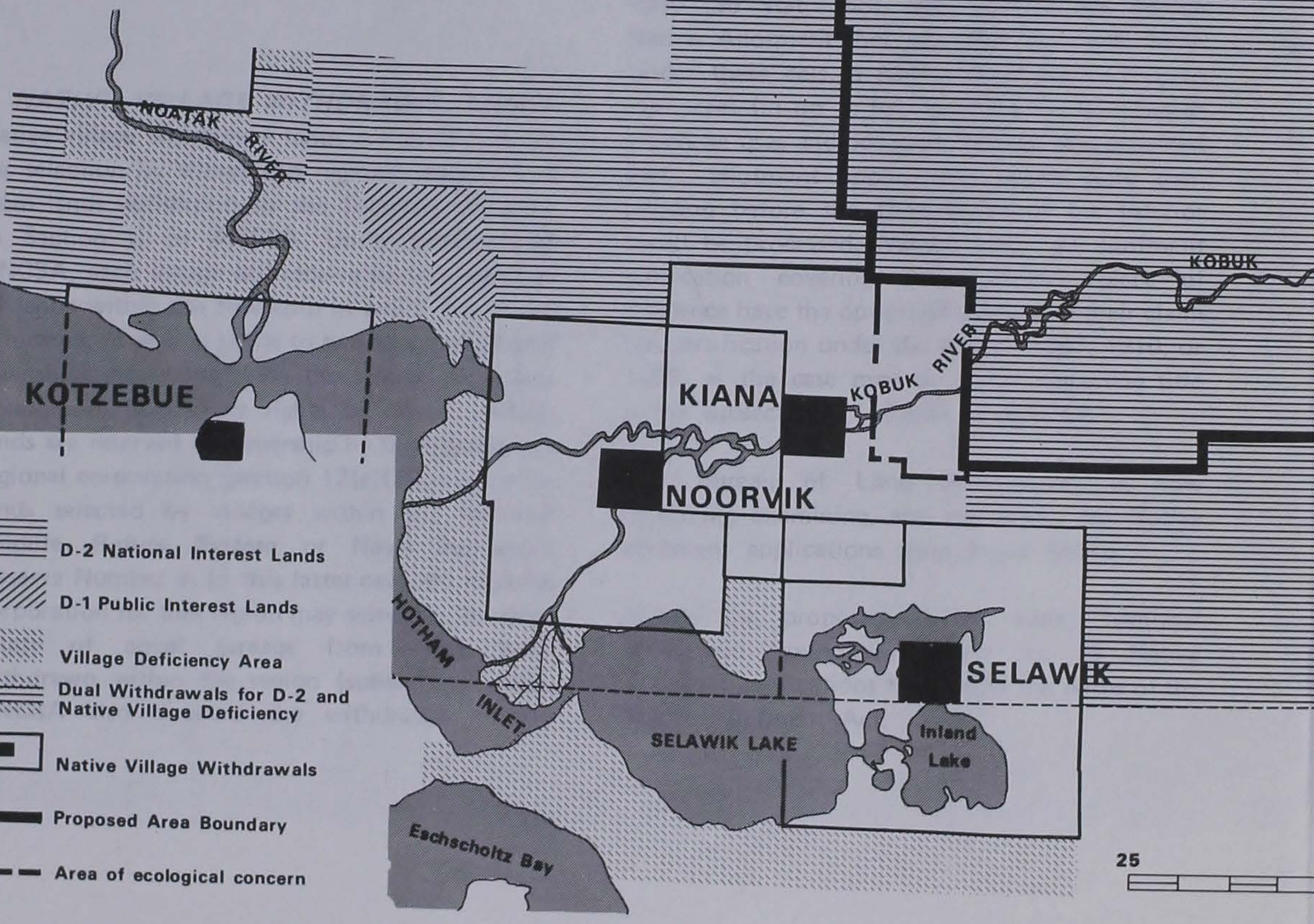
The area contains extremely important vegetational relationships. As a result of its unique

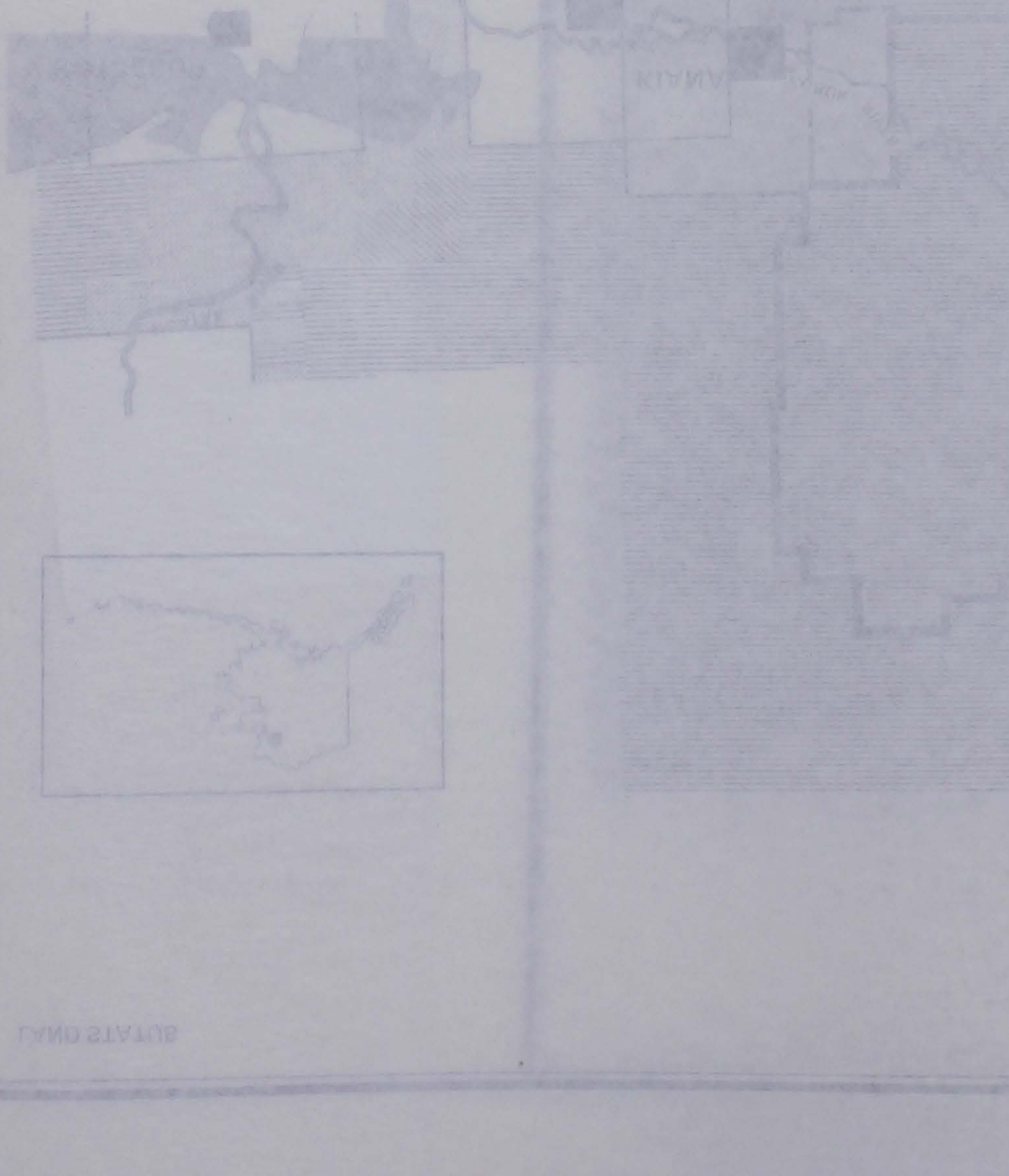
LAND STATUS


NOATAK RIVER
KOBUK RIVER
KOBUK RIVER
AMBLER
Ambler R.
Shungnak R.
Bornite
KOBUK
SHUNGNAK
KOTZEBUE
KIANA
NOORVIK
SELAWIK
HOTHAM INLET
SELAWIK LAKE
Inland Lake
Eschscholtz Bay
Arctic Circle
N
25
0
25
scale in miles
D-2 National Interest Lands
D-1 Public Interest Lands
Village Deficiency Area
Dual Withdrawals for D-2 and Native Village Deficiency
Native Village Withdrawals
Proposed Area Boundary
Area of ecological concern

LAND STATUS




NOATAK RIVER
KOTZEBUE
HOTHAM INLET
KOBUK
KOBUK RIVER
KIANA
NOORVIK
SELAWIK
SELAWIK LAKE
Inland Lake
Eschscholtz Bay
D-2 National Interest Lands
D-1 Public Interest Lands
Village Deficiency Area
Dual Withdrawals for D-2 and Native Village Deficiency
Native Village Withdrawals
Proposed Area Boundary
Area of ecological concern
25



Native corporations). The Secretary of the Interior was directed to place up to 80 million acres in d-2 classification for possible inclusion into one or more of the four systems. The d-2 lands not included in the four systems or reclassified for Native or State selection will revert to d-l status on December 18, 1978.

The entire area of the Kobuk Valley National Monument proposal is classified d-2.

Lands referred to as d-l lands are withdrawn in the general public interest pursuant to section 17(d)(1) of the Act. This withdrawal reserves these lands pending further study and classification.

3. NATIVE VILLAGE WITHDRAWAL LANDS

Native village withdrawal lands are lands reserved for selection by village and regional corporations from lands withdrawn by the Secretary pursuant to Section II of ANCSA. Under provision of ANCSA, each village will receive surface rights to all lands within the township in which the village is located, as well as rights to two to six additional townships depending upon the size of the village population. Subsurface rights of village selected lands are reserved in ownership by the appropriate regional corporation (section 12(a)(1)), except for lands selected by villages within the National Wildlife Refuge System or Naval Petroleum Reserve Number 4. In this latter case, the regional corporation for that region may select a subsurface estate of equal acreage from other lands withdrawn within the region (subsection 11(s)). ANCSA also directed the withdrawal of the townships which are contiguous to or corner upon the township in which the village is located. It also withdrew another tier of townships which are contiguous to or corner upon the first tier of townships. In general this means that up to 24 townships have been withdrawn for each village.

4. NATIVE ALLOTMENT LANDS

Native allotment lands are those lands to which individual Natives are given title. The Alaska Native Claims Settlement Act revoked Indian Allotment Authority in Alaska under the acts of February 8, 1887 (24 Stat. 389), and of June 25, 1910 (36 Stat. 363), and repealed the Alaska Native Allotment Act of 1906 (34 Stat. 197). Under these acts, a Native could secure title to 160 acres (in up to four separate tracts) of lands which he uses and occupies. ANCSA also provided that allotment applications which were then pending before the Department of the Interior could be processed. Natives with an allotment application covering their primary place of residence have the option of continuing their claim for certification under the acts of 1887, 1910, or 1906, as the case may be, or of obtaining title under subsection 14(h)(5) of ANCSA.

The Bureau of Land Management is now recording, examining, and processing the Native allotment applications throughout Alaska.

Within the proposed Kobuk Valley National Monument boundaries, there are 75 Native allotment applications filed under the terms of the Native Allotment Act.

Sand bluffs, 100-150 feet high, occur at river bends. Some bluffs contain perma-frost ice wedges and Pleistocene mammal fossils.



The Kobuk River meanders across a flood plain nearly 8 miles wide. Meander scrolls and oxbrow lakes abound.



A. THE EXISTING ENVIRONMENT

1. GENERAL DESCRIPTION

Alaska is renowned for its scenic splendor, abundant wildlife, untamed rivers, and pristine forests and tundra. Before and since Alaska's purchase from Russia, commercial use of the fish, fur, mineral, and timber resources has been the mainstay of the economy. Agriculture, including reindeer husbandry, has been important. More recent uses of the natural resources--tourism, recreational hunting, fishing, camping, and petroleum exploitation--are increasing rapidly in dollar value. Alaska is not an industrial state due to a variety of factors including the high cost of living, labor, and transportation, and the distance to large markets.

The following is a description of the natural resources of the Kobuk valley and the general region within which the proposal area lies. It includes a discussion of past uses of regional resources as well as suggestions for appropriate use in the future.

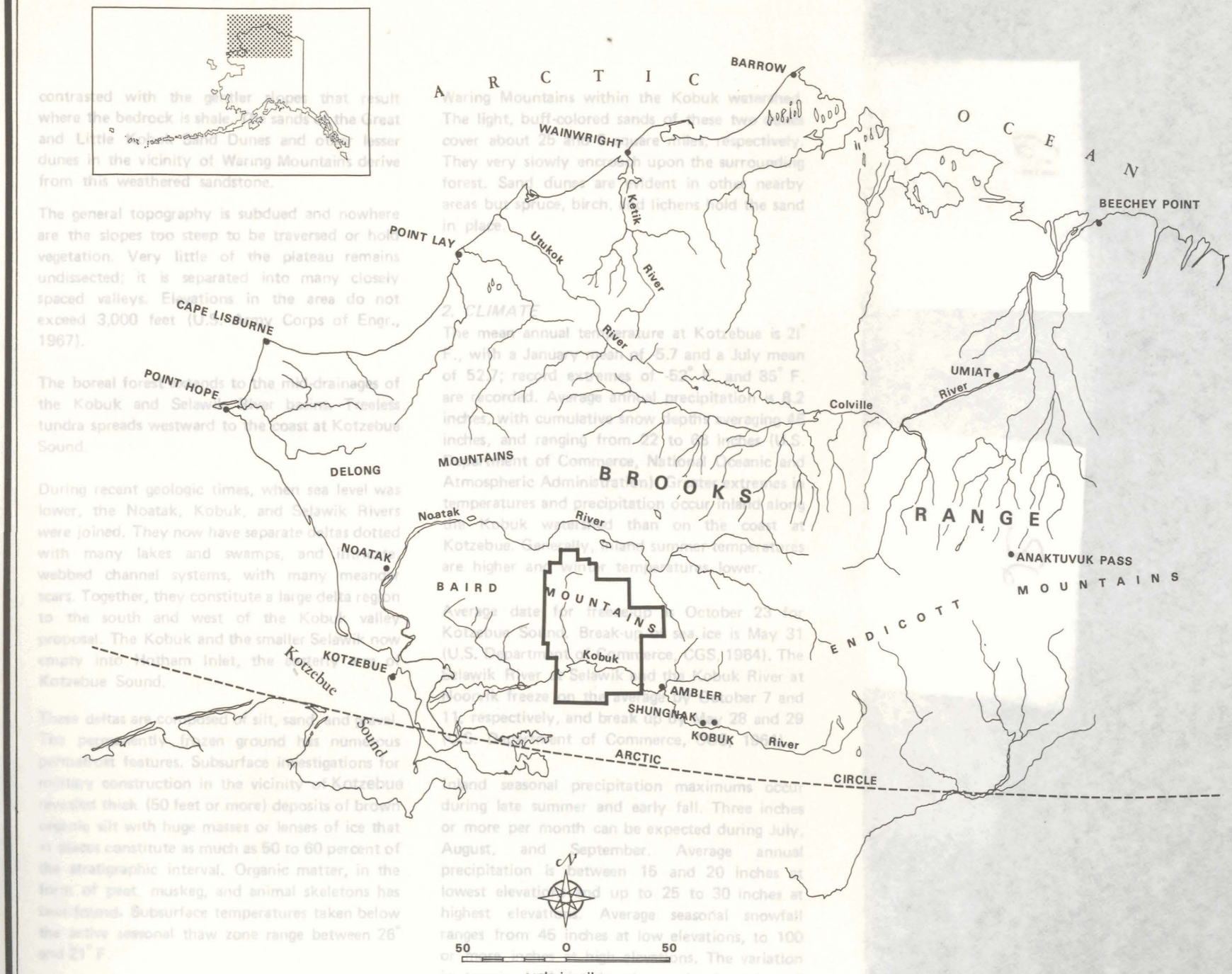
The proposed monument is located in northwest Alaska, north of the Arctic Circle. It includes the portion of the Kobuk River valley that lies between the Baird Mountains on the north and the Waring Mountains on the south, and between the Salmon and Akillik valleys on the west and east respectively. The monument is generally bounded by latitudes 66° 45' and 68° 00' north, longitudes 160° 30' and 157° 00' west. Diverse biological, geological, and anthropological resources are located here; the natural ecosystem exists in a remarkable pristine state.

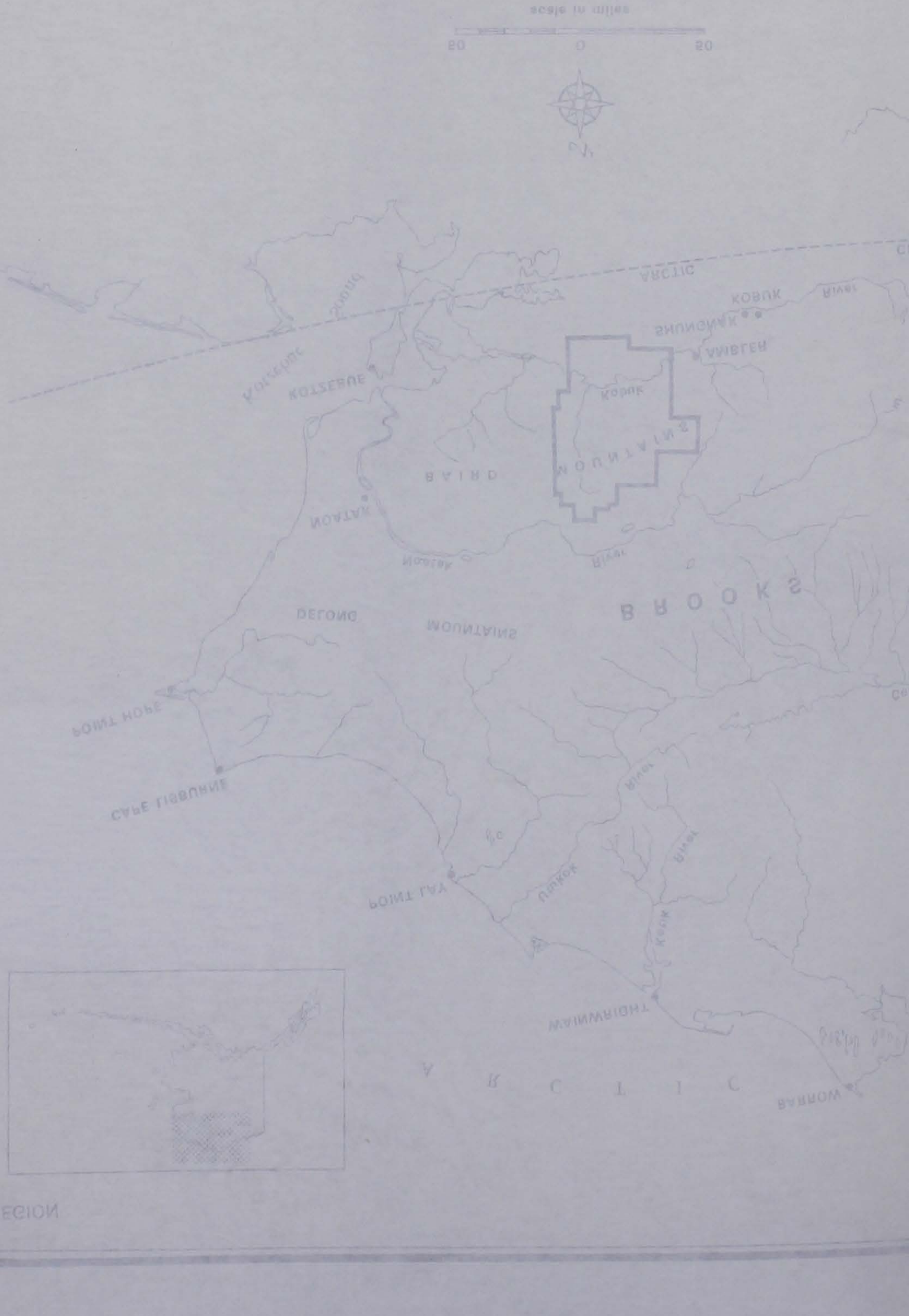
While there are no village settlements within the proposed area, the total population of the surrounding area is 3,104, located at five small villages--Ambler, Kobuk, Shungnak, Kiana, and Noorvik--and the community of Kotzebue. A small number of people live at scattered locations throughout the region, including sites along the Kobuk River within the proposed monument. Kotzebue, with a population of 1,965, is the regional transportation and business hub. It is also the headquarters of the Northwest Alaska Native Association (NANA), the regional corporation within which the entire monument lies. (See The Region map.) No other village in the region has a population exceeding 500. (See Population section, Chapter II.) The economy and lifestyle throughout the region is primarily subsistence; over 80 percent of the people are Alaska natives. Kotzebue has the greatest percentage of non-Native residents. Non-Natives have settled in many of the villages of the region; some have adopted a subsistence lifestyle.

The monument is approximately 70 miles east of Kotzebue. Kiana, on the west, and Ambler, on the east, are just beyond the proposed boundaries. Both villages are on the Kobuk River, and both are served by air service from Kotzebue.

The Kobuk River flows westward on the south flank of the Brooks Range, draining a large area of the Brooks Range province and portions of the plateaus. The course of the river is more or less along the junction of the mountains with the plateaus. The Koyukuk Plateau subprovince, a series of generally flat-topped hills, lies south of the Kobuk River. This range of hills extends as far east as the John River and essentially lies north of the Koyukuk-Yukon River divide. The Lockwood and Zane hills and bordering uplands of the Waring Mountains are included in the Koyukuk Plateaus subprovince.

The hills are underlain with sandstone and shale rock. These formations are largely of Mesozoic age and offer only moderate resistance to erosion. The rocks weather somewhat rapidly, with the more resistant sandstone beds forming steep slopes as


BARROW
ARCTIC
OCEAN
WAINWRIGHT
BEECHEY POINT
POINT LAY
Utukok
Ketik
River
CAPE LISBURNE
River
POINT HOPE
UMIAT
River
Colville
DELONG
MOUNTAINS
BROOKS
RANGE
Noatak
River
NOATAK
ANAKTUVUK PASS
BAIRD
MOUNTAINS
MOUNTAINS
ENDICOTT
Kobuk
KOTZEBUE
Kotzebue
Sound
AMBLER
SHUNGNAK
KOBUK
River
ARCTIC
CIRCLE
N
50
0
50
scale in miles


ARCTIC
KOBUK
SHUNGNAK
AMBLER
KOYUK
NOATAK
BASIN
KOTZEBUE
NOATAK
DEVONIAN
MOUNTAINS
BROOKS
POINT HOPE
CAPE LISBURNE
POINT LAY
KUKPUK
ARCTIC
BARROW

THE REGION

contrasted with the gentler slopes that result where the bedrock is shale. The sands of the Great and Little Kobuk Sand Dunes and other lesser dunes in the vicinity of Waring Mountains derive from this weathered sandstone.

The general topography is subdued and nowhere are the slopes too steep to be traversed or hold vegetation. Very little of the plateau remains undissected; it is separated into many closely spaced valleys. Elevations in the area do not exceed 3,000 feet (U.S. Army Corps of Engr., 1967).

The boreal forest extends to the mid-drainages of the Kobuk and Selawik River basins. Treeless tundra spreads westward to the coast at Kotzebue Sound.

During recent geologic times, when sea level was lower, the Noatak, Kobuk, and Selawik Rivers were joined. They now have separate deltas dotted with many lakes and swamps, and intricate, webbed channel systems, with many meander scars. Together, they constitute a large delta region to the south and west of the Kobuk valley proposal. The Kobuk and the smaller Selawik now empty into Hotham Inlet, the easterly arm of Kotzebue Sound.

These deltas are composed of silt, sand, and gravel. The permanently frozen ground has numerous permafrost features. Subsurface investigations for military construction in the vicinity of Kotzebue revealed thick (50 feet or more) deposits of brown organic silt with huge masses or lenses of ice that in places constitute as much as 50 to 60 percent of the stratigraphic interval. Organic matter, in the form of peat, muskeg, and animal skeletons has been found. Subsurface temperatures taken below the active seasonal thaw zone range between 26° and 21° F.

The Great Kobuk Sand Dunes and the Little Kobuk Sand Dunes are on the north side of the Waring Mountains within the Kobuk watershed. The light, buff-colored sands of these two dunes cover about 25 and 5 square miles, respectively. They very slowly encroach upon the surrounding forest. Sand dunes are evident in other nearby areas but spruce, birch, and lichens hold the sand in place.

2. CLIMATE

The mean annual temperature at Kotzebue is 21° F., with a January mean of -5.7 and a July mean of 52.7; record extremes of -52° F. and 85° F. are recorded. Average annual precipitation is 8.2 inches, with cumulative snow depths averaging 46 inches, and ranging from 22 to 68 inches (U.S. Department of Commerce, National Oceanic and Atmospheric Administration). Greater extremes in temperatures and precipitation occur inland along the Kobuk watershed than on the coast at Kotzebue. Generally, inland summer temperatures are higher and winter temperatures lower.

Average date for freeze-up is October 23 for Kotzebue Sound. Break-up of sea ice is May 31 (U.S. Department of Commerce, CGS, 1964). The Selawik River at Selawik and the Kobuk River at Noorvik freeze on the average by October 7 and 11, respectively, and break up by May 28 and 29 (U.S. Department of Commerce, CGS, 1964).

Inland seasonal precipitation maximums occur during late summer and early fall. Three inches or more per month can be expected during July, August, and September. Average annual precipitation is between 15 and 20 inches at lowest elevations and up to 25 to 30 inches at highest elevations. Average seasonal snowfall ranges from 45 inches at low elevations, to 100 or more inches at high elevations. The variation in terrain, both in elevation and orientation of valleys and ridges, causes large variations in precipitation amounts.

The placid Kobuk River is 1,000-1,500 feet wide and falls only 2-3 inches per mile. The river lies 50 feet above sea level over 150 river miles inland from its mouth.

Surface winds along the coast are fairly strong during all months. The average annual wind speed at Kotzebue is 13 m.p.h. Through the Kobuk River valley winds are mostly east or west, but there are periods when north winds flow out of the Brooks Range valleys.

The only guide for estimating cloud cover in the region is the statistics for Kotzebue, where average cloud cover, sunrise to sunset, is 6.6 on a scale of 0 for no clouds and 10 for overcast. In the valley and along the slopes, however, cover is substantially less than that found at the coast.

3. GEOLOGY

GENERAL

The monument lies within two major physiographic provinces. The Baird Mountains comprise a portion of the Arctic Mountains province (Brooks Range) of the Rocky Mountain system. The remainder of the area comprises the Kobuk-Selawik Lowland section of the Western Alaska province. The Waring Mountains are a subsection of the latter (Wahrhaftig, 1965).

The Brooks Range is a complex geanticline, or fold belt, over 600 miles long that may be considered to be a northward extension of the Rocky Mountains. Paleozoic marine rocks that have been thrust-faulted northward and folded into great flat folds overturned to the north form the backbone of the range (Wahrhaftig, 1965). North of the proposed area, rocks consist of Silurian, Devonian, and Mississippian limestones; quartzite, and metamorphic rocks; Permian, Triassic, Jurassic, and Cretaceous sandstones, conglomerates, and shales are also present (Gryc, 1958).

Within the monument, on the south flank of the Baird Mountains, is a belt of undifferentiated Paleozoic rocks with an east-west structural trend. The Paleozoic rocks are metamorphosed sediments of phyllite and quartz-mica schist, with greenstone and some calcarious schist and limestone present. Paleozoic rocks are exposed along the foothills of the Baird Mountains and in the core of the Cosmos Hills anticline.

Lower bedrock spurs of the Baird Mountains are underlain by altered basalt flows and diabase intrusive rocks with subordinate chert and mudstone. Local bodies of serpentine occur in the Jade Mountains and Cosmos Hills. This Jurassic age rock unit contains asbestos and jade deposits. A thick section of Cretaceous rocks underlie the Kobuk River valley. This sedimentary basin is bounded by the Baird Mountains on the north and by the southern foothills of the Waring Mountains, Hockley Hills, and Hotham peak on the south. These southern hills divide the Kobuk and Selawik River lowlands. Cretaceous rocks are 13,500 to 17,500 feet thick, as measured from exposures in the Waring Mountains (Patton and Miller, 1968).

Three rock units ranging from early to late Cretaceous age have been mapped. The east-west band along the south side of the Kobuk valley consists of volcanic graywacke, mudstone, and conglomerates with interbedded calcareous graywacke and mudstone. This unit includes most of the south flanks of the Waring Mountains. Lower Cretaceous pebble-cobble conglomerate and poorly sorted and poorly stratified basaltic or andesitic rocks, in a graywacke and mudstone matrix, form the upper slopes of the Waring Mountains. Upper Cretaceous quartz conglomerate, sandstone, and mudstone in a quartz and micaceous matrix of nonmarine origin occurs along the northern foothills of the Waring Mountains and underlies Ingrichek Mountain and the Cosmos Hills. Well preserved plant fossils are abundant in this unit. The presence of small amounts of bituminous coal is indicated by the occurrence of float in the vicinity of the Kallarichuk and Kobuk Rivers. The Waring Mountains are a broadly folded, northeast trending

syncline. Faults on the northwest flanks of the syncline parallel the structure (Patton and Miller, 1968; Patton, et al., 1968).

Unconsolidated deposits of three principal kinds floor the Kobuk River valley. Flood plain silt, sand, and gravel deposits lie along major rivers and streams. The Kobuk River flood plain is 1 to 6 miles wide, except at the confluence of major tributaries and on the delta (Patton and Miller, 1968 Patton et al., 1968).

Glacial drift covers much of the Kobuk-Selawik Lowlands. Sediment types are numerous, including sand silt deposited by wind and water, clayey till, outwash gravel, sand and silt.

About 300 square miles of the central Kobuk valley is covered with sand which had been distributed by wind and water. A tongue of sand extends from the Kobuk valley, through the drainage divide east of the Waring Mountains, and into the upper Selawik valley. Two areas of active dunes lie to the north of the Waring Mountains and cover about 30 square miles. These are the Great and Little Kobuk Sand Dunes (Fernald, 1964). Except for a narrow dune field along the south bank of the Kobuk River opposite the mouth of Hunt River, and small, isolated blowouts of sand, the remainder of the sand unit is covered with forest and tundra vegetation. Hundreds of lakes, mostly thaw ponds, cover the lowlands. Sand, silt, clay, and peat are exposed along lakeshores.

GLACIAL GEOLOGY

Five glaciations have been recognized in the Kobuk valley (Fernald, 1964). The greatest extent of glaciation occurred in Illinoian time when glaciers extended at least as far west as the Baldwin Peninsula, which is made of morainal sediments. Today, glacial drift covers much of the Kobuk River valley. Drift lies at altitudes of 800 feet above sea level in the Waring Mountains, indicating that the ice was at least that thick (Patton and Miller, 1968). No glaciers exist at present within the proposed monument.

The glaciations areas are as follows (Fernald, 1964):

Modern Glaciation	Modern moraines and drift in north-facing cirques of the Schwatka Mountains.
Ulaneak Creek glaciation (Recent age)	Fresh moraines in higher parts of the Schwatka Mountains
Walker Lake glaciation (Wisconsin age)	Lobate moraines in the Schwatka Mountains; small moraines in the Baird Mountains
Ambler glaciation	Subdued moraines along larger rivers draining the Biard and Schwatka Mountains. Glaciers reached the Ambler lowland but not the Kobuk River.
Kobuk glaciation	Eroded drift having no distinct morainal topography covers large areas of the Kobuk and Selawik valleys.

Much of the silts and sands deposited by wind and water were emplaced during the interglacial period that followed the Kobuk glaciation and preceded the Ambler glaciation. During this time strong easterly winds blowing down the Kobuk valley reworked glacio-fluvial materials on the extensive river bars and outwash plains to form the dune fields. Subsequently, the wind-winnowed sediments were vegetated, except for the active areas of the present Great and Little Kobuk Sand Dunes.

SOILS

Most of the following information is a summary of information prepared by the Joint Federal-State Land Use Planning Commission. The JFSLUPC, in turn, obtained the information from "Exploratory Soil Survey of Alaska," an interim report of the Soil Conservation Service, U.S. Department of Agriculture. Both the report and the soil maps on which it is based are subject to review and revision. For this reason, it cannot be cited as an official publication of the Department of Agriculture. A complete report of the exploratory soil survey is in preparation and will be published by the U.S.D.A.

Please refer to the Soils map for a schematic representation of the general location of soils types discussed below. The legend of this map lists 10 general soils descriptions. The following description will deal with these 10 soils descriptions in the same order as appears on the legend.

Permafrost is continuous throughout the Kobuk valley.

1. The Great Kobuk Sand Dunes and a portion of the Little Kobuk Sand Dunes lie south of the Kobuk River, in the southeast of the proposal area. (See also the Kobuk Sand Dunes section, this Chapter.) They are shifting sand dunes with little or no vegetation. There are essentially no associated soils except for small patches of well-drained sandy soils with little or no admixture of finer materials at depths below 10 inches. Coastal grasses may be found on these associated soils.

A rectangular (rather than polygonal) gridwork on the unvegetated easternmost section of the Great Kobuk Sand Dunes is probably a manifestation of permafrost terrain. The grid pattern is accentuated by the black broken plates of cemented sand less than 1 inch thick. The gridwork area on the eastern end of the Great Kobuk Sand Dunes has principal ridges oriented about N. 19 W., spaced about 20 feet apart. Transverse ridges, which intersect these northerly trending ridges at right angles, are spaced about 40 feet apart (Sanchez, field observation, 1972).

2. At the extreme south central portion of the proposal area is a soil association characterized mainly by very gravelly silt loam or sandy loam or gravelly loam. The soil surface is commonly irregular, with many low mounds, solifluction lobes, and other evidences of soil movement. Polygons and other patterned ground features are evident.

3. Along the Waring Mountains, in the southern portion of this proposal area occurs a soil association of very shallow silt loam, or sandy loam over very gravelly loam. This association occurs in positions with good surface drainage and generally above the tree line, along hills and ridges.

4. To the west, north and east of the Great Kobuk Sand dunes lies a larger area of stabilized low dunes. Soils here are predominantly sandy or silt loam or sandy loam.

5. Along both banks of the Kobuk River and into the valley bottomlands extends a soil association



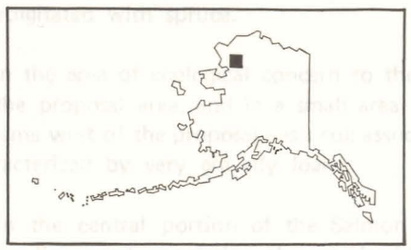
Hundred-foot high waves of sand are sparsely vegetated. Dune building winds are westerly during summer, from the east the remainder of the year.

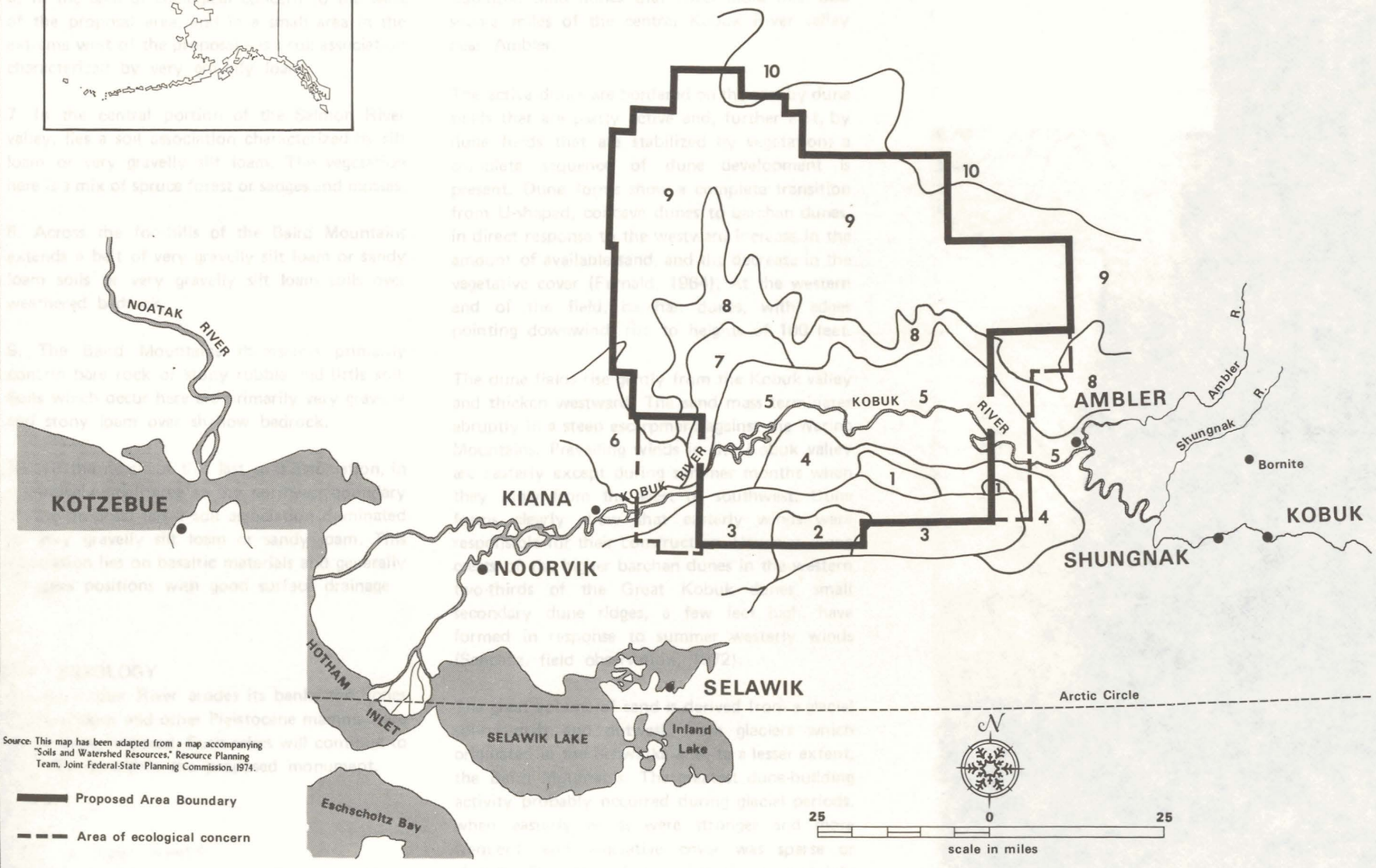
Legend for Soils Map

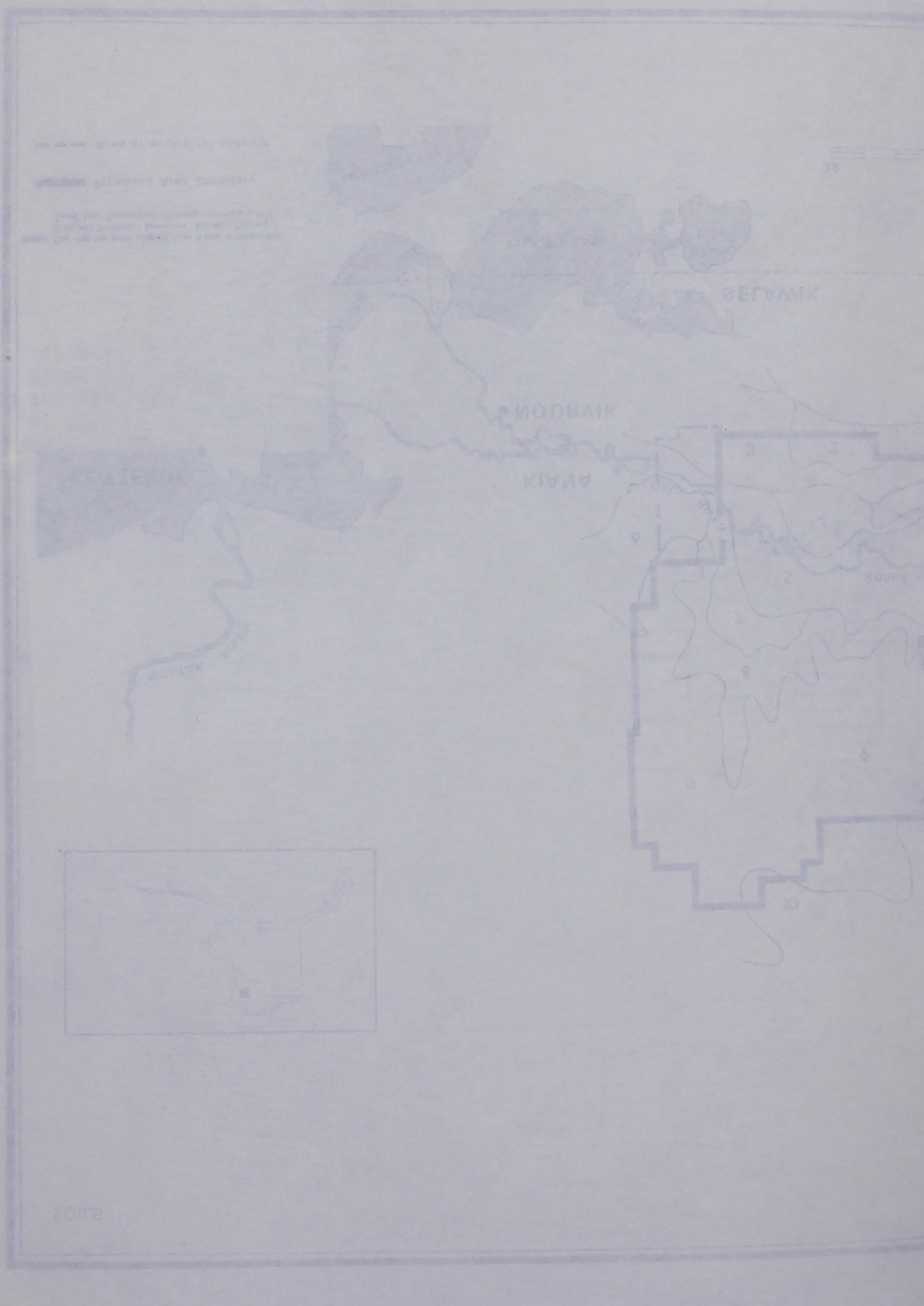
1. Shifting sand dunes.
2. Very gravelly silt loam, or sandy loam, or gravelly loam.
3. Well drained very shallow silt loam, or sandy loam over very gravelly loam; occurs along hills and ridges.
4. Stabilized low dunes; soils are sandy or silt loam, or sandy loam.
5. Silt loam, as well as sandy loam and clay loam and gravelly areas.
6. Very gravelly loam.
7. Silt loam or very gravelly silt loam.
8. Very gravelly silt loam or sandy loam, or very gravelly silt loam over weathered bedrock.
9. Primarily bare rock or stony rubble; soils are very gravelly and stony loam over shallow bedrock.
10. Very gravelly silt loam or sandy loam.

This soils map is adapted from field sheets of the Alaska Exploratory Soil Survey prepared by the Soil Conservation Service, USDA. The map is released without editorial or technical review, and is subject to revision. It is not an official publication of the USDA and may not be cited as such. However, this map is included and replaces the soils map of the Draft Environmental Statement at the request of the Soil Conservation Service. (See letter, SCS, Chapter IX.)

SOILS




NOATAK RIVER
KOTZEBUE
KIANA
KOBUK RIVER
NOORVIK
HOTHAM INLET
SELAWIK
SELAWIK LAKE
Inland Lake
Eschscholtz Bay
KOBUK RIVER
AMBLER
Ambler R.
Shungnak R.
Bornite
KOBUK
SHUNGNAK
Arctic Circle
N
25 0 25
scale in miles
Source: This map has been adapted from a map accompanying "Soils and Watershed Resources," Resource Planning Team, Joint Federal-State Planning Commission, 1974.
Proposed Area Boundary
Area of ecological concern



characterized by silt loam but including sandy loam and clay loam and some fairly gravelly areas. The vegetation is dominantly sedges and mosses interdigitated with spruce.

6. In the area of ecological concern to the west of the proposal area, and in a small area in the extreme west of the proposal lies a soil association characterized by very gravelly loam.

7. In the central portion of the Salmon River valley, lies a soil association characterized by silt loam or very gravelly silt loam. The vegetation here is a mix of spruce forest or sedges and mosses.

8. Across the foothills of the Baird Mountains extends a belt of very gravelly silt loam or sandy loam soils or very gravelly silt loam soils over weathered bedrock.

9. The Baird Mountains themselves primarily contain bare rock or stony rubble and little soil. Soils which occur here are primarily very gravelly and stony loam over shallow bedrock.

10. To the north of this last soils association, in a relatively small area at the northeast boundary of the proposal lies a soil association dominated by very gravelly silt loam or sandy loam. This association lies on basaltic materials and generally occupies positions with good surface drainage.

PALEONTOLOGY

As the Kobuk River erodes its banks the bones of mastodons and other Pleistocene mammals are occasionally exposed. Such relics will continue to be exposed within the proposed monument.

KOBUK SAND DUNES

Two large areas of active sand dunes, the Great Kobuk Sand Dunes and the Little Kobuk Sand Dunes, cover areas of about 25 and 5 square miles, respectively. The Little Kobuk Sand Dunes are outside the proposed boundary but within the area of ecological concern on the east. The active dune fields are part of two larger fields of vegetation stabilized sand dunes that cover more than 300 square miles of the central Kobuk River valley near Ambler.

The active dunes are bordered on the east by dune fields that are partly active and, further east, by dune fields that are stabilized by vegetation; a complete sequence of dune development is present. Dune forms show a complete transition from U-shaped, concave dunes to barchan dunes, in direct response to the westward increase in the amount of available sand, and the decrease in the vegetative cover (Fernald, 1964). At the western end of the field, barchan dunes, with edges pointing downwind, rise to heights of 100 feet. The dune fields rise gently from the Kobuk valley and thicken westward. The sand mass terminates abruptly in a steep escarpment against the Waring Mountains. Prevailing winds in the Kobuk valley are easterly except during summer months when they blow from the west or southwest. Dune forms clearly show that easterly winds were responsible for their construction. However, along crests of the higher barchan dunes in the western two-thirds of the Great Kobuk dunes, small secondary dune ridges, a few feet high, have formed in response to summer westerly winds (Sanchez, field observation, 1972).

The great volume of sand is derived from a glacial source--drift and outwash from glaciers which originated in the Schwatka and, to a lesser extent, the Baird Mountains. The greatest dune-building activity probably occurred during glacial periods, when easterly winds were stronger and more frequent, and vegetative cover was sparse or absent. The age of the deposits is certainly Wisconsin and part of them may be as old as



Ahnewetut Creek has maintained its course through the Great Kobuk Sand Dunes. Other streams flow around the dunes.

Clean, golden yellow sands contrast sharply with the deep green spruce forest. Kavet Creek flows at the foot of high dunes.

Illinoian. No radiocarbon dates are available from the sands, but, from peat deposits below dune sand, dates greater than 33,000 years are indicated (Fernald, 1964).

The dune sand ranges from very fine (0.05 to 0.1 mm.) to very coarse (1 to 2 mm.) sand sizes. Grains are well-rounded and frosted. Mineral composition is principally quartz, feldspar, and opaque minerals.

Chlorite and chloritoid is abundant in the finer fractions (Fernald, 1964). The overall, golden-yellow color of the dunes contrasts vividly with the vari-colored light and dark greens of the surrounding spruce-birch-aspen forest and the streamside willows. The Great Kobuk Sand Dunes affect the courses of two streams which rise in the Waring Mountains. Kavet Creek is crowded against these mountains by migrating dunes. That creek now flows at the base of the steep dune-edge escarpment along the southwestern and western margin of the dune field. Some water from Kavet Creek drainage probably flows beneath the high barchan dunes in this area. Several springs issue from amphitheaters at the western base at the active dune front; the outflow then reenters Kavet Creek (Sanchez, field observation, 1972).

Niaktuvik Creek similarly follows the active dune margin to the southeast, flows across a narrow area of stabilized sand, then over glacial drift to its confluence with the Kobuk River.

Ahnewetut Creek has maintained a course through the active dune field. The faces of 100-foot high dunes form the east bank of Ahnewetut Creek. High dunes rise from the west bank, but the windward slopes are much gentler than the 31 degree slip face slopes. The three streams carry a heavy load of sand. Predictably, the streambeds are quicksand; one sinks almost to his knees when traversing these streams (Sanchez, field observation, 1972).

WATER RESOURCES

The wildlife, wildlife habitats, fisheries, mining, recreation opportunities, and demographic features within the Kobuk valley are interrelated with the type, quality, and quantity of the water resources.

The Kobuk River is the main watercourse within the region. It flows in a confined course only in its upper reaches. In its lower section--50 miles or more above the mouth--the river breaks and fans out into a dozen or more channels. The Kobuk River delta is 20 miles wide. At the delta, the banks rise only a few feet to a maze of small lakes, ponds, and sloughs which attract large numbers of waterfowl and shore birds. The Kobuk accumulates almost all its flow from tributaries originating above this marshy area.

The Kobuk River heads on the south slopes of the Brooks Range and flows westward 280 miles, emptying into Hotham Inlet across a 32-mile-long delta. In the central Kobuk valley the river is 1,000 to 1,500 feet wide. The river is shallow and sand bars are numerous. Banks are low except at large bends where occasional bluffs are 50 to 150 feet high. The river follows a meandering course across a flood plain that varies from 1 to 8 miles in width. Sloughs and oxbow lakes are abundant along the wider parts of the meander plain.

The spring thaw brings flooding along the Kobuk. Melting snow pours water down the frozen river, lifting, breaking, and jamming the heavy ice. These ice jams back up water for miles and flood the lowlands. Eventually, the water raises or erodes the ice until the jams break. The ice flows down the river until a new supply of ice gathers and, again, jams. During this process, gravel bars and banks are scoured and a large amount of silt is deposited.

The heaviest rains of the year occur in the late summer, often making the river turbid.

Occasionally, these rains cause flooding in the Kobuk valley.

MINERALS

Geologic mapping of the area suggests that the lowlands have a low metallic mineral potential. The area has a low to moderate petroleum potential in the Mesozoic Kobuk-Selawik sedimentary basin (U.S. Department of the Interior, GS, 1972). According to U.S.G.S., the petroleum potential in the Cenozoic basins is moderate within the withdrawal, but it is better westward where Tertiary sediments thicken under the Kotzebue Sound (G.S., Letter, Chapter IX).

Reconnaissance of the upper Kobuk watershed is only partial, but it suggests the area has a moderate to high mineral potential, with the Baird Mountains having the best potential.

The known distribution and production of various metals and metalliferous minerals can give some indication of the likelihood of encountering these resources within an area. In Alaska, where mineral exploration is considered to be in an early stage, these indications may be misleading.

Mineralized rock exists in and adjacent to the proposal area and reconnaissance sampling has discovered several geochemical anomalies. Outside the monument, placer gold has been produced sporadically from Klery Creek, and a copper prospect has been drilled. Copper prospects are best known at Bornite, 40 miles east of the monument between the Ambler and Kobuk Rivers, where bornite, a sulfide of copper and iron, is found in marketable quantities. Here there is an estimated 100 million tons of ore containing 1.2 to 1.6 percent copper. The estimated tonnage may be considerably greater than 100 million tons, but the grade and tonnage figures are proprietary and have not been released (Letter, JFSLUPC, Chapter IX). Potential copper resources may occur within the northern portion of the monument because the belt of mineralized marble and pelitic schist that forms the southern margin of the Brooks Range trends westward from Bornite through the monument area. (See Minerals I map.)

According to the U.S.G.S., a metallogenic province favorable for gold, lead, silver and uranium occurs along the southern part of the withdrawal (G.S., Letter, Chapter IX).

Chromite-and nickel-bearing rocks are found in the upper Kobuk watershed, east of the monument. The JFSLUPC states that they are not presently of minable grade (JFSLUPC, Letter, Chapter IX).

The U.S.G.S. states that privately discovered barite deposits west of the boundary received attention in 1973 (G.S., Letter, Chapter IX).

Asbestos minerals occur in a linear zone that extends approximately 45 miles eastward from Jade Mountain to the eastern half of the Cosmos Hills in the upper Kobuk River. Deposits are judged sufficient to have economic potential for development.

Production of gem-quality jade has occurred in the vicinity of Jade Mountain near Ambler.

The sedimentary basins, which underlie Kotzebue Sound and portions of the Selawik and the Kobuk, may contain petroleum deposits. Other portions of the region have little or no prospect for petroleum discovery. (See Minerals II map.)

Coal of Cretaceous age is found at a few scattered localities within the region. Coal outcrops are known from several points along the Kobuk River (Barnes, 1967); these are in Tertiary rock which locally underlie the southern part of the withdrawal, (G.S., Letter, Chapter IX). Several thin coal beds (2 to 3 feet thick) are exposed on the lower Ambler River, on the Kogoluktuk River,

and in the Lockwood Hills. All are adjacent to but outside the proposal area. An outcrop on Hunt Creek is within the Kobuk valley proposal; thin coal beds are exposed in bluffs on the north side of the Kobuk between Trinity Creek and the Kallarichuk River, just inside monument boundaries.

Three legally located and maintained mining claims are within the monument area. There are no available production records.

4. VEGETATION

GENERAL

The vegetation of Kobuk valley is diverse. At least 368 species of flowering plants have been reported for this general area (Appendix D). Lichens and liverworts, although important elements of regional vegetation, have received no similar quantitative or qualitative study. Undoubtedly, many additional species of lichens and liverworts will be found within this region as botanical data are gathered.

During the late Tertiary and Pleistocene ages, the geological uplifting and the resulting climatic shifts within the region mark the beginning of modern vegetation (Johnson, 1969). These vegetation patterns continued to shift and differentiate in response to repeated glaciations. Two major sources of floral migration are especially significant to Alaska: the Bering Land Bridge, and unglaciated refugia (Hulten, 1968; Johnson, 1969). The Kobuk valley region was a principal element of both these sources. There is increasing evidence that major elements of today's flora crossed the broad land bridge that spanned the Bering Strait during the Wisconsin glacial period. The Kobuk valley with the larger, surrounding region constitutes an exceptionally valuable living workshop for scientists who are interested in plant evolution, genetics, distribution, redistribution, and migration.

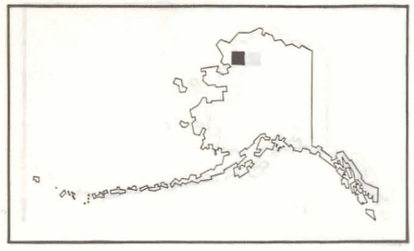
The diverse vegetation found in the area is a mosaic related in part to growing season, soil, slope and aspect, water regime, presence of permafrost, and fire. The boreal forest, or taiga, is found throughout most of interior Alaska and extends along the south slope of the Brooks Range, and into the lowlands of the Kobuk valley. Tundra lies generally to the west in the uplands. The northern border of the boreal forest bisects the proposed monument; located throughout this transitional location is an ecotone of forest and low-elevation tundra. A complex interfingering of tundra, forest, and forest-tundra is found here.

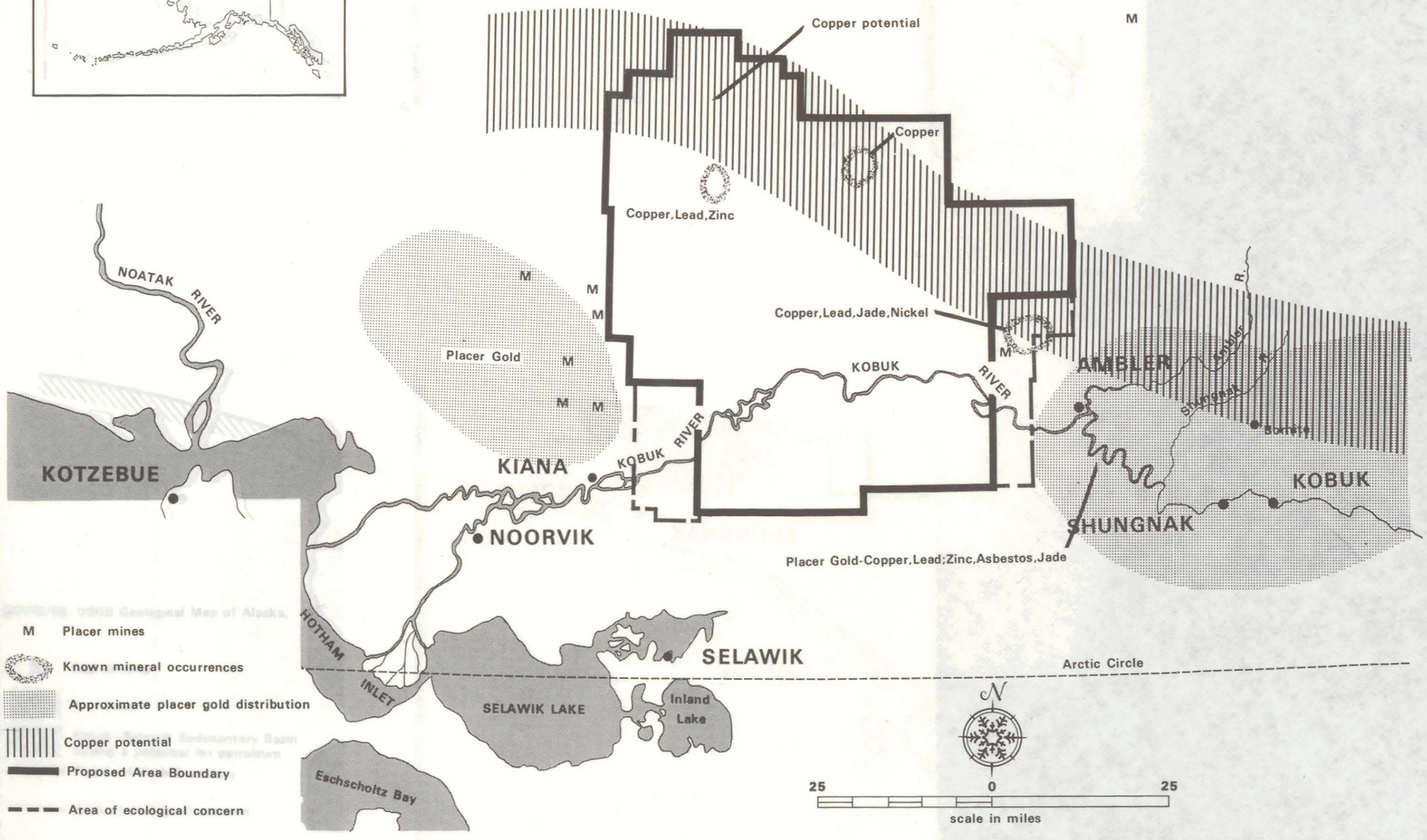
VEGETATIVE TYPES

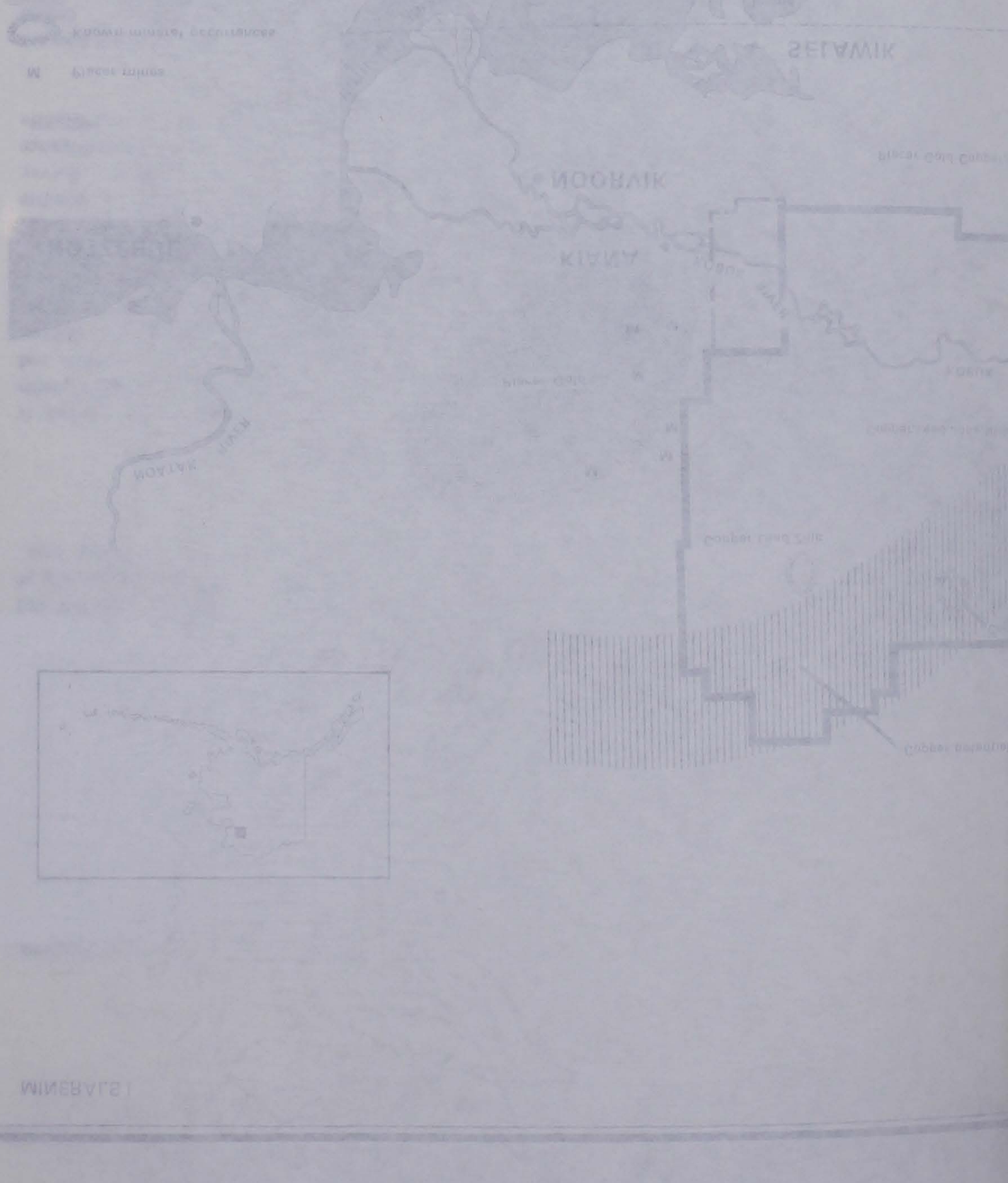
The classification of vegetation that follows is taken mainly from Viereck and Little (1972), with minor modifications adopted from Hopkins and Sigafoos (1951), Hanson (1951), and Britton (1957). The vegetation map represents gross vegetative patterns and is not definitive. The map was extrapolated and drawn from a combination of information, including Viereck's (1972) vegetational map of Alaska, ERTS satellite (NASA) imagery, U.S. Geological Survey topographic maps, and aerial reconnaissance information obtained by the U.S. Fish and Wildlife Service. (See Vegetation map.)

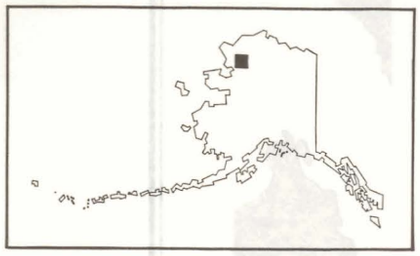
Within the boreal forest in the monument area are several vegetation subtypes: closed spruce-hardwood forest; open, low-growing spruce forests; and shrub thickets. Although each subtype is comprised of a mixture of species, it is usually classified either by the dominant species, or by the morphology of the stand.

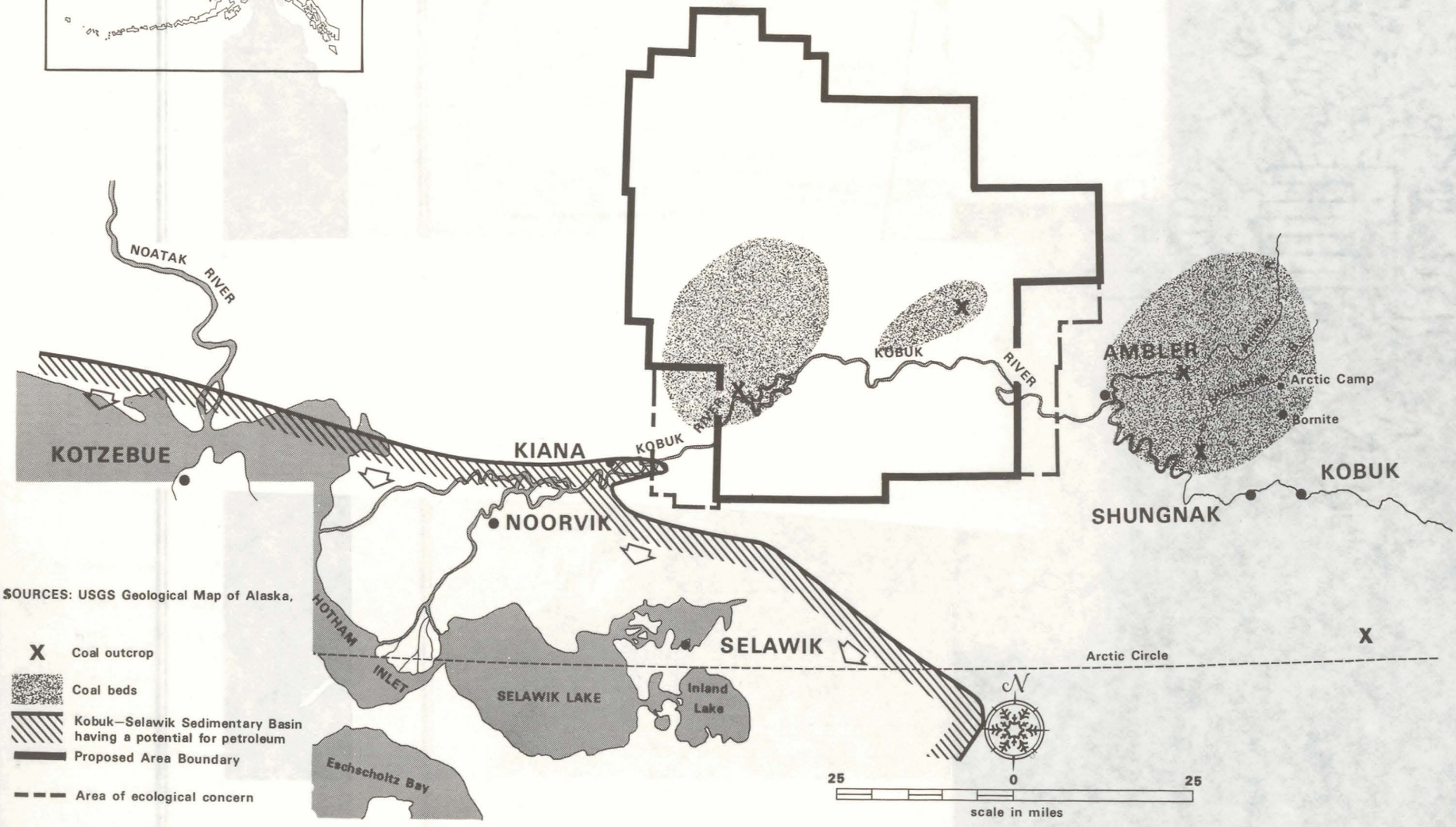
Because of repeated burns, large areas of the forests are in various stages of succession. In

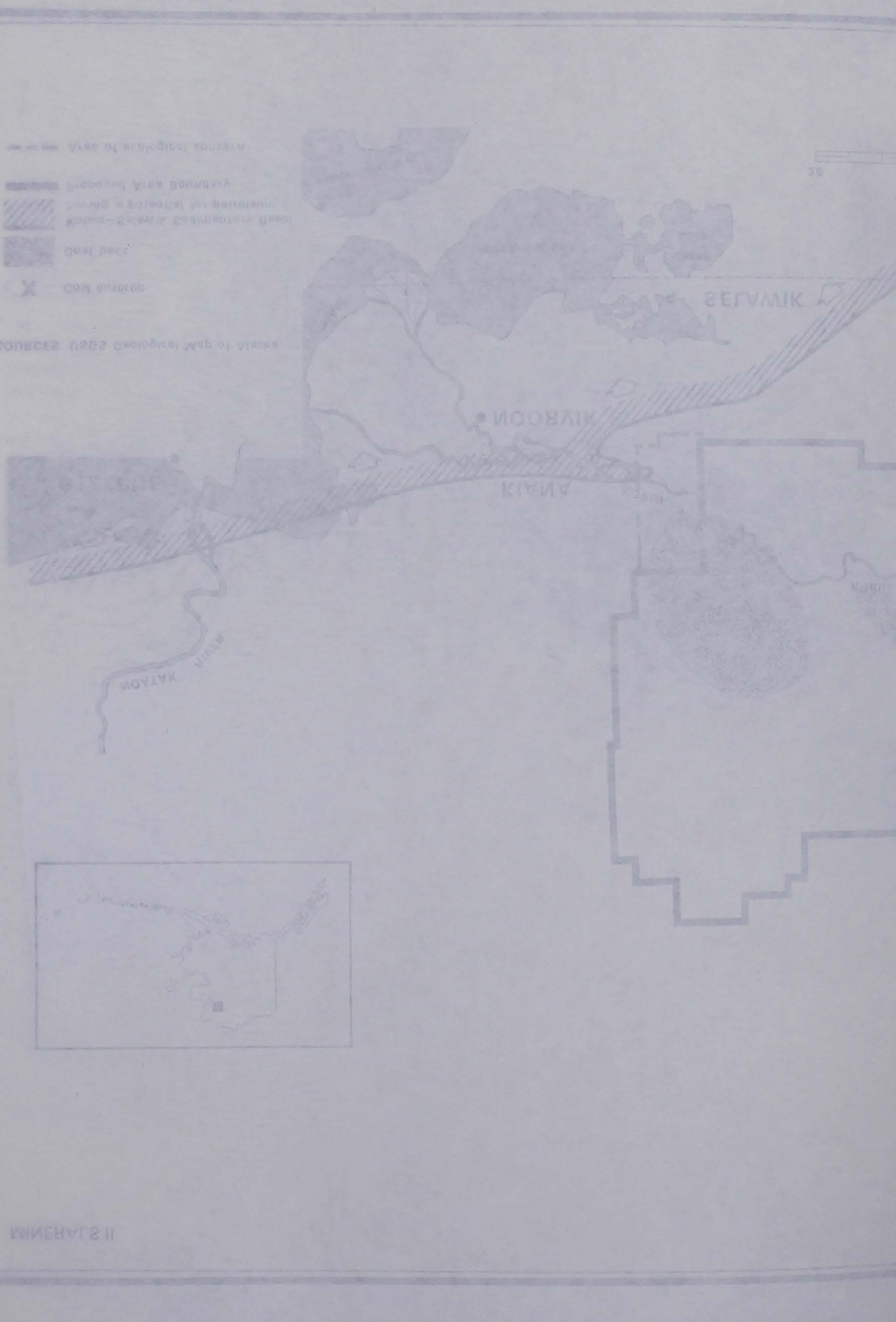



Copper potential
M
Copper
Copper,Lead,Zinc
NOATAK RIVER
M
M
M
Placer Gold
M
M M
Copper,Lead,Jade,Nickel
M
KOBUK
RIVER
AMBLER
R.
SHUNGNAK
KOTZEBUE
KIANA
KOBUK RIVER
KOBUK
NOORVIK
SHUNGNAK
Placer Gold-Copper,Lead;Zinc,Asbestos,Jade
HOTHAM INLET
SELAWIK
Arctic Circle
SELAWIK LAKE
Inland Lake
Eschscholtz Bay
M Placer mines
Known mineral occurrences
Approximate placer gold distribution
Copper potential
Proposed Area Boundary
Area of ecological concern
N
25
0
25
scale in miles

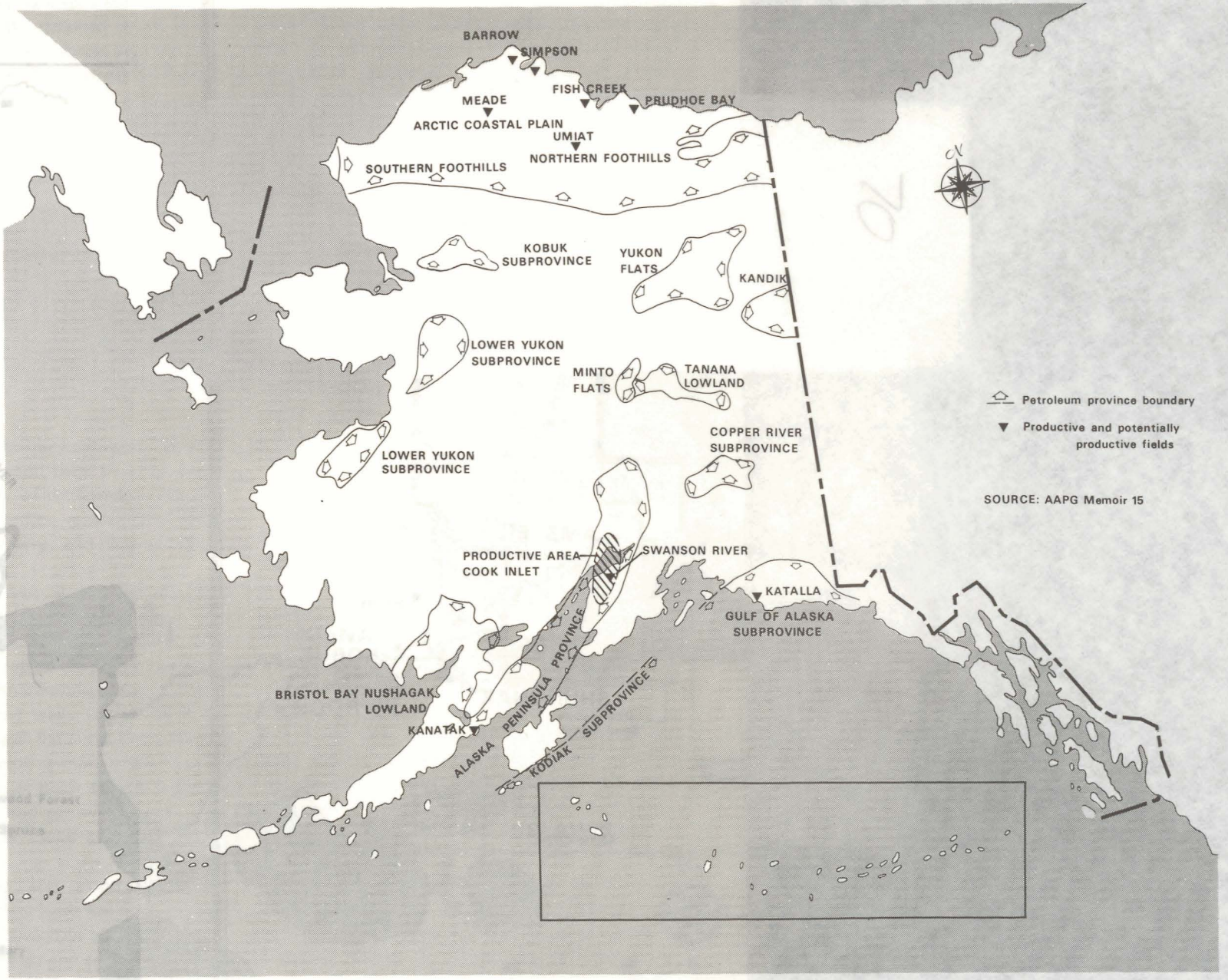

SELAWIK
NOORVIK
KIANA

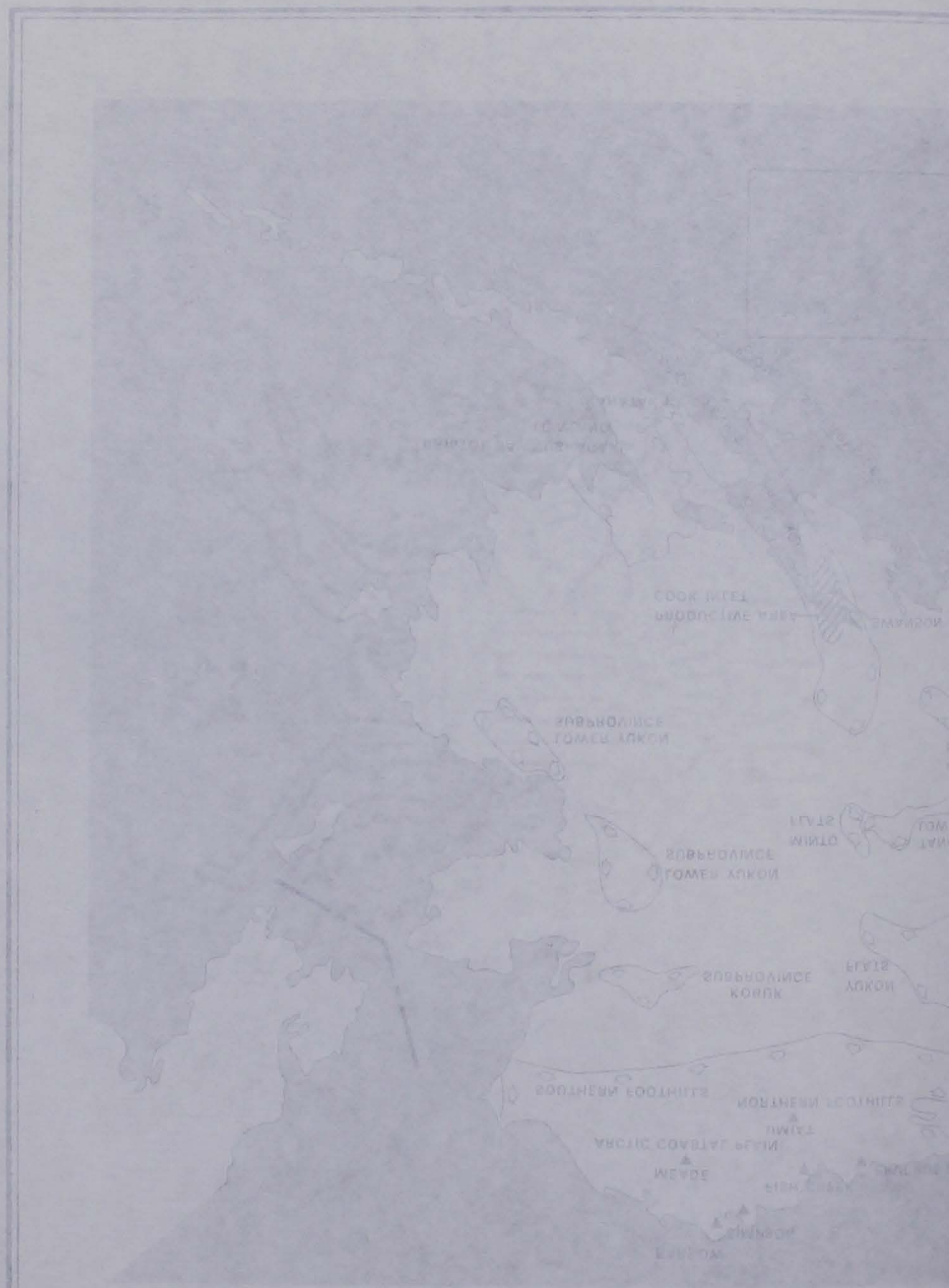


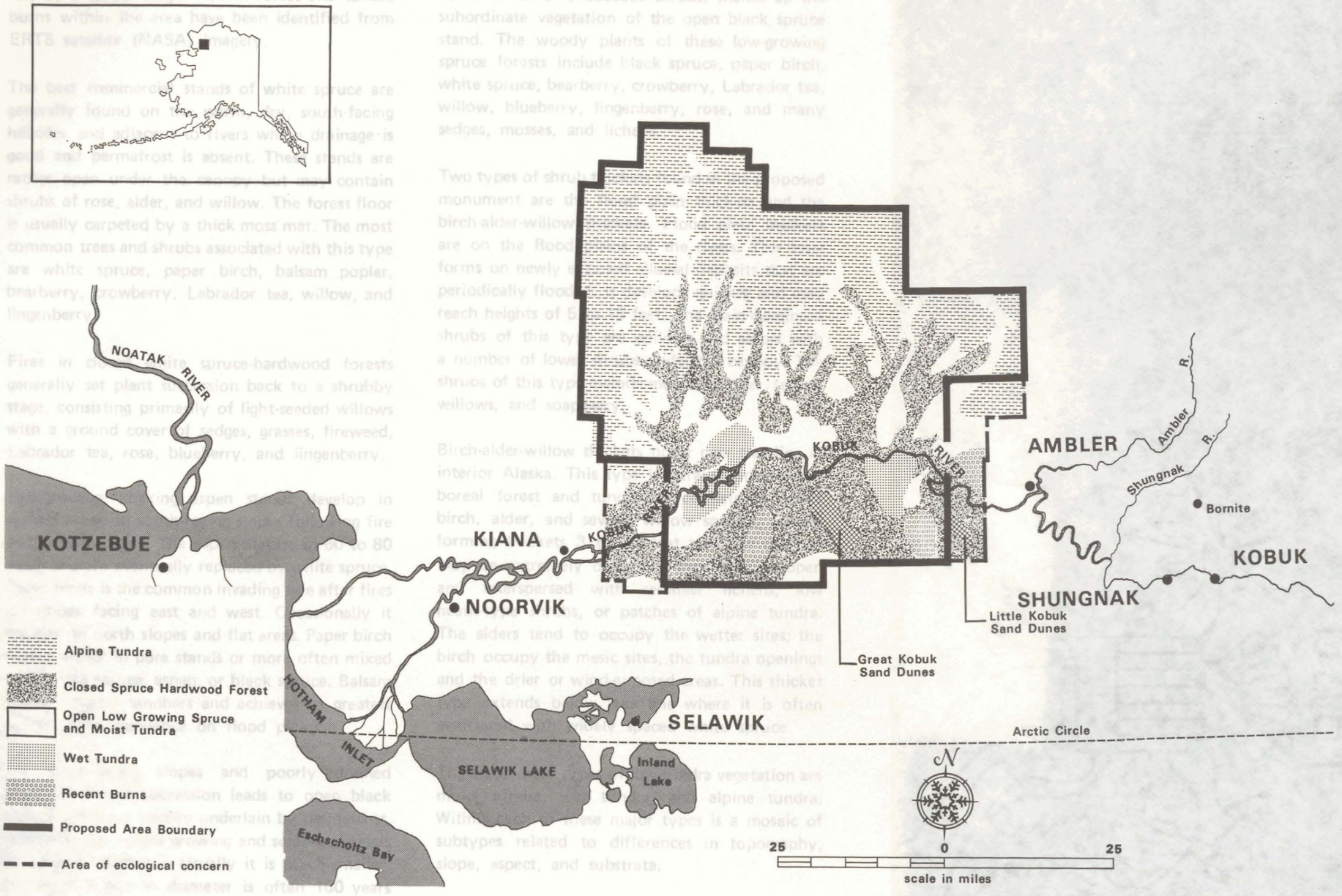

NOATAK RIVER
KOTZEBUE
KIANA
KOBUK RIVER
KOBUK
NOORVIK
AMBLER
Arctic Camp
Bornite
KOBUK
SHUNGNAK
HOTHAM INLET
SELAWIK
SELAWIK LAKE
Inland Lake
Eschscholtz Bay
Arctic Circle
N
25
0
25
scale in miles
SOURCES: USGS Geological Map of Alaska,
X Coal outcrop
Coal beds
Kobuk—Selawik Sedimentary Basin having a potential for petroleum
Proposed Area Boundary
Area of ecological concern

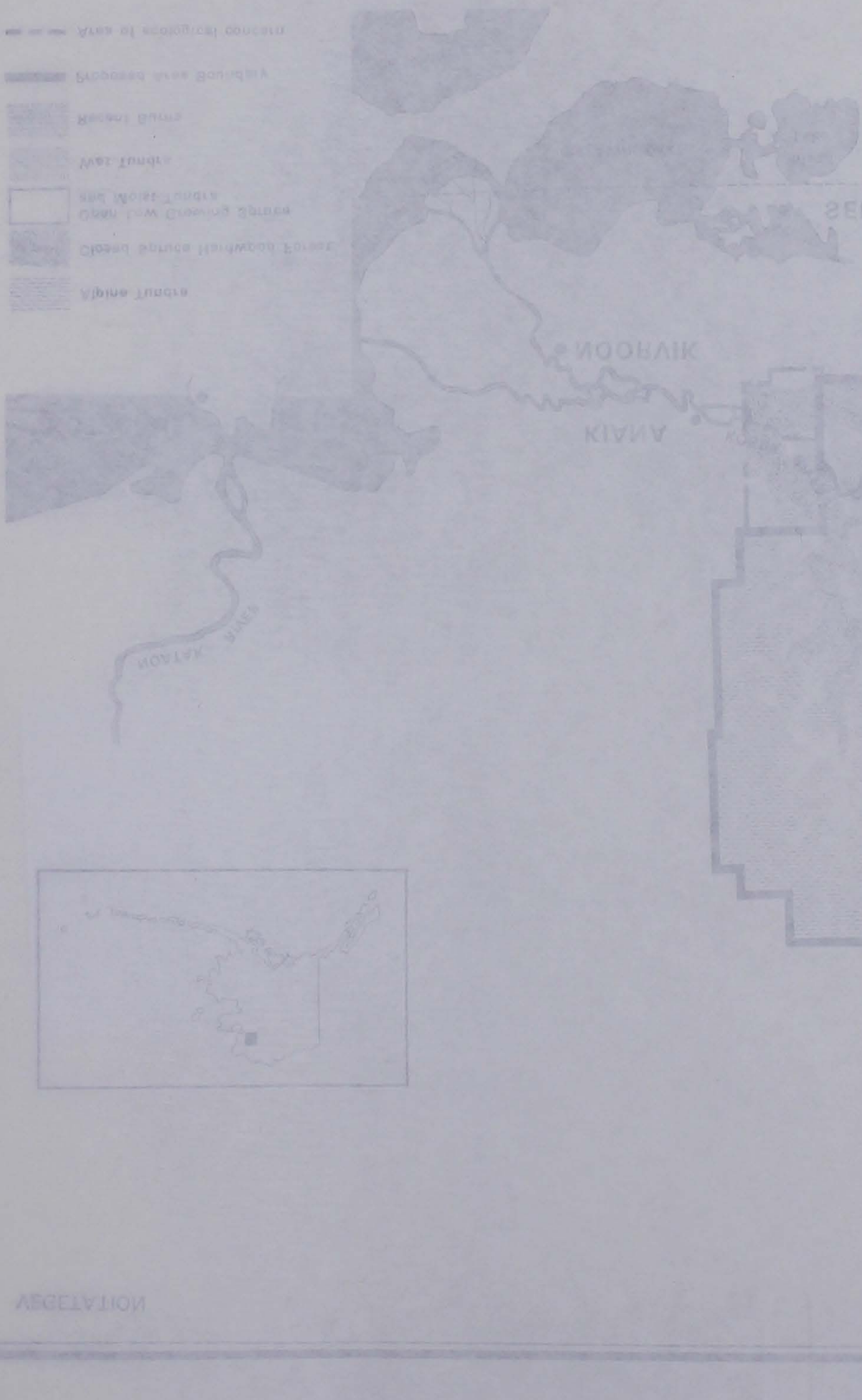

SELAWIK
NOORVIK
KIANA
NOATAK
NINERAT S II

OIL PROVINCES




COOK INLET
NORTHERN FOOTHILLS
ARCTIC COASTAL PLAIN
OIL PROVINCES


NOATAK RIVER
KOTZEBUE
KIANA
NOORVIK
SELAWIK
KOBUK RIVER
AMBLER
Ambler R.
Shungnak R.
Bornite
KOBUK
SHUNGNAK
Little Kobuk Sand Dunes
Great Kobuk Sand Dunes
KOBUK VALLEY
HOTHAM INLET
SELAWIK LAKE
Inland Lake
Eschscholtz Bay
Arctic Circle
N
25
0
25
scale in miles
Alpine Tundra
Closed Spruce Hardwood Forest
Open Low Growing Spruce and Moist Tundra
Wet Tundra
Recent Burns
Proposed Area Boundary
Area of ecological concern


SELAMIK
NOORVIK
KIANA
KOTZEBUE SOUND

general, fires are followed by a forb and shrubby stage, then one of several hardwood stages, and last by a spruce stage. Recent forest and tundra burns within the area have been identified from ERTS satellite (NASA) imagery.

The best commercial stands of white spruce are generally found on the warm, dry, south-facing hillsides and adjacent to rivers where drainage is good and permafrost is absent. These stands are rather open under the canopy but may contain shrubs of rose, alder, and willow. The forest floor is usually carpeted by a thick moss mat. The most common trees and shrubs associated with this type are white spruce, paper birch, balsam poplar, bearberry, crowberry, Labrador tea, willow, and lingenberry.

Fires in closed white spruce-hardwood forests generally set plant succession back to a shrubby stage, consisting primarily of light-seeded willows with a ground cover of sedges, grasses, fireweed, Labrador tea, rose, blueberry, and lingenberry.

Fast-growing quaking aspen stands develop in upland areas on south-facing slopes following fire and willow stages. The aspen mature in 60 to 80 years and are eventually replaced by white spruce. Paper birch is the common invading tree after fires on slopes facing east and west. Occasionally it invades on north slopes and flat areas. Paper birch occurs either in pure stands or more often mixed with white spruce, aspen, or black spruce. Balsam poplar invades sandbars and achieves its greatest growth and abundance on flood plains.

On north-facing slopes and poorly drained lowlands, forest succession leads to open black spruce and bogs, usually underlain by permafrost. Black spruce is slow growing and seldom exceeds 8 inches in diameter. Usually it is much smaller. A tree 2 inches in diameter is often 100 years in age. Many black spruce invade after fire because fires cause its persistent cones to open, spreading seed over the burned areas. A thick moss mat, often of sphagnum mosses, sedges, grasses, and heath or other ericaceous shrubs, makes up the subordinate vegetation of the open black spruce stand. The woody plants of these low-growing spruce forests include black spruce, paper birch, white spruce, bearberry, crowberry, Labrador tea, willow, blueberry, lingenberry, rose, and many sedges, mosses, and lichens.

Two types of shrub thickets found in the proposed monument are the flood plain thickets and the birch-alder-willow thickets. Flood plain thickets are on the flood plains of the rivers. This type forms on newly exposed alluvial deposits that are periodically flooded. It develops quickly and may reach heights of 5 to 15 feet. The main dominant shrubs of this type are willows and alders with a number of lower shrubs under the canopy. The shrubs of this type include mountain alder, several willows, and soapberry.

Birch-alder-willow thickets occur near tree line in interior Alaska. This type is a transition between boreal forest and tundra. It consists of dwarf birch, alder, and several willow species, usually forming thickets 3 to 10 feet tall. The thickets may be extremely dense, or they may be open and interspersed with reindeer lichens, low heath-type shrubs, or patches of alpine tundra. The alders tend to occupy the wetter sites; the birch occupy the mesic sites, the tundra openings and the drier or wind-exposed areas. This thicket type extends below tree line where it is often associated with widely spaced white spruce.

The three main types of low tundra vegetation are moist tundra, wet tundra, and alpine tundra. Within each of these major types is a mosaic of subtypes related to differences in topography, slope, aspect, and substrata.

Moist tundra occupies areas of upland. This tundra varies from almost continuous and uniformly



The Brooks Range skyline forms the backdrop the dunes and forests of Kobuk Valley.



A caribou trail follows a lichen-covered ridge through black spruce woodland. The boreal forest reaches its northern limit in the Kobuk River valley.

developed cottongrass tussocks, with sparse growth of other sedges and dwarf shrubs, to stands where tussocks are scarce or lacking and dwarf shrubs are dominant. It is often dissected by polygonal patterns created by underlying ice wedges, or covers areas of solifluction where an undulating pattern to the landscape is apparent. Sedges, lichens, mosses, and dryas are abundant. Shrubs include dwarf birch, Labrador tea, willow, bog cranberry, lingenberry, and bog blueberry.

The wet tundra type is usually found in areas with many shallow lakes and little topographic relief. Of the three, it is the best waterfowl habitat. Standing water is almost always present in the summer and permafrost is close to the surface. Frost action and ice wedges provide the micro-relief of peat ridges and polygonal features. The vegetation is primarily a sedge and cotton grass mat, usually not formed into tussocks. The few woody plants occur on the driest sites where micro-relief raises them above the standing water table. The shrubs in this type include dwarf birch, Labrador tea, willow, bog cranberry, blueberry, and lingenberry.

A zone of alpine tundra exists in all the mountain ranges of Alaska and on exposed ridges in the arctic and southwestern coastal areas. Much of this type consists of barren rocks, but low mat plants, both herbaceous and shrubby, are interspersed between the bare rocks and rubble. Dominant in this type in northern areas are low mats of white mountain avens which may cover entire ridges and slopes, and many mat-forming herbs, such as moss campion, blackish oxytrope, sandwort, and several grasses and sedges. Shrubs here include bearberry, dwarf birch, cassiope, Lapland rosebay, willow, blueberry, lingenberry, and bog cranberry.

Active sand dunes are very sparsely vegetated. Grasses (Elymus arenarius and Bromos pumpellianus), and occasional forbs grow amid shifting sands. Interdune areas are most thickly vegetated, and species diversity is greatest. Dryas, legumes, and other pioneer plants are present along with several species of willow, shrubs, and forbs more commonly found in dry tundra sites. Balsam poplar grows locally along margins of the dunes, and even on sites where sand is mobile. Eastward from active sand areas, vegetation is more abundant and diverse. Stabilized dune fields support a boreal forest community.

Aquatic plants comprise an important component of the vegetation in the area. Many species of fish and wildlife depend upon them for shelter, and either directly or indirectly, for shelter.

Distribution and abundance of aquatic plants is related to the interaction of many factors. They include water depth, turbidity, salinity, and water level fluctuations. In general, most of the inland lakes and ponds are relatively shallow, (5 to 10 feet average depth), turbid, and, except for the bigger lakes, without much surface water exchange.

Narrow-leaf pondweeds are the most common group of submerged aquatic plants in this area. They can be found growing from the lowest depths of light penetration, to the shallow waters only several inches deep. Yellow pond lilies grow in association with pondweeds. Common bladderwort, water milfoil, and mare's tail grow in the shallower waters. Burreeds grow still closer to shore where waters may recede by summer's end, leaving them an emergent plant.

Marsh marigolds, cinquefoil, buck bean, and pendent grass are common emergent plants of the pond edge, although some form a floating mat out into the water.

In the wet meadow zone just behind the border of emergent plants are sedges, spike-rushes, cotton grasses and horsetails.

TIMBER

The Kobuk valley is near the northwestern limits of the interior forest type. Much of the area is forested, and includes some white spruce of commercial size. Most tree and shrub species are of importance to the residents for a variety of subsistence purposes, such as sleds, firewood, boats, fish drying racks, and snowshoes.

If timber is to be harvested commercially within the region, it will likely take place along the Kobuk River above the delta. Timber stands within the Kobuk watershed are relatively large, and barge transportation up or down the river is feasible. The increasing population at Kotzebue and the renewed mining interest at nearby Bornite could make locally manufactured lumber a marginally profitable, short-term enterprise. With the State's proposed network of roads and decreasing local transportation costs, it is possible that timber from the Kobuk could become competitive with that brought from outside to villages from Kotzebue to Barrow.

ECOSYSTEM DYNAMICS

On the Arctic Circle the few weeks of summer are a time of intense activity. Then, plants and animals alike must reproduce and the offspring must develop. All must store sufficient energy, either for migrations to distant, warm winter habitats, or for the long and severe arctic winter. As one moves north in the Arctic, the list of plants and animals that can cope with the environment becomes progressively abbreviated. In an area like the Kobuk, some species enjoy their version of optimum conditions while others are near the limit of their range and subject to periodic disasters.

Terrestrial mammals are few in number and kind; predators and scavengers are dependent directly or indirectly upon an abundance of small consumers of vegetation. The primary consumer's lack of diversity, coupled with the characteristic cycles of abundance and scarcity of arctic rodents, provides a highly unstable base for dependent predators. Generally drastic fluctuations of mammal populations are characteristic of this extreme environment.

Tundra lands are different from southern land. Occupying vast areas of the northern fringe of the continent, these lands nonetheless produce a small biomass. Due to long winters, the quality and quantity of winter forage determines the animal population levels supportable on the range. Lichens form a major portion of the winter forage for caribou and reindeer, yet possess characteristics quite unlike more conventional forage species. They have high energy value; the native grazers are specially adapted physiologically to use them. But lichens are also extremely slow growing, fragile, subject to damage from trampling, and readily destroyed by fire.

The very short arctic summers have resulted in the evolution of rapidly growing plants that yield high quality summer forage for grazing animals. The topographic variation and the long photoperiod during the arctic summer affect the plant growth rates as well as the availability of high quality forage.

The large native grazers have also evolved growth patterns consistent with the seasonal variations in food quality and quantity. During the summer these animals exhibit high rates of growth not normally encountered among ruminants. Characteristics of their feeding behavior enable them to select the highest quality forage available on the range. Low population density and opportunity to range over a large feeding area are essential for the well being of these northern species (Klein, 1970).

Extreme seasonal fluctuations are a basic characteristic of this ecosystem. Animal biomass



Forest diversity in the Kobuk is great. Active sand dunes encroach upon white spruce trees near Kavet Creek.



White and black spruces mixed with aspen and paper birch surround the Great Kobuk Sand Dunes.

fluctuates enormously with the change of seasons; a large proportion of the animal population, principally birds and fish, is migratory. Caribou migrate to habitats better suited to them at a particular season. A factor of no small importance is that the habitat of these migratory species extends far beyond the boundaries of the area, and for some beyond even international boundaries and continents.

Thus, the welfare of this ecosystem is tied to habitats thousands of miles distant and beyond the effective realm of local management. For most species summer is a time of abundance of plant and animal foods, and winter, for resident species, a time of scarcity--at the precise time when energy requirements are most critical.

The low productivity in this arctic environment will dictate to a large extent the type and volume of acceptable public use.

5. WILDLIFE

BIRDS

Observers have recorded 352 species of birds in Alaska. More than half of these have been recorded within the Seward Peninsula-Kotzebue Sound region. Perhaps most of the Asiatic vargrant species in northern and western Alaska came via the Bering Strait and across the Seward Peninsula, only to be "discovered" elsewhere. Of the 100 species recorded in the Kobuk valley and the immediately adjacent area, 77 are nesting migrants, 14 are year-round residents, 5 are non-nesting migrants, and 4 are vagrants or strays (Appendix A).

Situated at the crossroads of the Asiatic-North American flyway, the Kobuk valley-Kotzebue Sound region includes habitats used by nesting, summering, molting, and migrating birds. Birds that are raised within this region provide considerable recreational subsistence uses to people throughout the United States. Birds of this region also migrate to wintering areas throughout the Americas, and to most lands bordering on the Pacific Ocean. Throughout this region, the National Park Service and the U.S. Fish and Wildlife Service are studying the wetland habitat of many species of nesting and migrating waterfowl, shore birds, and other water-related bird species.

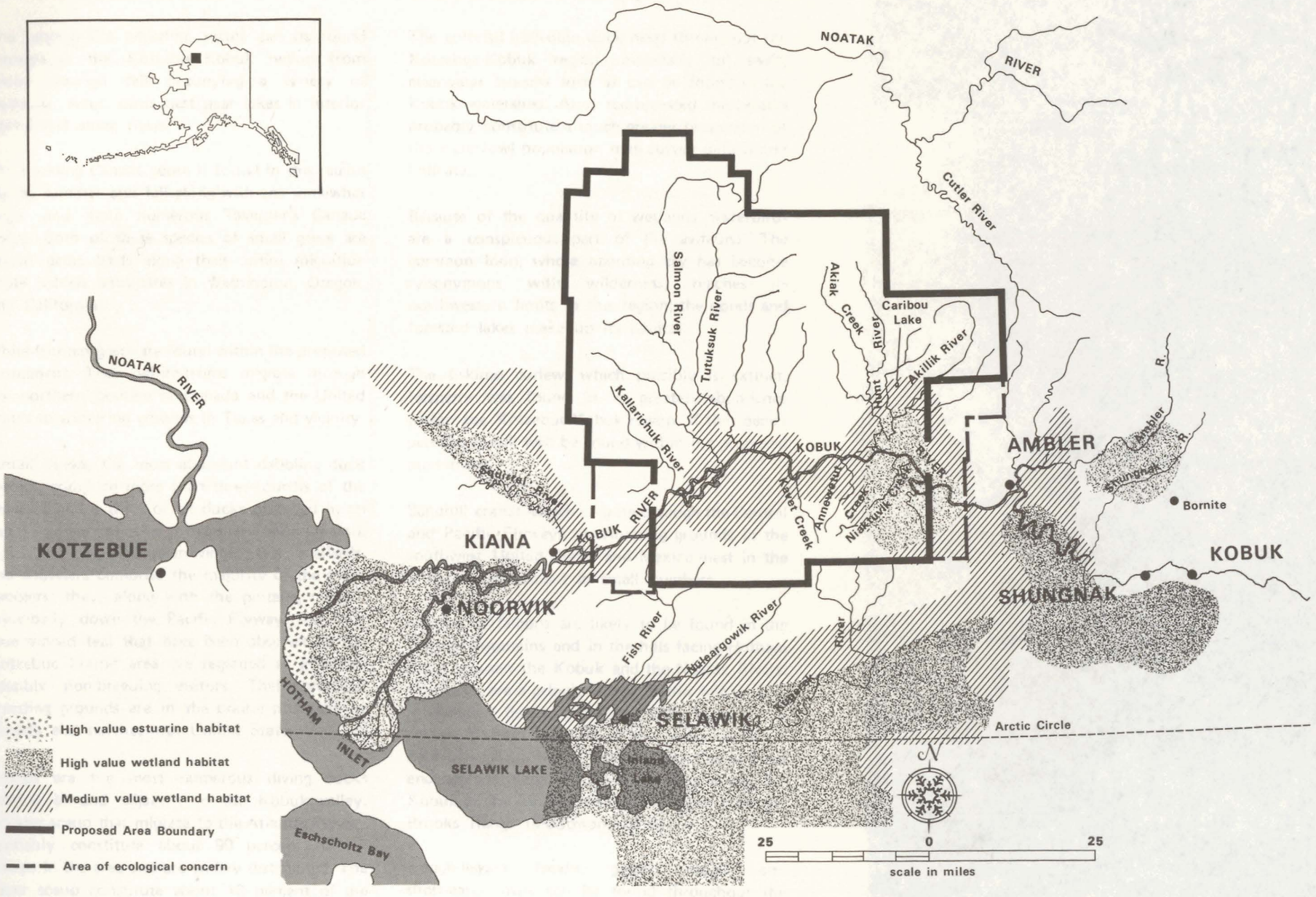
Excellent wetland habitat is within Native village withdrawals and village deficiency areas. As can be readily understood, Native settlements were located in areas where fish and game were found in both abundant and dependable quantities. The wetlands within the village withdrawals for Kiana and Ambler are excellent examples.

The Waterfowl Habitat map delineates the various wetland habitats within the proposed monument and adjacent areas. The values ascribed to them by the U.S. Fish and Wildlife Service are related to the density of lakes, ponds, and marshes, food productivity, and their known use by waterbirds. Both agencies recognize geologic, paleontologic, cultural, and other ecologic values as well.

Wetlands can be found bordering the Kobuk River; even the small or isolated wetlands are valuable to birds.

The upland habitats, both forest and tundra, cover most of the study area and provide habitat for the 14 resident species of birds and a majority of the passerines. Information on waterfowl populations and distribution is generally better than for any other group of birds, primarily because of data acquired to better regulate hunting harvest. Fourteen years of regional aerial surveys developed good information on ducks. The breeding population of about 234,000 ducks within the region averages about 44 ducks per square mile, or only slightly lower than densities

WATERFOWL HABITAT



on the Yukon Delta. Goose populations are believed comparable with those in the better habitats throughout the State.

The large white whistling swans can be found throughout the Kotzebue-Kobuk region from spring through fall occupying a variety of wetlands. Adult birds nest near lakes in interior basins and along rivers.

The cackling Canada goose is found in this region during summer and fall along with the somewhat larger and more numerous Taverner's Canada goose. Both of these species of small geese are prized game birds along their entire migration route, which terminates in Washington, Oregon, and California.

White-fronted geese are found within the proposed monument. These white-fronts migrate through the northern prairies of Canada and the United States to wintering grounds in Texas and vicinity.

Pintail ducks, the most abundant dabbling duck species, comprise more than three-fourths of the dabblers and a third of all ducks observed in an aerial survey of the Kotzebue-Kobuk region. American widgeon, green-winged teal, mallards, and shovelers comprise the majority of the other dabblers; they, along with the pintails, migrate principally down the Pacific Flyway. The few blue-winged teal that have been observed in the Kotzebue Sound area are regarded as irregular, possibly non-breeding visitors. Their principal breeding grounds are in the prairie provinces of Canada and northcentral United States.

Scaups are the most numerous diving ducks nesting in and adjacent to the Kobuk valley. Greater scaup that migrate to the Atlantic Flyway probably constitute about 90 percent of the scaups in the area and are widely distributed. The lesser scaup constitute about 10 percent of the scaup and tend to be found in the inland forested habitat. Buffleheads and goldeneyes are not abundant; they nest in cavities in trees and are, therefore, restricted in nesting to timbered areas.

The colorful harlequin duck nests throughout the Kotzebue-Kobuk region, especially on swift, clearwater streams such as can be found in the Kobuk watershed. Also, red-breasted mergansers probably constitute a much greater proportion of the waterfowl population than survey data would indicate.

Because of the quantity of wetlands, waterbirds are a conspicuous part of the avifauna. The common loon, whose haunting cry has become synonymous with wilderness, reaches its northwestern limits in this region; the ponds and forested lakes make up its habitat.

The Eskimo curlew, which possibly is extinct, formerly was found in its greatest abundance within the Kotzebue-Kobuk region. If the species persists, it will well be found within the proposed monument.

Sandhill cranes--which migrate through the Central and Pacific Flyways to wintering grounds in the southwest United States and Mexico--nest in the proposed monument in small numbers.

Nesting gyrfalcons are likely to be found in the Waring Mountains and in the hills facing Hotham Inlet between the Kobuk and the Noatak Rivers. Ptarmigan are a principal prey of this falcon, but, in summer, ducks, gulls, and shore birds are its source of food. Reports of the peregrine falcon have come from the general area, but few of these endangered predators seem to nest along the Kobuk or the other rivers flowing south from the Brooks Range (McGowan, 1973).

Rough-legged hawks, golden eagles, and short-eared owls can be found throughout the proposed monument. Boreal owls, hawk owls, and



Paper birches stand on a bluff above for the Kobuk River.

goshawks are restricted to the forested areas. Snowy owls appear irregularly during any season in search of lemmings.

The passerines, both in population and species, far outnumber any other group of birds in the Kotzebue-Kobuk region. They range in size from the tiny warblers and redpolls up to the raven.

Some of these birds have astonishingly long annual migrations. The wheatear, for example, leaves its nesting grounds in northwest Alaska, crosses the Bering Strait, and then travels southeast across Asia to winter in central Africa. The arctic warbler and the yellow wagtail nest in the Kobuk area, yet winter in the immense area from Borneo west to India and Africa. Most of the three species of swallows migrate to central South America.

MAMMALS

Thirty-one mammals are on record as part of the ecosystem of the proposed monument. A list of these species and accompanying taxonomic information appears in Appendix B. A simple classification system may be derived from mammalian distribution: the monument supports mammals of the tundra, e.g., arctic hare, arctic fox; and mammals of the forest, e.g., snowshoe hare, red squirrel, coyote, black bear, lynx, and marten.

Big game and furbearers are particularly important in the proposed monument and throughout the State because of their economic (includes subsistence) and recreational value. While other mammals will not receive similar attention here, they are, of course, a significant part of the ecosystem.

The following discussion of mammals is taken mainly from information developed by the Alaska Department of Fish and Game (State of Alaska, ADF&S, 1973) which manages resident game. As such, it is important to note that the dividing lines between State game management units are drawn along the natural boundaries of principal river basins as a means of promoting comprehensive management. The proposed monument lies within game management unit 23, which encompasses the watersheds of the Buckland, Selawik, Kobuk, and Noatak Rivers. Information on population or harvest is seldom available for any isolated area under study, but generally is available for the comprehensive game management unit.

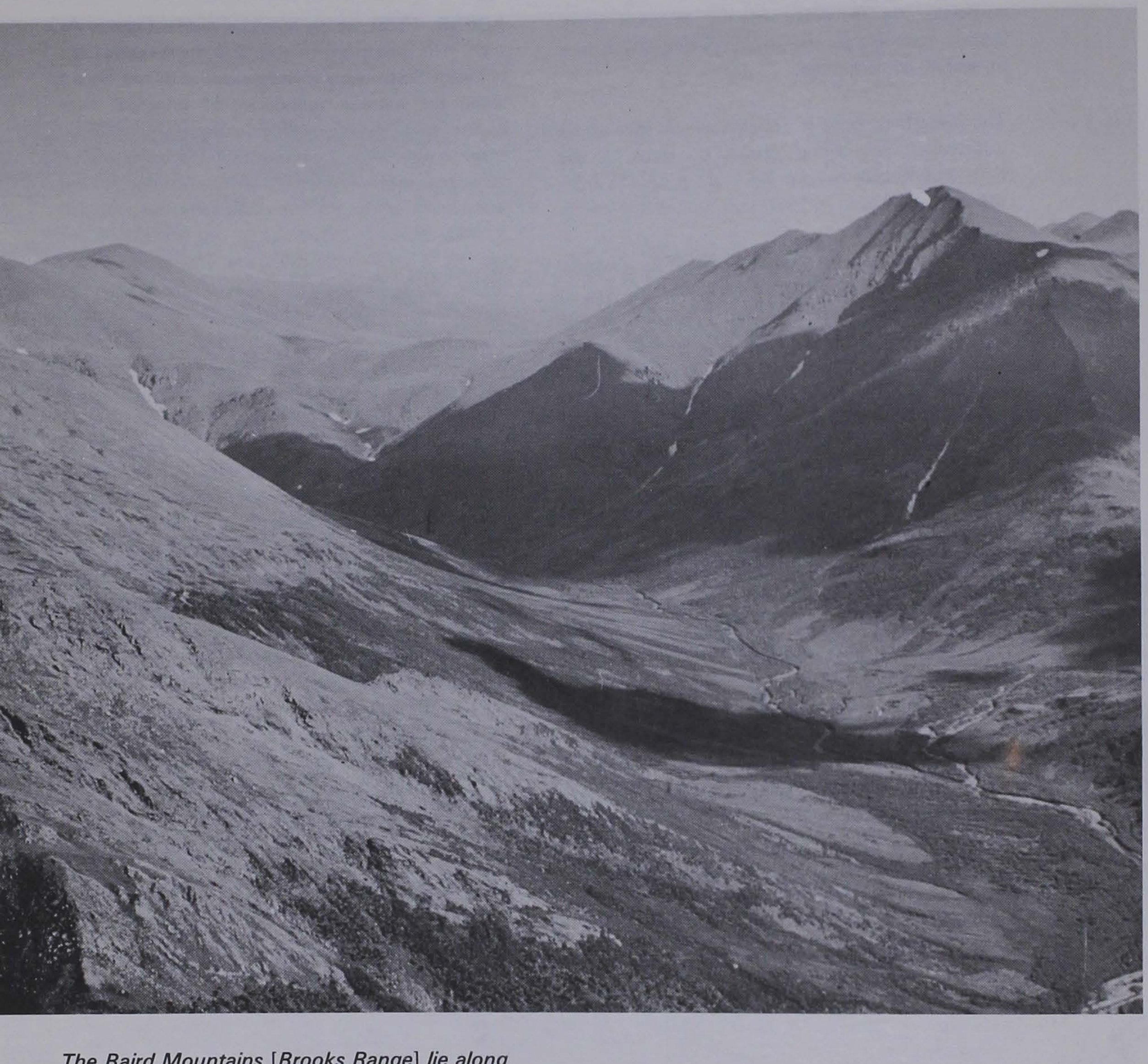
Grizzly bears presently live throughout the proposal area, with seasonal concentrations where salmon or berries are abundant. The population within game management unit 23 is regarded as moderate to high. Again, no specific information is available for the proposed monument, which comprises a small proportion of unit 23.

Black bear tend to be restricted to the forest lands and the transitional lands between forest and tundra. A relatively high density of black bear is reported to exist in the vicinity of Kavet Creek. Wolves can be found throughout the Kobuk watershed area. Within this area they are dependent upon caribou of the arctic herd, moose, and sheep. Wolves are actively hunted by local residents and guided hunters. Within management unit 23, between 71 and 177 have been killed annually since 1961-1962.

Wolverines are found scattered throughout the monument area.

Fox are found throughout this area, and coyotes extend westward to the limits of the forested lands.

Many of the 240,000 arctic caribou herd winters along the northern fringe of the boreal forest within the Selawik and Kobuk watersheds (Hemming, 1971).



The Baird Mountains [Brooks Range] lie along the northern boundary. Caribou migrate through canyon passes to and from the Noatak River valley.



The Kobuk River valley is an important fall and winter range for the Arctic caribou herd. A band of bulls and cows searches for a place to cross the Kobuk River in October.

FIGURE 1

CHUM SALMON AERIAL SURVEY COUNTS

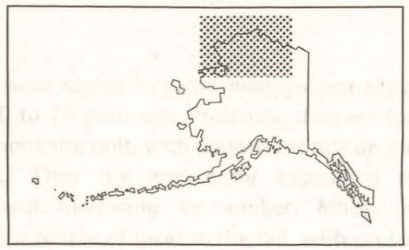
	Salmon River	Tutuksuk River
1962	12,936	10,841
1963	1,535	670
1964	9,353	2,685
1965	1,500 1/	
1966	3,957	1,383
1967	2,117	169
1968	3,367	823 1/
1969	2,561	159
1970	3,000 1/	2,000 1/
1971	5,453	1,384
1972	2,073 1/	

Figure 1, above, presents the comparative chum salmon aerial survey counts by the ADF&G on the Salmon and Tutuksuk Rivers for the years 1962 through 1972.

1/ Poor survey conditions or incomplete survey.

Source: Alaska Department of Fish and Game, Division of Commercial Fisheries. Annual Management Report, 1972, Arctic-Yukon-Kuskokwim Region. (Appendix Table 53, p. 166)

CARIBOU RANGE



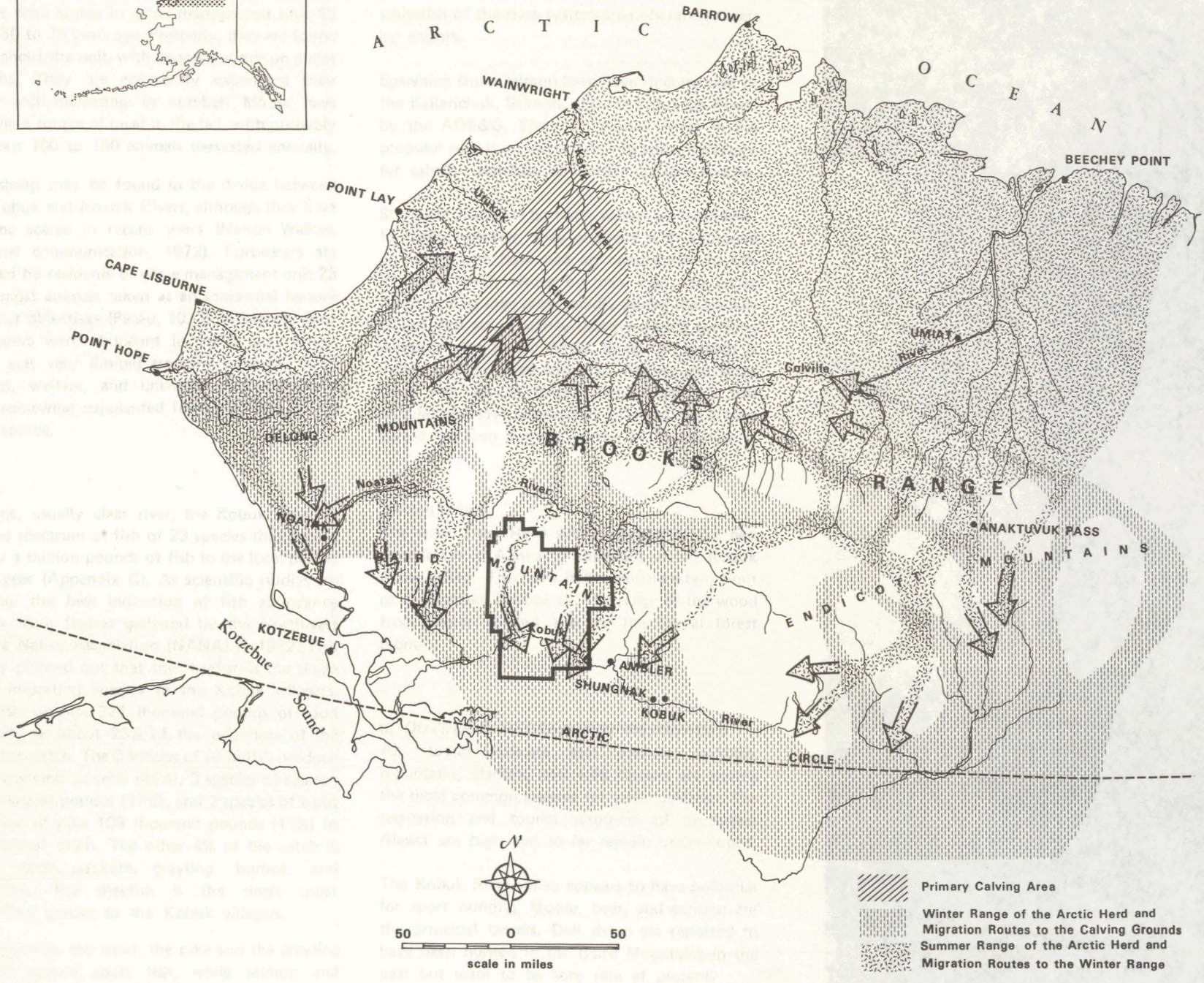


FIGURE 1

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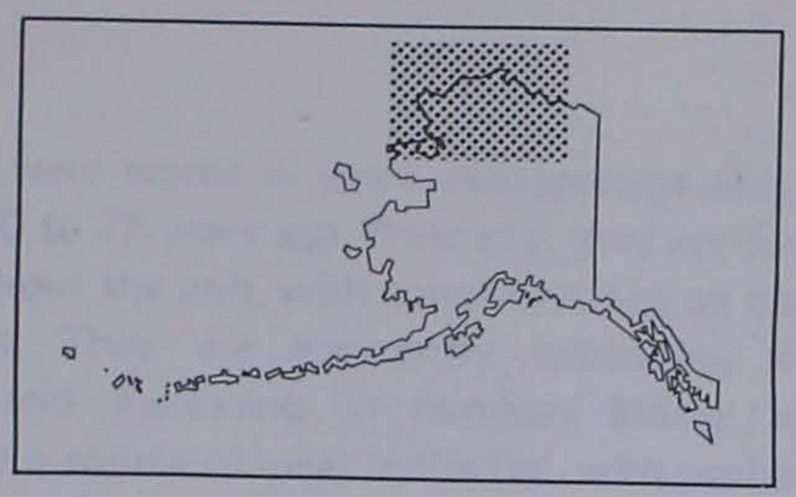
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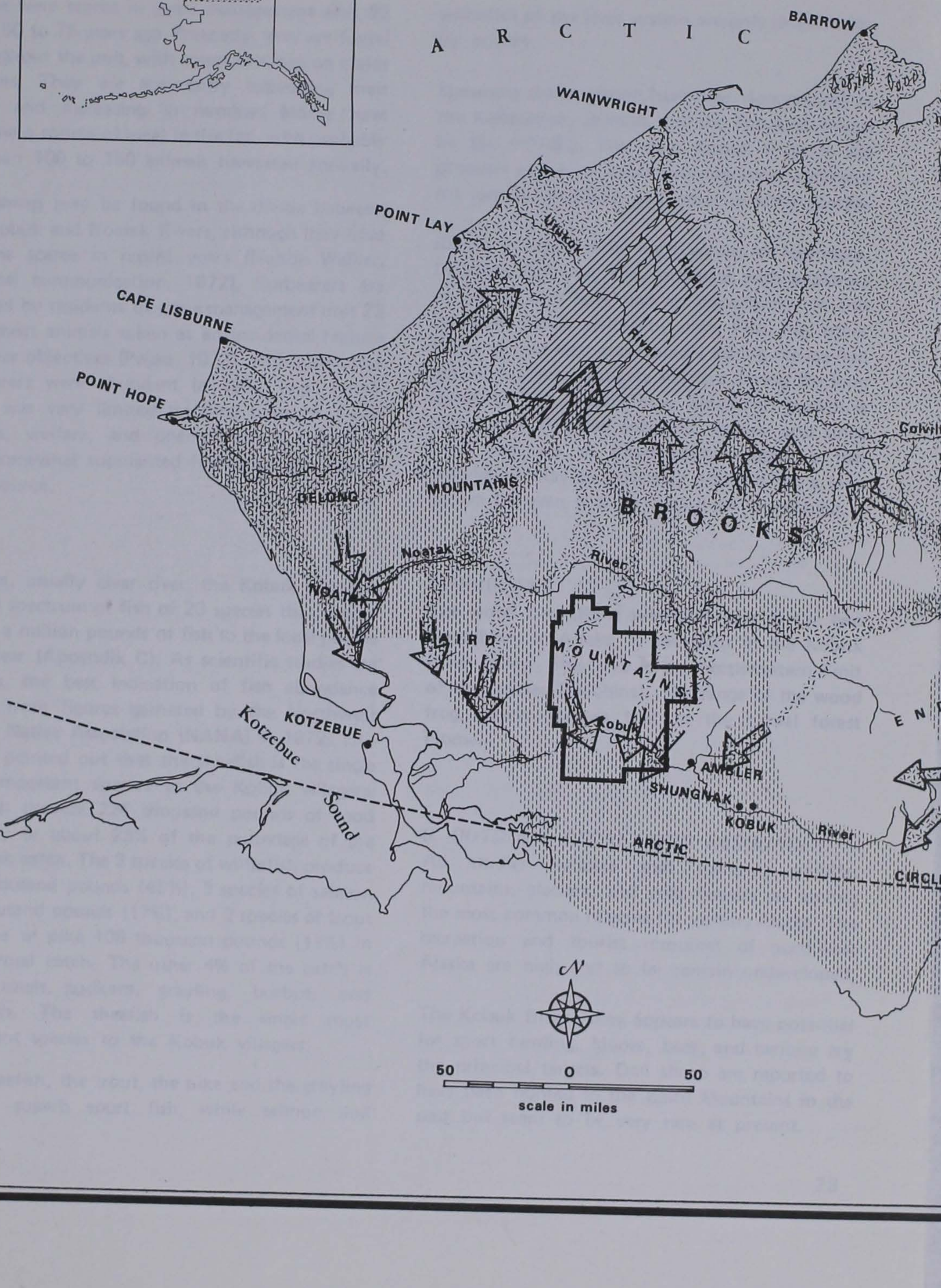
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1/ Poor survey conditions or incomplete survey.

Source: Alaska Department of Fish and Game, Division of Commercial Fisheries. Annual Management Report, 1972, Arctic-Yukon-Kuskokwim Region. (Appendix Table 53, p. 166)

CARIBOU RANGE





Moose were scarce in game management unit 23 until 50 to 75 years ago. Presently, they are found throughout the unit, with concentrations on major streams. They are apparently expanding their range and increasing in number. Moose have become a source of meat in the fall, with probably between 100 to 150 animals harvested annually.

Dall sheep may be found in the divide between the Kobuk and Noatak Rivers, although they have become scarce in recent years (Nelson Walker, personal communication, 1972). Furbearers are trapped by residents of game management unit 23 with most animals taken as an incidental feature of other objectives (Pegau, 1973). Although some furbearers were abundant in 1971 (e.g., lynx), there was very limited trapping pressure. Food stamps, welfare, and unemployment payments have somewhat supplanted furbearers as a winter cash source.

FISH

A large, usually clear river, the Kobuk supports a good spectrum of fish of 23 species that supply nearly a million pounds of fish to the local people each year (Appendix C). As scientific studies are lacking, the best indication of fish abundance comes from figures gathered by the Northwest Alaska Native Association (NANA) in 1972. This survey pointed out that the sheefish is the single most important species to the Kobuk villagers. Sheefish provide 224 thousand pounds of food annually or about 23% of the poundage of the total fish catch. The 3 species of whitefish produce 429 thousand pounds (45%), 3 species of salmon 14 thousand pounds (17%), and 2 species of trout and one of pike 108 thousand pounds (11%) in the normal catch. The other 4% of the catch is from smelt, suckers, grayling, burbot, and blackfish. The sheefish is the single most important species to the Kobuk villagers.

The sheefish, the trout, the pike and the grayling are all superb sport fish, while salmon and whitefish of the river system are only rarely taken by anglers.

Spawning chum salmon have been documented in the Kallarichuk, Salmon, and the Tutuksuk Rivers by the ADF&G. The main Kobuk River in the proposal area is an important migration waterway for salmon, sheefish, and other resident species.

Stories of fishing in far north waters are legendary. In truth, however, they originate with explorers or others who have had an opportunity to fish in waters rarely visited by man. Fish, like other forms of life, may grow rapidly during the ice-free period, but are relatively inactive during the long winter on the Arctic Circle. Since fish growth is quite slow in these subarctic waters, and since these fish are at times easily caught, a fish population may be adversely affected for a long period by even a short period of overfishing.

AMPHIBIANS

The wood frog (Rana sylvatica), one of the two amphibians in Alaska, is abundant in the Kobuk River valley. This area is the northwestern limit of the species (Stebbins). The range of the wood frog closely follows that of the boreal forest biome.

6. OUTDOOR RECREATION RESOURCES

All studies indicate that scenery, wildlife, mountains, glaciers, and wild flowers are among the most common reasons for visiting Alaska. The recreation and tourist resources of northwest Alaska are high and so far remain undeveloped.

The Kobuk River valley appears to have potential for sport hunting. Moose, bear, and caribou are the principal targets. Dall sheep are reported to have been hunted in the Baird Mountains in the past but seem to be very rare at present.

On the south slope of the western Brooks Range, including the Kobuk Valley proposal, sheep occur only in limited numbers and in scattered pockets. ADF&G conducted a sheep survey over parts of the Brooks Range in 1974, but no numerical data is presently available for the specific areas of our concern. In the western Brooks Range, sheep are much more common on the north slopes of the Baird and Schwatka mountains, i.e., in the Noatak watershed. There is no certain evidence that sheep populations on the south slopes were formerly much higher than at present; however, certain local residents and guides report higher populations in the 1960's. Reasons for the low population levels, and apparent decline are not known. Snow conditions are believed to be more severe on the southern slope of the western Brooks Range than elsewhere in the range. These conditions may pose a limiting factor to sheep numbers (as USGS suggests), but this is uncertain. Several very hard winters which occurred in the late 1960's may have been related to the reported decline (personal communication, Bog Pegau and Carl Grauvogel, ADF&G, 1974).

Other forms of recreation potential within the region are high. Archeologic and historic sites offer an attraction for those interested in learning about man's adaptation to the northern woodland environment, and the contributions of the area to knowledge of man in North America. The Kobuk area's multitude of lakes, rivers, and streams offer a wide variety of recreation opportunities. Especially noteworthy are the Kobuk and Salmon Rivers. An extremely varied potential for backcountry uses exists. Hiking and camping are possible throughout much of the area. Landscapes range from the unique sand dunes to the Baird Mountains and occur within a relatively small and easily understandable area. The Waring Mountains are some of the finest hiking lands in the Alaska arctic, with their gentle slopes, excellent views and easy terrain. Canoeing on the Kobuk and Salmon Rivers is pleasant and not difficult. Wildlife viewing, photography, and all other non-urban recreational activities have high potentials throughout the region.

Sport fishing occurs almost entirely along the main Kobuk itself. Favored use areas are from the mouth to 20 miles upstream from Kiana; at the junction of the Ambler and the Kobuk; and below a bluff on the Kobuk just upstream from its junction with Hunt River. A very rough use estimate would be about 500-1000 man-days in the area. Most sport fishing is done, after flying in, with Native guides. Much of it is out of a Native-owned lodge at Kiana (personal communication, Ken Alt, ADF&G, 1974).

Sheefish is by far the the most important sport fish in the area. This fishery is increasing in use, and offers the greatest untapped potential of any sportfish species in Alaska. Grayling and northern pike are caught incidentally with sheefish in the Kobuk. Grayling are also taken in the tributaries, and also northern pike in the slower tributaries, primarily on the south side. Minor numbers of arctic char and chum salmon are also taken (Alt).

An important subsistence fishery occurs, although an increasing proportion of the effort is recreationally oriented hook and line fishing for sheefish. Sheefish is probably overall the most important species taken, although a major run of chum salmon in 1974 was heavily utilized. Sheefish, and to a large extent chum salmon have been used for dog food, since they are too fat and oily to be dried readily. Whitefish (4 species, primarily humpback) and northern pike are heavily utilized for human consumption. Occasionally, char, grayling, and sucker are also taken. Burbot (ling cod) was formerly important for human and dog food, taken most often around freezeup time. However, they are harder to take than some other species, and less are harvested.

7. PREHISTORY AND HISTORY

REGIONAL HISTORY AND HISTORIC ETHNOGRAPHY

Beginning with the voyage of Lt. Otto von Kotzebue of the Imperial Russian Navy in 1816, Europeans gradually became familiar with the Bering Sea coast of Alaska. They coursed the area first on voyages of exploration, and then with increasing frequency in search of wealth from furs and whales. Because the potential riches were limited, however, so was non-Native contact with the northern Eskimos. Western influence was felt primarily through the introduction of Western goods and diseases; the serious Native smallpox epidemic of 1838-39 was a tragic consequence of the latter. Since the northwest interior was so far from the fur-bearing animals sought by the Russian hunters, the administration of Alaska by the Russian-American Company had little influence on the Kobuk valley. Similarly, the influence of whalers and others of the Bering Straits was felt mainly on the coast. As with other inland inhabitants, the Natives of the Kobuk valley were permitted to continue on their way, affected only indirectly by the advance of the whites into the Arctic. Yet, even that indirect influence was noticeable.

The Western World intruded for the first time upon the Kobuk valley in 1884. In that year, Captain M. A. Healy, commanding the U.S. Revenue Cutter *Corwin*, visited several villages along the coast. He also sent Lieutenient John L. Cantwell to explore the Kobuk River and Lieutenient S. B. McLenegan to explore the Noatak River. Cantwell ascended the Kobuk nearly to the Pah River. At the same time, Lieutenient George M. Stoney and his men explored the Kobuk River country and other parts of the western Brooks Range. Stoney got all the way up the Kobuk to the Pah River, and spent the winter near Cosmos Creek (Fernald, 1964).

In 1901, W. C. Mendenhall of the U.S. Geological Survey descended the Kobuk River by canoe and constructed geologic maps of the region. O. H. Hershey investigated glacial deposits in the valley as far as Shungnak River in 1906, and published his results in 1909. In 1910, P. S. of the U.S. Geological Survey crossed the valley by pack train (Fernald, 1964).

The sudden arrival of explorers was an exciting event for the residents of the Kobuk valley. Most of the Natives had never seen an outsider before; they remembered the experience long after. In 1940, J. Louis Giddings interviewed an elderly Native of the village of Shungnak who reflected how, when he was a boy, the information that non-Natives lived on the Yukon River had resulted in a trading expedition that introduced firearms to Kobuk valley subsistence pursuits. Later, non-Natives appeared in person:

> *Then, when I was about grown, Stoney came one spring about June time. We were camping down at Coal Mine fishing. We hear the gasboat coming. People dress up in their best parkees. And while waiting, we see that boat--people go down the riverbank. And when they see that white man and smell that engine, they don't like it. They go around upwind. And they look at that white man. He has a Native boy for interpreter from Unalik people. The white man asks about the Kobuk River. He gets a Kobuk man for pilot. They start out and go as far as they can with the gasboat; then they take a ski boat on up to Walker Lake. Stoney was not tall, and he had a fat belly--stout. The next white people were missionaries.* (Giddings, 1961.)

The people of the Kobuk were by no means totally isolated before Stoney and his men arrived. Despite persistent traditions of active and violent hostility between Eskimos and Athapascan Indians around the Kobuk valley and elsewhere along the border between the Arctic and subarctic, none of Giddings' elderly informants could testify to clashes between Eskimos and Indians from

personal observation. Such stories as existed were ordinarily wrapped in tales of morality or the supernatural. While some hostility--and certainly fear--was a characteristic part of Kobuk valley life, there is considerably more evidence of trading than of fighting between Indians and Eskimos. Most likely, the fighting that occurred resulted from accidental contacts between hunting or trading parties (Giddings, 1961). Missionaries, then, brought no era of peace, nor did they encounter a "lost" people.

Trading prevented utter isolation. Giddings' informants outlined pre-contact trade patterns. Among the most important were routes to the Indian villages of the Koyukuk River, down the river to the coastal villages, and a long, arduous trail across the interior to the Russian settlement of St. Michael, the major source of European goods. The most prized trade item was Russian tobacco, which justified the hard trip to St. Michael, although some could be obtained at the coast. Pipes also were imported.

In addition to trading, total isolation from all outside peoples was prevented in other ways. The Kobuk people experienced a small amount of intermarriage with Indians and coastal or north-slope Eskimos. Also, some individuals migrated into or out of the Kobuk River valley (Giddings, 1961). The changes wrought by the permanent presence of Westerners since the turn of the century can best be understood by a comparison with Kobuk lifeways before that time. J. Louis Giddings, who spent several years conducting archeological and ethnographic research in the area in the 1940's, published his account of pre-contact Kobuk life in People of the Kobuk (1961). Much of the following is from that work.

Of settlement patterns, Giddings notes:

Groups of families formerly lived at stream mouths along the whole of the Kobuk River below the series of rapids near Walker Lake in the headwaters. A group of this sort was customarily designated by the name of the Kobuk tributary that entered nearest its traditional fishing grounds, i.e., Pahme ("Pah River people") and Kalame. The place name system gave ground occasionally, however, to abstractions such as Ichsinyagame ("many rules of conduct people") and Ekseavigme ("people who live in fear"). These were not, apparently, bands the territories of which required guarding, or even close delineation, but loosely organized compatible neighbors held together by intermarriage and the social obligations contingent on death and burial and bargaining with other groups.

The villages of the present day had no reason for existence earlier than the arrival of the traders, missionaries and teachers whose goods and benefactions could best be dispersed in a close knit community. "Villages" referred to in the stories and accounts mean the people of an area rather than clusters of dwellings. These were "neighborhoods" of nuclear families with their dwellings spread out over several miles of both banks of the river. A summer neighborhood might be more concentrated than that of the winter, while during certain periods of the spring and fall all settlements dissolved into migratory family groups.

The Kobuk people felt a sense of kinship with the people of Hotham and those of the Selawik River. The "Arctic People" of the north slopes of the Brooks Range and those of the Noatak River valley, however, were regarded as outsiders, beyond any ceremonial obligation. The Indians of the Koyukuk River area were regarded even more as outsiders, even as enemies, albeit occasional trading partners.

A variety of habitations were characteristic of the old days. The only house that was in any sense permanent was the winter house, or "ookevik."

Access to the excavated house floor was through an entrance tunnel. The interior featured four center posts, separated by the width of the tunnel and supporting two strong roof timbers parallel to the line of the tunnel. The fireplace, rock-lined and oval or circular (sometimes rectangular, if made of logs), was in the center. Directly over the fireplace, suspended from the roof timbers, was a gut or oiled-skin membrane that provided light, and was removable to allow smoke to escape. There were four corner posts; roof beams were laid between them and between the corners and the center posts and overlaid with whole or split poles. The covering was sod blocks plastered with loose dirt from the house excavation. Beds often raised or outlined with logs, were on either side of the fireplace. Gear was stored at the back, opposite the entrance. Although similar houses along the coast featured a lowered "cold trap" in the entrance tunnel, archeological evidence indicates that this feature was discontinued along the Kobuk a few centuries ago. The more recent entrance tunnel, tall enough to walk through, proceeded at a regular incline from the house to ground level. Less than ten feet long in most cases, the tunnel was closed at either end by hanging skins. Although Giddings' informants asserted that winter houses were occupied for only one season, archeological evidence indicates that before the 17th century houses along the Kobuk were occupied in successive years, as were coastal houses. A temporary winter house was called an "ovroolek," or moss house. It was a tent-like structure, built of upright poles laid against a single rafter supported by a pair of posts. A skin-covered opening served as a door, and a roof hole was placed above the small fireplace.

The summer house, called an "aurivik," was constructed of two end posts and four corner posts supporting rafters, walled with a willow wattle-work covered with spruce bark. The roof was overlapping spruce bark secured by poles lashed over the top. Cooking was done outdoors in the summers, so the only fire built within would be a smudge to repel mosquitoes.

During the spring, before the thaw, a tent, called a "echellek," was used. It was constructed by draping six caribou skins--with the hair remaining--over a hemispherical willow frame. Giddings (1961) believes this to be an adaptation of the dome-shaped winter huts used on the Arctic slope.

Two other shelter types are the "quick tent" ("auwayyuk")--a skin-wrapped pole tepee--and the "poor people's camp" ("milyuk")--a tepee built of young spruces in foliage. A fire could be built in either of these tepee-style shelters. While the above indicate the general styles of habitations, there was no rigid uniformity in construction, which depended mainly on the individual builder's notion of what a house ought to look like and what he felt would best serve his needs. Particularly in the case of temporary shelters, continual modification to meet changing weather or wind conditions or the deterioration of construction materials was the order. The types of emergency shelters, built with materials at hand, was limited only by the ingenuity of the builder.

Giddings (1961) points out:

It is well to remember that just at the time of arrival of Europeans, Kobuk people had no conception of a dwelling as a thing of permanence. Their houses and camps must have seemed even less objects of property and sentiment than their canoes and their clothing. A dwelling was a temporary exploitation of natural resources and an expression of personality in a time of particular need.

The acquisition of food, of course, was the most important activity along the Kobuk River. For it, the people depended almost entirely upon the

streams, lakes, forests, and mountains of their homeland. Certain items of subsistence could be obtained through trade with the peoples of the coast, but each trade item had a local substitute. Seal oil and seal-skin were probably the most prominent items of trade, but they were not essential (Giddings, 1961).

Giddings summarizes the importance of the subsistence quest as a determinant of life-ways and habits:

The two most important bases for survival were the fish and the caribou. Success in the quest for these assured a comfortable existence. A bad salmon season, or a year in which the caribou varied their migration route, might, on the other hand, bring about hardship and even starvation. Food had to be secured in quantity. We cannot stress too much the emphasis that a hunting and gathering people places on group enterprise in securing its food. The more colorful aspects of the hunt--those which are often best represented in archeological collections--such as hook and spear fishing, and stalking with bow and arrows, were strictly supplementary to game drives and salmon seining, and trapping.

During the summer, from mid-July through late August, the salmon are running the Kobuk River. During that period the women were occupied full time with seining, cutting, and drying the fish. Before European contact, fishing was almost exclusively the province of women; the men were obliged to hunt in the mountains while the fish were running. Today, fishing has more male participation, although the old division of labor is still evident along the river.

The fish were netted from passing schools; the heavy work of hauling a net precluded wasting effort on individual fish. Fish were cached after they were caught, and stored in covered holes on the bank for as much as a day after they were taken. Afterward, the women--usually in conversational groups--cut and cleaned the fish, separated the elements according to their needs for different preparation, and hung the flesh on racks for drying, tails up (the same pattern continues today). Roe were dried for later use and viscera were boiled for their oil. Heads were buried in the sand to rot, to be retrieved in the fall, when the men returned from the hunt, and served as a delicacy. The products were ordinarily stored near the winter houses in sturdy pole and bark caches constructed to remain secure against weather and animals (Giddings, 1961).

Caribou provided the other mainstay of the diet. While the rifle and snowmachines have simplified hunting and increased its efficiency today, their introduction helped to end some of the more adventurous--and trying--aspects of the caribou hunt. Formerly, as today, the caribou were hunted mainly during their semiannual migrations, when they could be taken in quantity through cooperative effort. Two methods prevailed. The first was the land drive along routes marked by upright cairns--many of which can be seen today along the highlands bordering the river. According to Stoney, the cairn lines ran for miles in converging orders. He noted that:

At the outer ends of these lines, which are miles apart, the piles are built every thirty yards; the distance gradually lessening as the lines converge, until at their inner ends, where the width is about forty yards, the piles occur every ten feet. Connected with the inner ends of these piles is a circular place marked out by bushes concealing a rope securely fastened at the ends and in other places along it. To this rope are made fast numerous laniards, having slip nooses at their ends, open, and held up properly in the bushes by small stakes. The natives then close in, shouting and frightening the deer, who, mistaking the stones for men, rush on and seeing the opening ahead dash at the brush and are caught in the nooses by the

horns or legs when they are filled by spares. As many as 25 are caught at a time. (Giddings, 1961.)

When the hunt took place in narrow mountain passes, the catch could be higher.

The water drives in the fall and early summer were even more exciting and dangerous than the land drives. Large groups of people gathered at caribou crossing places along the river. The most famous was Onion Portage. Once camp was set up, the men built or repaired drive lines or fences intended to divert the caribou down slopes and into the water. When the caribou appeared, men, women, and children would harry them into the water, where they would be speared by men in boats. The carcasses would drift downstream to lodge on sand bars or against the bank, where they could be retrieved. The hunt lasted until all had fulfilled their needs (Giddings, 1961; Giddings, 1967).

Additional game was gathered through individual hunting and fishing. Bows and arrows were used, as were traps and snares. A variety of fish and vegetable foods were also gathered.

Although there were some variations, the clothing of Kobuk Eskimos was similar to that of coastal Eskimos. Various skills and crafts were also similar, although certain items were specialized for the Kobuk way of life. Overland travel was ordinarily pedestrian. Large dog teams were primarily a 20th century addition to the Kobuk area, and even then they were few compared to those in coastal areas.

Previously, sleds were pulled by hand, sometimes with the assist of a dog or two. Because subsistence was always more difficult in the interior, dogs were not as numerous as on the coast, where their food was easier to obtain. Boats also varied from coastal styles, although smaller kayak types and larger boats were present. Some larger umiaks were imported from the coast. The double-bladed paddle, according to Giddings' informants, was absent on the river, where overhanging paddles and pairs of sticks were the most common forms of propulsion. Finally, goods were carried in a variety of packs or pouches (Giddings, 1961).

Social life and organization were as rich and varied as the demands of subsistence would allow. Social contact was increased by a broadly inclusive sense of kinship, and by the fact that many activities demanded communal efforts. The great social event of the year was the trading feast, which provided a great family reunion for people all along the Kobuk and neighboring rivers. Primarily, however, social life was centered around the immediate family, which saw to the upbringing of the children and much of the interchange between individuals. Arts, including counting and geography, and amusements were well developed. Shamanism and other ritual demands and a rich oral literature reinforced the sense of cultural identity for Kobuk people (Giddings, 1961).

This Native culture was to change in many ways under the influence of non-Natives. While the culture of the Kobuk people is still basically Eskimo, so much has changed that Giddings commented:

The influx of prospectors after the gold rush of 1898, and the arrival of missionaries, traders and teachers, led the Eskimos quickly to adopt as much of our culture as seemed profitable, including a re-evaluation of morals. The English language has been spoken secondarily (since the turn of the century) by nearly everybody in the region, and, although many of the old social and religious traditions persist under the surface, none but the oldest individuals can remember how it was to live without the goods and creeds of the Europeans. (Giddings, 1961.)

Kotzebue was the access to the interior, including the Kobuk valley. It early became the focus of

much non-Native activity. In 1897 a reindeer station was established there in anticipation of the arrival of herds imported from Siberia by the Department of the Interior; the purpose was to found a livestock industry for the Eskimos who were faced with starvation due to the near extirpation of the caribou. A post office opened in 1899; a Society of Friends mission quickly followed. Kotzebue was the base for the extension of non-Native influence into the interior.

Around the turn of the century prospectors and miners entered the region. As the Klondike gold rush began to dwindle, they moved throughout Alaska in search of riches. About 20,000 poured into the Seward Peninsula-Koyukuk River region after 1898, following the discovery of gold at Nome. The Cosmos Hills, Klery Creek, and the Squirrel River basin were early mineral target areas. A small rush to the Kotzebue Sound area occurred in 1898, following a minor discovery of gold on the Noatak River. In all, mining persisted for about 20 to 30 years in western Alaska, but it was never important within the proposed monument. Teachers, missionaries, merchants, and government agents brought about a pressure to conform to Western culture, which altered the older settlement patterns along the Kobuk River. Many Natives throughout the valley left some of their seasonal camps, and moved to more permanent settlements. Some summer subsistence camps, however, do still exist.

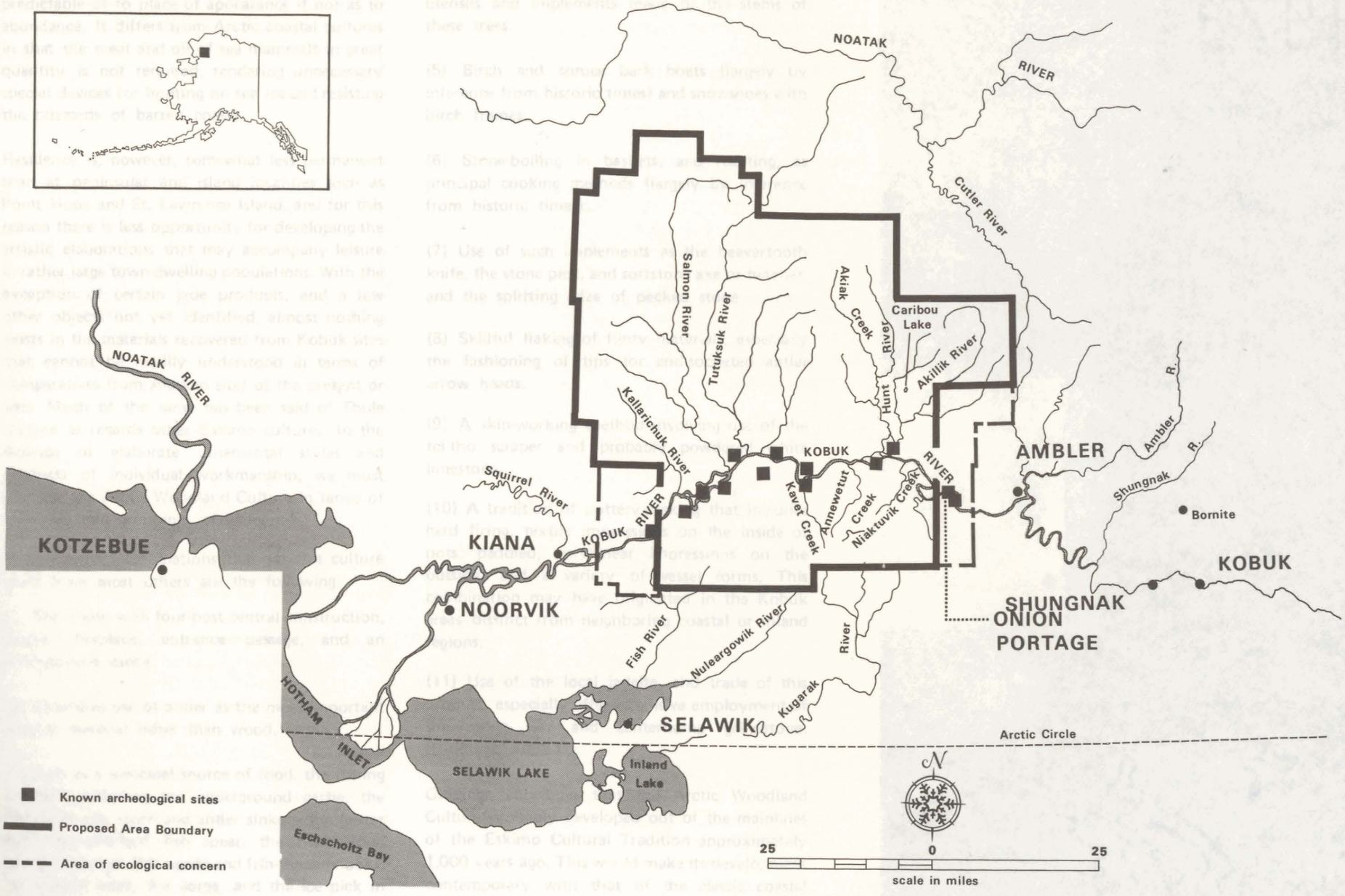
The present village of Kobuk--originally named Shungnak--was established in 1899 as a supply point for the Cosmos Hills mining activities. A post office was established there in 1903, and the name was changed to Kobuk in 1928. A trading post, school, and Friends mission were established early at Kobuk, and became the model features of all successive villages established along the river. The present village of Shungnak was established first in 1934 and again in 1946. Kiana originated as a supply center for Squirrel River placer mines about 1909. The most recent village, Ambler, was founded in the late 1950's, and received a post office in 1963 (Orth, 1967).

Between 1910 and 1940, before the Federal Government recognized the strategic importance of Alaska, life for the Eskimos was difficult. The processes of cultural change were at once aggravated and ameliorated by the influence of teachers, missionaries, and government agents, and it was nowhere easy for the peoples whose lifestyle was in transition. Exotic diseases had come in with the first Europeans; they continued to take their toll. The flu epidemic of 1917-18 was particularly severe in Native villages. Tuberculosis, endemic in the United States, spread into the Eskimo settlements with debilitating effect. The peoples of the Kobuk valley both suffered and benefited from isolation. The Western pressures were not as severe upon them as upon the coast. They were accordingly able to maintain strong family and community ties. At the same time, the Kobuk peoples tended to receive fewer of the advantages of Western society.

World War II brought sudden changes to the Eskimo people--not least of which was the opportunity to develop technical skills and learn new trades in defense construction activities. Fear of a Japanese invasion led to the establishment of the Eskimo Scout Battalions and a network of Alaska National Guard units in Eskimo villages--bringing with them two-way radio communication. But again, the isolation of the Kobuk valley tended to insulate its residents from a portion of these impacts.

World War II also spelled the temporary end of mining--particularly gold mining--in Alaska. Its influence had long since waned in the Kobuk area. While some mining resurged in Alaska after the war, it proved of little benefit to Kobuk valley, despite the recent discovery of copper deposits at Bornite. Some jade has been mined near the Kobuk River in recent decades.

KNOWN ARCHEOLOGICAL SITES



His most important discoveries along the Kobuk were on the upper and middle reaches of the river, although he did some work near and around the river mouth. Giddings detected a variety of physical types of peoples who exhibited a pattern of scattered settlements along the riverbanks since about 970 A.D. He also noted the relationship between lifestyles and the successive ecosystems along the river. The picture he presented is of a distinct, thousand-year-old cultural pattern, which was based on the Eskimo cultural tradition, was adapted to the interior woodland riverine environment, had borrowed from Athapascan culture, but followed its own course of development.

Within the proposed Kobuk Valley National Monument, Giddings either excavated, identified, or received reports of 11 sites. (See Archeological Sites map.) The work took place during three seasons in the 1940's. Excavation took place at three sites within the proposed monument: Onion Portage, and two Ahteut sites near the mouth of Kavet Creek. Giddings identified four archeological sites within the proposed monument, and he received reports on the existence of four more.

Important archeological sites were also discovered in each area of ecological concern. Of greatest significance is the Onion Portage Archeological District, which straddles the monument's eastern boundary. Although one-third of the District is within the proposed monument, the primary discoveries remain outside.

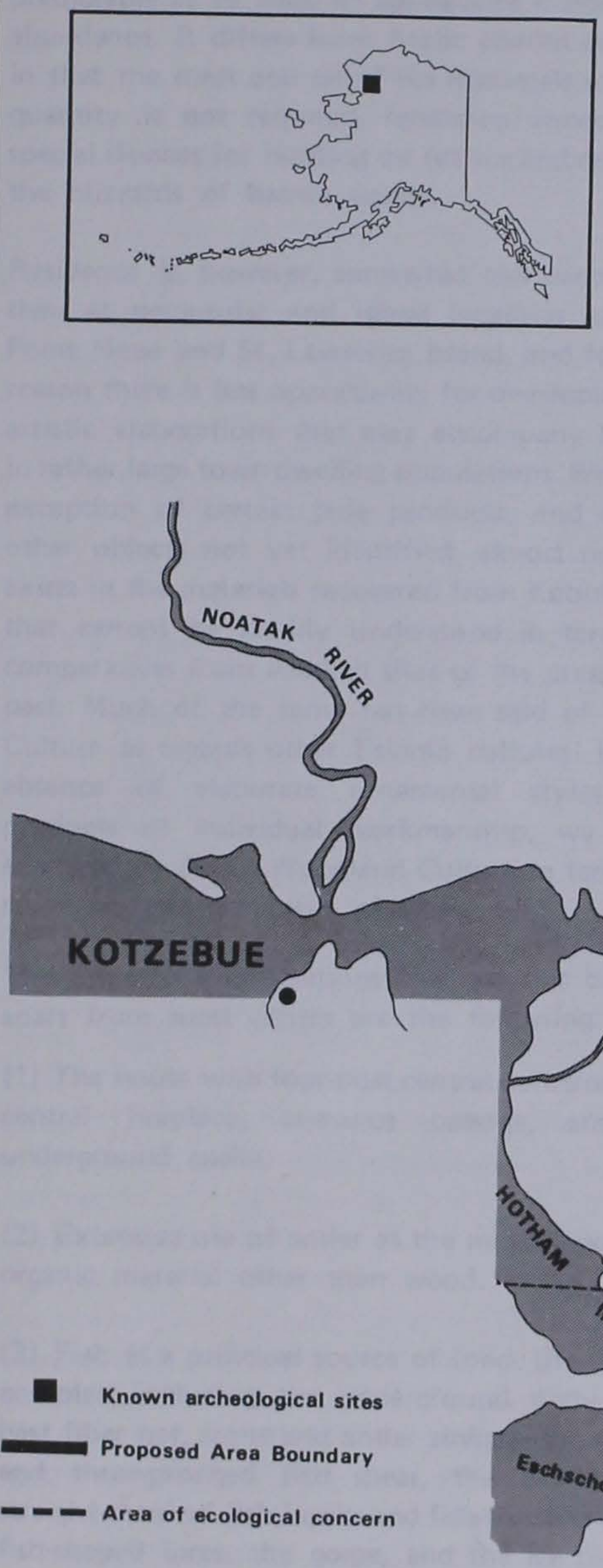
The excavated, identified, and reported sites do not represent the total archeological resources along the Kobuk River. Rather, they are the results of one man's work in three short seasons. While representative of the Arctic Woodland Culture archeological sites in the valley, the total number of sites may be in the hundreds or even thousands. The middle reaches of the Kobuk River, completely contained within the proposed monument, are a particularly rich storehouse since they experienced more intensive occupation and less natural destruction than the lower parts of the river.

Giddings summarized his analysis of the Arctic Woodland Culture he identified in the Kobuk valley as follows:

The Arctic Woodland Culture, as represented by the sites and present Eskimo-speaking population of the Kobuk River drainage, is first of all defined by a remarkable adaptation to an environment which includes clear streams, rugged mountains, forests, and a bay of the sea. It is a culture that draws freely upon all of the natural resources of these surroundings, and yet retains a core of basic traits in which may be demonstrated more than 700 years of continuity and stability. River fishing is hardly second to caribou hunting as a means of livelihood, and both of these stand well ahead of harbor sealing as bases of economy. Exchange of the resources of these endeavors as well as materials such as the furs, tree barks and root fibers, and mineral substances, helps to minimize the special effects of local environment and makes possible the enrichment of the life of the individual without his having to move continually from one environment to another.

The Arctic Woodland Culture may be defined environmentally as one that has its roots along forested streams and that encompasses both the bare mountains and plateaus of river headwaters and the saltwater harbors of Arctic seas. It is distinct in these respects from either farmland or coastal cultures, and it can exist only where forests approach the sea. It differs from a truly inland culture of the sort practiced by most northern Athapascans in that its food supply is threefold and insured in this respect against extreme seasonal scarcity. If shortage of caribou ensues, there is no need to follow diminishing herds into

KNOWN ARCHEOLOGICAL SITES



new pastures, but only to change emphasis to fishing and sealing. Greater permanence of residence is possible because both fish and seal are predictable as to place of appearance if not as to abundance. It differs from Arctic coastal cultures in that the meat and oil of sea mammals in great quantity is not required, rendering unnecessary special devices for hunting on sea ice and resisting the blizzards of barren coasts.

Residence is, however, somewhat less permanent than at peninsular and island localities such as Point Hope and St. Lawrence Island, and for this reason there is less opportunity for developing the artistic elaborations that may accompany leisure in rather large town-dwelling populations. With the exception of certain jade products, and a few other objects not yet identified, almost nothing exists in the materials recovered from Kobuk sites that cannot be readily understood in terms of comparatives from Alaskan sites of the present or past. Much of the same has been said of Thule Culture as regards other Eskimo cultures. In the absence of elaborate ornamental styles and products of individual workmanship, we must examine the Arctic Woodland Culture in terms of emphases and groupings of elements.

The principal combinations that set this culture apart from most others are the following:

(1) The house with four-post central construction, central fireplace, entrance passage, and an underground cache.

(2) Extensive use of antler as the most important organic material other than wood.

(3) Fish as a principal source of food, the fishing complex including the underground cache, the bast fiber net, stone and antler sinkers, the leister and three-pronged fish spear, the fish arrow, straight-shanked fish hooks and fish-shaped hooks, fish-shaped lures, the gorge, and the ice pick in addition to methods not archeologically indicated.

(4) Extensive use of spruce, birch, and willow, archeologically represented by basket fragments, bark roofing, bast netting, root line, and many utensils and implements made of the stems of these trees.

(5) Birch and spruce bark boats (largely by inference from historic times) and snowshoes with birch frames.

(6) Stone-boiling in baskets, and roasting, as principal cooking methods (largely by inference from historic times).

(7) Use of such implements as the beavertooth knife, the stone pick, and softstone axe or hatchet, and the splitting adze of pecked stone.

(8) Skillful flaking of flinty materials, especially the fashioning of tips for end-socketed antler arrow heads.

(9) A skin-working method involving use of the tci-tho scraper and probably powdered white limestone.

(10) A tradition of pottery-making that includes hard firing, textile impressions on the inside of pots, paddled, curvilinear impressions on the outside, and a variety of vessel forms. This combination may have originated in the Kobuk areas distinct from neighboring coastal or inland regions.

(11) Use of the local jadeite, and trade of this product, especially after extensive employment of the stone saw and centerhump grindstone. (Giddings, 1952.)

Giddings concludes that the Arctic Woodland Culture probably developed out of the mainlines of the Eskimo Cultural Tradition approximately 1,000 years ago. This would make its development contemporary with that of the classic coastal Eskimo culture, or Thule Culture.

While the research value of the archeological resources along the river is high, onsite interpretative potential can be limited by the difficulty of demonstration and the threat of vandalism. Therefore, only those sites with particularly evident, stabilized, and protected remains should be exposed to this kind of interpretation.

The state of preservation of the Arctic Woodland cultural resources along the Kobuk River is variable. Natural forces threaten sites in areas subject to erosion. Many sites become evident only when they are eroding away along river banks. Some excavated sites are extremely deteriorated.

Many other sites are more stable and more evident. Some excavated sites have simply settled and eroded only a little. Depressions marking house pits, signs, or heaps, or middens, or vegetative clues, provide clear evidence of the archeological resource. The sites that do not feature house pits are difficult to detect, often because their seasonal occupation was so short.

The most significant archeological site on the Kobuk River requires additional description. Onion Portage takes its name from the many wild onions found in the area, and from the fact that a brief portage at that place saves a 7-mile upstream boat ride. The site has been important to people for so long because migratory caribou have crossed the river there for thousands of years. This produced the intensive human occupations that make it such a major discovery.

Cape Krusenstern and Onion Portage are the only two known places where nearly all the cultural phases so far identified in Alaska are represented in controlled, datable succession. At Cape Krusenstern the many sites are on a horizontal succession of over 100 marine beach ridges, each one occupied by marine-oriented peoples while it was the shoreline. In an area behind Cape Krusenstern, near the shorelines that existed before the beaches began to form, are evidences of peoples whose presence may go back to the end of the Pleistocene. At Onion Portage, an equal span of time is represented in a vertical stratigraphy, each successive occupation on top of the remains of the former, separated by layers of soil. Considerable carbon-14 dating material is present.

Cape Krusenstern and Onion Portage comprise a uniquely compatible pair of archeological resources. Since both feature human occupation and cultural development over an extended span of time in a restricted area, they comprise a set of reference points that can help to establish a scale of cultural development in the Alaskan Arctic.

Archeological sites of any great depth are rare along arctic rivers, because the special conditions that create such sites are also rare. They must be places of human occupation through a long expanse of time. They must be places where new soil is continually deposited--not where existing soil is continually eroded. To ensure dependable dating, they must be sites of relatively stable soil conditions, as opposed to the areas of the Arctic where freeze-thaw processes twist, fold, or bend the ground, or even double it over itself. Onion Portage features all these qualities. And its environmental values--a major river portage, a perennial caribou migration crossing--made it a popular place for human occupation in the past. Today, it is still an important hunting area.

J. Louis Giddings discovered the archeological resources at Onion Portage in 1941. He excavated four houses of the Arctic Woodland Culture there, and identified the area as one of extremely high potential for early occupation (Giddings, 1952). Among his discoveries were three microcores and a microblade that seemed to indicate the curious survival of traits inland that had disappeared on

the coasts thousands of years before. Ultimately, this theory was refuted. Giddings discovered 20 years later that the microcores came to the surface because the Woodland peoples had sunk their houses and hearths into the remains of very ancient cultures below. This indicated that Onion Portage, like Troy, held a succession of vertically stacked cultural remains.

Giddings directed extensive investigations at the site in 1961, 1963, and 1964. After his death the work was undertaken by Douglas D. Anderson through 1967. Giddings described the discoveries at Onion Portage in "Ancient Men of the Arctic" (1967), and Anderson described the men further in "Stone Age Campsite at the Gateway to America" (1968). Both published other scholarly papers on the work, but neither the excavations nor the analysis of retrieved data and materials have yet been completed, so the full information value of the site has not yet become available. Much of the following description of the Onion Portage discoveries is based on the two works mentioned above.

Over thirty culture-bearing layers have been discovered at the site. The cultural layers have been divided, top to bottom, into eight bands, each indicative of a different major culture. They are as follows:

Band 1 exhibits the occupation of the area by peoples of the Arctic Woodland Culture, generally between A.D. 1000 and 1700. As noted, this culture is part of the Eskimo Cultural Tradition; its characterisitics are described above. For the past 250 years, the site does not appear to have supported permanent habitations. However, seasonal use, up to the present, is indicated. Surface artifacts of seasonal hunting include recent rifle cartridge case.

Band 2 exhibits signs of occupation between A.D. 400 and 800. The more recent layers manifest interior cultures, possibly Indian, while the early layers manifest the Norton and Ipiutak. The former featured hearths containing bone meal from burned bone fragments, and opaque obsidian artifacts. The latter included large flake knives, opaque obsidian artifacts, thin bifaced points, small inset blades, and discoidal scrapers. Their affiliation is primarily Ipiutak, with late Norton traits in the earlier layers, and they indicate considerable coastal influence on Kobuk peoples. The association is undeniably Eskimo, and their displacement in the uppermost layers of the band appear to indicate the temporary displacement of Eskimo peoples by Indians.

Coastal influence is also apparent in Band 3. It was occupied about 1500 B.C. to 500 B.C. by people of the Choris Culture. This is indicated by the presence of lanceolate projectile points, boldly flaked artifacts and scrapers, and other tools. The earlier layers particularly are similar to the Old Whaling Culture identified at Cape Krusenstern; Giddings tentatively named it Old Hearth.

From the Ipiutak and Norton manifestations in Band 2, down through the Denbigh Culture artifacts in the upper part of Band 5, Onion Portage was occupied by peoples of the Arctic Small-Tool Tradition, the mother tradition of the Eskimo cultures. Band 4 and the upper layers of Band 5 indicate the presence between 2200 B.C. and 1800 B.C. of the Denbigh Culture, the epitome of the Arctic Small-Tool Tradition. It is expressed primarily in excellent flint works, including tiny, diagonally flaked inset blades, burins, spalls, microcores, and microblades. The microcores and microblades of this culture are what sparked Giddings' interest in Onion portage in the first place.

The remainder of Band 5, occupied between 2600 B.C. and 2200 B.C., indicates, according to Anderson, that a 300-year period of rapid cultural change took place in the Kobuk valley, parallelling

the end of the Northern Archaic Cultural Tradition. The artifacts in these levels, called the Portage Complex, indicate the definite diffusion north of the Archaic Cultural Traditions characteristic of the interior, and reflect the northward movement of Indians who followed the northward movement of forests during the warming spell that had begun long before. New tool types are apparent, including high-shouldered projectile points, and artifacts featuring large flaking.

Just as Band 5 marked the last flowering of the Northern Archaic Tradition, the pronounced shifting of peoples, and finally the rise of the Arctic Small-Tool Tradition, Bands 6 and 7 unfold the development of the Northern Archaic Tradition. The upper layers of Band 6 are dated at about 2600 B.C. while the lowest layers of Band 7 appear to be about 6000 years old. This was the period of the infusion of the major warming spell, mentioned above, that later had such repercussions during the time of Band 5. Previously unoccupied areas became populated. Onion Portage became the home of peoples for the first time in 200 years. The cultural complex of these people is called Palisades II, after its first discovery at the Palisades area of Cape Krusenstern.

This culture persisted in remarkable continuity for some 1400 years, leaving evidence in the form of sidenotched projectile points, large bifaced knives, and large flake scrapers. The discovery of these materials at Onion Portage demonstrated conclusively the infiltration into the north of artifact types that were characteristically American, having developed largely in the interior of the lower United States.

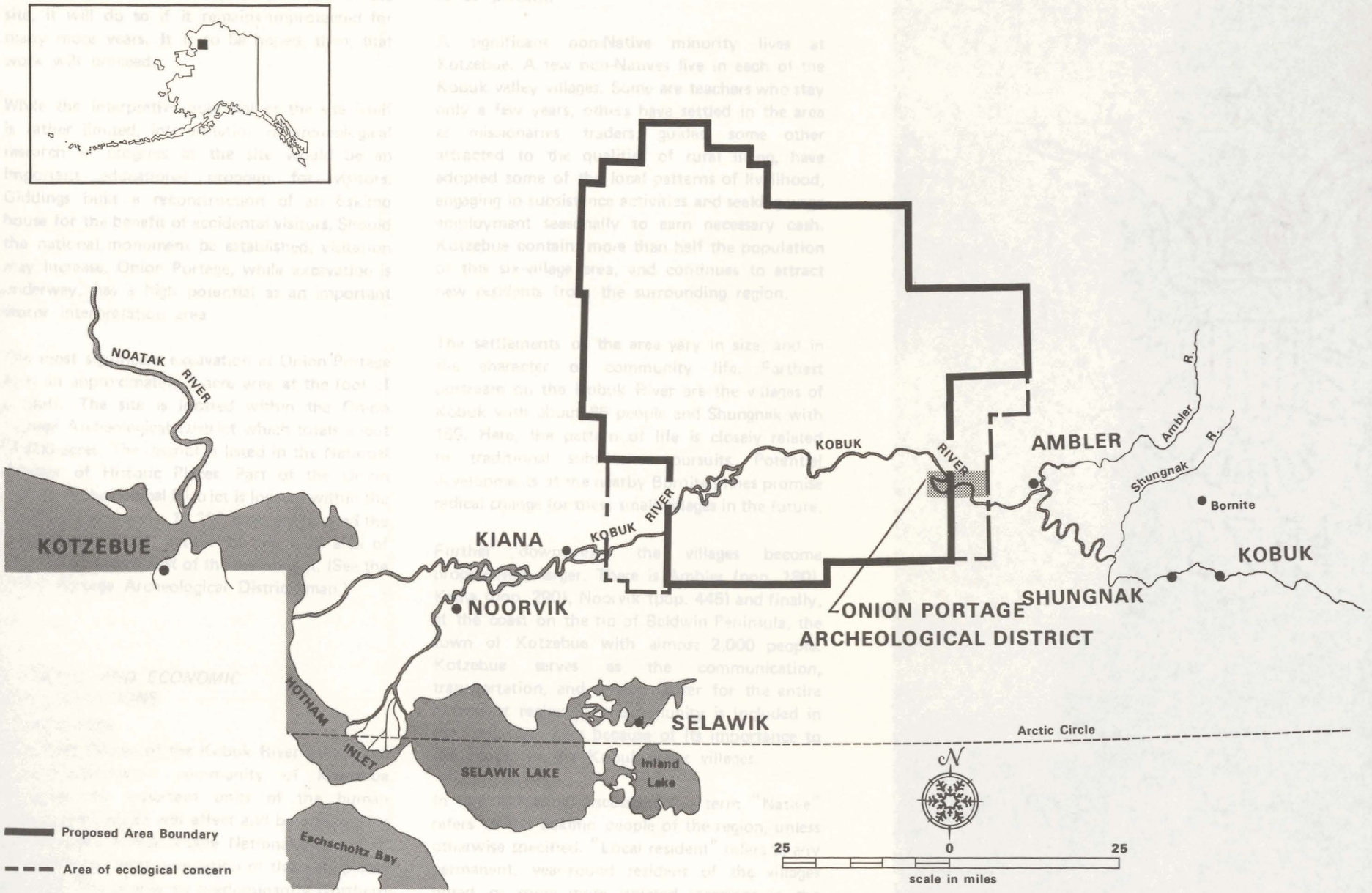
Band 8 is buried beneath a wide layer of soil which contains no evidence of human habitation. This indicates a period of 2000 years during which no people lived at Onion Portage. Band 8, characterized as the American Paleo-Arctic Cultural Tradition, may provide information on the very early history of man in the New World.

The two upper layers of the band, revealing camping by peoples between 6200 B.C. and 6000 B.C. contain stone artifacts that probably represent a much larger assemblage. Anderson called it the Kobuk Complex. Most of the materials discovered are rectangles made from microblades, a few fragmentary microcores, an obsidian scraper, and flakes. Their affinity to Paleo-Arctic discoveries made in the Brooks Range and elsewhere identify them as representative of a later period of the tradition.

Of more interest are the primarily chert artifacts of the Akmak Complex, which dates at least 6500 B.C., and, like the Palisades I discovery at Cape Krusenstern, possibly much earlier. A wide variety of stone artifacts, blades and bifaces, and microblades have been unearthed, but unfortunately no reliably datable carbon-14 samples have yet been uncovered. The Akmak artifacts have definite affinities with artifacts discovered in northeastern Asia, and in a few other places in Alaska, and may upon further investigation throw light on some of the earlier occupations of the New World. Some of the disk bifaces, microblades, burins, and other implements found in the Akmak deposits at Onion Portage have never been detected in Alaska before, but they are nearly identical to artifacts in Siberia, Kamchatka, and northern Japan. It seems highly likely that further research at Onion Portage, when correlated with discoveries made elsewhere in Alaska, may demonstrate the existence of Asian peoples in Alaska at the time of the Bering Land Bridge.

Because of a variety of causes, research at Onion Portage has been temporarily halted, but it may begin again in 1974. While the site has lain fallow, it has deteriorated somewhat. An inspection in the

ONION PORTAGE ARCHEOLOGICAL DISTRICT



summer of 1973 indicated that the basically sandy soil of the area is quite subject to erosion. While the spalling and washing of the excavated area have not yet hurt the research potential of the site, it will do so if it remains unprotected for many more years. It is to be hoped, then, that work will proceed.

While the interpretive potential of the site itself is rather limited, interpretation of archeological research in progress at the site would be an important educational program for visitors. Giddings built a reconstruction of an Eskimo house for the benefit of accidental visitors. Should the national monument be established, visitation may increase. Onion Portage, while excavation is underway, has a high potential as an important visitor interpretation area.

The most significant excavation at Onion Portage is in an approximately 1-acre area at the foot of a bluff. The site is located within the Onion Portage Archeological District which totals about 21,000 acres. The district is listed in the National Register of Historic Places. Part of the Onion Portage Archeological District is located within the proposed monument; 16,200 acres are beyond the boundary, although within the proposed area of ecological concern east of the monument. (See the Onion Portage Archeological District map.)

8. SOCIAL AND ECONOMIC CONSIDERATIONS

POPULATION

Five small villages of the Kobuk River valley, and the interdependent community of Kotzebue comprise the important units of the human environment which will affect and be affected by the proposed Kobuk Valley National Monument. The estimated total population of these six places is 3,104. The people are predominantly Northern Eskimos, or, as they call themselves, Inupiat. In the small villages of the area--Ambler, Kobuk, Shungnak, Kiana, and Noorvik--the population is overwhelmingly Native (Eskimo), varying from 92 to 97 percent.

A significant non-Native minority lives at Kotzebue. A few non-Natives live in each of the Kobuk valley villages. Some are teachers who stay only a few years; others have settled in the area as missionaries, traders, guides; some other attracted to the qualities of rural living, have adopted some of the local patterns of livelihood, engaging in subsistence activities and seeking wage employment seasonally to earn necessary cash. Kotzebue contains more than half the population of this six-village area, and continues to attract new residents from the surrounding region.

The settlements of the area vary in size, and in the character of community life. Farthest upstream on the Kobuk River are the villages of Kobuk with about 65 people and Shungnak with 159. Here, the pattern of life is closely related to traditional subsistence pursuits. Potential developments at the nearby Bornite mines promise radical change for these small villages in the future.

Further downstream the villages become progressively larger. There is Ambler (pop. 180), Kiana (pop. 290), Noorvik (pop. 445) and finally, at the coast on the tip of Baldwin Peninsula, the town of Kotzebue with almost 2,000 people. Kotzebue serves as the communication, transportation, and service center for the entire northwest region. The community is included in the discussion here because of its importance to the people of the Kobuk River villages.

In the following discussion the term "Native" refers to the Eskimo people of the region, unless otherwise specified. "Local resident" refers to any permanent, year-round resident of the villages noted or some more isolated locations in the region.

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The population of the region increased rapidly after 1950, as modern medicine and health care became more available. Since 1966, however, birth rates have declined as a result of the introduction of improved birth control methods. The following figures indicate the number of children of all races in each age bracket for the Kobuk census division, which includes the Kobuk River villages and others in the northwest region surrounding Kotzebue:

Age	Number of Individuals
4-5	388
3-4	395
2-3	343
1-2	330
0-1	313

Between 1960 and 1970, the Native population of the entire Kobuk census division increased from 3,560 to 4,434, an increase of 874 people or 24.6 percent (U.S. Department of Commerce, Bureau of Census, 1970 b). During the same period the number of Native births exceeded the number of Native deaths by 1,119, showing that there was net out-migration of 245 Native people from the area during the period.

Judging from the nature of the age-sex distribution in the area, the number of births will continue to exceed the number of deaths each year for several years to come. Barring a sudden increase of numbers of people leaving the area, the area's population will probably continue to increase for an indefinite period. (See Figure 3.)

The population of the Kobuk census division is a young one. The 1970 median age for all races was 15 years. Median age for Natives for the State as a whole was 17 years, while that for whites in the State was 23 years.

GENERAL SOCIAL CONSIDERATIONS

The Eskimos of the Kobuk River are a distinct subgroup of the Inupiat, known as the Kobukmiut. Traditionally, their culture and lifestyle is unique among Arctic people. The relationship of these people with the land and its resources is called the Arctic Woodland Culture. (See Section 7, above.)

The Kobuk valley area population is predominantly bilingual. Although most speak English, about three-fourths of the population of Kobuk census division speak Inupik--the northern Eskimo language. There are a few Natives who cannot speak English, and some young Natives cannot speak their ancestral language. Some who speak English have difficulty reading and writing it.

The social and material culture of the Kobuk area villages continues to reflect the close interrelationship with the resources of the land. Local non-Native residents who have settled in the area have adopted many of the local Native patterns and values of a subsistence lifestyle and engage in subsistence activities. Among Natives, although family patterns, age and sex roles, community organization and leadership, and social life have been changing in response to contact with Western influences--such as government bureaucracies, independent entrepreneurs, educational and religious institutions, and a cash economy--the adaptations are uniquely Eskimo.

Changes are most apparent in the town of Kotzebue, where Federal and State agencies maintain offices (staffed primarily by non-Natives) and direct programs aimed at the Native population of northwestern Alaska. In Kotzebue, the influence of Western culture has been felt for decades and many Natives have grown up in a cultural mixture of Western and Native values (Smith, 1966). Many items of Western technology and material culture have become integrated into

FIGURE 2

CURRENT POPULATION ESTIMATE AND NATIVE ENROLLMENT

VILLAGE	NATIVE ENUMERATION July 1973	NON-NATIVE POPULATION U.S.CENSUS 1970	TOTAL CURRENT POPULATION ESTIMATE	PERCENT NATIVE	NATIVE ENROLLMENT[1] July 1973
Ambler	170	10	180	94%	168
Kiana	280	10	290	97%	346
Kobuk	60	5*	65	92%	64
Kotzebue	1,587	378	1,965	81%	1,997
Noorvik	426	19	445	96%	491
Shungnak	154	5	159	97%	165
Bornite	0	0	0	--	1
TOTALS	2,677	427	3,104	86%	3,232

1. Natives must enroll at a particular village to receive benefits under ANCSA. Enumeration figures indicate only Natives actually residing in the village at the time of enrollment. There has been some duplicate enrollment and enumeration which BIA will correct by December 1973.

* Federal Field Committee estimate, 1969.

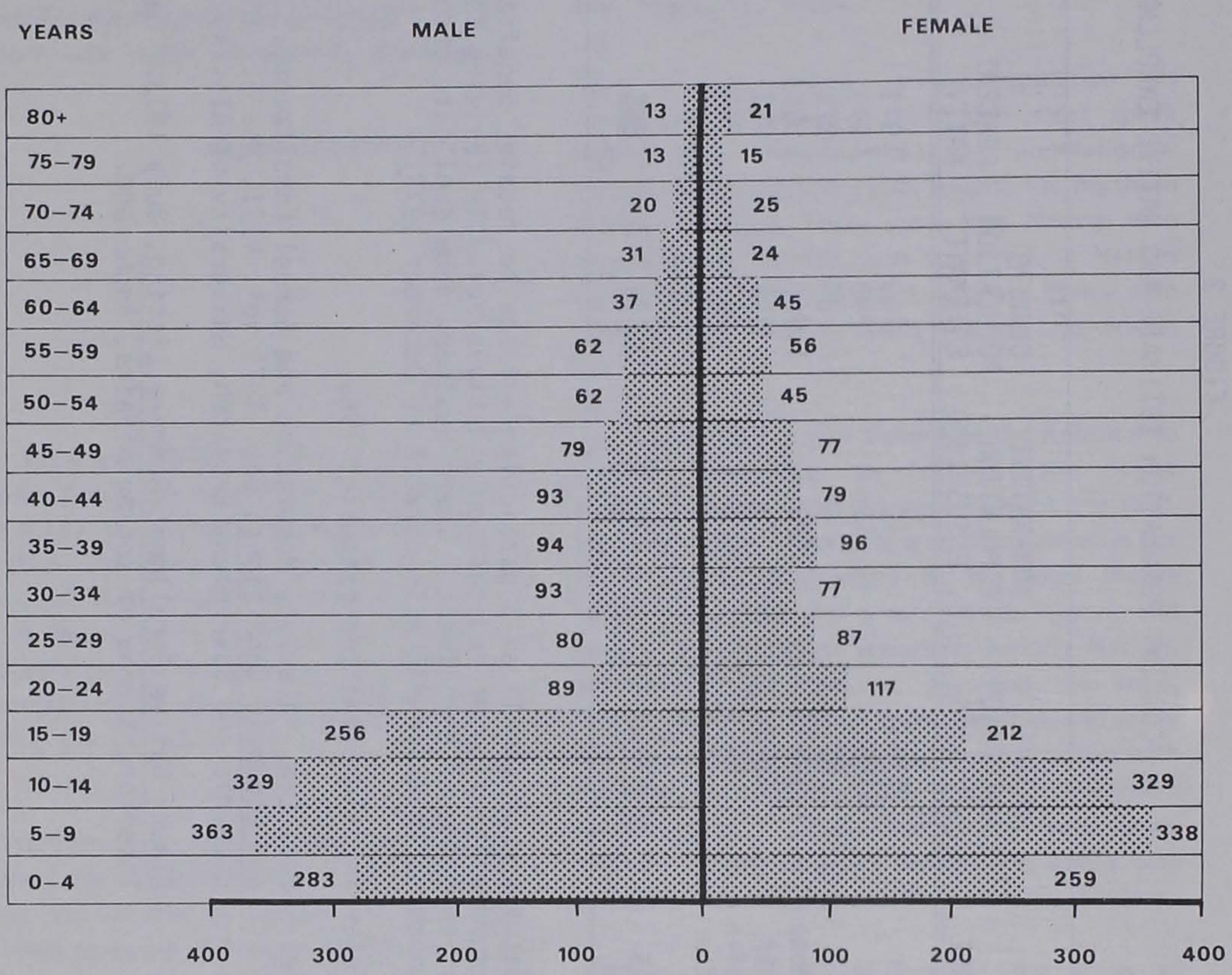
Sources: P.C. Lin, "Alaska's Population and School Enrollments," Review of Business and Economic Conditions, Dec. 1971 Vol. VIII, No. 5. Institute of Social, Economic and Government Research, University of Alaska.

Alaska Native Enrollment-Summary Listing, July 1973. Department of the Interior, Bureau of Indian Affairs, Anchorage.

FIGURE 3

1970 AGE-SEX DISTRIBUTION NATIVES

KOBUK CENSUS DIVISION



village Alaskan and subsistence lifestyles. Guns, ammunition, snow machines, motorboats, gas, oil are some of the items which have become valuable to successful subsistence hunting and fishing activities.

Kotzebue is the service, administration, and commerce and transportation center of the Kobuk River region. It is a transitional community, still dependent on subsistence use of natural resources, but with an increasingly prominent cash economy (Smith, 1966). The Native population of Kotzebue has been enlarged by people from outlying villages seeking permanent or seasonal wage employment, and services of government agencies. At any one time, some of the people in Kotzebue are transients. They may be engaged in business--such as shopping, trading, or medical care. Some may be in Kotzebue for seasonal employment; others may simply be traveling to or from cities further south. Other people have settled permanently, attracted to a large extent by the medical services and educational opportunities. The non-Native minority makes up the business community of the town, or are employed by the various government agencies.

The size and diversity of the population at Kotzebue, and the contact with the dominant Western society and economy have affected community social organization and traditional social controls. New patterns are emerging which reflect a blending of traditional and Western lifestyles. The Alaska Native Claims Settlement Act has given an impetus to Native leadership and involvement in community social, economic, and political affairs. The outlying villages have not experienced the pressures of Western influence to the same extent as Kotzebue, but the intensity of contact with the new culture is increasing (Smith, 1966; Hippler, 1970).

Life in the small villages farthest up the Kobuk River--Kobuk, Shungnak and Ambler--retains much of the traditional quality. The villages lack the distractions and disruptions of the somewhat "urban" environment of Kotzebue, but they have not escaped the impact of contact and the pressure for change (Hippler, 1970). They also lack the multiplicity of services and facilities of the bigger places, although Shungnak has electricity, and Ambler is in the process of planning for electricity, and has almost completely installed a water and sewer system. Wage employment opportunities in the villages are almost non-existent, and most store-bought items must be obtained by mail-order, or directly in Kotzebue stores. Subsistence hunting, fishing, and trapping are the principal occupations of the Native and non-Native people, although people do leave the villages to seek seasonal employment in Kotzebue, and in other parts of the State. Recently, exploration at Bornite provided employment for almost all the adult men of Shungnak. This activity at Bornite has never stopped.

Change is more evident at Kiana and Noorvik. A new school has been built in Kiana, and plans are underway for a new high school building. The village has an active local government, and has developed plans for parks and other community facilities. There are plans for a State criminal justice building at Kiana. Noorvik and Kiana both have electricity. All the villages have airstrips, a vital facility for all villages of rural Alaska. Most villages are served by twice-weekly flights from Kotzebue by Wien Air Alaska. These flights carry mail, freight and passengers. Proximity to Kotzebue and larger populations gives Kiana and Noorvik a somewhat more modern character than those up-river. Yet subsistence pursuits remain a vital feature of village life, and hunting and fishing remain the principal means of obtaining necessary food resources.

Each of the villages of the area has a village council. Some have advisory school boards and other civic groups concerned with a variety of

village community problems and affairs. The Kobuk area villages are represented in the Northwest Alaska Native Association, and most recently, the NANA Regional Corporation, Inc. The villages are organizing village corporations under the provisions of the Alaska Native Claims Settlement Act. In addition to the business corporation of the region, the former Northwest Alaska Native Association has been reorganized as a nonprofit social service oriented corporation, Mauneluk. Inc. Both regional corporations have their headquarters in Kotzebue.

These new Native organizations are already having an impact on village life, especially in the involvement of the people in decision-making affecting the future of village life.

Health

The health of the people, and hence their susceptibility to infection and other diseases, is dependent to a large extent upon the availability of subsistence resources, as this is usually the only source of fresh food. The village stores rarely if ever carry any fresh or frozen meat, milk and milk products, or produce. Sometimes individuals travel to Kotzebue to get those items, or order them from Kotzebue via air freight, both extremely costly means of supply. Most people do not have refrigerators or freezers so it is impossible for them to keep frozen foods in summer.

The coming of non-Natives apparently brought diseases and infections that Alaska Natives had never been exposed to. The common cold, for instance, wiped out whole villages. Mortality rates for Alaska Natives, especially infant mortality rates, far exceed those for white Americans. In 1966, the average age of death for Natives was about half that of other Americans. Respiratory infections, notably pneumonia, are a leading cause of death among Alaska Natives. Other leading causes are accidents, tuberculosis, and, indirectly, alcoholism.

According to the Alaska Native Medical Center, overcrowded housing and inadequate water supply and sewage disposal are central to the health problems of villagers: "Dark and poorly ventilated dwellings are the environment in which germs thrive; small, overcrowded, these dwellings are the setting for widespread infection and crippling illness, especially respiratory infections in humans. Changes in diet, particularly in the larger places, and the substitution of processed, store-bought foods for Native foods may be another source of health problems. Candy and sweets have had a serious, widespread effect on dental problems among both children and adults.

Community and individual mental health problems are most apparent in Kotzebue, where acculturation pressures are the most intense. Alcoholism has become a major social and medical concern.

The Public Health Service (PHS) Hospital in Kotzebue provides both in-patient and out-patient services to residents of the Kobuk valley area. In addition, most villages have health aides who communicate as regularly as possible by radio transmitter or radio telephone with the PHS doctors in Kotzebue.

Education

Education has played an important role in the acculturation process here as in other parts of Alaska. Low educational attainment and minimal technical training have been a barrier to employment opportunities open to Natives. Increasingly, however, young people are completing school and training programs, and some are attending universities.

In the Kobuk census division, the median number of school years completed by persons 25 years and older was 7.0 in 1970. This compares with a median for the State of 12.4 years. On the other hand, the percentage of persons 14 through 17 years old who are in school is about the same for Kobuk census division as for the State as a whole--that is, about 90 percent. Thus, today's teenagers in the Kobuk valley area have, on the average, more years of formal education than their parents. Every village in the Kobuk valley area has a school. Four schools, located at Shungnak, Noorvik, Ambler and Kobuk, are run by the State Department of Education. These four schools had a total enrollment in 1972 of 279 students (Alaska Department of Education, 1972). The schools include the first through eighth grades, and at Noorvik through the ninth grade. At Kiana, the Bureau of Indian Affairs school has nine grades. The Bureau's large school complex at Kotzebue has grades one through twelve, and provides special education. A high school is planned for Kiana. Many students, however, must travel outside the area for high school--to boarding schools as far away as southeast Alaska, or even Oregon. Some students go to the big city schools in Fairbanks or Anchorage, where the State conducts a Boarding Home Program. Until recently, all teachers in these local schools have been non-Native people brought in from outside the area. In recent years Native people have been employed as teacher aides, and Native culture programs have been introduced. A bilingual program is being implemented in some of the schools, and Native history and crafts will become part of the curriculum. Some villages of the area have had Headstart programs which have relied on Native people as teachers and staff.

Recreation and Leisure Activities

Routine outdoor recreation activities are usually combined with subsistence living activities; often the two are difficult to separate. The same vehicles that are used for subsistence activities are used for recreation. For example, several people may go hunting or trapping and then have a snowmachine race on the way home. Or in the summer a person may travel by motorboat to a favorite swimming or hiking spot and then stop to check the salmon nets on the way home. For that matter, the subsistence activity itself may be carried out as much for enjoyment as need.

At various times throughout the winter, most villages hold weekend or weeklong festivals. The songs, dances, games, and stories that are a part of these festivals often have as their characters the animals and plants of the area. Outdoor activities at the festivals include races by snowmachine, dogsled, snowshoe, and foot.

When people are indoors during their leisure hours, they entertain themselves with storytelling, portable radios, card games, and books. Newspapers and periodical literature generally are available only through the mail.

Children enjoy bicycle riding in winter and summer, in addition to a variety of traditional and Western games. Among other favorite activities, teenagers listen to records, play guitars, and participate in basketball and softball.

ECONOMIC ACTIVITIES AND RESOURCE USES

Economic activities in the villages of the Kobuk area include both subsistence harvest pursuits and wage employment. Subsistence harvests consist of food, wood, and other raw materials taken directly from the land for personal use and consumption. Traditionally, people also bartered or traded items to obtain desired resources from beyond their own environment. For the Kobuk people this principally involved trade of inland resources for marine mammal products. Hunting, fishing,

trapping and berry and plant harvests continue to provide a significant portion of needed food and materials for most of the local residents.

Sources of wage employment and cash income are limited in most of the small villages. Local residents must travel to Kotzebue or other parts of the State to find wage employment opportunities. Those engaged in subsistence activities have become increasingly dependent on some cash income. Government services and facilities constitute the primary sector of the region's "market" economy.

Subsistence Activities and Harvests

Hunting, fishing, trapping and the preparation for use and storage of food and clothing are among the main activities involved in subsistence livelihood. Maintenance of equipment is also an important part of subsistence living and increasingly requires a cash investment. The subsistence activities of Kobuk River villages, however, contribute not only economically valuable resources, but serve social and cultural needs as well. Resource harvest activities serve as a critical element for ethnic identity of the individual and the community. Participation in such activities satisfies important psychological and social needs.

Families remain more or less permanently settled in the village during the school year. All village families rely importantly on subsistence harvests, although not all able-bodied people engage in subsistence pursuits equally. The introduction of elementary schools in the villages, and the practice of sending high school students away from home to attend school, has dramatically affected the involvement of young people in resource harvest activities. Time formerly spent in hunting camps, or on the trap line learning the techniques and skills necessary to become successful hunters is now spent in the school room learning different skills generally related to survival in the market economy of the dominant society and acquiring new values and aspirations. Recent efforts to reverse this, and to provide time for learning traditional skills in the village have been welcomed. However, the traditional social and cultural patterns which ensured that the younger generation would acquire the necessary knowledge and skills have been seriously disrupted. The extent to which this is true varies somewhat from village to village, depending partly on the proportion of young people which has migrated to the urban centers of the State. In most cases, however, the current generation of young adults does not possess the depth of knowledge of the environment, its wildlife and plant resources, and the skills and techniques of the older generation of traditional hunters and trappers.

The account below of the subsistence activities of Shungnak is taken from Heller and Scott's Alaska Dietary Survey--1956-1961, as presented in *Alaska Natives and the Land* (U.S. Federal Field Committee, 1968a). The subsistence activities at Shungnak reflect the patterns to be found in the other villages of the area, particularly those along the upper reaches of the river.

Some changes have taken place since the report was written, but it remains predominantly accurate. Villages closer to the coast probably utilize more sea mammals and fish resources than do the up-river villages. There have been some changes in the availability of certain animals in the area too. A more recent survey of subsistence harvest by the people of the Northwest Alaska Native Association region, which is discussed in greater detail in the section below on income and employment, indicates that moose have become more prevalent in the area, and are harvested in greater quantities than was true at the time of the Heller and Scott survey. Yet the recent survey



Caribou hunting, fishing and trapping activities occur within the area. These and other subsistence activities will continue under this proposal.

reaffirms the role of the subsistence activities described by Heller and Scott. Their description appeared substantially as follows:

Most families return to Shungnak by fall, the women from their fish camps and the men from their summer wage work. According to the Shungnak Eskimos, moose have always been present in the upper Kobuk area but never in large numbers--four to five is generally the largest number taken in a year.

"Mashua," the edible root of the pea (Hedysarum alpinum), is usually collected in good quantity from along the riverbanks and from the innumerable gravel bars in the river. Some years as many as three large gunny sacks full per family are stored for winter use. During most years, from 50 to 100 pounds--sometimes more--of crowberries and lowbush cranberries are collected and stored per family.

Caribou is the most important winter food in the diet of the Eskimos living in the upper Kobuk River area. Serious hunting of this animal begins in October and continues through April. Some early arriving caribou can be taken in September. In the most common migration pattern followed by the caribou, they drift south from the Noatak drainage area through passes in the Brooks Range to the headwaters of the Selawik River. Here they stay throughout the winter, leaving just before the ice breakup is imminent.

During October, whitefish, the last of the migrant fish to descend the Kobuk River, are obtained by trapping or netting them under the ice. They are available for a limited time only and used fresh.

Intermittently, from November through February, 'ling cod' (also known as 'mud shark'--both are local names for burbot) are obtained in moderate quantities by trapping under the river ice. They are used mostly as dog feed, although the liver and roe are relished by the people.

In winter, ptarmigan, spruce grouse, and snowshoe hares, which undergo cyclic fluctuations in numbers for reasons not well understood, can usually be snared or shot. Porcupine, once plentiful in the area, are now occasionally caught.

Beaver can be trapped in some areas but at a considerable distance from the village. Muskrats are obtained by trapping or shooting with a .22 rifle. Both of these animals were important late winter foods in aboriginal times, especially for their acquisition. They are scarce, however, in the immediate Shungnak area and to obtain significant numbers requires much travel; hence, they are little used now.

Throughout May and into early June most Shungnak families establish temporary camps on high ground near or at best only short distances from the village. During this time muskrats and ground squirrel may be obtained by trapping, snaring, or shooting with a .22 rifle.

Pike and sucker may be obtained form valley lakes and sloughs; ducks and geese are hunted during migration and later in summer their eggs are obtained from local nesting areas. None of these foods is available in large quantities.

In June, after the ice has gone from the river, sheefish and whitefish,--now on their upriver migration--and grayling and pickerel (northern pike) are obtained in variable quantities using seines and gill nets.

While the dog salmon run starts in June, the greater share of the catch is harvested in July and early August. This fish is one of the most important of the food resources of these people. It is obtained in quantity by seining and gill netting. The women have the complete responsibility for both the fishing and the subsequent preparation of the catch for storage. Traditional family campsites are scattered along

the river both above and below the village, occasionally at considerable distance from it. Salmon is used fresh in season, but most of the sizeable catch is dried and stored to be used in winter for dog feed.

Late in the spring wild edible rhubarb and sourdock are sometimes obtained in quantity and often moderate amounts are stored for winter use.

During summer an occasional brown or black bear or a hoary marmot may be taken. Fat from the latter animal used to be a prized food but since most of the men now work in the summer for wages (in the mines, etc.) they rarely make the extended hunting trips to the mountains for these animals as they did in the past.

Blueberries are usually plentiful in the area during late summer and some families try to store from 100 to 150 pounds for winter use. The fruit of the wild currant, rose, cloudberry, and raspberry are available in limited amounts. (U.S. Federal Field Committee, 1968a)

Natural variations in resource availability as well as variations stemming from new adaptations to pressures of the wider society have been contributing to changes in these patterns. Yet the people retain a strong desire to maintain a subsistence lifestyle supplemented by cash income from wage employment and some of the basic facilities important to good health--electricity, adequate housing, clean water and sanitation systems, adequate communications, services and good education. A variety of factors including changes in the delivery of education, health, and social services which enable young people to remain at home in the villages, and any significant improvements in the availability and reliability of local sources of wage employment may radically affect the extent of adherence to subsistence lifestyles in the future. New social, economic, and political power of Native people, giving people a greater involvement in determining their own futures, will also affect present day patterns of village life.

For all the people of the area, even those engaged in wage employment (and possibly including some people who have moved out of the area) the opportunity to choose to return to a subsistence lifestyle serves as a significant source of individual psychological well-being. An observation regarding another northwest Alaska village, relevant here, is that "as the need for participation in subsistence hunting activities for the sake of food diminishes, subsistence hunting activities will become more and more important as a social binding force." (MacLean, Weeden, et. al., 1971)

One of the most dramatic changes affecting subsistence living--and life in the North in general--is the replacement of dogs by snowmachines as the principal mode of travel and transport. When coupled with the introduction and use of modern weapons, the impact of Western technology on the traditional economy is very great.

This impact may be seen in the time and energy spent in subsistence pursuits, in the size of the harvests, and in the dynamics between the subsistence economy and the market economy. Snowmachines must be bought with money, and cash is needed to operate and maintain them. A noticeable decrease in the number of dog teams has been very apparent in the villages. John Burns, Wildlife Biologist for the Alaska Department of Fish and Game, has stated that:

With the advent of these machines, great quantities of fish and game that formerly had to be used for dog food, can now be used for local consumption or sold. Also, the machines have increased the outdoor activities of a great many people here in Nome and Kotzebue. People who work during the week and keep no dogs can now

get out when time permits, to supplement their cash income by hunting for some of their food. Also, the men who hunt and trap during the winter are now much more mobile. (John Burns, personal communication)

According to John Schaeffer, Executive Director of the Northwest Alaska Native Association, this change permits boys in school to join their fathers on weekend and holiday hunting trips, an opportunity which has been limited since the introduction of the Western school system (John Schaeffer, personal communication).

The people of the Kobuk area villages carry on their subsistence pursuits throughout the proposal area. Exact location and intensity of subsistence activities at specific locations is difficult if not impossible to determine. This is especially true when considering the harvest of migratory animals, such as the caribou, which may move according to habitat requirements. Most subsistence fishing occurs along the Kobuk River itself, at the mouths of its various tributaries. Trapping and hunting generally take place within an approximate 50-mile radius of the villages, but this varies with the availability of game. In some years, people may have to travel further to obtain the necessary resources. A NPS-funded indepth study of subsistence patterns is currently being carried out in the region by Brown University anthropologists which should provide much of the subsistence information now unavailable.

The *Alaska Dietary Survey 1956-1961* found that locally harvested foods in four northwest Alaska villages accounted for 30 to 46 percent of the caloric intake and 67 to 81 percent of the protein (Federal Field Committee, 1965). These ranges are probably typical of most smaller settlements today. The dependence on local subsistence food resources may be somewhat less in Kotzebue. Yet local materials are still used for clothing, building materials, utensils, and craft items.

Cash incomes, which are highly irregular, are typically obtained in temporary employment at relatively high wage rates or in some cases from welfare payments. A substantial part of the cash flow is used for inputs of durable goods such as outboard motors, snowmachines, and guns, and of supplies used in the subsistence sector. Hunting skill remains the single most important determinant of social status and influence in the smaller villages.

There is no closed season on caribou hunting in northwestern Alaska, and no limit on how many animals can be killed. The Alaska Department of Fish and Game finds it difficult to determine the annual kill of caribou in this region since the entire harvest can be presumed to be for subsistence purposes. The annual subsistence kill of caribou is believed to have declined from 20 to 30 thousand in the early-to-mid 1960's in the northwest game management units, to a current harvest of approximately 10 to 15 thousand animals. This decline has been attributed to the advent of the snowmachine as the major mode of winter transportation with a resulting drastic decline in the need of caribou for dog food (Personal communication, Smith, ADF&G, 1972).

The Northwest Alaska Native Association (NANA), of which the Kobuk villages are member communities, has recently completed a detailed household subsistence survey. Average yearly harvests for each resource are estimates from data covering the last several years. Appendix F presents the results of the survey for those communities within the Kobuk area of concern, along with the totals for the whole NANA area. While these results may not be wholly reliable, and should not be used to establish any limits on harvest, they suggest the continuing and dynamic role subsistence resources play in the Kobuk area. The Alaska State Department of Fish and Game considers the NANA survey harvest figures to be inflated. (See letter, State of Alaska, of 7/22/74, in Chapter IX.)

According to the survey, the 5 Kobuk villages had an average annual harvest of 5,449 caribou. Kotzebue people accounted for an additional 5,000. The total average annual harvest of caribou for all the NANA villages was 14,219 animals.

Moose are an important source of food for the people of the Kobuk area. Of the 317 total average annual kill in all the NANA villages, the 5 Kobuk villages accounted for 172. Shungnak alone reported an average of 59 moose killed per year. The people of Kotzebue reported an average annual moose harvest of 60. The five Kobuk villages plus Selawik accounted for the total estimated harvest of black bear, an average of 106 per year and approximately 70 percent of all brown/grizzly bear harvests reported in the NANA villages--the five Kobuk villages reported an average annual harvest of brown/grizzly bear at 57. Beaver is valuable both for its food and its pelt. The people of Ambler reported an average annual kill of beaver of approximately 400. The total for all NANA villages was 1,084. The other Kobuk villages accounted for 74 beavers per year. A portion of the pelt take is sold for cash.

The people of Noorvik and Kiana are the only Kobuk River villagers to report use of reindeer. The average annual figure of 75 reported for Noorvik and the 45 reported for Kiana were obtained in trade from reindeer herders or suppliers. Other small land mammals taken in some cases for their combined values as food and pelts and in other cases for their pelts alone included red fox, arctic hare, land otter, lynx, marmot, marten, mink, muskrat, porcupine, squirrel, weasel, wolverine, and wolf. The Kobuk River villages accounted for a large proportion of the subsistence harvest of the resources in the NANA region. (See Appendix F)

Pelts of furbearers not used for personal clothing may be sold to fur buyers for needed cash. Traditionally, these products may have been used in barter or trade with coastal Eskimos for valued marine resources, such as seal oil. To some extent trading relationships continue to provide valued resources, as well as serving social and cultural needs.

Trapping for furbearers is an income producing activity utilizing a natural resource. Its relative importance is much less in the Kobuk valley than in other areas of the State; but it is still an important source of income for many, especially those living in the villages farthest inland. Some non-Native local residents were originally attracted to the region to engage in trapping.

Once a commercial scale activity, trapping has declined since World War II, as wild fur prices remained low for some time due to competition from synthetics and ranch furs. There are no commercial tanneries in the region. Furs are sold locally or to buyers in Fairbanks, Anchorage, or outside the State. Most persons who still trap do not rely on it as their sole source of cash income. Instead, trapping has become more of a part-time economic activity, an integral part of the subsistence round, fulfilling important cultural and recreational values.

Since the first of 1973, however, the world market price for wild furs has risen sharply, with a renewed interest in trapping on the part of Kobuk area residents. At least one person trapped intensively within the proposal area in the winter of 1973-74 (Bane, personal communication, 1974). Some fur prices, such as fox and lynx, have risen by as much as 200 percent over last year. Whether or not this indicates a future upward trend in prices remains to be seen. This could increase the trapping activity.

Trapping and the skills and support activities associated with it have significantly affected the development of the local culture. It included free access to the surrounding countryside and has become an important avenue for local cultural expression (Bane, 1974).

Of the 42 Dall sheep reported in the NANA survey, Ambler accounted for 20, Shungank for 6, and Kotzebue for 13. Of the Kobuk villages only Noorvik and Kiana reported subsistence takes of sea mammals. Those two villages reported an average annual harvest of some 177 beluga whales and bearded and hair seals. In addition, Noorvik acquired an annual average of 400 pounds of bowhead whale meat through barter or trade. Total average pounds of potential useable value from all land and sea mammals for the Kobuk villages is estimated at 1,039,523 pounds. At Kotzebue the figure is 939,368 pounds.

Fish are an important part of the subsistence harvests of the Kobuk people, particularly of the villages in the lower portion of the river. Fish are taken for both human consumption and dog food. Arctic char, chum or dog salmon, mud shark (or burbot), sheefish, smelt, trout, and whitefish are all harvested in quantity by the people of Noorvik, Kiana, and Ambler. In the NANA survey Kobuk and Shungnak reported important quantities of sheefish and whitefish. (See Appendix F.)

The average annual fish catch for the five Kobuk villages was as follows: Noorvik--377,455 pounds; Kiana--236,033 pounds; Ambler--121,600 pounds; Kobuk--59,002 pounds; and Shungnak--190,033 pounds. These totals include small amounts of burbot, grayling, humpey (or pink) salmon, sucker, and sheefish.

It should be noted that the ADF&G subsistence catch data show considerably lower figures for two fish species--chum salmon and sheefish. According to ADF&G the subsistence chum salmon catch for Noorvik, Kiana, Ambler, Kobuk, and Shungank was 9,462 fish in 1972 and the sheefish catch was 3,521 fish. This sheefish catch is about one quarter of that indicated in the survey (which gives fish catch data in pounds).

Subsistence fishermen use set gill nets and beach seines to catch salmon in bays and rivers. Nearly all the catch is consumed as dried fish. Eskimos have traditionally fished for char with handlines, jigs, spears, gill nets, and traps. Today most fish by hook and line, or gill net. They use the entire fish.

There is some indication that dependence on subsistence fishing has declined in the region during recent years as a result of increased wage employment which interferes with the time of subsistence fishing, and the decline in dog food requirements (ADF&G, 1972). If it continues to decline, it is possible that the State may desire to liberalize regulations to allow a greater catch for commercial purposes.

The NANA survey indicates that birds are a valuable addition to the diet of the Kobuk people. Shungnak reported an estimated average annual harvest of 6,225 ducks and 1,200 geese. Kobuk households reported an annual average of 2,500 ducks and 1,000 geese, while Ambler reported an annual average of 1,000 ducks and 500 geese. Kiana takes 400 ducks and Noorvik takes about 637 ducks. The latter two figures appear to be low estimates, in view of the populations of these two villages, and their location close to prime waterfowl habitat.

Plant resources supplement a diet otherwise dominated by meat protein. Quantities of berries, greens, roots, and wild vegetables are gathered by the people of all the five Kobuk area villages, as well as by the people of Kotzebue. Types of berries include blueberries, blackberries, cranberries, salmon berries, currants, gooseberries, and strawberries. Greens and roots include fireweed, grass roots, rose hips, sourdock, tundra teal, willow leaves, wild roots, sudikroad, tinnik, and tree gum. Other vegetables include celery, Eskimo potato, onions, and rhubarb. Total quantities of all plants gathered on a yearly average in each of the Kobuk area villages is as follows: Shungnak--14,867 pounds;

Ambler--23,065 pounds; Kobuk--7,656 pounds; Kiana--15,040 pounds; Noorvik--24,259 pounds; and Kotzebue--16,782 pounds.

The "worth" of the moose or caribou, or of a fish or duck caught for personal consumption is a value not currently defined in the market place. This is because it is illegal to sell these commodities. However, this food is obviously still "worth" a great deal, for if it were not available, the person would have to have the money to buy the equivalent in a store. Even if an "equivalent" group of products could be identified and these subsistence resources assigned a dollar value on that basis, it would fail to include the cultural and social and recreational values attached to the resources and the activities associated with their harvest and preparation. Dollar values, however, would make it easier for other people to understand the importance of subsistence resources, as well as the important contribution these resources make to the quality of life of those people engaged in acquiring them.

The viability of the Eskimo subsistence economy in the region is apparently not now endangered by population pressures on the wildlife resources nor by the influx of nonresident hunters. However, because of subsistence harvests, some geese populations may be at levels lower than expected otherwise (King and Lensink, 1972); and muskoxen and caribou have been extirpated from some areas. Yet the take of several important subsistence species is in no case clearly approaching the maximum sustainable yield; in many places stocks of caribou, seals, walrus, and beluga whales can probably sustain greater harvests. However, there is little information on animal populations, and greater harvests at this time may not be practical.

The snowmachine is working a revolution in hunting--and in other ancient pursuits, such as hauling firewood and water--comparable only to the introduction of the rifle. But snowmachines cost from $900 to $3,000 and require purchased fuel and parts. On the other hand, to the extent they replace sled dogs they can be expected to improve the human use of the kill, since much less of the meat and fish taken today is fed to the dogs than in even the recent past.

The limits on the perpetuation and expansion of the subsistence sector are cultural, economic, and ecological. Opportunities for wage employment, education, health, and recreation are drawing part of the population to places like Kotzebue, where game is scarce due to the population density and where contact with Western cultural values and the requirements of "urban" living conflict with traditional pursuits.

Ecological limits on a subsistence economy are related to the Arctic ecosystem, which is considered to be extremely fragile; the impact of phenomena such as population, pollution, erosion, and overgrazing, seems proportionately more catastrophic than in temperate regions (Federal Field Committee, 1968).

Other Resource Uses

Additional resource harvest activities occur in the region, and probably in the vicinity and within the proposal area. These include general fishing and hunting activities of some residents of the region who are not clearly engaged in a subsistence lifestyle, but who seek to supplement food and material items purchased in the store with a locally available fresh source. The activities of some non-Native residents--various government employees and others--and some Native residents who have adopted many aspects of Western culture and are clearly oriented to the urban-type market economy would be included here. While these activities are not equivalent to the sport hunters' seeking of trophy quality targets, nor are

they of a clearly "subsistence" nature. For those Natives who have relinquished the traditional subsistence lifestyle, hunting activities still serve as an important social binding force and source of ethnic identity, as well as recreation and food values. However, the economic need may be less pressing relative to that of people engaged in a dominantly "subsistence" lifestyle.

Obviously these distinctions are vague and not easily made. During this period of intense pressures of acculturation, individuals and families have sought to integrate wage employment and subsistence pursuits, and many are in the process of achieving a balance between needs which can be satisfied through the market economy and the subsistence use of resources.

Sport hunting by people from outside the region is currently light. Before passage of the Marine Mammal Protection Act in 1971, sportsmen were attracted to the region, principally Kotzebue, for polar bear hunting. This activity is now illegal. Marine mammals may only be taken for subsistence purposes by Native residents of the coastal area. Sport hunting for caribou, bear, and Dall sheep occurs in the general region, but not at the levels currently occurring in the central Brooks Range to the northeast. Sport fishing for sheefish occurs in the vicinity of the proposal area along the Kobuk River. An unknown portion of the State's data on game harvests in game management unit 23 is sport hunter take. (See Chapter II, Wildlife.)

The Market Economy

SOURCES OF CASH INCOME AND WAGE EMPLOYMENT: The introduction of items of American material culture and their acceptance by the people of the region has led to a growing demand for cash with which to purchase equipment such as fishing gear, outboard motors, ammunition, guns, snowmachines, and a variety of household equipment. Food staples, such as salt, flour, sugar, coffee, tea, tobacco, clothing, and liquor are other valued retail items. Heating oil is another product that requires a substantial amount of cash. New home construction, public utilities, travel to other parts of the State all are costly, and require participation in the market economy to obtain the necessary cash. The desire to seek wage employment reflects these needs, and may reflect increasing awareness of the social status and power that money confers on people in the dominant society.

Opportunities for permanent, year-round employment and a steady source of income are extremely limited in the small villages of the area. The few permanent jobs in the villages are primarily government jobs; in the schools, as teacher aide, or janitor, maintenance or kitchen worker; in the village post office, as postmaster. Perhaps a position might be available as store manager in the village store. Other year-round jobs exist at Kotzebue, with the various governmental agencies, and with the several businesses, and transportation and tourist services. Most of the area's non-Native people have year-round jobs either in the service trades or transportation industries, or in government. Many Natives, on the other hand, are employed only seasonally with opportunities for work greatest during the short Alaskan summer.

Some people have to leave the region to find wage employment, both seasonal as well as full-time. For the small number who are union members,

union hiring generally takes place in the union halls in Fairbanks or Anchorage. One of the significant indicators of the social and economic condition of a population is the ratio of nonworkers to workers in the population. This reflects the number of people a worker must support through his participation in the labor force. For the State as a whole, the nonworker-worker ratio was 1.28 in 1970, while in the Kobuk Census Division it was 4.22. Data on participation in the labor force does not adequately reflect the number of able-bodied people who actually work, since only those people working, or unemployed and looking for work, are generally included in the census figures on the labor force. Undoubtedly, many people in the Kobuk area villages do not look for work in the wage economy during the winter months--when it is unavailable in the region--through April or May, when the census was taken. Thus, the figure of 45.8 percent of males and 28.8 percent of females over 16 years counted as being the labor force for the Kobuk Census Division is probably a low estimate for seasonal wage workers.

GOVERNMENT: Government is the largest single employer and source of cash income in the Kobuk valley area. In 1971, government employment averaged 71 percent of total wage and salary employment. Wage and salary employment does not include commercial fishing, trapping, reindeer harvesting, firefighting, or the National Guard. Government is the principal source of full-time jobs and also provides seasonal employment opportunities. Examples of government seasonal employment include Neighborhood Youth Corps and firefighting.

The following figures are taken from the 1971 Statistical Quarterlies published by the Alaska Department of Labor. The Kobuk area included here is larger than the Kobuk valley area under discussion, but the figures accurately reflect the substantial increases in employment brought about by seasonal work.

KOBUK LABOR AREA

Employment	Jan.	Aug.	Dec.
Federal Government	278	267	270
State and local government	121	489	195
Total government employment	399	756	465

Federal and State governmental functions in the area which provide income for the people include the administration and operation of the school system, public health services and welfare programs, postal service, transportation, aviation and weather services, land management services--principally firefighting——and law enforcement. These functions are primarily carried out at Kotzebue.

Administration of educational services is both Federal (Bureau of Indian Affairs) and State. The four State-operated schools--at Ambler, Kobuk, Shungnak, and Noorvik--employ a total of 17 teachers (Alaska Department of Education, 1972). In addition, there are jobs for local people at the schools--cooks, janitors, maintenance workers, and teacher aides. The Bureau of Indian Affairs school at Kiana employs, in addition to the teachers, five educational aides, one maintenance worker, one janitor, and one cook. The large school complex at Kotzebue, operated by the Bureau of Indian Affairs, and including both elementary and secondary grades, employs 45 teachers, 27 teacher aides, and 28 maintenance, janitorial, and kitchen staff (U.S. Department of the Interior, BIA, 1972).

Health services provide an additional source of employment and income. The Public Health Service hospital at Kotzebue employs more than 100 persons. State health and welfare programs employ village aides in most of the villages.

Postal services account for a few year-round jobs in the villages of the area, and additional personnel at the Kotzebue Post Office. Government regulatory and service agencies have staffs in Kotzebue and employ some local residents. These agencies include the Federal Aviation Administration, the Weather Service, and State Division of Aviation, the State Division of Public Safety, the State Department of Fish and Game, and an Air Force Station.

An important source of seasonal government employment is firefighting. Residents are employed on an emergency basis by the Bureau of Land Managment to fight forest and tundra fires. The number employed each summer varies directly with the number, frequency, and size of fires, not only in the region but all over the State. In 1971, 35 persons were employed from the six Kobuk villages and from Selawik to fight fires (Figure 4). Income per person averaged $1,764. In 1972, the Bureau of Land Management hired a total of 454 persons from the Kobuk River villages and from Selawik, for an average income per person of $1,082 (Bureau of Land Management, 1972). All the villages of the area except Kobuk have a National Guard unit. Approximately 100 men from the five Kobuk villages are members of the National Guard and receive an average yearly income of $1,000 each (U.S. Army National Guard, 1972).

FIGURE 4

NATIONAL GUARD AND EMERGENCY FIREFIGHTING EMPLOYMENT

Village	Current Population Estimate	National Guard	Firefighters 1971	Firefighters 1972
Ambler	180	14	4	1
Kiana	290	10	5	101
Kobuk	65	-	-	9
Kotzebue	1,965	13	9	126
Noorvik	445	18	9	116
Shungnak	159	10	-	32
TOTALS	3,104	65	27	384

Source: U.S. Department of the Interior, Bureau of Land Management, Open file and reports on emergency firefighters, 1971, 1972, District Office, Anchorage.

U.S. Army, Alaska National Guard. Open file and reports, 1972.

FIGURE 5

STATE WELFARE TRENDS - KOBUK AREA VILLAGES

October 1967 - October 1972

Village	October 1967 *Cases	Total $	October 1968 *Cases	Total $	October 1969 *Cases	Total $	October 1970 *Cases	Total $	October 1971 *Cases	Total $	October 1972 *Cases	Total $
Ambler	8	$ 780	7	$1,039	9	$1,283	8	$1,580	13	$2,277	13	$2,042
Kiana	22	2,092	19	2,641	24	3,040	27	5,106	28	4,820	31	4,668
Kobuk	4	88	4	**	4	**	4	**	5	**	4	**
Kotzebue	69	7,231	80	10,497	90	11,491	106	19,186	113	18,586	120	18,623
Noorvik	19	2,112	27	3,218	36	4,365	39	6,486	43	6,291	40	5,917
Shungnak	14	1,476	13	1,362	13	1,669	16	3,002	17	2,950	19	2,885
TOTALS	136	$14,091	150	$19,547	176	$22,225	200	$36,021	219	$35,549	227	$35,230

Corrected for Inflation:

Price Index***						
1967-100	100	104.2	109.8	116.3	121.3	125.0
	$14,091	$18,759	$20,241	$30,972	$29,307	$28,184

*A case may represent a family, and not necessarily an individual.

**Figures removed to protect confidentiality of individuals, but included in totals.

***Federal Reserve Bulletin Vol. 59, No. 1, Jan. 1973, p. A68.

Source: Alaska Department of Health and Welfare, Division of Public Welfare.
Statistics on Active Public Assistance Cases, October 1967 to October 1972.

FIGURE 6

APPROXIMATE COMMERCIAL SALMON CATCH - KOTZEBUE DISTRICT

Year	Number of Fish	Average Weight of Chum (lbs.)	Total Commercial Catch in Pounds
1967	29,400	9.3	273,342
1968	30,384	9.7	294,724
1969	59,383	7.5	445,372
1970	159,664	8.1	1,293,278
1971	154,957	8.1	1,265,151
1972	169,667	9.1	1,544,569

COMMERCIAL FISHING LICENSES--1972: 202

ESTIMATED DOLLARS TO FISHERMEN--1972: 262,287

AVERAGE INCOME PER FISHERMAN--1972: 1,299

About 4% of the commercial catch in the Kotzebue District are sheefish and Arctic char, the rest are salmon. Figures were derived by multiplying the salmon catch by the mean weight of chum salmon since, the overwhelming portion of the catch was chum.

Source: Alaska State Department of Fish and Game, Division of Commercial Fisheries. Annual Management Report, 1972 Arctic-Yukon-Kuskokwim Region.

Government sponsored or supported community development projects, such as new housing, water and sewer projects, community facilities construction, provide seasonal employment and income. Some of the State-sponsored programs are on a self-help basis, and provide some employment. They may not include cash income.

The local governments in the villages have had limited, if any, financial resources to provide a source of wage employment. In Kotzebue, there is some limited employment in local government. Under the provisions of the Alaska Native Claims Settlement Act this is likely to change. The Northwest Alaska Native Corporation and the village corporations will bring new vitality to the village and city governments, and should stimulate increased employment opportunities in local governmental services. The non-profit arm of the Native regional association is likely to introduce new social and educational programs which will be staffed, most probably, by local people to the greatest extent possible.

Government expenditures which contribute to the cash income of the area include the public assistance programs. In addition to limited unemployment compensation and social security benefits, the residents receive three types of income assistance: Bureau of Indian Affairs emergency assistance payments, food stamps, and State welfare payments--which include the categorical programs of Old Age Assistance, Aid to the Blind, Aid to the Disabled, and Aid to Families with Dependent Children. The number of recipients and the average dollars received per household have increased in recent years, along with the increase in population. The material standard of living for some persons who now utilize both subsistence and public assistance has undoubtedly improved.

Judging from October 1972 statistics, about 61 percent of the households in the five villages are currently receiving welfare payments from the State. Of the total number of welfare cases in the Kobuk area, over half are in Kotzebue. (See Figure 5). Bureau of Indian Affairs emergency financial assistance varies seasonally and from year to year. In recent years it has gone to between 12 and 22 percent of the population of the five Kobuk villages. It is intended to meet emergency needs due to delays in or ineligibility for State assistance, due to seasonal hardships suffered during the winter months when wage employment is unavailable, and other temporary emergencies. Average annual household income from State welfare payments, judging from October 1972 is about $1,862.

COMMERCIAL FISHING: Commercial fishing is a source of seasonal employment not included in the above statistics. It is especially important for Kotzebue and neighboring villages. The commercial fishing industry provides cash income for almost 200 fishermen as well as 40 to 70 processing employees who work each summer for the Kotzebue Sound Area Fisheries Cooperative. In addition, a few people fish commercially for sheefish in the winter.

The Kotzebue cooperative is a Native-owned enterprise founded in late 1967. It has been a substantial positive impact on income received by commercial fishermen in the area. Since 1967, price of chum salmon has risen from $1.00 per fish to $1.54 per fish in 1972. The gross dollar value of the catch to Kotzebue fishermen, $28,700 in 1967, has risen steadily each year to over $260,000 in 1972. Total wages paid to processers and tender boat operators have climbed from $15,000 to over $52,000 in 1972. The increases are not completely due to the existence of the co-op, as the salmon run has been consistently high for the last 3 years. However, the economic return to the local people would not have been as high without the co-op. The co-op's future plans include a larger and more sophisticated processing plant, thereby further increasing the local residents' share of the economic return of the resource.

TOURISM AND THE SERVICE INDUSTRIES: Kotzebue is the focus of tourist activity in the region. Three main categories of visitors come to the region: (1) tourists taking air package tours on Wien Air Alaska or Alaska Airlines to Nome and Kotzebue; (2) sportsmen who hunt or fish, canoe, or hike in the area; and (3) a few independent travelers who come by private plane or scheduled airline. A small, but increasing, number of outdoor recreation enthusiasts (current rough estimate is 500 annually) are discovering the Kobuk and Noatak River valleys. Most villages, however, do not have visitor accommodations or other services, and have not attracted tourists who come to the region. Services and facilities for sport fishermen have recently been established at Kiana. The air package tours allow only limited time at Kotzebue--generally a few hours or an overnight stay. The contribution of tourism to the local market economy is limited to employment by the airlines, and to receipts and employment at the several hotels, the few local guides, and bush charter plane operators. The sale of arts and crafts may contribute some income for a few individuals, but much of the ivory carving and other craft items are not produced in Kotzebue.

In 1972 Alaska Airlines carried an estimated 8,579 paid tourists on their Circle Tours to Nome and Kotzebue. This does not include travel agents and airline employees who travel without charge. If these are counted, the total number of visitors carried by Alaska Airlines in 1972 was probably over 10,000. Wien Air Alaska carried approximately 1,100 tourists to Nome and Kotzebue in 1972. Wien's 1972 tours over-nighted in Kotzebue. Most of this visitation occurred in the three summer months. Package tours include a bus ride through the town, stops at gift shops and Eskimo dance demonstration. Japanese tourism to Alaska is an increasingly important segment of out-of-state visitations. Japan Airlines brought 1,000 Japanese tourists to Alaska in 1972. It expected to bring over 8,000 in 1973. A portion of these Japanese visitors probably traveled to Kotzebue as well as other areas of the State.

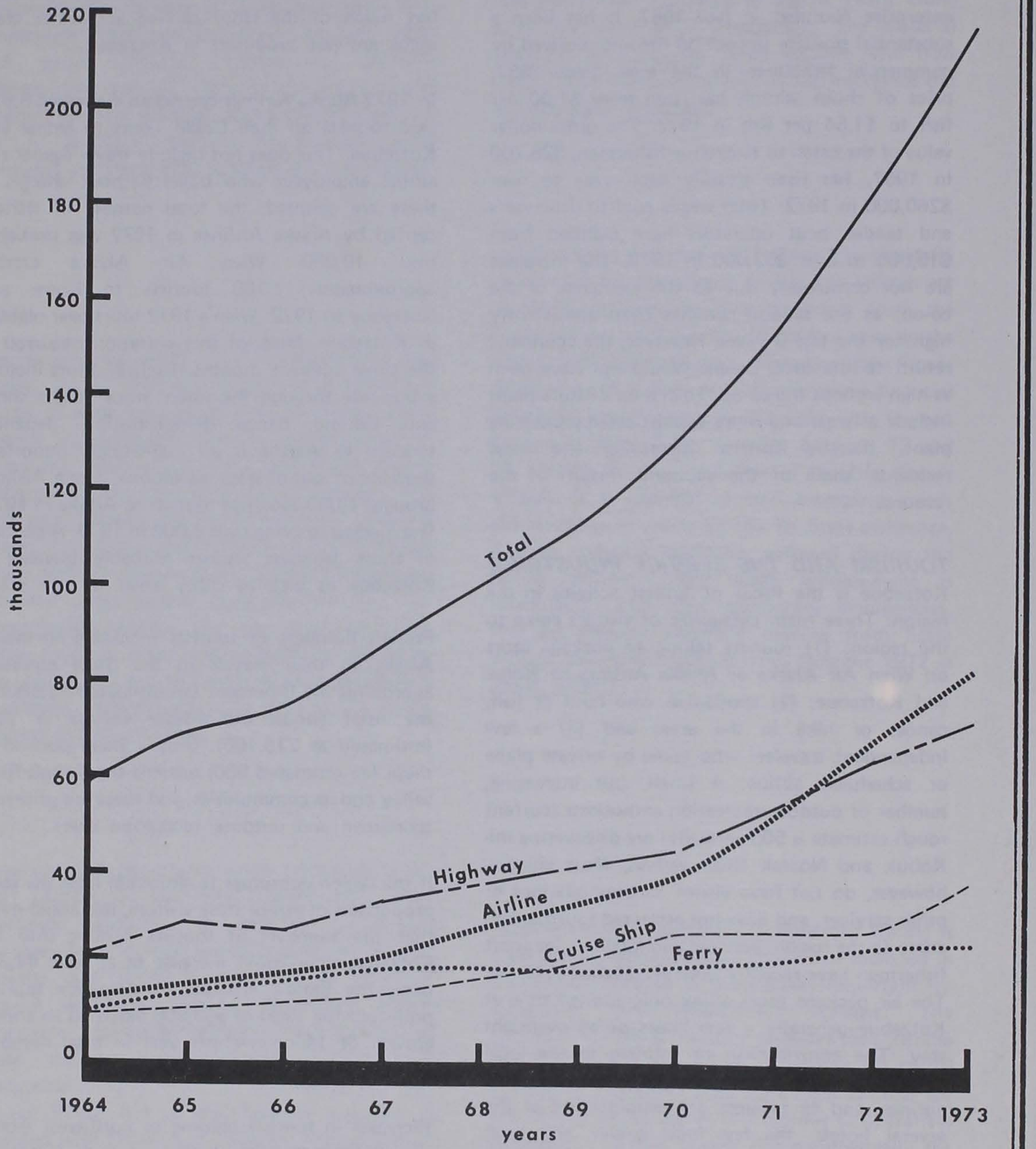
Present numbers of tourists including northwest Alaska in their travels in the State represent approximately 8 percent (an estimated 12,500) of the total annual out-of-state visitors in 1972 (estimated at 215,700). Only a small portion of these (an estimated 500) reached the Kobuk River valley and its communities, and these are primarily sportsmen and outdoor recreation users.

If the region continues to attract at least the same proportion of out-of-state visitors, this could mean that the numbers of tourists coming into the Kotzebue area could increase to at least 44,300 using the State's estimate of statewide tourism projected for 1980 of 553,800 based on an annual growth of 14 percent per year in total numbers of out-of-state visitors to Alaska.

Increases in tourists coming to northwest Alaska will depend to some extent on such factors as

FIGURE 7

NUMBER OF TOURISTS ENTERING ALASKA
BY
MODE OF TRANSPORTATION
1964 – 1973



Source: Alaska State Dept. of Economic Development, Alaska Travel Division.

FIGURE 8

BUSINESSES AND SERVICES

	General Store	Taxicab	Hotel-lodging	Restaurant Cafe-Bar	Arts & Crafts Gifts	Liquor	Mining	Community-based AirCharter	Community Electricity	Community Water/Sewer	Telephone	Recreation
Ambler	xx				x			x	x			x
Kiana	xx							x x	x			
Kobuk	xx						x	x				
Kotzebue[1/]	xxxx	xxx	xxxx	xx	x	xxx	xx	xxxxxx	x	x	x	xx
Noorvik	x		x						x			x
Shungnak	x				x				x			x

1/ Other Kotzebue businesses include: barge company, newspaper, radio broadcast station, movie theater, dentist, oil-gas bulk distribution, fishermen's cooperative.

Source: Alaska Department of Economic Development. Alaska Industrial Directory of Employers, 1972-73. Juneau

availability and cost of accommodations, services, and transportation. The current fuel shortages will likely influence the rate of growth of the tourism section, but it remains unclear to what extent. Future growth in the tourism sector, both at Kotzebue and at the smaller villages of the region, will also be influenced by the land use and investment decisions of the newly formed regional and village corporations, as well as activities of State and Federal agencies, including the National Park Service in the event this or other proposals in the region for monument or refuge establishment are enacted.

In the past, polar bear hunting parties have been attracted to the coastal area. There are four guides located at Kotzebue and one in Kobuk, although some 133 licensed guides are qualified to conduct hunts in the Arctic guide districts of Alaska. Both Natives and non-Natives are registered guides, assistants to guides, camp helpers, and pilots who hire out to sportsmen to insure a successful hunt and to enable nonresidents to meet certain legal requirements of State regulations governing hunting. The Marine Mammal Protection Act of 1972 has outlawed the taking of all sea mammals other than for subsistence use by local residents, so local guides have had to shift their activities to interior game species. Some sport fishermen are attracted to the Selawik and Kobuk Rivers for sheefish, grayling, salmon, and char. Some people derive cash income from boat rentals, charter services, and accommodations to sportsmen. A sportsmen's lodge has recently been established at Kiana.

CONTRACT CONSTRUCTION: Construction activities, both government and private, are important employers during the summers when there are village housing or other construction projects. Some persons travel to other areas of the State for construction jobs. Construction is important to the local economy during some years, but cannot be counted upon to provide a steady and permanent source of income.

MINING: Mining, an important natural resource-based industry in the past, has steadily declined in importance during the past several years. Actual dollar values of production for the past few years are not available. Reports by the U.S. Geological Survey and the Bureau of Mines indicate mining potential on lands in the Baird Mountains, primarily east of Ambler in the vicinity of Bornite. The Bornite mines contributed briefly to the local economy of the mid-Kobuk watershed. At present, few local residents derive an income from mining. Should overland or water transportation routes improve in this region, these mines could make a major contribution to the economy of the region.

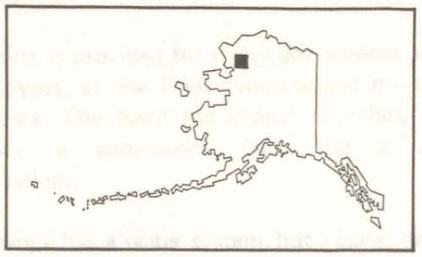
Seventy-five Native allotment applications and three legally located and maintained mining claims lie within the proposed monument. No other lands are owned privately. (See Patents, Claims, and Allotment Applications; Potential Hydroelectric Site maps.)

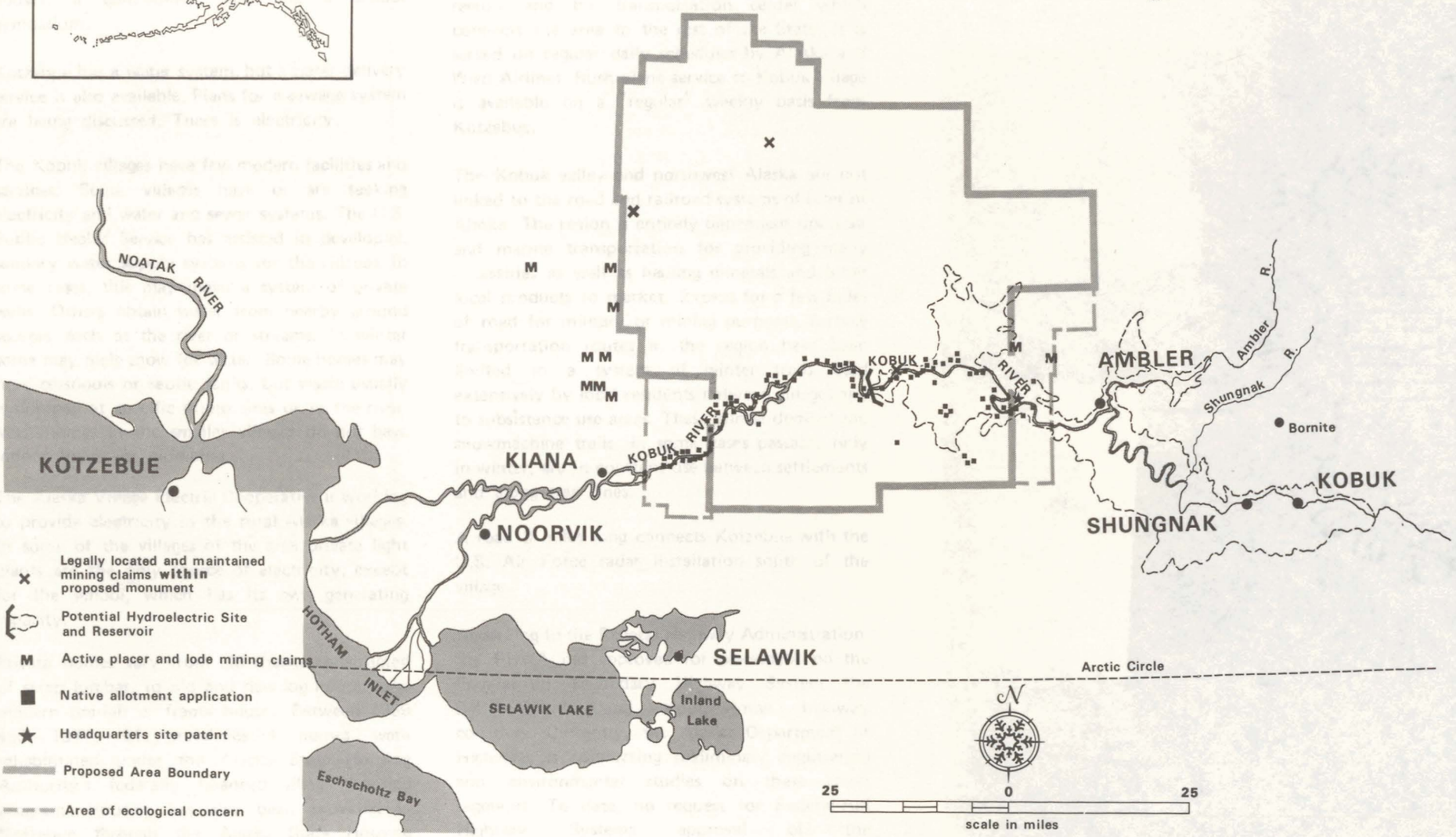
Facilities and Services

Kotzebue, as the regional service center, has an array of public services and facilities. In addition to the transportation services--the airport with its adjoining Federal Aviation Administration facilities, the Weather Service, and the nearby Air Force radar installation--the town has several air taxi and charter services. Kotzebue has a telephone system, and is connected with the rest of the State by telephone. There is taxicab service, hotels, cafes, general stores, a post office, fuel storage and distribution facilities, a barge shipping company, and a fishing cooperative.

The U.S. Public Health Service hospital and the Bureau of Indian Affairs school complex are both substantial modern structures, and prominent features of the town. New homes have been built,

PATENTS, CLAIMS, AND APPLICATIONS! HYDROPOWER SITE





and are intermingled with the older, sometimes dilapidated houses. As is true in the smaller villages, Kotzebue's streets are unpaved, but they are lighted.

Housing is provided for many government agency employees, at the FAA complex and the school complex. The town has several churches, movie houses, a community hall, and a school gymnasium.

Kotzebue has a water system, but a water delivery service is also available. Plans for a sewage system are being discussed. There is electricity.

The Kobuk villages have few modern facilities and services. Some villages have or are seeking electricity and water and sewer systems. The U.S. Public Health Service has assisted in developing sanitary water supply systems for the villages. In some cases, this may mean a system of private wells. Others obtain water from nearby ground sources such as the river or streams. In winter some may melt snow for water. Some homes may have cesspools or septic tanks, but waste usually is dumped at specific dump sites or in the river. Most homes in the smaller villages do not have indoor toilets or plumbing.

The Alaska Village Electric Cooperative is working to provide electricity in the rural Alaska villages. In some of the villages of the area private light plants are the only source of electricity, except for the school, which has its own generating capacity.

Private homes vary from old shacks constructed of scrap lumber, to old and new log houses, and modern pre-fab or frame houses. Between 1969 and 1971, 91 prefabricated homes were rehabilitated under the Alaska State Housing Authority's federally financed village housing program. Housing has also been provided in Kotzebue through the Alaska State Housing Authority.

Each of the Kobuk villages has a general store. All the villages have a post office, sometimes located in the home of the postmaster. All have mail, freight and passenger services, and airstrips.

Transportation and Communication

Kotzebue is the largest urbanized area in the region, and the transportation center which connects the area to the rest of the State. It is served on regular daily schedules by Alaska and Wien Airlines. Bush plane service to Kobuk village is available on a "regular" weekly basis from Kotzebue.

The Kobuk valley and northwest Alaska are not linked to the road and railroad systems of interior Alaska. The region is entirely dependent upon air and marine transportation for providing many necessities as well as hauling minerals and other local products to market. Except for a few miles of road for military or mining purposes, surface transportation routes in the region have been limited to a system of winter trails used extensively by local residents between villages and to subsistence use areas. These winter dogsled and snowmachine trails, in some cases passable only in winter, are in constant use between settlements and along trap lines.

A road 3 miles long connects Kotzebue with the U.S. Air Force radar installation south of the village.

According to the Federal Highway Administration, the FHWA has approved for placement on the Federal-Aid Secondary Highway System the Bettles-Kobuk and Kobuk-Nome highway corridors. Currently, the Alaska Department of Highways is conducting preliminary engineering and environmental studies on these route segments. To date, no request for Federal-Aid Highway Systems approval of the Kobuk-Ambler-Kiana segments has been submitted

to the FHWA. Consideration is being given in these studies to the DOT study of transportation corridors between Bettles and Kobuk conducted as a part of its North Slope transportation study (FHWA, letter, Chapter IX). The Planned State Transportation and Utilities Corridors map, which depicts the Kobuk-Ambler-Kiana corridor, appears in Chapter III.

Much of the area is accessible by floatplane or by ski-equipped aircraft in winter. The nearest airfields to the monument are in Kiana and Ambler. The major air corridor in the region follows the Kobuk River east from Kotzebue.

Local residents of the several communities travel in the area by snowmachine and aircraft in winter and riverboat and by air in summer, visiting friends and relatives, attending social and religious gatherings, civic meetings, and education and training programs. The isolation of the area, combined with the short navigation season and the comparatively low volume of commerce, adversely affects shipping. A commercial company provides lighter services from an anchorage some 20 miles offshore for freight brought by sea to Kotzebue. This company also serves coastal communities by sea-going barges and operates river barges inland to villages along the Noatak, Kobuk, and Selawik Rivers. Deep draft barges reach as far up the Kobuk as Kiana. Shallow draft barges can reach Ambler during most of the ice-free season.

Most of the villages within the region are serviced by aircraft from Kotzebue. Regular carriers, air-taxi services, charter services, and private aircraft haul passengers, freight, mail, and produce to the outlying settlements. A sandbar, a beach, or a bulldozed strip may suffice for a landing field for wheeled planes and a river or pond for a floatplane. In winter, ski-equipped planes can and do land almost anywhere.

Kotzebue, as stated, has phone service that is available to all households upon subscription. RCA Alaska Communications is working to install one dial telephone within every village in Alaska. At present, villages have radio-transmitters. All villages have postal serivce, via air from Kotzebue.

Land Uses

Existing land uses within the boundaries of the proposed monument are primarily Native subsistence use and some mineral prospecting. The proposed monument includes lands on which some 75 Native allotment applications have been made and which are generally used for subsistence purposes. Five of these have seasonal home site designation. Seasonal fishing and hunting camps are located along the rivers, particularly at the mouths of Kobuk River tributaries. In recent years, snowmachines have been used by residents in their subsistence activities.

No oil and gas leases, or oil and gas lease applications exist currently within the proposed monument. Three legally located and maintained mining claims are within the proposed monument.

The proposed monument has no agricultural land uses.

The Kobuk River is used regularly as an artery for travel. Motor powered river boats, as well as small freight barges travel up and down the river during the ice-free season.

The Kobuk River, and other bodies of water in the area, are used for the landing of float and ski-equipped aircraft according to season and condition of the runways at the villages.

There are no permanent village settlements within the proposal area, although some people regularly occupy seasonal fishing and hunting camps at points along the river within the proposal. The villages nearby constitute a principal land use at the specific locations identified as settlements.

9. POTENTIAL HYDROELECTRIC SITES

There have been no detailed investigations of hydroelectric potential of the Kobuk River basin, but inventory studies by the Bureau of Reclamation, Corps of Engineers, and Alaska Power Administration have identified two potential projects (A.P.A., letter, Chapter IX).

One of the dams proposed is over 100 miles from the proposal area on the upper Kobuk. The most favorable damsite appears to be in the "Lower Gorge," 25 miles below the mouth of the stream draining Walker Lake. A dam in this canyon would be 225 feet high and would have a crest length of 1,500 feet. Water would extend up to Walker Lake creating an active reservoir capacity of 2,000,000 acre-feet. The tributary to this site is rather small. There is, however, a possibility of diverting the flow of the Alatna River, a tributary of the Koyukuk River and the Yukon River system at a point above the mouth of Helpmejack Creek. Using the Alatna water along with the Kobuk runoff, a power plant at the Kobuk River site would generate more than 110 million kilowatts of firm energy each year (USDI, BR, 1952). No development plans exist for this dam.

The other site, Kobuk Project, is on the Kobuk River at the mouth of the Kavet Creek within the proposed monument. A dam here would create a reservoir which would cover about eight percent of the proposed monument. This project, according to the Alaska Power Administration, is the only identified potential hydropower development in the Kobuk basin meriting continued interest. The project might have regional significance in future power planning for the State (APA, letter, Chapter IX).

Studies to date have consisted of inventory grade evaluations of the project as a single-purpose hydroelectric development. Multiple use studies have not been made, but it is possible this project may have some significance for values other than hydropower.

The current plan contemplates construction of an earth dam about 150 feet high with a crest length of about 4,200 feet. This dam would impound 20.5 million acre-feet of water, with maximum water surface at an elevation of 150 feet. The reservoir would have a surface area of 720 square miles. An arm of the reservoir would extend up the Ambler River about 22 miles. (See Patents, Claims, Allotment Applications; Hydropower Site map.)

The active capacity of 6.6 million acre-feet would be sufficient to fully regulate the runoff from the 7,820 square mile watershed to the site. This would permit firm power production of 120,000 kilowatts at 50 percent annual load factor. The project could produce an annual generation of 525,000,000 kilowatt-hours. Construction of the reservoir would require relocation of the villages of Ambler, Kobuk, and Shungnak and would inundate the Onion Portage Archeological District and portions of the sand dunes.

A surface geological reconnaissance of the damsite has indicated extensive sand deposits. Subsurface exploration prior to development would be required to ascertain the adequacy of the foundation materials.

Project studies have been accomplished in sufficient detail to estimate project power capabilities, and to provide a rough appraisal of probable project costs. They assume further geological exploration to establish the adequacy of foundation conditions. The value of the project for power would be about $5 to $10 million per year assuming average energy values of 10 to 20 mills per kilowatt-hour.

The project studies to date have related solely to establishment of the power potential. With power operation, inflows to the reservoir would be stored and released as required to meet power demands. Navigation assistance would likely also be

considered. Annual drawdown is estimated at only 5 feet. Ultimate development would include other purposes which might be incorporated in the project plan. The project operation would attempt to minimize any adverse effects on fish and wildlife, facilitate fishery enhancement opportunities, maximize recreation opportunities, and otherwise maximize the project benefits.

Transmission line routes have not been identified. Access for construction would likely be by barge up the Kobuk River.

10. WILD AND SCENIC RIVER POTENTIAL

Much of the monument area is coursed by rivers that would appeal to the boating enthusiast. Although white water is scarce in this region, except at breakup, the rivers within the proposed monument do traverse a variety of arctic habitats, each with its special kinds of vegetation, fish, and wildlife. The waterways of the North have long been primarily avenues of transportation in summer. Most of the rivers have been canoed; barges are used on the Kobuk. Recreational boaters would certainly enjoy these rivers because of their historic and natural values, all in an arctic wilderness setting.

The Salmon River within the proposal area has Wild and Scenic River potential. The Bureau of Outdoor Recreation studied the Salmon in cooperation with the National Park Service and the U.S. Fish and Wildlife Service in the summer of 1973. (See Appendix E.)

PROBABLE FUTURE ENVIRONMENT WITHOUT THIS PROPOSAL

All lands within the proposal area are withdrawn under section 17(d)(2) of ANCSA. If the proposed Kobuk Valley National Monument is not enacted by Congress prior to December 18, 1978, d-2 withdrawal status will expire, and automatic reversion to d-1 status occurs. D-1 withdrawal through reversion provides for the same forms of protection as previously existed under d-2 status.

Trends indicate that northwest Alaska is experiencing rapid social, economic, and political change and is on the verge of substantial change in land and resource use patterns. The search for oil and gas and other marketable natural resources, the application of new technology, growing tourism, change in Native cultures, and increasing interaction and communication with other parts of the country make predictions of the probable future of the environment highly speculative. One thing, however, seems unquestionably clear: few things will remain as they are.

This analysis of the changes likely to occur in northwest Alaska and particulary in the Kobuk valley, is based on several assumptions.

1. That, of the various land and resource management systems which might possibly be applied to this proposal area, the National Park Service management would be the most restrictive.
2. That, ultimately most of these lands will be managed under some form of public multiple use management.
3. That, it is unlikely that all the lands within the proposal would be placed under the control of a single agency; some lands will become private or State property.
4. That, whatever management system is applied to the proposal, some change will occur.

Working from these assumptions, it can be suggested that without this proposal:

Resource utilization in the area would continue at present levels or increase. Mineral prospecting could be allowed and would probably accelerate. If economically exploitable minerals were found, mining would take place. Both prospecting and exploitation would likely lead to construction of roads in areas which are today roadless. Specific

areas which could be most affected by exploration and extraction are the Baird Mountains (copper potential) and the area southwest of the Kobuk River (oil and gas).

Renewable resources--such as timber and wildlife--would be open to extractive uses.

Tourism to the region will increase with or without establishment of the proposed monument. However, the number of tourists reaching the area would increase at a slower rate than if a national monument were established. More people engaged in activities such as resource extraction, construction and possibly homesteading would be likely to use the area.

All the above developments would create increasing conflicts with subsistence activities. Without the proposed management--or, at least, without a management system which includes the continued availability of subsistence uses among its primary purposes--subsistence use could decrease. Competition from sport hunters or habitat destruction from exploitive uses would very likely make the fulfillment of needs through subsistence difficult.

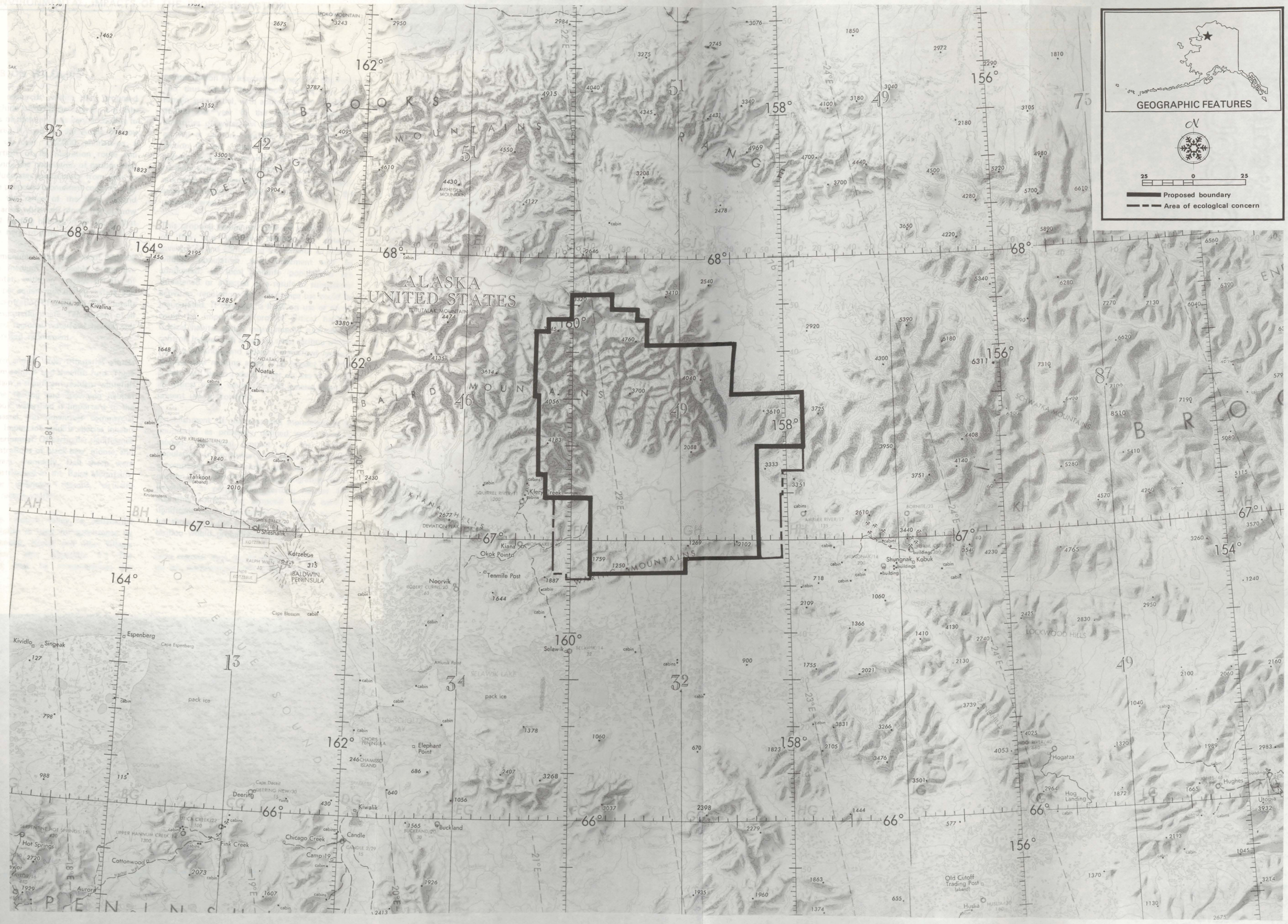
Regional employment and population projections anticipate growth in State and local government and contract construction employment in the northwest region with concommittent population growth. (Appendix H contains regional employment and population projections by the State and by the Human Resources Planning Institute. Although these projections differ considerably, each sees growth in these areas.) According to the Human Resources Planning Institute projections (1974):

"Total employment in the Northwest region (including the Nome, Kobuk, and Barrow labor market areas) was 3,600 persons in 1972. This is forecasted to increase to 6,600 workers by 1976 and to 7,300 workers by 1978. Reflecting the growth of employment, and labor force, population in the Northwest region is expected to climb from its 1972 level of 9,100 persons to a 1983 level of 17,200 workers. Eighty percent of this growth of population is expected to occur between the period 1972 and 1976 with most of it attributable to the growth of construction employment and local government employment. The growth of State and local government employment most probably results from the inability of our regional allocation system to deal with such slightly populated regions as the Northwest. Consequently, the region may not grow nearly as rapidly as the forecasts indicate. On the other hand, the forecast for mining employment shows an increase of 400 workers between 1972 and 1976 and a decrease of 100 workers thereafter to reach a 1983 level of 700. There has been some speculation that hard rock mining will develop in the Northwest region. If it does, it could cause significant increases in employment in the mining sector and could cause population and employment in this region to grow more rapidly."

Modern technology and society will continue to introduce pressures for change upon the local subsistence lifestyle and Eskimo cultural patterns in the future, with or without the proposal.

Cultural values would probably be more subject to loss and damage, without national monument status. Known or undiscovered archeological resources would have a somewhat greater chance of being vandalized or destroyed or inadequately studied, especially if the lands containing them become privately owned.

Assuming no change in State or national land use planning laws, a mix of land ownership could decrease the possibility that effective regional planning and management would occur, and could decrease the possibility that environmental impacts of the above mentioned exploitive uses would be effectively controlled.


GEOGRAPHIC FEATURES
25 0 25
Proposed boundary
Area of ecological concern
ALASKA
UNITED STATES
BROOKS MOUNTAINS
DE LONG MOUNTAINS
ARCTIC
BALDWIN PENINSULA
BALD MOUNTAINS
KIANA HILLS
WORK MOUNTAINS
SCHWATKA MOUNTAINS
LOCKWOOD HILLS
CHORIS PENINSULA
SELAWIK LAKE
pack ice
Kivalina
Noatak
Kotzebue
Shesnalik
Noorvik
Kiana
Okok Point
Tenmile Post
Selawik
Espenberg
Kividlo
Singeak
Elephant Point
Deering
Kiwalik
Buckland
Candle
Hot Springs
Cottonwood
Fink Creek
Chicago Creek
Camp 19
Aurora
Kobuk
Shungnak
Hogatza
Hughes
Hog Landing
Utopia
Old Cutoff Trading Post
Huslia
Kleny Creek
Cape Krusenstern
Cape Espenberg
Cape Blossom
Cape Deceit
Mishepeuk Mountain
Tututalak Mountain
Chamisso Island
Athlunk Point
Pingo Peninsula
Baird Mountains
Kiana Hills
Work Mountains
Schwatka Mountains
Lockwood Hills
Brooks Range
De Long Mountains
Arctic Ocean
Kotzebue Sound
Hotham Inlet
Selawik Lake
Squirrel River
Kobuk River
Hogatza River
Koyukuk River
Amber River
Bornite
Poko Mountain
Kivalina
Noatak
Kotzebue
Shesnalik
Noorvik
Kiana
Okok Point
Tenmile Post
Selawik
Espenberg
Kividlo
Singeak
Elephant Point
Deering
Kiwalik
Buckland
Candle
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Cape Krusenstern
Cape Espenberg
Cape Blossom
Cape Deceit
Mishepeuk Mountain
Tututalak Mountain
Chamisso Island
Athlunk Point
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Work Mountains
Schwatka Mountains
Lockwood Hills
Brooks Range
De Long Mountains
Arctic Ocean
Kotzebue Sound
Hotham Inlet
Selawik Lake
Squirrel River
Kobuk River
Hogatza River
Koyukuk River
Amber River
Bornite

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III. THE ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

A. IMPACTS ON WILDLIFE

Key wildlife resources within the proposed monument include caribou, waterbirds, and fish. Concentrations of these animals vary according to season. The area is used by the Arctic caribou herd--a herd of over 242,000 animals--as a significant portion of its migration route and wintering ground. The population of caribou that use the area fluctuates enormously from year to year. While the proposed monument contains only 2 percent of the range of the herd, upland lichen-covered areas which are blown free of snow provide critical feeding habitat in winter to that portion of the herd utilizing these areas.

The proposed monument contains about 370,000 acres that are medium to highly productive waterfowl habitat, with an average density of about 44 birds per square mile during nesting, and a total fall concentration of about 40,000. Pintails and Canada geese predominate. Ten percent of all Kotzebue Sound regional waterfowl habitat lies within the proposed monument.

The Kobuk River and its larger tributaries witness substantial chum salmon and sheefish runs. These rivers also contain a significant resident whitefish population. The rearing and spawning habitat within the Kobuk watershed is important to the viability of coastal and downriver commercial fisheries. Other important wildlife species inhabit the proposed monument. Of particular significance are local concentrations of black bear, moose, and various furbearers. Formerly, Dall sheep were possibly well distributed in the Baird Mountains, but have, for unknown reasons, virtually disappeared in recent years.

Throughout the Kobuk valley, a substantial quantity of wildlife is used for subsistence by people from Ambler, Kiana, and other villages along the river. (See Appendix F.) The replacement of dogs by snowmachines for transportation has lessened the need for dog food, and thus halved the caribou harvest, yet kills remain substantial, with approximately 10,000 to 15,000 per year in the region. Considerable quantities of waterfowl and their eggs are used, as well as salmon, sheefish, and whitefish. (See section G, this chapter.) An estimated 1,035 persons depend on resource harvests which occur partially within the monument area and derive an unknown but probably important portion of their animal subsistence harvest from within the proposal area.

This proposal would not prohibit subsistence use of fish and wildlife. Nonetheless, detailed inventories and continuing surveillance of Kobuk wildlife population and movement will be conducted; if local wildlife populations are threatened or affected as a result of subsistence activities, regulations for subsistence use could be inaugurated. If essential, a limit on use or access could be imposed to protect critical habitat. Critical habitat which might require such special controls include fish spawning sites, caribou winter feeding grounds, and primary waterfowl nesting, rearing, and molting areas. The impact of such actions will be to reduce stress on key resources at critical times, while allowing general levels of present use to continue.

Establishment of the proposed monument with boundaries as presently defined would have a modest, beneficial impact on the caribou population in northwest Alaska since the area encompasses only a small, although important portion of the herd's habitat and migrating route. However, in perpetuating caribou habitat and migrating routes, the proposal would have a significant impact on subsistence use of caribou for those who use the area, since availability of caribou would probably continue.

On a regional level, should cooperative agreements on the management of the Arctic caribou herd

take place as proposed, the impact of this proposal and the others of the Alaska Conservation Act in northwest Alaska would be greater, since much larger portions of the range of the herd would be protected. This, in turn, would possibly have increased implications for subsistence, since the possible regional protection of the herd may lead to continuation indefinitely of subsistence use of caribou.

Under this proposal, the area will be closed to sport hunting. The impact of this action on wildlife will be minor in the near future since this use is currently light within the proposed monument but could be significant in the long term if hunting pressures were increased. Sport fishing will be permitted. While sport fishing use is light now, catches of the largest trophy-sized sheefish in Alaska may attract increased interest in this species and in this activity. This may lead to a moderate impact on sheefish population in the Kobuk River, and locally moderate to significant impact on lake trout in heavily visited lakes, although such use may be controled by the NPS or the ADF&G.

An increase in visits by the public normally accompanies the designation of a National Park Service area; projected visitation for the Kobuk Valley National Monument is expected to be 5,000 persons annually (primarily during summer months) within 10 years after its establishment as a National Park Service natural area. This will cause increased human disturbance of wildlife populations, and could cause disruption of wildlife use patterns. Since people will come to the proposed monument by water and air, increased boat use might cause moderate local impacts on spawning fish and nesting waterfowl populations; air tours may disturb nesting waterbirds unless minimum overflight altitudes are enforced. However, under this proposal visitation would be concentrated in areas of low wildlife use. Disturbances would thus involve relatively few animals. As with subsistence use, public access to critical wildlife habitat could be controlled during vulnerable periods of the life cycle of species.

Primary impacts on wildlife during the expected season of visitor use would be on waterfowl nesting and moulting areas. These are approximately indicated on the waterfowl habitat map and occupy about 20% of the proposal area. Most impact could occur on islands in or sloughs adjacent to the Kobuk River. These impacts could be locally significant. If visitor interest developed in witnessing caribou migration through the passes separting the Noatak from the Kobuk drainages, moderate localized impact could occur to caribou movements, though such use could be strictly controlled. The Caribou Range map indicates migration routes through the monument; these routes would be critical habitat during periods of use.

Given these conditions, impacts would be significant locally but insignificant for the area as a whole.

Under this proposal, the monument would contain no roads. Plans exist, however, for two State surface transportation and utility corridors which would bisect the monument. This proposal seeks coordinated planning with the State Department of Highways to preserve and protect the wildlife values of the Kobuk Valley National Monument. (See Planned State Surface Transportation and Utility Corridors map.)

Cooperative agreements will be sought with appropriate Native groups to protect wildlife habitat on areas of ecological concern adjacent to the proposed monument; similar agreements concerning the uses of the Kobuk River will be sought with the State of Alaska. In addition, the implementation of protective cooperating agreements for the tracts of land adjoining the proposed monument is likely to reinforce the

purposes of this proposal regarding wildlife perpetuation. For example, an agreement could be made among all private and governmental landowners in northwest Alaska to develop an overall management and land use strategy to maintain the habitat and numbers of the Arctic caribou herd.

Overall, some provisions of this proposal would have minor disruptive impacts on current wildlife numbers and distribution in certain localities. However, National Park Service protection of key habitats as well as cooperative management agreements, could have a significant impact on the perpetuation of wildlife resources in the area.

B. IMPACTS ON VEGETATION

On the uplands north of the Kobuk River, within the proposed monument, vegetation consists of open woodland, and dry and moist tundra. Wet, open bogs and marshes, and flood plain communities exist in the lowlands to the south. Roughly one-third of the monument is composed of marshes and wet tundra, one-third drier upland tundra, and the remainder mixed deciduous and evergreen forests. Trees grow primarily at elevations less than 1,000 feet. Permafrost patterns and frequent fires have developed considerable species diversity of plant communities. Stands of sizeable spruce are scattered on southfacing slopes and on some better-drained portions of flood plains.

Some vegetative communities within the proposed monument are of particular importance or interest. The vegetation found in successional stages on stabilized sand dunes and on the swales between the dunes has unusual scientific interest. This fragile vegetation is vulnerable to disturbance. Of similar importance is the transition from forest to low elevation tundra. The proposed monument contains over 300,000 acres of aquatic vegetation which is essential to many wildlife species for food and cover. Open lichen-covered ground, particularly on wind-blown sites, provides essential winter feed for caribou. This lichen is fragile and highly susceptible to damage by fire and trampling.

Under this proposal, fires of natural origin--which permit diversity--will be allowed to play their important role in the Kobuk valley ecosystem. The only exceptions to this policy would be for the protection of human use areas, and possibly, the protection of the vital caribou range. This policy would have very little impact on the existing vegetation patterns.

This proposal conceives of temporary visitor and administrative facilities; they may possibly be located on barges during the summer. By this means, park facilities will have a minimal impact on vegetation. Furthermore, most visitor use is expected to take place along the Kobuk River flood plain. Since the vegetation on the plain is disrupted annually by flooding and ice scouring, the local plant species are hardy and resistant to disturbance. Therefore, impacts from human use on the flood plain vegetation would be slight. Conceptual plans call for four public use sites outside the flood plain area where disturbance to vegetation could be more severe. However, little construction is planned at these sites, and therefore damage would probably consist of trampling and erosion around concentrated use areas such as pathways and campsites.

In areas of heavy visitor use and surface travel, including the vegetated portions of the Kobuk Sand Dunes, areas adjacent to boat and air access points, and favored camping sites along the larger rivers, local impact could be substantial, causing compression, and possibly destruction of vegetation. Open lichen covered areas, favored feeding sites for caribou, could be especially impacted notably at and adjacent to low passes.

Access restrictions and fire protection insofar as possible could limit impacts on critical winter caribou feeding range to minor significance. Human use areas would in aggregate occupy less than 1% of monument acreage. Studies will be carried out to determine the most important caribou use areas as the basis for designing management restrictions and policies.

A proposed air strip would cause major destruction of ground cover on and around the strip itself. On the Kobuk Sand Dunes, sensitive plant communities could receive severe damage from unrestricted human use, but visitor use controls such as walkways would restrict this damage to localized areas. Also, an increase in archeological investigation is foreseen under this proposal. New excavation sites could remain as long lasting scars due to the very slow natural regeneration of vegetation under subarctic conditions.

In general the effect of this proposal would be substantial on vegetation in areas of heaviest use, especially on the stabilized portions of the sand dunes. However, since heavy use will occur mostly in river flood plains and on unvegetated portions of the sand dunes, both of which are least susceptible to damage from human use and which make up less than 5 percent of the monument, the overall impact will be slight.

C. IMPACTS ON AIR QUALITY

Air quality over the proposal area is presently unimpaired. A fairly substantial increase in motorboat and airplane use is envisioned as a result of this proposed action. A temporary and localized concentration of exhaust gasses may occur. Overall impact due to this proposal, however, would be negligible.

D. IMPACT ON WATER QUALITY

Present water quality within the proposal area is high, except for minor pollution of the Kobuk River due to discharge of wastes from villages upstream at times of low water flow. Summer concentrations of suspended sediment levels (BLM, 1973), are fairly low, 10-100 milligrams per liter. Good quality ground and surface water is somewhat scarce. Exploration is generally necessary to obtain potable ground water. Moderately deep wells are required except near major streams. Surface waters are of fair quality, although availability is restricted in winter. The numerous shallow ponds of the area are generally turbid and have little surface water exchange. They are thus susceptible to damage from pollutants. The Kobuk River crosses the area, as a slow, smooth, meandering stream, with an average summer flow of 8,000 - 12,000 cubic feet per second. Formation and breakup of ice dams nearly every spring cause extensive flooding, siltation from which enriches the many sloughs within the extensive flood plain. Average freezeup is in mid-October, with breakup in late May. Permafrost is continuous, at depths of 1-5 feet, except immediately adjacent to the Kobuk River. Motorboat and airplane activity resulting from this proposal could lead to considerable increases in use, movement, and storage of petroleum products.

Spillages of petroleum could cause chronic pollution of any streams or ponds that might be involved. Campsites and other human use areas could cause local pollution from human wastes. Except for proposed construction of one small air strip on the Salmon River, very little building is envisioned. Building could disrupt the vegetative cover, causing local melting of permafrost which might then lead to abnormal siltation of nearby streams and lakes.

This action would seek by cooperative agreements with upstream communities to minimize pollution

entering the Kobuk River, thus maintaining the river quality at a higher level than otherwise might occur. Overall adverse impact of this proposal on water quality would be quite minor and temporary.

E. IMPACT ON VISUAL INTEGRITY

At present man-made alterations of the landscape within the proposal area are minimal. One seasonal residence near the Kobuk Sand Dunes is used partially as a lodge. Five seasonally used cabins are present. Seasonal camps are established for subsistence purposes, an activity which would continue under the present proposal. An Eskimo house was restored by Giddings at the Onion portage archeological site, and could be maintained. Two hundred miles of sled and winter haul trails exist on the Selawik proposal adjacent to the south border of this proposal. They are now used primarily by snowmobiles. An unknown but probably similar amount of such trails exist within the present proposal area, some of which have experienced enough compaction under the snow to form a visible line across the landscape during snow free season. The State has identified two potential transportation corridors bisecting the area, with a total length of about 90 miles.

Under this proposal, visitor use would be concentrated on the Kobuk River flood plain, which is annually scoured by flooding and ice, and the active portion of the sand dunes, which are constantly altered by wind. River boats or barges could provide overnight facilities for visitors. Two proposed ranger stations could be placed on barges, and would be removed seasonally. Most air access sites would be on water or, in winter, snow or ice. The impacts of all the above uses would be restricted to locations in which the landscape is annually scoured by nature and thus the visual effects of human use would be only temporary.

Four visitor use sites would be located away from the river flood plain. A proposed air strip would be built to provide access to the upper Salmon River, creating a locally major intrusion on landscape appearance. Implementation of this proposal could create use sufficiently heavy to cause conspicuous scars on the ground surface adjacent to air or boat access points and along favored walking routes and camping locations. Airplane and boat docking and ramp facilities would be evident unless carefully located and screened. By designating sites and, if necessary, travel routes and camping spots, these visual impacts would be confined to specific areas. Impacts on existing archeological research would be locally severe. (See Vegetation map.) The proposal does not include plans for a road. It would have an impact on any State road construction by influencing route selection, regulating creation and use of borrow pits, and by ensuring minimized permafrost disruption and subsequent slumping and heaving. Such controls could lessen the substantial visual impacts which a road would have in this open country.

Monument-related services would be centralized in villages outside the boundaries where intensive human uses have already occurred if cooperative agreements can be obtained. Such agreements with adjacent landowners would also seek to protect visual integrity within areas of ecological concern if mineral or other resource utilization were carried out. A similar agreement with the State could minimize any impacts caused by dredging to improve navigation along the Kobuk River. Due to the capacity of the rivers, flood plains, and active dunes to absorb most visitor impacts, overall physical effects resulting from this proposal would be insignificant. The primary impact would be to maintain a landscape almost free of long-lasting visual disruption.

F. IMPACT ON CULTURAL RESOURCES

HISTORIC, ARCHEOLOGIC, AND ARCHITECTURAL

Due to ancient settlement patterns of Kobuk area Eskimos along almost the entire length of the Kobuk River, its banks may be regarded as a continuous archeological zone. Within this area are found uncounted numbers of archeological sites--remains of winter and summer houses, camp sites, work areas, artifacts, evidences of hunting, fishing, and gathering, and other signs of human presence. All of the above make the archeological record of the valley exceedingly rich.

Within the entire Kobuk valley area, Onion Portage is by far the most important and best known site. Onion Portage, which actually contains 20 to 30 sites and has four that are excavated, is the only place outside Cape Krusenstern which contains all the cultural phases so far identified in Alaska. It contains artifacts as old as 6,500 B.C. Further, it compliments Cape Krusenstern in that its sites are deposited and dated in vertical layers while the Cape's are horizontally dated. Cross checking between the two sites can greatly enhance the accuracy of archeological investigations in the area. Of the total Onion Portage Archeological District, which covers about 16,000 acres and which is listed in the National Register of Historic Places, less than a third is within the monument boundaries. The rest is in the eastern area of ecological concern which is in the Ambler Village withdrawal.

The other known sites along the river, as well as Onion Portage, are important because they contain artifacts of the Arctic Woodland Culture which developed in this area. This culture was unique because it represented an adaptation of the Eskimo people's marine-oriented subsistence culture to existence in a woodland area of interior Alaska much like that of the interior Alaskan Athapascan Indians. Upon establishment of the national monument, studies will be undertaken to further evaluate, locate, and identify the area's cultural resources.

If the monument were established, the Park Service would develop a program to interpret the archeological resources of the area for recreational and educational purposes. However, because of the difficulties of demonstrating most of these sites and the threat of vandalism, only those sites with particularly evident remains, stabilized and protected, would be used as specific interpretation sites. At Onion Portage, interpretive potential is rather limited, but interpretation of archeological research in progress at the site would be an important educational program for visitors. Also, J. Louis Giddings built a reconstruction of an Eskimo house for the benefit of accidental visitors, which could be used in an interpretative program. Nevertheless, the impacts of increased human use around archeologic sites by visitors attracted to the proposed monument could cause degradation of the sites' research value through trampling of the surface, increased erosion, or looting for souvenirs. To the extent that visitor use is small and controlled, and visitor education and the presence of uniformed personnel are effective, adverse impacts are expected to be light and relatively insignificant.

Opportunities for scientific research will be expanded and research expeditions will be encouraged. It is possible that archeologic knowledge of this area will expand more rapidly as a result of this proposal than it would otherwise. However, increased research activity will have an adverse impact in that individual sites are significantly disturbed by excavation. Complete excavation of a site would eliminate any opportunity for future investigation and the possibility of using improved methods. Issuance of research permits would be limited to recognized scientists. Thus, amateur or improper research and excavation techniques will be prohibited.

In general, the proposal would protect the cultural resources of the area from despoilation, which could occur if there were no monument. Also, the proposal would make these cultural resources available to the public. The resultant expected increase in public awareness of Eskimo cultures and history will have significant impact on the scientific and educational attention devoted to these cultural resources.

Overall, the proposal would have significant impacts on cultural resources through increased public contact with these resources and through the preservation of them.

G. IMPACT ON SUBSISTENCE

The residents of the five villages in the Kobuk River valley, as well as some of the residents of Kotzebue, use the proposal area for resource harvest purposes. Kotzebue has a population of almost 2,000 people, while the villages of Kobuk, Ambler, Kiana, Shugnak and Noorvik have a combined population of approximately 1,039. The area has experienced rapid population growth since 1950 which portends increasing demand on wildlife and plant resources. Almost all of the residents in these settlements rely partially or wholly on locally harvested animal, fish and plant resources for satisfying basic individual, family and community food needs, with the degree of reliance increasing as one moves farther up-river.

These resources are crucial to those families living a subsistence lifestyle. Cost of imported food goods is high and sources of cash income are limited, generally seasonal and largely unreliable. In addition, resource harvest and use activities satisfy important social and cultural values. Thus, hunting, fishing and trapping are the principal occupations of most of the people in the Kobuk valley area and remain the primary methods of obtaining food (notably protein).

The Eskimo people of northwest Alaska have been undergoing a process of social and cultural change. Some Native people, especially in Kotzebue but also in the villages, have adopted some social patterns and values of the dominant society and are no longer dominantly dependent on harvest of natural resources for satisfaction of material, social and individual needs.

Some non-Natives who have settled in Kotzebue and the Kobuk villages continue to derive their major means of support from the market economy, although they may engage in hunting, fishing and gathering activities. Other non-Natives settlers in the area have adopted a subsistence lifestyle closely paralleling that of their Native neighbors.

The approximately 1,039 people of Ambler, Kobuk, Shungnak, Noorvik, and Kiana depend significantly on the proposal lands for their subsistence activities and harvests. The primary components of the annual subsistence harvest in the area are mammals and fish. Kotzebue, Noorvik and Kiana people harvest sea mammals along the coast beyond the proposal area. People in all villages rely very heavily on caribou. Of the 10,000 to 15,000 caribou harvested annually in the northwest region, the five Kobuk villages took a combined annual average of 5,449. Kotzebue alone accounts for about 5,000 caribou kills. Moose, black bear, grizzlies, Dall sheep, as well as smaller land mammals also contribute to the meat supply. No data is available on the proportion of this harvest which comes from proposal area lands.

Fish provide another major food source, with almost a million pounds harvested annually. The majority of the fishing is done with nets or lines in the river, mainly for sheefish, whitefish, salmon and trout. ADF&G indicates that very few pounds of trout are taken in the Kobuk (letter, ADF&G, Chapter IX). Some trapping is done by local residents.

Beaver, muskrat and other small furbearers, as well as fox, wolverine, wolf and lynx and land otter and mink are taken. (See Appendix E.) The relative importance of trapping is much less in the Kobuk valley area than in other areas of the State, but it is still an important activity and aside from craft items and the fisheries the one locally available natural resource which has a dollar value in the market economy. Sale of fur has been an important source of income for many, especially those living in the villages farthest inland. Furbearers are used locally for clothing, food and craft items.

Trapping activity declined since World War II, as wild fur prices were low due to competition from synthetics and ranch furs. Most persons who still trap do not rely on it as their sole source of cash income. People engaged in a subsistence lifestyle continue to trap to obtain pelts for personal use and for sale for needed cash, and trapping has become more of a part-time activity, fulfilling important cultural and recreational values.

The people of Ambler and Kiana are those most directly involved with trapping in the proposed monument. Ambler reported an average annual kill of 400 beaver while Kiana trappers took approximately 100. To what degree this activity occurs on monument lands is not known, but at least one person and possibly more trapped in the proposal area intensively in the winter of 1973-74 (Bane, personal communication, July 1974).

Since the first of 1973, however, the world market price for wild furs has risen sharply and there is a renewed interest in trapping in the Kobuk area. Some fur prices, such as for fox and lynx, have risen by as much as 200 percent over last year. Whether or not this indicates a future upward trend in prices remains to be seen, but this could increase the trapping activity.

Other food sources include migratory waterfowl and bird eggs. Berries, wild vegetables and roots provide an important dietary supplement to the otherwise high protein diet. The people use tree and shrub species for fuel or home building purposes. (See Chapter II and Appendix F for details on species and quantities of subsistence resources harvested.)

Within the proposed monument subsistence resource harvest activities by area residents are at present the major uses of the area. Exact location and intensity of resource harvest activities is difficult if not impossible to determine, but the entire area may be considered to be utilized at some time over a period of years. Harvest of migratory animals such as the caribou, or of other mammals which move according to habitat requirements, will occur at various locations within and beyond the proposal boundaries. Subsistence fishing is done principally along the Kobuk River itself, at the mouths of its various tributaries. Trapping of furbearers and hunting take place generally within a radius of approximately 50 miles of the villages, but this varies according to the availability of game, weather and travel conditions. Certainly during migration periods, the most important use of the proposal area is hunting of caribou, which are taken in large numbers. Wetland areas within the boundaries provide good hunting for waterfowl and moose and trapping for beaver. Location of allotment applications suggests some of the areas important to the round of subsistence activities.

The proposal area is extremely important as an area of resource harvest activities to the residents of the area.

The proposed action would have important implications for these subsistence uses of the area. Present resource harvest activities do not conflict with the values that qualify the area for preservation, and are a logical continuation of the generations of activities that make the area important in archeological terms. These activities and uses would be allowed to continue until it

is determined by the Secretary that utilization of these resources is neither economically or physically necessary to maintain human life nor necessary to provide opportunities for the survival of Alaskan cultures centering on subsistence as a way of life. If it is demonstrated 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 managing agency, following consultation with the Alaska Department of Fish and Game, communities and affected individuals, shall have the authority to restrict subsistence activities in part or all of the monument.

Provisions to close the area to sport hunting, entry under the public land laws, mining and mineral entry and other commercial exploitation of resources, including the potential to preclude development of a system of surface transportation, would bring significant beneficial impacts for subsistence users by excluding uses which could damage subsistence resources and wildlife habitat, and disrupt local community life. Some local wildlife populations are at lower than expected levels. These species will be carefully monitored and regulations on subsistence harvest may be imposed as noted above.

Despite the fact that the human population has been increasing in the villages, subsistence harvest levels appear to be remaining at relatively constant levels. This is due, in part, to outmigration of young adults, increasing reliance on wage jobs to supplement subsistence livelihood, and in some cases, abandonment of subsistence activities in favor of full-time wage earning occupations. There is a possibility that demand for subsistence resources could increase in the future.

Kobuk Valley National Monument, as one of five proposed Federal reserves to be based in Kotzebue, could create new job openings for local residents thus providing additional sources of cash to supplement subsistence harvests. For a few, full-time jobs might be an alternative to the subsistence lifestyle.

By attracting more visitors to the region (approximately 15,000 additional annual visitors to Kotzebue within 5 to 10 years, and an estimated 5000 visitors to the proposal area and nearby villages), the group of proposals could create conflicts between subsistence users and tourists and other visitors seeking recreation. An influx of visitors to the Kobuk River villages could cause disruption in community social life and subsistence activities. However, since the NPS does not envision a rapid increase in visitation to the proposal area itself, nor the establishment of any major visitor accommodations or services in the near future, and, since the proposal provides for management of visitor uses to avoid conflict with subsistence activities, these impacts would be small for the first 5 to 10 years after enactment of the proposals.

Modest increases in employment opportunities in the region could result in a decrease in the rate of outmigration. This could have the impact of off-setting a possible drop in the subsistence level by the addition of more potential subsistence users. The provision to acquire private inholdings would not affect lands used for subsistence purposes, except where there is a willing seller or such lands are to be used for commercial purposes or for other than permitted subsistence use. This would have a significant impact on future generations of subsistence users by assuring that such lands would continue to be available for subsistence.

Trapping for subsistence purposes would be allowed on the monument. However, commercial or sport trapping would not be allowed.

Trapping activity and sale of pelts which enable a local resident individual or family to continue

to maintain a dominant subsistence lifestyle would be permitted. The ban on commercial trapping would necessitate its relocation to other lands in the region.

Considerable controversy exists within the State over the "subsistence" question (JFSLUPC, Feb. 1974). State hunting and trapping regulations do not distinguish between sport and subsistence harvest activities by Alaska residents, although a distinction is recognized between subsistence and commercial fishing. Game harvest data maintained by the State does not distinguish between game taken by sportsmen and game taken for subsistence by local residents of an area.

The proposal will honor the intent of ANCSA in regard to protection of subsistence resources and recognize and actively promote the opportunity for local residents to continue to pursue a lifestyle and a culture based dominantly on dependence on natural wildlife and plant resources for satisfying basic needs for food, material, shelter, fuel and for social, cultural and psychological well-being.

Cooperation in developing park policies toward "subsistence" will be sought with appropriate State agencies and representatives of Native corporations and of all area residents. If in the process of developing such policies and subsequent regulations, some individuals' resource harvest activities are determined to be "sport" hunting, or "commercial" or "sport" trapping, those individuals would be adversely affected. They would be forced to hunt and trap on other lands in the area. Regionally, these other lands might include the proposed Noatak Arctic Range or the Selawik NWR, subject to prevailing law or regulation. The proposed Cape Krusenstern National Monument would also prohibit sport or commercial hunting and trapping. Native lands may be available for these activities.

Overall, the most significant impact of the proposal upon subsistence will be that people of the region will continue to have the opportunity to pursue a subsistence way of life. In effect, the proposal would probably inhibit many of the forces which undercut subsistence pursuits or which tend to have a Western acculturative influence upon the Eskimo culture.

Under this proposal, resources upon which subsistence harvests depend would be protected, including the caribou of the Arctic herd and the fish of the Kobuk River and its tributaries within the proposal area. No sport hunting will be permitted within the proposed monument. Acculturative influences such as mining and other extractive resource uses would be precluded by the proposal. Under this proposal, road building may be precluded and would probably be limited. These activities could tend to lead to an influx of Western-oriented people to the region, and could constitute a major introduction of the cash economy to the region; in eliminating or lessening the impact of these and similar influences the proposal would extend the viability of the subsistence lifestyle.

In combination with the Kobuk Valley National Monument proposal, the other Four Systems proposals, if enacted, would further protect the subsistence way of life for those who wish to pursue it. The regional protection of the Arctic herd caribou would be a particularly significant element of this protection.

As outlined above, the proposal could bring Western influences to the subsistence users of the area--particularly through the introduction of tourism. However, this nonsubsistence influence would probably be considerably outweighed by the other elements of this proposal.

H. IMPACT ON THE LOCAL MARKET ECONOMY

Kotzebue is the service, administrative, and

commercial center of the region. It is a transitional community still dependent on subsistence use of natural resources, but with an increasingly prominent cash economy. Opportunities for year-round employment and a steady source of income are still extremely limited, however, especially in the five villages of the area. Most job opportunities come in the summertime only and are primarily provided by the Federal and State governments, who together provide 71% of the total wage employment in the Kotzebue area. Commercial fishing is also an important source of cash income, as are recreation related businesses. Other employment opportunities, especially for the future, might exist with the transportation, mining, or lumbering industries. All of these sectors of the economy are discussed in more detail in the following sections. In relation to the general economic impacts of the proposal, however, it can be said that the combined effect of the three NPS proposals and two other Federal proposals that would headquarter at Kotzebue--Cape Krusenstern National Monument, Chukchi-Imuruk National Reserve, Noatak National Ecologic Range, Selawik National Wildlife Refuge, and Kobuk Valley National Monument--would be to increase the availability of Federal employment. The overall seasonality of this employment is hard to predict. Maintenance and interpretive jobs would tend to be seasonal, while management jobs would be more permanent. To the extent that Natives were trained and qualified as managers, they could have available more permanent jobs than now exist. It must be noted, however, that the Park Service does not expect heavy increases in visitation nor substantial increases in staff positions within the first 5 to 10 years after the monument is established. Thus, the impact of this increase in job availability will be minor in the short run.

Overall, increased wage employment activity and economic growth will accrue over the long run as visitation to and investment in the area develops. Eventually, increases in employment directly brought about by government jobs and indirectly by jobs in monument-related tourist service industries will contribute to the growth of a local market economy.

1. TOURISM

Tourist visitation to the Kotzebue area is, at present, about 12,000 annually. This is likely to grow, with or without the proposal, as general tourism to the State increases and the population of Alaska grows. Increased publicity about the area, attendant on the establishment of the five proposed areas mentioned above, however could stimulate the growth of tourism in the region. If Kotzebue continues to attract about 8-10 percent of the total out-of-state visitors to Alaska, numbers of tourists could reach 30,000 annually by 1980. Although no specific figures are available for tourist-based business and employment, it can be predicted that an increased visitation will contribute to gradual but substantial increases in service industries and related jobs. In addition, local residents may receive increased cash income from sales of arts and crafts. In conjunction with the proposal it is probable that Native crafts and subsistence culture will be included as part of the interpretive scheme. This could provide direct income to those Natives who may wish to participate.

Present visitation levels in the monument are very light--probably less than 500 people, and consist mostly of sport hunters and fishermen. Since little development is planned for the first 10 years of monument operations it is unlikely that visitation levels will increase rapidly. However, monument status with its attendant publicity about the area could lead to an increase of up to 5,000 visitors annually within 10 years after establishment. The major attractions of the monument will be sightseeing and recreation on the dunes, uplands,

and along the river at archeologic sites. Backcountry backpacking and river float trips with fishing will also be major recreational attractions.

Visitor projections are the product of our planners best efforts considering many factors, including trends in outdoor recreation, population in the age groups most commonly participating in wildlands-oriented activities, public awareness of the proposal, current estimates of numbers of visitors to the area and region, and preliminary carrying capacity estimates of the proposal area. Obviously many factors which will influence the numbers of people who may wish to visit the region and the proposal area are largely unpredictable. This is especially true of areas of the State such as Kobuk which have received relatively little or no visitor use to date because of the high cost of travel; their wilderness qualities are not widely known.

Visitor demand levels will be subject to change stemming from such factors as the final formulation of Statewide transportation studies and corridors, facilities and services within and adjacent to the proposal boundaries and other locations in the region, national and state trends in leisure time and personal income, general national and state economic conditions, energy policies and changing costs of travel. The rate of development of adjacent areas and the region as a whole will influence visitor projections as will any regional economic and recreation planning efforts.

Studies are being initiated to refine preliminary carrying capacity estimates and short-term anticipated visitor demand levels. These estimates will include consideration of social and cultural factors, as well as biological factors.

The demand for facilities required to support this type of recreation in the monument, in conjunction with the same demands related to other Federal proposals in the area, will create an important opportunity for the people of the area to develop tourist-related businesses or seek tourist-related employment. This industry could, 10 to 20 years in the future, become one of the major sectors of local market economy, equal in importance to commercial fishing and government. If tourism were to grow more rapidly than the local resident population was willing or able to accommodate, it would have significant adverse impacts on local community social life and economic activities, including subsistence activities. If non-local entrepeneurs were attracted to the region in response to rising demand for tourist services, local hostilities to the monument may result.

Overall, the impact of the proposed action on recreation and tourism in the area will be significant, especially when taken in conjunction with other proposals in the area. Yet the rate of impact will be slow and the full effect will only be felt in the long term, perhaps 10 or more years after establishment.

2. COMMERCIAL FISHING

Commercial fishing is becoming an increasingly important factor in the economy of the Kotzebue area. Since 1967, when the Kotzebue Sound Area Fisheries Cooperative was established, income from fishing has increased steadily. In 1972, the total catch of 1,544,569 pounds of fish products, brought $262,287 in income to 202 licensed commercial fishermen. Thus, fishermen earned an average of $1,299 per man per year. (See Chapter II, Table 4.) Fish processors at Kotzebue provide additional jobs related to the fish industry. The Kobuk River is important to the Kotzebue Sound fishery because of its spawning value. Presently, commercial salmon fishing is closed in the proposal area. The ADF&G feels potential for commercial fishing of other species is limited.

To the extent that the proposed monument would protect spawning habitat of the Kobuk, it will

contribute to the strength of the Kotzebue fishery. Otherwise the proposal will have no direct impacts on the commercial fishing industry, and the overall impact of the proposed action will be negligible.

3. OTHER COMMERIAL ACTIVITIES

Commercial or sport trapping would not be allowed in the proposal area. If market prices for furs increase to the point where commercial scale trapping becomes economically viable, this provision would have a significant adverse impact on commercial trapping and trappers. It would deny those who wished to engage in commercial-scale trapping use of monument lands for such commercial purposes. Those people who wish to trap for cash income or sport would be forced to use lands outside the monument.

4. SPORT HUNTING AND FISHING

Prior to the passage of the Marine Mammals Protection Act of 1971 sport hunting in northwest Alaska was directed primarily at the taking of polar bear and other marine mammal species. Sport hunting has supported a small but important guiding industry in the region. Since the passage of that act, registered guides have had to redirect their activities to interior game species. Currently sport hunting and fishing efforts of those residents of the region and the Kobuk area who are not engaged in a subsistence lifestyle, (such as those who have full-time wage employment) is an important use of the area. Sport hunting and fishing in the northwest by sportsmen from outside the region is thought to be relatively light, however. That which occurs is directed at the taking of caribou and bear, and possibly Dall sheep. Nonresident Alaskan hunters are required to have a guide or be accompanied by an Alaskan resident when hunting brown/grizzly bear or Dall sheep. There are four guides based out of Kotzebue and one at Kobuk. Other guides are also licensed to conduct guides in the region.

The impact of the proposal's provisions to ban sport hunting on local resident sport hunters will be significant, since those people who have been accustomed to hunt in the proposal area will be forced to hunt elsewhere. In the process of developing park policies on subsistence, it is likely that game harvest activities of an important segment of the regions's population would be considered "sport" rather than "subsistence." However, since significant concentrations of prime game species also are located on other lands in the region, sport hunters will be able to redirect their hunting efforts to those areas. Such sport hunters who seek to reaffirm social and cultural ties with family and relatives living a subsistence lifestyle in the Kobuk area villages through participation in occasional hunting efforts would be unable to do so on proposed monument lands.

Local guides who conduct sport hunts on lands proposed for inclusion in the monument would be significantly affected. They would be forced to redirect their activities, or to offer their services as guides for other purposes in harmony with monument purposes and values, such as wildlife photography and observation, hiking, canoeing, etc. These alternatives are expected to be sufficient to offset any economic losses from the ban on sport hunting on proposed monument lands. Those engaged in businesses to provide other services to sport hunters, such as air charter service, accommodations and supplies would be similary affected.

In the long-term, as Kotzebue grows in population with increasing numbers of people engaged full-time in wage and salary employment who might wish to hunt, the impacts of the proposal's ban on sport hunting will become increasingly significant. Their game harvests will increasingly be concentrated on other lands in the vicinity and adjacent to the monument.

This proposal, combined with the NPS proposal for Cape Krusenstern would close an estimated 2.2 million acres, or roughly 1 to 2 percent of northern Alaska to sport hunting through legislative action. Additional lands in northern Alaska within the Gates of the Arctic proposal area could be closed to sport hunting administratively, by the Secretary after study and in consultation with the Alaska Department of Fish and Game and the people affected. Such administrative closures would be for reasons of public safety, scientific research or to reduce pressure on threatened local wildlife populations.

Native regional and village corporations may impose restrictions on access to surrounding lands which they will select which would affect sport hunters. Other Federal d-2 proposals in northern Alaska (Chukchi-Imuruk and Gates of the Arctic), would give preference to subsistence needs should conflicts between sport hunting and subsistence uses occur. This proposal's ban on sport hunting combined with these other factors have adverse impacts on sport hunters in the entire region of northern Alaska.

Sport fishing, which is good on the Kobuk and other rivers of the monument, would be allowed. To the extent that the proposal would bring more people into the area (up to 5,000 within 10 years) the use level of sport fishing resources will probably increase. This could put significant pressure on popular species such as sheefish. However, any incidental economic impacts on local communities resulting from increased sport fishing in the monument would be insignificant.

I. IMPACT ON TIMBER HARVESTING

Much of the forested portions of the proposal area have been burned over, and the present growth is low-quality shrub thickets, low growing spruce, and spruce-hardwood stands. There are some relatively good stands of white spruce adjacent to the Kobuk River where there is better drainage.

Using the accepted standard of defining commercial timber as stands capable of producing 20 cubic feet of industrial wood per acre annually, the entire Kobuk area would be classified as medium poor to non-commercial stocking. There would not be enough white spruce to support a small sawmill, although residents find sufficient supplies to use for local use for firewood, drying racks, cabin building, etc. Any additional development of the Bornite mining area adjacent to the proposal area could increase the demand for local timber use.

Should the State road proposed through the area eventually be built, or barge traffic be opened on the Kobuk, it is possible that there would be some demand at Kotzebue and other coastal towns for timber produced in the Kobuk valley.

The proposed action would preclude any commercial timber harvesting, although subsistence use would continue to be allowed. Since there is little commercial timber available in the monument, the impact on timber harvesting in the area would be slight. There would be a moderate impact on availability of timber for nearby mining use, since this would have to be obtained outside the proposal boundaries and potential buyers would have to be supplied from other sources. This should not consitute a significant hardship at Kotzebue, since this resource is also available in the region outside the proposed monument.

Generally, the impact of this proposal on timber harvesting in the region would be small, and its effect on the economy would be insignificant.

J. IMPACT ON MINING AND MINERAL ENTRY

Although there has been only a partial exploration

of the Kobuk area, the U.S. Geological Survey considers it to have moderate to high mineral potential. Placer gold in unknown amounts has been produced from Klery Creek, adjacent to the west side of the proposal. Three legally located and maintained mining claims exist within the proposed monument. They are inactive at present and production records are unavailable.

There are several known copper occurences in the northern portion of the monument (upper Salmon and Tutuksuk Rivers, upper Akiak Creek), suggesting copper belt potential in the Baird Mountains along the northern boundary of the proposal. This is low grade ore containing less than 1% copper. Yet the ore is minable, even though mining operations are not economically feasible at this time. There are large deposits to the east of the proposal at Bornite, which are estimated to contain 100 million tons of ore at 1.2 to 1.6 percent copper. Bornite has good potential for development when economic conditions warrant. In addition to copper, there are potentially minable deposits of asbestos in the northern portion of the monument as well as gem-quality jade deposits to the east of the proposal boundary but partially within the area of ecological concern (Handerson, 1945). (See Minerals I map.)

Small deposits of coal of unknown potential have been reported at two localities within the proposed monument. A sedimentary basin having low to moderate petroleum potential extends from southwest of the monument into the Kobuk River valley. No oil and gas leases or applications exist with the proposed monument. (See Minerals II map.)

Subject to valid existing rights, the proposed action would prohibit all mining and mineral entry within the monument boundaries. Since the proposed monument area contains only three legally located and maintained mining claims, the effect of the mining prohibition would be almost total. These three claims, subject to existing rights, may extract resources. Otherwise, all the consequences of mining in this area would be precluded.

Since no mineral production currently takes place, no impact on the present day economy of the area will take place. However, without the proposed action, future mineral production of currently indeterminate quantity and quality may develop. The proposed action would prevent all economic activity generated by possible mineral production so long as Congress maintains a policy of no mineral extraction in the Kobuk Valley National Monument.

This would have secondary impacts on the growth of a regional economy based on mineral exploration, extraction, and production. The potential preclusion of surface transportation routes would mean that plans to ship mineral products from locations near or adjacent to the proposal area would have to consider alternative routes or modes of transportation. This is not necessarily a significant adverse impact since ground transportation has not been determined to be the most cost effective mode of moving minerals from this region to market.

However, the potential preclusion of surface transportation routes could have a significant adverse impact on oil, gas, and coal resources to the north of the proposal area if a pipeline were to be determined the most economically feasible method of moving those resources to market, and if no other routing except one through proposed monument lands were possible. Some additional costs could be incurred by those planning such a project, through the compliance with the requirements of section 4(f) of the DOT Act of 1966 (49 U.S.C. 1653(f)).

Mineral prospecting, mining, and the extraction of minerals or the removal of soil, sand, gravel, and

rock will not be permitted within the proposed monument, except where authorized by law or when carried on pursuant to valid existing rights or as part of an interpretive program. The public use, protection, development, interpretation, and management of the park will be predicated on documented data obtained through appropriate investigation and research. The National Park Service encourages and will participate in appropriate ways in the study of the geologic resources within the proposed monument.

Geologic studies by recognized educational or scientific institutions, professional personnel of other Federal agencies, and accredited individuals will be permitted and encouraged when in consonance with the purposes of the park and the policies of the service. Procedures which might result in damage or alteration to the physical or ecological resource will not be permitted.

Magnetic, gravity, geochemical, and other remote sensing surveys performed during scientific study, when combined with structural, stratigraphic, and mineralogical studies, will provide an adequate picture of the mineral resource potential of the area without the need for prospecting per se. To the extent that more extensive exploration projects could generate significant future employment opportunities for local inhabitants, the proposed action would prevent economic activity from this source.

Should mineral potential be discovered, it will be evaluated. As in other instances, Congress shall determine the relative priorities in protecting monument values or fostering mineral values.

The nature and size of the future impact depends upon several feasibility factors of which little is known at this time: world market conditions, size and quality of the deposit, the nature of the State and local economy, available modes of transportation, and other factors. Until these factors can be better identified an accurate and quantified assessment of NPS impact on future mining development cannot be made. Nonetheless, since all types of mineral exploration which lead to damage or alteration of the physical or ecologic resource will not be permitted, a full assessment of the impacts of the proposal's preclusion of mining would not be carried out.

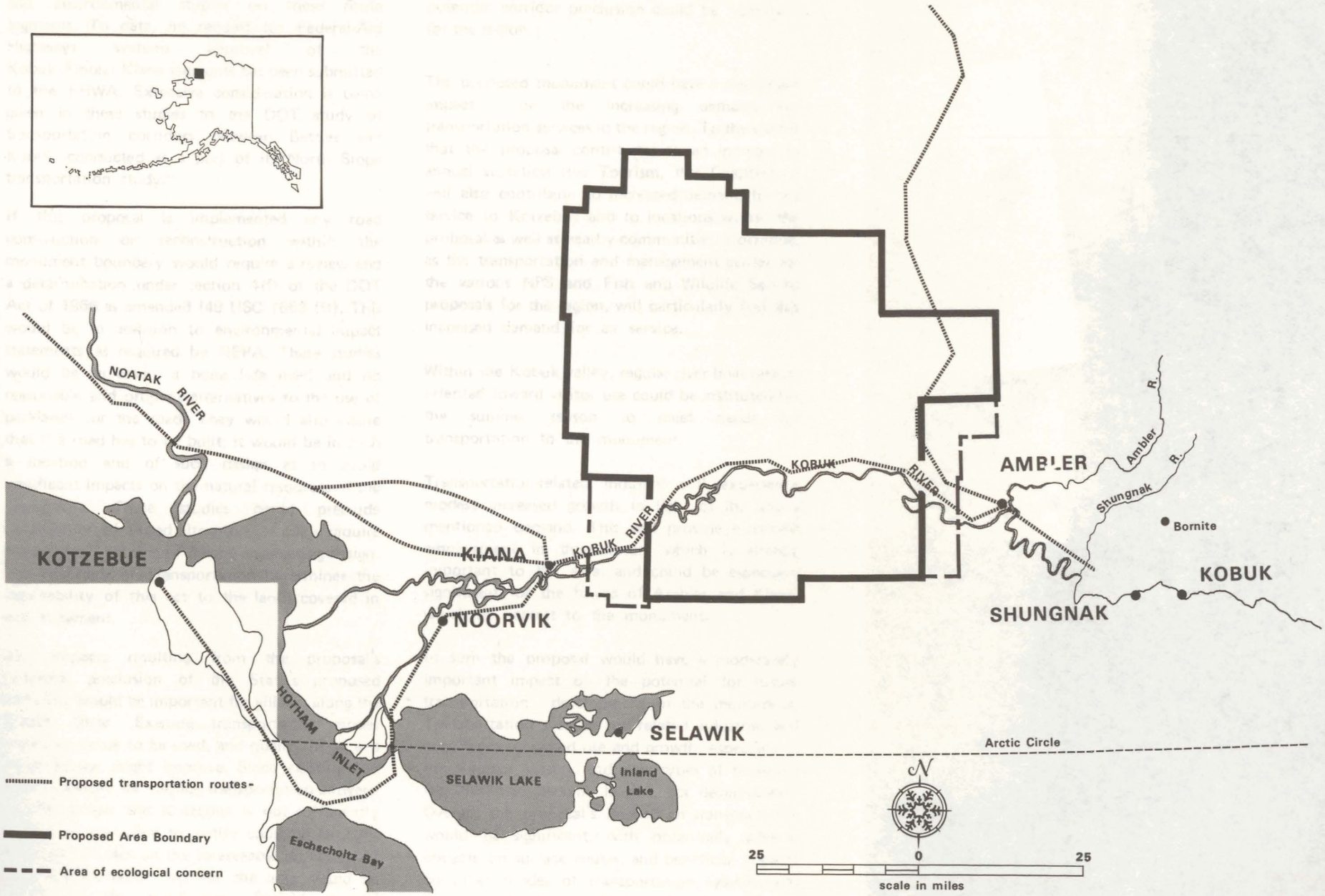
K. IMPACTS ON TRANSPORTATION

There are no roads or railroads presently serving the area. Daily air transportation is available to Nome and Kotzebue, and all the local villages have some small airfields with intermittent air taxi service. The nearest airfields to the proposal are in Kiana and Ambler, and the major air corridor follows the Kobuk River east from Kotzebue. River transportation in the summertime is important; barges supply villages along the Noatak, Kobuk, and Selawik Rivers. On the Kobuk, barges go upstream to Kiana and Ambler. The local residents also maintain and use sled trails and snowmobile trails between settlements and along trap lines.

The State has a proposal for a surface transportation corridor along the north side of the Kobuk River connecting Ambler and Kiana, which would pass directly through the proposal. Another spur from Ambler would proceed north towards the Noatak River, and would pass through the east side of the proposal. (See Planned State Surface Transportation and Utility Corridors map.) In addition, the State proposes a surface route to connect Nome and Fairbanks via Prospect Creek and Kobuk. While this route does not cross monument lands, it would have far-reaching ramifications for Kobuk River villages. In a letter (Chapter IX) the Federal Highway Administration elaborates on these two corridors:

"The FHWA has approved for placement on the Federal-Aid Secondary Highway System the

PLANNED STATE SURFACE TRANSPORTATION CORRIDORS



Bettles-Kobuk and Kobuk-Nome highway corridors. Currently, the Alaska Department of Highways is conducting preliminary engineering and environmental studies on these route segments. To date, no request for Federal-Aid Highways systems approval of the Kobuk-Ambler-Kiana segments has been submitted to the FHWA. Extensive consideration is being given in these studies to the DOT study of transportation corridors between Bettles and Kobuk conducted as a part of its North Slope transportation study."

If this proposal is implemented any road construction or reconstruction within the monument boundary would require a review and a determination under section 4(f) of the DOT Act of 1966 as amended (49 USC 1653 (f)). This would be in addition to environmental impact statements as required by NEPA. These studies would be to assure a bona fide need and no reasonable and prudent alternatives to the use of parklands for the road. They would also insure that if a road has to be built, it would be in such a location and of such design as to avoid significant impacts on the natural resources of the monument. These studies could preclude construction of a road altogether or could require relocation of routing or special engineering design. The Secretary of Transportation determines the applicability of this act to the lands covered in this statement.

The impacts resulting from the proposal's potential preclusion of the State's proposed corridors would be important for villages along the Kobuk River. Existing transportation modes would continue to be used, and quality of air and barge service might improve. Since existing and future demand for surface transportation between Kobuk villages and Kotzebue is not sufficiently known or identified to justify construction, this proposal's impact on the foreseeable development of a transportation net for the area would be minor in the short run. Should mineral developments at Bornite or at other locations in the region require surface routes to deepwater ports through the proposal area, the impacts of the potential corridor preclusion could be significant for the region.

The proposed monument could have a significant impact on the increasing demand for transportation services in the region. To the extent that the proposal contributes to an increase in annual visitation (see Tourism, this Chapter), it will also contribute to increased demand for air service to Kotzebue and to locations within the proposal as well as nearby communities. Kotzebue, as the transportation and management center for the various NPS and Fish and Wildlife Service proposals for the region, will particularly feel this increased demand for air service.

Within the Kobuk valley, regular river boat service oriented toward visitor use could be instituted for the summer season to meet needs for transportation to the monument.

Transportation-related industry will experience modest increased growth in light of the above mentioned demand. This will provide increased employment in this sector, which is already important to the area, and could be especially significant for the towns of Ambler and Kiana, which lie nearest to the monument.

In sum the proposal would have a moderately important impact on the potential for future transportation development in the monument. Transportation systems and related industries will experience increased use and growth, especially in the summer season, and new types of transport facilities may become feasible for development. Overall, the proposal's impact on transportation would be significant, with potentially adverse impacts on surface routes, and beneficial impacts on other modes of transportation systems and their related industries. (See also Impact on Mining

and Mineral Entry for additional impacts on transportation and mining.)

In aggregate, the Four Systems proposals for the region would not directly affect or prevent road construction, since such construction would depend primarily upon the assurance of bona fide need and no reasonable and prudent alternative (49 U.S.C. 1653(f)).

L. IMPACT ON HYDROPOWER DEVELOPMENT

The proposed monument would preclude development of the Kobuk Project, and companion proposals for the Noatak basin would preclude hydroelectric development in the Noatak basin. The two basins are considered by the Alaska Power Administration as the most promising hydroelectric potentials of Northwest Alaska. The Joint Federal-State Land Use Planning Commission recommended against development of these sites.

Energy potential of the Kobuk site is estimated at 525,000,000 kilowatt hours annually. The renewable energy potential foregone is one measure of a potentially significant adverse effect of the proposals on long range regional energy and power supplies, and other multipurpose water development values may be involved (above from letter, APA, Chapter IX).

In addition, preclusion of the project would result in transportation and construction jobs lost.

The other potential site is over 100 miles away on the upper Kobuk, outside the proposal area and relatively insignificant to this proposal. Water levels and flow rates within the monument could be partially regulated by the project. The impact of the proposed monument on this project would be to prevent fluctuations in the water level within the monument. Any such requirement would cause a reduction in the size of the dam and its full potential.

The Kobuk Project, planned for Kavet Creek, would flood the Great Kobuk Sand Dunes, Onion Portage Archeological District, Ambler, Shungnak, and Kobuk. (See Patents, Claims, Allotment Applications Potential; Hydropower Site map for the reservoir.)

Overall, the proposed action would have a major adverse economic impact on the development of those hydroelectric projects considered economically feasible in the area.

However, according to the A.P.A., there is no basis for assessing likelihood of development of the hydro projects without the monument and related conservation system proposals. Thus the actual regional impact of the proposals on waterpower and energy may prove to be either relatively minor, or very significant (from APA letter, Chapter IX).

M. IMPACT ON LOCAL SOCIETY AND CULTURE

Far reaching and substantial changes have been underway in village life. The special character of cultural contact between Alaska Natives and the dominant American society has produced a blending of traditional subsistence lifestyles with the requirements of a highly seasonal cash and wage employment economy with only minimal development of a stable multi-sectored local market base and considerable social and cultural dislocations. The growth of Kotzebue as a transportation hub and service center in the northwest has been accompanied by improved access to and increasing dependence on Western manufactured goods and services but with limited wage employment opportunities. It has focused the social and cultural disruption of change in the region on that community. The cumulative effects

of acculturative influences has brought problems of social control and aggravated community life, especially in Kotzebue (Smith, 1966; Hippler, 1970). Demographic trends of selective net-outmigration from the region, and shifts within the region from the small villages to Kotzebue are subject to change from a variety of new factors. The effects of the Alaska Native Claims Settlement Act on social, cultural, and economic patterns in the region have not yet begun to be anticipated, or identified, let alone measured. Social and cultural patterns are in a state of flux, and no methodology exists for predicting the adaptive patterns which will emerge.

The precise impacts of the proposal on this dynamic social environment are difficult to measure. The manner in which the proposal is implemented will intimately affect the nature and quality of impacts. Additional employment opportunities stemming from construction of facilities and management needs would give added cash income to some people, but if carried out on a crash basis, it could add to existing community social problems. An affirmative program of local hire for all levels of proposal implementation, especially full-time employment, combined with other expanding local employment opportunities could contribute to stemming out-migration of young people from the region. Added cash income at Kotzebue would have positive effects on the material standard of living of some people and contribute to raising the level of public services available. If outside manpower is attracted to fill new jobs, employment benefits to local residents would be diminished. At the same time increased cash and employment could contribute to problems of social controls and disparities among the population. Similarly, the impacts of the proposal would draw modest additional tourists and vacationers to the region--especially to Kotzebue and the villages serving as access points to the proposed monument--thus bringing some increase in cash flow to local people. Also, tourism could introduce disruptive factors into the social life of the communities. Depending on the rate at which tourism increases in the area, there would be an increasing demand for services such as accommodations, meals, and tourist "attractions." Some local people would receive cash income from tourist expenditures. The presence of tourists and other outsiders, which has been minimal in the smaller villages to date, could produce a variety of responses by the local people. Acculturative influences would increase. Opportunities to educate outsiders on the patterns and values of Eskimo culture, and to display Eskimo heritage could enhance cultural pride and contribute to the search for sources of social stability. On the basis of the experience of other small, non-Western groups, some new business opportunities would be introduced, but this does not always bring prosperity. Alternately, hostility to outsiders could be heightened by increased tourism. Tourism is expected to grow with or without the establishment of the proposal area, but the proposal would give added impetus to it.

Subsistence activities, linked as they have now become to the cash economy could be strengthened by additional cash income in the region. Manufactured items used in subsistence pursuits have already altered the patterns of subsistence activities. Additional cash income stemming from implementation of the proposal would contribute modestly to additional adjustments in subsistence activities and the social patterns tied to them.

A major overall effect of the establishment of all the regional Four Systems areas proposed would be to perpetuate the opportunity for participation in the subsistence lifestyle. A considerable portion of northwest Alaska would remain available for subsistence pursuits. Consequently, as the impact of the cash economy increases in the region, the individual resident will be able to choose between

a cash or subsistence lifestyle. If so, the region should continue to experience cultural diversity.

The possibility that the proposal might preclude surface transportation and utility corridor routes through the proposal area, if actualized, would contribute in some measure to limiting the acculturative pressures which can flow from an increasing influx of "outsiders" into the area along a highway. Other modes of transportation, such as air and water services, would have to be used to meet any increase in visitor demand. These modes allow for greater control of visitor movements and control of the adverse visitor impacts on local cultural and social patterns and community cohesion. This would be especially significant if proposed surface routes linking Kobuk River villages to the interior highway network were to be precluded.

Provisions to develop visitor management policies and to determine monument carrying capacities in cooperation with local governments and affected individuals would seek to minimize adverse impacts of increased visitation on local residents. (See discussion of Impact on Subsistence for additional analysis of impacts.)

In view of the difficulty in distinguishing between subsistence and sport hunting and subsistence and commercial trapping which this proposal calls for, enactment of the proposal could have socially devisive effects. For Native residents. whose harvest activities would be considered "sport" and thus not allowed, the proposal could have important adverse impacts in denying them the important psychological support which participation with family and friends provides, so far as such activities would occur on proposed monument lands.

N. IMPACT ON WILD AND SCENIC RIVER PROPOSALS

The Bureau of Outdoor Recreation has studied the Salmon River for inclusion within the National Wild and Scenic Rivers System, and has found that the river meets the criteria for wild river status.

This proposal includes a provision which would establish the entire Salmon as a wild river to preserve the river and its immediate environment in its natural primitive condition. Within this corridor, operations on existing mining claims would be regulated to provide safeguards against pollution of the river and unnecessary impairment of the scenery.

The proposed monument would provide for acquisition or similar controls on existing claims within the entire basin, as well as exclusion of other uses not compatible with maintenance of an essentially unaltered natural landscape. The proposed monument would significantly strengthen the objectives of wild river designation by protecting water and visual qualities relating to the wild river corridor.

IV. MITIGATING MEASURES INCLUDED IN THE PROPOSED ACTION

A. IMMEDIATE MEASURES

The two basic proposals that are made are: (1) a legislative proposal to establish Kobuk Valley National Monument--including allowing Native subsistence and closing the area to mining and sport hunting--and to designate a Salmon Wild River; and, (2) an administrative proposal in the form of a conceptual master plan for management of the monument.

Relocation assistance will be provided to affected property owners. Boundaries have been proposed which exclude most areas of mineral importance.

Cooperative regional management and planning in lieu of a proposal to include additional adjacent lands within the monument is proposed. This proposal is designed to accomplish esthetic and scenic protection while providing for appropriate management of these lands, to the ultimate benefit of the region, the State, and the Nation. These cooperative efforts would seek to mitigate adverse impacts on local communities which might stem from implementation of various management provisions through local involvement in formulation of management objectives and goals.

An extensive program of coordinated social and natural sciences research is proposed to develop methods to mitigate the effects of increased public use of park resources on local residents as well as on the monument other than through strict limits on visitation. Such research specifically will include studies to determine the effect of existing and proposed activities and developments on critical wildlife habitats and communities. Proposed research will also provide for continuing status and trend studies for wildlife species. Baseline research is proposed to provide the National Park Service and others information necessary to judge effects of other proposals in areas with similar conditions.

An interpretive program has been proposed that is designed to provide unique educational, inspirational, and reflective experiences. Such a program seeks to mitigate the loss of this land for exploitative uses such as mining. Natives will be encouraged to capitalize on public interest in the Native culture by devising profitable enterprises centering on villages, archeological sites, Native crafts, knowledge of the countryside, and similar activities. This may provide a viable means of assisting the resident people in keeping their cultural heritage alive in the face of social change.

Development proposals have been made only in areas where minimum conflict with the primary natural resources of the monument would occur. Type and location of such developments have been proposed to insure the widest possible diversity of types and intensity of use consistent with current knowledge of the resources, existing subsistence patterns, and National Park Service policies. The proposal of an air and boat transportation system will insure minimum impact of people on the land and in the nearby communities, and at the same time reduce the present hardships of travel into the area.

The proposed reliance on private enterprise to provide visitor services such as overnight accommodations, stores, etc., provides the opportunity for a more stable and diversified regional economic base than would be possible if such facilities were provided within the monument.

Before any development proposal is implemented, research and detailed development plans will be prepared with the objective of preventing undue destruction or degradation of natural, archeologic, and historic resources known or as yet undiscovered, and social and cultural patterns. An environmental assessment will be prepared to analyze the alternatives in relation to the resources and patterns in the area, the function and scope of the proposed development, and the relationship of the proposal to the site. An environmental

statement will be prepared for all development plans which are determined, through the assessment process, to have a significant impact on the natural and human environment. Public notification of the results of the assessment will be made, and the assessment will be available for public review at least 30 days prior to initiation of an environmental statement or implementation of the action in any case where it may be found that no significant impact would occur.

The proposal's provisions keep the area open to continued subsistence hunting, trapping, fishing, and gathering of natural materials. Citizen involvement in management and preclusion of sport hunting will mitigate the negative impacts of monument designation upon subsistence lifestyles--particularly the impact of visitor use. Subsistence hunting will be limited only if wildlife and other natural resources are confronted by degradation. Primary subsistence areas would be classified Class VI, Historic and Cultural.

All socioeconomic changes are maximally disruptive if they occur rapidly. With this in mind, the National Park Service's plan envisions slow transition between the present conditions and those eventually planned.

Adverse economic effects could be mitigated by the development of alternate sources of income for local residents as suggested in the proposed master plan. These sources can be locally operated concessions in the park, such as air tours, walking tours, boat tours, or other services, or they can be tourist facilities and services outside.

A sensitive public relations program will work to gradually dispel the feeling of lost freedom among those who wish no restrictions or regulations to interfere with their use of the lands. These public relations would strive to make clear the fact that the cherished frontier freedoms are bound to fade far more completely with increasing exploitation and adverse uses if the area is not protected in park status.

Every effort will be made to insure that cultural resources will not be inadvertently altered or destroyed by construction or other administrative activity. No action will be taken that might affect cultural resources until, (1) a professional examination of the affected area has been conducted to determine whether any such values are present, (2) all cultural resources worthy of preservation in the affected area have been nominated to the National Register of Historic Places, and (3) in consultation with the Alaska State Historic Preservation Officer and the Advisory Council on Historic Preservation, the procedures established under section 106 of the National Historic Preservation Act or section 2(b) of Executive Order 11593, as applicable, have been observed. Cultural resources will not be disturbed by development unless there is no practical alternative in the public interest. In the event that a project will result in the unavoidable destruction of cultural resources, after completion of review under section 106 or section 2(b), every effort will be made to mitigate the loss through the recovery of such data and materials as can be retrieved through salvage excavation. Such mitigation procedures will be developed in conformance with the requirements of section 2(c) of Executive Order 11593.

The criteria of effect as stipulated in section 106 of the National Historic Preservation Act has been applied and no adverse effect on historic or archeological resources would occur from the proposal. As master plan proposals progress through the planning process to a more specific stage, the criteria of effect will again be applied and all activities that affect cultural resources will be coordinated with the Alaska State Historic Preservation Officer and the Advisory Council on Historic Preservation and will follow the procedures outlined under section 106 of the

National Historic Preservation Act of 1966 (80 Stat. 915).

Published National Park Service policies set forth a number of basic studies necessary to guide all aspects of management and visitor use. Accordingly, the following studies can be expected to follow establishment of the monument, to assure the achievement of the purposes of the monument and to avoid the unnecessary destruction of irreplaceable values while providing for appropriate visitor use. Most such studies are continual and ongoing, recognizing new information and changing needs.

B. BASIC STUDIES NECESSARY

1. HISTORIC RESOURCE STUDY

--To locate, identify, evaluate, and describe in detail the cultural resources existing within the monument. The study will compile an archeological base map to plot the locations of identified cultural values.

2. NATURAL RESOURCE STUDIES

--To compile basic data on the natural resources of the monument and to provide the information on which to base management and preservation decisions.

3. HISTORIC RESOURCES MANAGEMENT PLAN

--Compiled on the basis of substantive data on the monument's cultural values and on the needs of management and the public. Provides a detailed plan for the management and preservation of the monument's cultural resources.

4. NATURAL RESOURCES MANAGEMENT PLAN

--Compiled on the basis of substantive data on the monument's natural values and on the needs of management and the public. Provides a detailed plan for the management and preservation of the monument's natural values.

5. DEVELOPMENT CONCEPT PLANS

--An analysis of the human environment and of the alternative approaches to providing facilities for public use, interpretation, visitor services, administration and housing. Provides plans showing the purpose, concept, and location of all relevant physical facilities within and outside the monument.

6. INTERPRETIVE STUDIES AND PLANS

--To develop programs of interpretation to best relate to the public the meaning of the monument's natural and cultural values.

7. CONTINUAL MONITORING OF THE EFFECTS OF VISITOR USE

--To identify as early as possible any adverse effects on natural or cultural resources and local social and cultural patterns, including subsistence activities, arising from visitor use patterns, locations of facilities, or other activities and to develop methods to avoid or mitigate any adverse effects.

V. ADVERSE EFFECTS THAT CANNOT BE AVOIDED SHOULD THE PROPOSAL BE IMPLEMENTED

Subject to valid existing rights, potential homesites, industrial lands, recreational homesites, or camps would be prohibited. Sport hunting would be prohibited. Unrestricted use of aircraft or off-road vehicles would be precluded.

Potential revenue from sale or lease of the lands would be foregone.

Private uses of the lands within the area, such as homesites, which do not function for subsistence purposes would be phased out.

Impacts arise unavoidably from inclusion in the National Park System. Designation as an NPS area is an effective advertisement which will swell visitation to the monument in particular and to the region in general. Although an economic asset, additional visitation will have an adverse effect on the presently tranquil and independent mode of life enjoyed by many residents, and--despite attempts at mitigation--on the environment.

National Park Service management policies result in restriction on, or prohibition of, such uses as hunting, mineral extraction, overland vehicular travel, power and industrial development. It is clear that despite mitigating factors, a reduction in the potential spectrum and volume of uses must occur in the area taken as a whole. There is little reason to believe that demand for most of these uses will decrease; rather, it will tend to be focused on other lands, with possible corresponding depression of their environmental integrity. National Park Service designation is to some degree a means of transferring impact and will remain so until our society is able to adjust downward its total impact on world ecosystems.

In the overall economic base of the State, mining restrictions in the area proposed for the monument would have an unknown effect. There is no known extraction of minerals from the area at present. Exploration in the future and the development of potential deposits in the area would be prohibited by the proposal.

The mandate for public use of a national monument requires developments to permit appropriate public use, causing unavoidable adverse impacts on natural systems. Land classification limits both the manager and the public in their uses of the monument and the location of developments and facilities which can be provided to accommodate use. Extensive areas have been classified to exclude developments and intensive uses. Such classification is essential for the preservation of the area's scenic qualities and natural resources such as wildlife and plant life. Those who would prefer more intensive use of the area will be adversely and unavoidably affected.

The proposal to continue subsistence hunting within the area will result in destruction of some wildlife and other natural features and resources.

Construction and occupation of National Park Service facilities and housing in Kotzebue, Kiana, and Ambler, the introduction of new facilities, and the stimulus to tourism could potentially disrupt community patterns. There will be an additional burden on utilities, the school system, and medical facilities. Institution of restrictions and regulations will reduce individual freedoms.

VI. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Short-term uses that would occur under the proposal are intended to maintain indefinitely the long-term natural productivity of the area and the quality of its natural resources. Maintenance of natural populations and the integrity of cultural and natural processes over the long term is a major objective of the proposal. Likewise, the proposal's intent is to provide continued appropriate park uses into the future which can take place with no progressive deterioration of major resources. The proposal would also protect and study the anthropological, archeological, natural, and historic resources of the area as they relate to modern day northwest Alaskan cultures, and as they offer lessons for cultures throughout the world.

Establishment of the area would promote continuation of natural biological productivity of the included lands and waters. It would preclude human manipulation of resources which possibly could increase, at least in the short term, biological productivity of the area. Lack of data prohibits reliable predictions as to which course of action would provide for greatest long-term biological production.

The plan will have a stabilizing influence on environmental quality and natural production on adjoining lands, with the park acting as a "reservoir" of wildlife, unpolluted air and water, and scenic resources.

The area, acting as a protected reservoir for native wildlife, will provide continued wildlife production, thus providing for better hunting, trapping, and subsistence use opportunity within the greater region. It will also serve to protect a part of the winter range and some of the important migration routes of the Arctic caribou herd.

Fish and game, and minerals are the two extractable resources of the area which have significant potential commercial value. If substantial mineral resources were found and exploited, the economic and social benefits derived could be moderate to high but could be comparatively short-term. Also associated with mining is the potential threat to the natural integrity of the area.

It is possible that there would be a short-term decrease in economic gain by local communities if this proposal were enacted. Income from prospecting would be decreased by the deletion of lands that can now be used for that purpose. This short-term use would support a few persons through the remainder of their lives. This support might lead to these people's children trying to adopt a way of life that is tending to become outmoded.

It is likely that the carrying capacity of the land for nonconsumptive uses is greater than for consumptive uses, with the result that the long-term productivity will equal or exceed the present productivity.

Long-term gains in the market economy probably will result as tourism increases in the area. Some of these gains will be short-term, such as construction of facilities, but most will be long-term through provision of services such as meals, lodging, transportation, and guiding for the visiting public. This will result in a more diversified economic base.

The preservation of the area's mineral resources now could have long-range economic consequences. Technological progress could reduce the need for these resources; postponement of extraction now will allow perpetuation of natural values on these lands, enabling tourism, now Alaska's third largest industry, to thrive in the area.

Preservation of the land and waters for park purposes will in the long-range increase property values of lands adjacent to the monument.

The long-term effect upon the Kobuk valley culture would be to insure perpetuation of options available to its members during the present period of cultural and economic change, while at the same time introducing new options. Those members of the population who choose to continue in subsistence pursuits would be free to do so, and the resources would be available to them. However, the proposal would also contribute to the growth of a broader based cash and wage economy that would benefit those members of the local population who would choose to participate in it. The people of the villages of Ambler, Kiana, and Kotzebue would be most affected. Noorvik, Shungnak, and Kobuk may be affected to a lesser degree. Conversely, this proposal would probably be a short-term and possibly long-term inhibition to the adoption of the cash economy by area people following a subsistence lifestyle.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The proposed legislative action is a policy decision favoring a management program that is based on preservation of the cultural and natural environment. This preservation policy permits use of resources so long as that use brings no major or irreversible change to the system. The policy could be reversed at a later date by Congress. Hence there are no irreversible commitments of resources.

Passage of time will bring irretrievable commitments of resources. The major commitment will be human resources, since the lifestyles of some people may be changed. All renewable resources that complete a natural life cycle without having been harvested by man will become irretrievable. Nonrenewable resources that are eroded away or chemically altered with time will also be lost. Opportunities for given individuals to recover nonrenewable resources at any specific time will become irretrievable. The nonrenewable resource itself will remain retrievable.

Individuals who may desire to homestead, or claim a trade and manufacturing site or a headquarter site within the proposed monument will be unable to do so.

Proposed developments for public use would require both irretrievable and irreversible commitments of resources in localized areas. Such losses would generally be restricted to the loss of vegetation and some disturbance. Proposals for developments to accommodate use and facilitate management include an airstrip, walks, trails, docks, utilities, building sites with some attendant erosion, the consumption of energy, and alterations to the landscape as well as the destruction or alteration of some wildlife habitats. Much less than 1 percent of the total area would be affected by these developments.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

A number of alternative actions have been considered concerning the future of lands in the Kobuk valley region. Generally, these alternatives fall into four categories: (1) no action, (2) alternative land management pilosophies, (3) alternative boundary configurations for a Kobuk Valley National Monument, and (4) alternatives to the conceptual master plan.

A. NO ACTION

The considerations of this alternative are applicable if the proposal was not made by the Department or if the Kobuk Valley National Monument was not to be enacted by Congress.

Upon statutory expiration of the d-2 withdrawals now in effect on the proposed reserve, automatic reversion to d-1 withdrawal status occurs as provided in Public Land Order 5179, dated March 9, 1972. D-1 withdrawal through reversion provides for the same forms of protection as previously existed in d-2 withdrawals.

Under d-1 withdrawal, the area would continue to be managed by the Bureau of Land Management. Since d-1 status is based on an administrative action of the Secretary, it can be changed relatively easily by other administration action. It is assumed that no action on the proposal will ultimately result in some form of public multiple use management.

The detailed impacts of this multiple use management are covered in the Multiple Use Management section, below.

All management options are open to the Secretary by his administrative authority to withdraw and/or classify public lands. Possible actions range from the retention of the protective d-1 withdrawal for an indefinite period of time to opening the lands to all forms of use and entry allowed on unreserved public domain. Within these extremes, the Secretary may elect to classify the lands to the degree necessary to implement land planning recommendations developed by BLM through its planning system. Specific extent of impacts, both "adverse" and "beneficial", would depend entirely on the options selected. Presumably, any future management option selected by the Secretary would be the subject of further study and environmental assessment.

B. ALTERNATIVE LAND MANAGEMENT PHILOSOPHIES

Management of any parcel of land may be based on one of several viewpoints. When applied to a specific area, the suitability of a particular viewpoint depends on the attributes of the area, the values ascribed by man to these attributes, and the environmental impacts generated by the management of these attributes.

Land management based on the concept of "dominant use," emphasizes a key resource, a particular landscape condition, or an overriding value as the main policy determinant of the maintenance and use of a specific area. On the other hand, "multiple use" management as the name implies might permit a combination or an assortment of uses of a specific area.

1. DOMINANT USE MANAGEMENT FOR HISTORICAL AND CULTURAL VALUES

This land management plan would be principally concerned with the preservation of the significant archeological sites within the area, like the Onion Portage site and the Ahteut site at the mouth of Kavet Creek, and the preservation of cultural uses, such as the traditional subsistence uses of the Kobuk valley. All other uses of the area would be secondary to the primary purposes.

IMPACTS

Archeological values of the area would have maximum protection; priorities would emphasize the maximum imput of knowledge of cultural values. Natural values of the area would be secondary and could, therefore, suffer to some extent. Habitat of important species like the caribou, which migrates through and winters in the area, might not receive full protection. Thus, critical habitat areas might be lost or excluded from the proposal and the level of protection to the Arctic caribou herd might be reduced. Recreational values could be sacrificed, preventing a realization of the area's recreation potential. Visitors who might otherwise experience the Arctic could lose the opportunity.

2. DOMINANT USE MANAGEMENT FOR WILDLIFE VALUES

The area within the proposal contains a wide variety of interior Alaska wildlife species, including locally high concentrations of black bear, salmon spawning streams such as the Salmon and Kobuk Rivers, some waterfowl habitat, and a part of the winter range and migration routes of the Arctic caribou herd.

The principal goal of dominant use for wildlife is to insure or enhance survival and productivity of selected animal species. Methods by which this goal may be pursued include preservation, habitat manipulation, and manipulation of the animal populations themselves. Uses not related to wildlife would be allowed if compatible with the principal goal.

IMPACTS

The impacts of preservation for wildlife protection are similar to those that would accrue to wildlife under the current proposal. If manipulative management were an option selected, it would require development of access and mechanized operations, with greater side effects. Impacts strictly due to wildlife management arise from manipulation of fauna and vegetation. As an example, should it be felt desirable to increase moose populations, the method most frequently used is the artificial increase of of browse material by vegetational manipulation. This is accomplished by freezing succession at an immature or non-climax stage. In this case, the stage would maximize browsing material and, therefore, moose population should increase. Yet this method would select against species like caribou and red squirrel whose primary habitat is mature vegetation. Also, faunal groups not selected for manipulation are affected in ways not necessarily predictable or desirable. Exotic species may enter the disturbed system more easily, and soil conditions, drainage characteristics, and air quality may be affected.

Biotic manipulation of either vegetation or fauna may result in ecosystem simplification and instability. Management to maintain a desired non-natural condition by repeated manipulation must counteract this loss in natural stability.

The socioeconomic impacts of wildlife management would be similar to those incurred under preservation and recreation management. The impacts of hunting and fishing would probably increase. Subsistence use would probably receive greater regulation and control than under the proposal; the cultural significance of the subsistence lifestyle would probably receive small consideration, while attention would probably focus mainly upon its biological significance and impact.

Emphasis on wildlife may forego some of the economic impact from mining, logging, hydroelectricity, and residence, since these activities would at times conflict with maintenance of wildlife.

Archeological values could receive secondary attention or be adversely affected; many prime archeological sites are also important wildlife habitat (as well as subsistence use zones).

3. WILDERNESS DESIGNATION

As discussed in Chapter I of this statement, if the park is established, the National Park Service would conduct a study of the area for wilderness designation and would make a wilderness recommendation to Congress within 3 years after establishment of the area. An alternative to this would be to make a wilderness recommendation now, to accompany the legislation establishing the area.

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. Use of motorized, over-the-snow vehicles for subsistence purposes may be permitted within wilderness area 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 ANCSA 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, and the Alaska Department of Fish and Game.

This alternative would be a complicated one to enact under the present legislative deadlines due to the two laws involved (ANCSA and the Wilderness Act of 1964). It further would require more intensive land examination and study to delineate boundaries and management conditions. Although it is examined here in a general manner as an alternative to the proposal, the Department feels this alternative requires further, more intensive study than time allows under ANCSA. Therefore, the area will be studied within 3 years after the establishment to identify areas suitable for wilderness designation.

During the period (3 years), development will be restricted to prevent damage to areas having wilderness qualities.

IMPACT

This alternative would change the status of 1.8 million acres of public domain lands to National Wilderness Preservation System. The major effect of this action would be the preservation and protection of 1.8 million acres of mountain ranges, sand dunes, river systems, and wildlife habitat.

Natural forces of selection and evolution would continue to operate with minimum influence by man, thus protecting the primeval condition and characteristics of the area.

Such designation would result in less flexibility in future management. There would also be increased costs to management, possible rationing of use, and shifting of potential mass recreation needs to other locations. Archeological investigations could be inhibited.

The landing of aircraft and snowmobile use allowed under the two special provisions described above would likely have adverse effects on the wildlife and wilderness setting.

Limited commercial-grade timber exists in the area. Wilderness designation would preclude its commercial use. This would lead to a very slight economic impact.

There are mineral potentials that could result in adverse impacts if commercial quantities were

discovered, since wilderness designation would preclude development of mineral resources. This could deny economic benefits to the State and to the local region. This alternative would have no major impacts on subsistence hunting and fishing activities.

4. MULTIPLE USE MANAGEMENT

Dominant use management is based on the premise that a single characteristic or condition of an area deserves emphasis in preference to all others. Multiple use, on the other hand, is defined as follows from the Multiple Use-Sustained Yield Act of 1960:

Section 4.
(a) "Multiple use" means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

In addition, multiple use systems permit, when considered appropriate, extraction of nonrenewable subsurface resources; and development projects such as roads are often permitted.

The Kobuk valley area is not known to have a wide diversity of economically attractive resources of long-term interest. However, there are isolated areas within the region that are known to have potential economic interest, such as Jade Mountain and particularly the suggested copper belt trending east and west through the Baird Mountains that may be associated with the deposit at Bornite. Moderate potential for petroleum or natural gas production is recognized in the Southwest (see letter, USGS, Chapter IX), although there may be important oil potential in the Selawik lowlands immediately south of the area. The Kobuk petroleum subprovince, of unknown potential, runs through the Kobuk River valley and the dunes area. There are three localized deposits of sub-bituminous coal in the vicinity. Timber of marginal economic feasibility is available within the proposed monument. A potential damsite exists on the Kobuk near Kavet Creek. Reindeer might be able to graze on the vegetation now used by the caribou.

IMPACTS

Under multiple use management many of the resources could be economically exploited, thus stimulating the regional and perhaps the statewide economy. If any mineral deposits with mining capability were located within the area, they probably would be available for development. In mining operations, substrate removal or relocation may occur on a large scale with subsequent effects on drainage, soils, water quality, and scenery. Some predictions of the size of the Baird Mountains copper potential indicate large scale placer operations. Effects of this disturbance on drainage, soils, and water quality would be related to the nature of the minerals being mined, the chemicals used in extraction and concentration, and the care with which these substances are kept from entering natural systems. Effects on the biota would be greatest in clearwater systems and in areas of high animal concentration. Large-scale mining in valleys used as caribou migration routes

could have high impacts on both the Arctic caribou herd and the lifestyle of those subsistence users who depend upon the caribou for their survival. Large-scale copper mining, of sufficient volume to have major significance to the statewide economy, would probably severely affect the unique, complex relationship among vegetation, wildlife, and subsistence in the valley--minimizing the area's scientific and recreation value--regardless of mitigating procedures.

Open-pit mining and landscape scars are among the important possible impacts upon the visual integrity of the Kobuk valley. Under Federal ownership, reclamation efforts would be attempted; however, the area is very fragile and short-term visual integrity would not be attainable. Recreation uses again may be affected.

The power needs of mining are substantial. These may be met by fossil fuel combustion, with consequent exhaust discharge and potential fuel spills. Careful procedures may minimize resulting impacts upon air quality, water quality, and vegetation.

Transportation for such fuels would also have to be supplied. A corridor would have localized impact on vegetation and visual integrity and a possibly regional impact upon caribou migrations and subsistence use. Alternatively, power could be supplied via hydroelectricity from a dam on the Kobuk River.

Smaller scale mining would have proportionately smaller impacts. Small, discreet mines may have insignificant physical impact throughout most of the monument. However, the primitive ecological integrity of the area, as a "wilderness idea" would be affected, perhaps permanently.

Mineral production would contribute an economic element to the Kobuk valley region that may be substantial although of limited duration. This economic element may be erratic in magnitude while extant, due to uneven rates of production and variations in labor and support needs during the exploration-development-production sequence.

Reindeer herding could be introduced. This might provide income for a small number of local residents. Reindeer may deprive caribou of significant portions of the range and vegetation; lichen, the caribou winter forage, is highly vulnerable to damage by trampling. Use of the area by caribou, therefore, may decrease, which might lead to a subsistence decline.

Commercial-grade timber is very limited within the proposal area. Nonetheless, although it has small economic potential, it is an exploitable resource. Roads are usually required to remove the timber from the logging site. They could have impacts on wildlife, vegetation, and scenic values. Logging could also reduce the extent of climax forest habitat available to wildlife species. Extensive logging could limit the small amount of subsistence use of lumber by Natives.

The construction of a dam and reservoir on the Kobuk River could be part of a multiple use plan for the area. The construction of such facilities would provide resources and possibly flood control for the area. The Alaska Power Administration cautions that environmental impacts of this construction have not been evaluated in sufficient detail to judge their importance. However, speculation is possible.

The construction of the facilities would result in a severe impact upon the wildlife values of the bottomlands. The proposed Kobuk dam at Kavet Creek would create a reservoir which would cover portions of the Sand Dunes, the Onion Portage Archeological District, and the villages of Ambler, Shungnak, and Kobuk; this would force the relocation of area residents as well as the removal

or loss of the cultural artifacts at Onion Portage. (See Patents, Claims, and Allotment Applications; Hydropower Site map.)

The reservoir would serve as an obstacle in the migration routes of the Artic caribou herd which would have an unknown effect on their habits and continued survival. There would be loss of a portion of the winter range, thus potentially reducing the carrying capacity of the land, resulting in a reduction in the size of the Arctic herd which ranges through the proposal area.

Waterfowl nesting areas in the Kobuk valley could be lost, resulting in a reduction in the regional population of waterfowl. Under multiple use, on the other hand, it may be determined that wilderness values best meet the needs of the American people, in which case impacts may be similar to those of the subject proposal or wilderness designation.

C. ALTERNATIVE BOUNDARIES

A variety of boundary alternatives was considered during the planning process that concluded with the proposal presented in this document.Eight alternatives follow.

1. ADD A PORTION OF THE KIANA AND AMBLER VILLAGE WITHDRAWAL LANDS

The addition of these two areas, totaling approximately 160,000 acres, would add lands that are currently withdrawn for possible selection by the villages of Ambler and Kiana. (See Alternative C-1 map.) The lands within the Kiana Village withdrawal contain the upper portions of small streams that are tributaries to the Kallarichuk River; the watershed of the Kallarichuk is primarily within the proposed monument, directly to the west of the Salmon River.

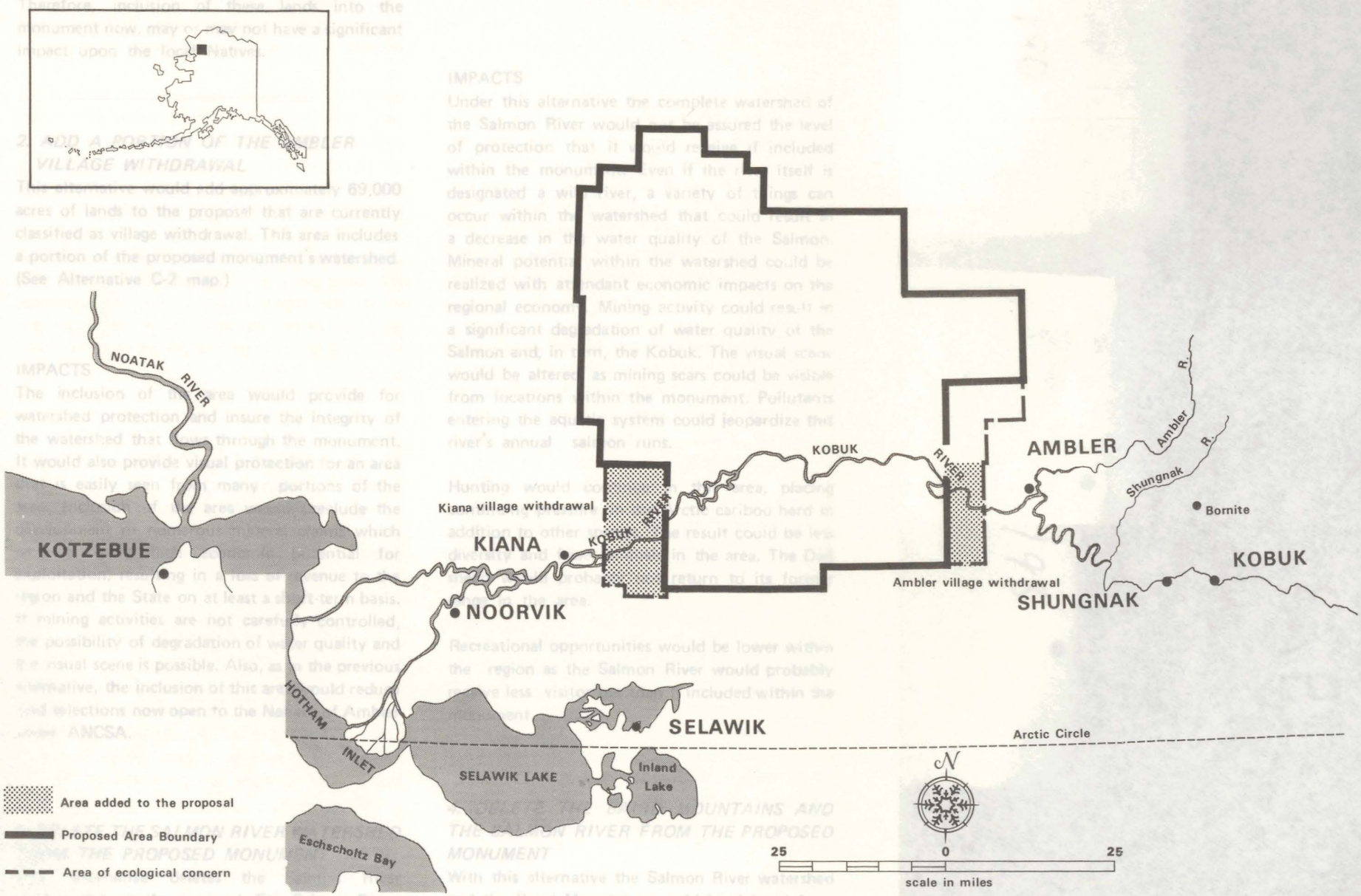
The lands within the Ambler Village withdrawal contain two important resources. First, 12,800 acres of the 16,000-acre Onion Portage Archeological District--including the Onion Portage site itself--are within the withdrawal. The legislative proposals include the provision that all lands within the district not selected by Native corporations will become part of the national monument. Second, the Little Kobuk Sand Dunes are also within the withdrawal. These dunes are geologically related to the Great Kobuk Sand Dunes which are within the proposed monument.

IMPACTS

Inclusion of the lands within the Kiana Village withdrawal would insure the protection of the entire watershed of the Kallarichuk River, which is mainly within the proposed monument. The high quality of the water within the watershed would be protected. If not protected, activities such as mineral exploration could take place, which could lower water quality within the watershed and affect fish and other natural values of the river.

The inclusion of lands within the Ambler Village withdrawal, would insure protection of the two important resources located there, the Onion Portage Archeological District, and the Little Kobuk Sand Dunes. Inclusion of the important archeological values would insure preservation and provide for the best opportunities to explore thoroughly the cultural resources found there. This would provide for maximum acquisition of knowledge significant to man's past. No known mineral values would be affected by including the area in the monument. If either area was included in the monument, the options for land selection by local Natives under the Alaska Native Claims Settlement Act (ANCSA) would be reduced. Yet, whether these specific lands would actually be selected by the Natives is unknown, since the

ALTERNATIVE C-1



village selection of land does not have to be made until December 18, 1974.

Therefore, inclusion of these lands into the monument now, may or may not have a significant impact upon the local Natives.

2. ADD A PORTION OF THE AMBLER VILLAGE WITHDRAWAL

This alternative would add approximately 69,000 acres of lands to the proposal that are currently classified as village withdrawal. This area includes a portion of the proposed monument's watershed. (See Alternative C-2 map.)

IMPACTS

The inclusion of the area would provide for watershed protection and insure the integrity of the watershed that flows through the monument. It would also provide visual protection for an area that is easily seen from many portions of the area. Inclusion of the area would preclude the development of numerous mineral claims which have a fairly high economic potential for exploitation, resulting in a loss of revenue to the region and the State on at least a short-term basis. If mining activities are not carefully controlled, the possibility of degradation of water quality and the visual scene is possible. Also, as in the previous alternative, the inclusion of this area would reduce land selections now open to the Natives of Ambler under ANCSA.

3. DELETE THE SALMON RIVER WATERSHED FROM THE PROPOSED MONUMENT

This alternative deletes the Salmon River watershed from the proposal. The Salmon River, which qualifies as a wild river in the Wild and Scenic Rivers System, would be outside the monument. Mining and hunting would probably take place in the area. (See Alternative C-3 map.)

IMPACTS

Under this alternative the complete watershed of the Salmon River would not be assured the level of protection that it would receive if included within the monument. Even if the river itself is designated a wild river, a variety of things can occur within the watershed that could result in a decrease in the water quality of the Salmon. Mineral potential within the watershed could be realized with attendant economic impacts on the regional economy. Mining activity could result in a significant degradation of water quality of the Salmon and, in turn, the Kobuk. The visual scene would be altered, as mining scars could be visible from locations within the monument. Pollutants entering the aquatic system could jeopardize this river's annual salmon runs.

Hunting would continue in this area, placing continuing pressure on the Arctic caribou herd in addition to other species. The result could be less diversity and fewer animals in the area. The Dall sheep would probably not return to its former range in the area.

Recreational opportunities would be lower within the region as the Salmon River would probably receive less visitor use than if included within the monument.

4. DELETE THE BAIRD MOUNTAINS AND THE SALMON RIVER FROM THE PROPOSED MONUMENT

With this alternative the Salmon River watershed and the Baird Mountains would be deleted from the proposal. The Baird Mountains contain mineral

potential, scenic diversity, recreational opportunities, and important wildlife habitats, including migration routes for the Arctic caribou herd. (See Alternative C-4 map.)

IMPACTS

All representation of the Brooks Range physiographic unit would be deleted from the proposed monument. The upper portions of the Kobuk River from the north would be outside the management of the National Park Service. The conceptual master plan for the monument would be substantially different if the area was deleted because NPS-controlled recreational uses would be affected.

Should economically exploitable mineral deposits be found and developed in the Baird Mountains, mining as well as related access and construction activities could affect caribou movements. Hunting and other human activities could also affect caribou distribution and numbers in the areas so utilized. This could affect the availability of caribou for subsistence users in the Kobuk valley. Should mineral deposits in the Baird Mountains be found to be to the extent of optimistic inferences, and should full development take place--including mines, ore processing, storage and shipping, residences, shops, haul roads, highways, transmission lines, etc.--the areal extent of the disturbance to soils, vegetation and wildlife habitat, and scenic resources would create long-term impacts precluding the land for monument use and optimal recreational purposes. Additionally, streams rising in the Baird Mountains would likely experience an impact on water quality which probably would affect the lower portions of their watersheds in the Alternative C-4 monument.

Short-term economic benefits would be derived from the exploitation of mineral potential of the area resulting in a short-term stimulation of the regional economy.

The important boreal forest may not receive nonmanipulative management, which might possibly alter the vegetation patterns.

Sport hunting would most likely continue in the area, and would probably increase with time, unless already affected by mineral production. It can be assumed that State management of wildlife would maintain present populations of game species, subject to natural fluctuations.

Many opportunities for future recreation activities and accompanying long-term economic benefits within the region might be lost. Archeological resources within the area would not receive the level of protection that would be received under monument protection.

5. EXCLUDE ALL LANDS NORTH OF THE KOBUK RIVER

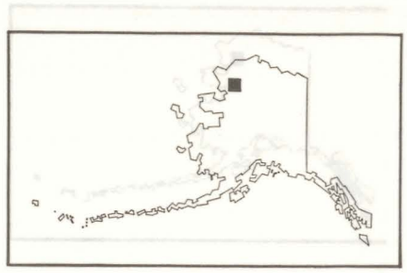
In this alternative all lands north of the Kobuk River, except for a 1-mile-wide corridor, have been excluded from the proposal. (See Alternative C-5 map.)

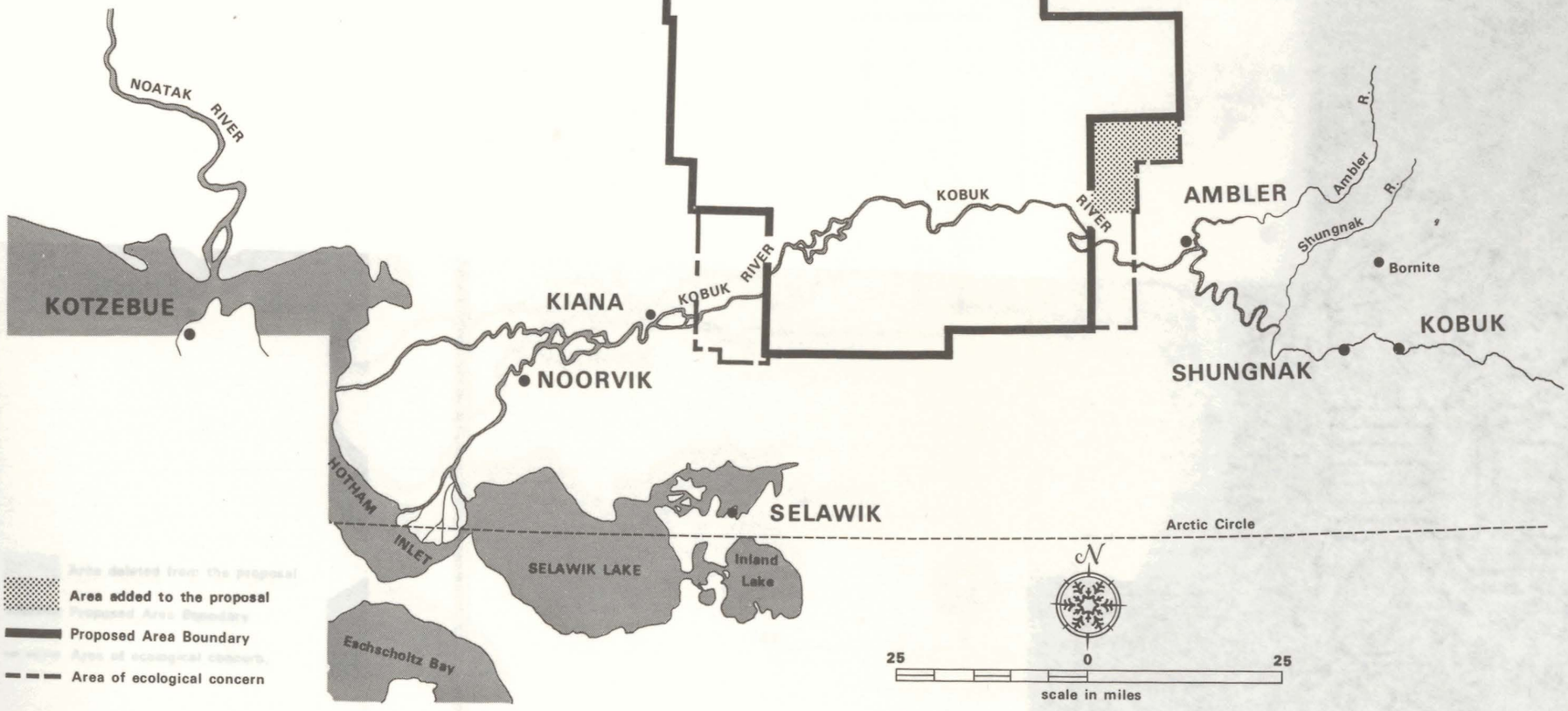
IMPACTS

These lands have good waterfowl values. More significantly, they are a part of the caribou winter range. Excluding them from the monument could allow uses of the area to occur which would be detrimental to both the herd and the related subsistence uses.

The cumulative effects of the deletions discussed in this alternative, plus the previously discussed deletions, effectively eliminate a major portion of the biological and cultural significance of the

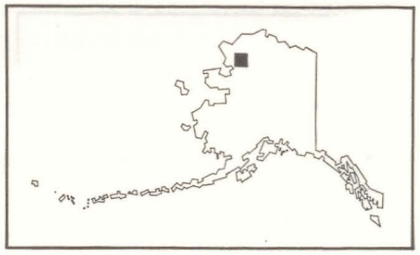
ALTERNATIVE C-2

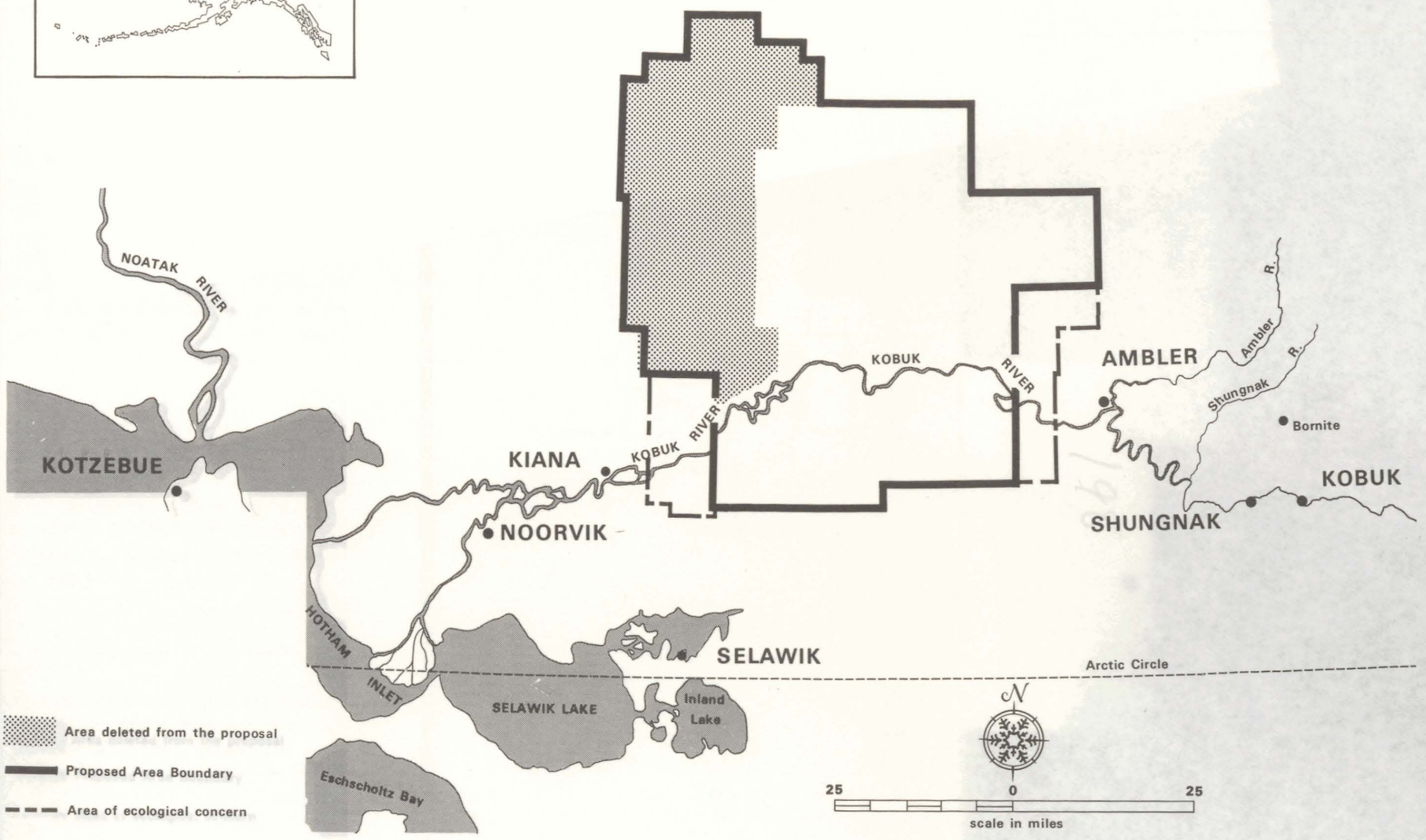


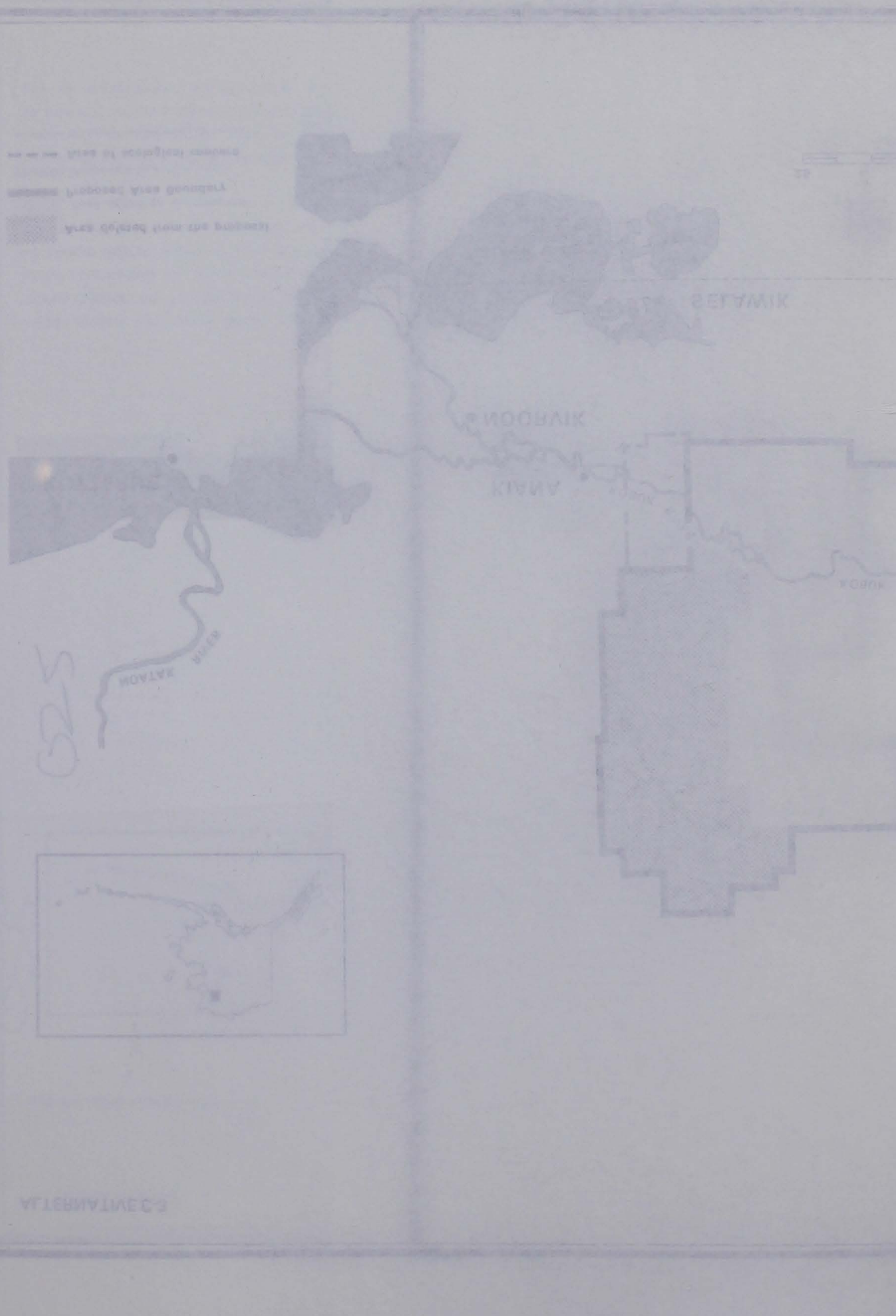




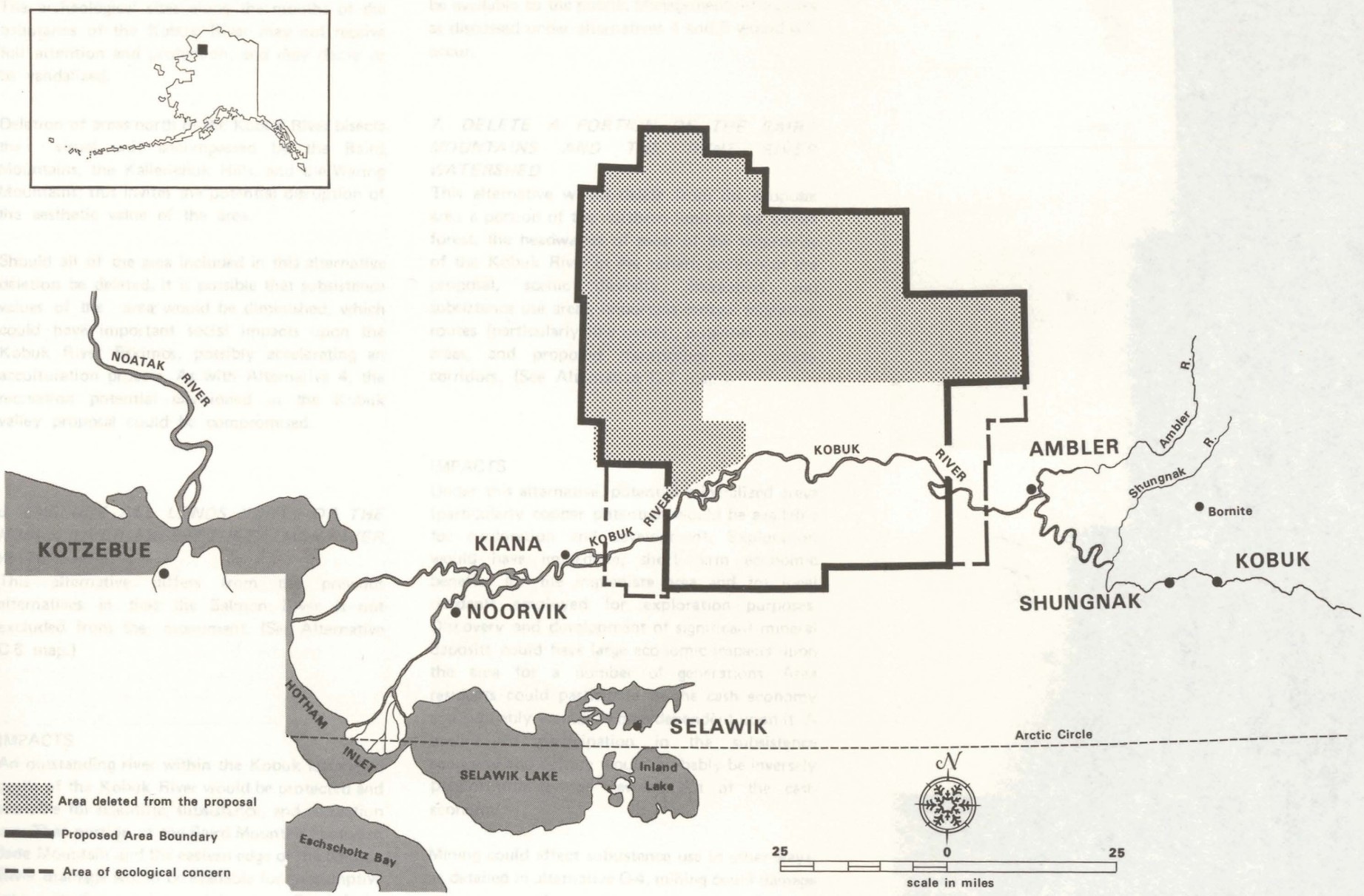
ALTERNATIVE C-3







ALTERNATIVE C-4



proposal. In biological terms, the ecological unit management concept is lost.

The archeological sites along the mouths of the tributaries of the Kobuk River may not receive full attention and protection, and may decay or be vandalized.

Deletion of areas north of the Kobuk River bisects the visual unit encompassed by the Baird Mountains, the Kallerichuk Hills, and the Waring Mountains; this invites the potential disruption of the aesthetic value of the area.

Should all of the area included in this alternative deletion be deleted, it is possible that subsistence values of the area would be diminished, which could have important social impacts upon the Kobuk River Eskimos, possibly accelerating an acculturation process. As with Alternative 4, the recreation potential envisioned in the Kobuk valley proposal could be compromised.

6. EXCLUDE ALL LANDS NORTH OF THE KOBUK RIVER, EXCEPT THE SALMON RIVER WATERSHED

This alternative differs from the previous alternatives in that the Salmon River is not excluded from the monument. (See Alternative C-6 map.)

IMPACTS

An outstanding river within the Kobuk watershed north of the Kobuk River would be protected and available for scientific, subsistence, and recreation use. That portion of the Baird Mountains between Jade Mountain and the eastern edge of the Salmon River drainage would be available for consumptive uses including mining and hunting. One of the major caribou migration routes would be protected. A wide variety of experiences covering a fully representative range of those available (but without the full diversity) in the proposal would be available to the public. Management difficulties as discussed under alternatives 4 and 5 would still occur.

7. DELETE A PORTION OF THE BAIRD MOUNTAINS AND THE HUNT RIVER WATERSHED

This alternative would delete from the proposal area a portion of the northern limit of the boreal forest, the headwaters of most of the tributaries of the Kobuk River in the eastern portion of the proposal, scenic diversity, recreation and subsistence use areas, important caribou migration routes (particularly low passes), potential mineral areas, and proposed transportion and utility corridors. (See Alternative C-7 map.)

IMPACTS

Under this alternative, potential mineralized areas (particularly copper potential) would be available for exploration and development. Exploration would have immediate, short term economic benefits for the immediate area and for local residents employed for exploration purposes. Discovery and development of significant mineral deposits could have large economic impacts upon the area for a number of generations. Area residents could participate in the cash economy and probably would become dependent upon it. A decline in participation in the subsistence economy and culture would probably be inversely proportional to the development of the cash economy.

Mining could affect subsistence use in other ways; as detailed in alternative C-4, mining could damage important caribou habitat and migration routes through the Baird Mountains.

Impacts of transportation and utility corridors are difficult to predict, especially for roads, since no clear need for a road through this area has been established; if minerals are discovered, however, a road may be useful for mining activities--although this need, too, is not demonstrated.

An important portion of the northern limit of the unique boreal forest ecotone would be excluded in this alternative. Under other management, activities affecting the spruce may be permitted, leading to possible alteration of the interdigitated tundra/spruce.

The watershed concept and practice of ecosystem management would be substantially affected by this alternative. Headwaters of many important tributaries of the Kobuk River would be excluded from the proposal. Water quality within the monument of this alternative could be adversely affected through incompatible uses in the Baird Mountains or in the foothills.

Portions of the proposed monument which would contribute significantly to scenic and recreational diversity would be eliminated by this alternative.

8. ADD THE UPPER SQUIRREL RIVER WATERSHED

This alternative does not contemplate watershed management of the areas to be added to the monument; only the upper portions of the Squirrel River watershed would be included. Under this alternative, lands characterized by similar terrain, vegetation, wildlife, soils, and traditional subsistence uses would be added to the monument. (See Alternative C-8 map.)

IMPACTS

Under this alternative, more of the same features to be protected under the monument would be added to it. Other than a monument possessing more extensive holdings, this alternative is significant in that the tundra/boreal forest transition is more tightly interdigitated--and possibly, therefore, more interesting--than that within the proposed monument. The boreal forest within the Squirrel River watershed is the eastern extension of the northern limit of the forest which is found within the proposal area.

Management of this larger monument would be considerably complicated under this alternative by the unavailability in the Squirrel addition of watershed and ecosystem management characteristic of the rest of the proposed monument.

D. ALTERNATIVES TO THE PROPOSED MASTER PLAN

The proposed master plan offers five major concepts, the total combination of which define the management, development, and use concepts for the area. They are:

Management of the monument as a single ecological unit based on a program which maintains the integrity of the area's unique natural features, environment, ecological processes, and characteristic cultural heritage. This requires the development and implementation of a research program to gather baseline data;

A land classification plan;

A general development and use concept;

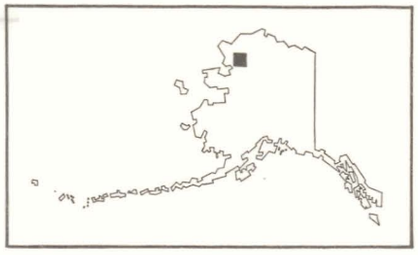
A cooperative management and planning program including agreements with the State to manage and protect submerged areas; and

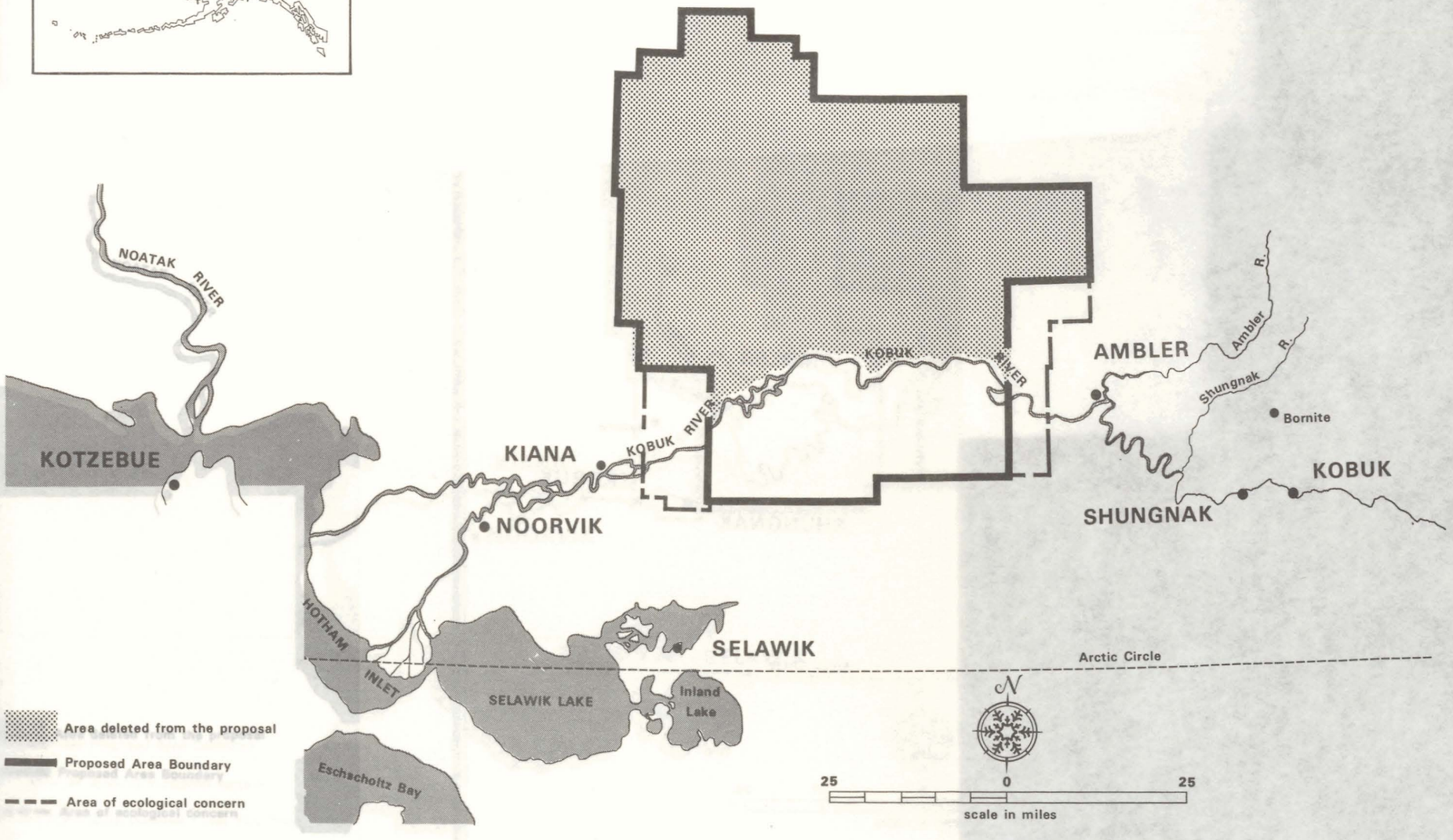
Continuance of subsistence hunting.

1. LAND CLASSIFICATION

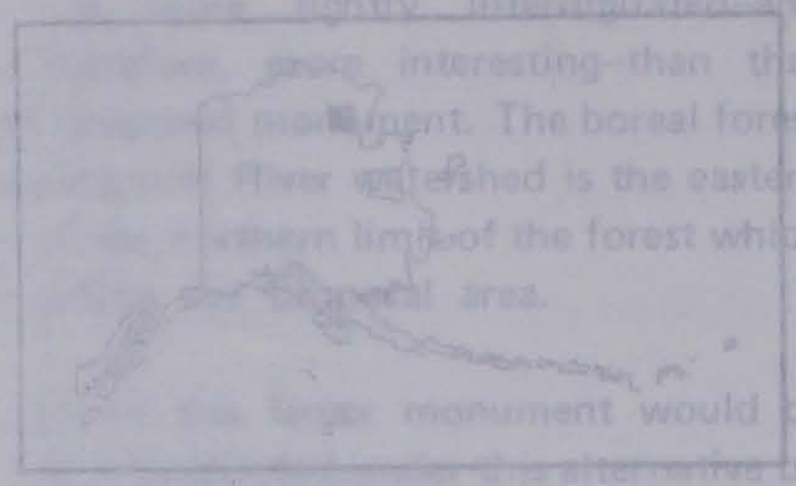
The classification plan proposed is based upon the land classification system utilized by the National Park Service. As such there are two basic

ALTERNATIVE C-5

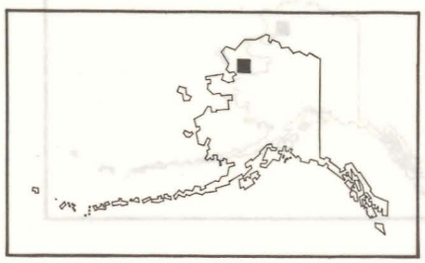


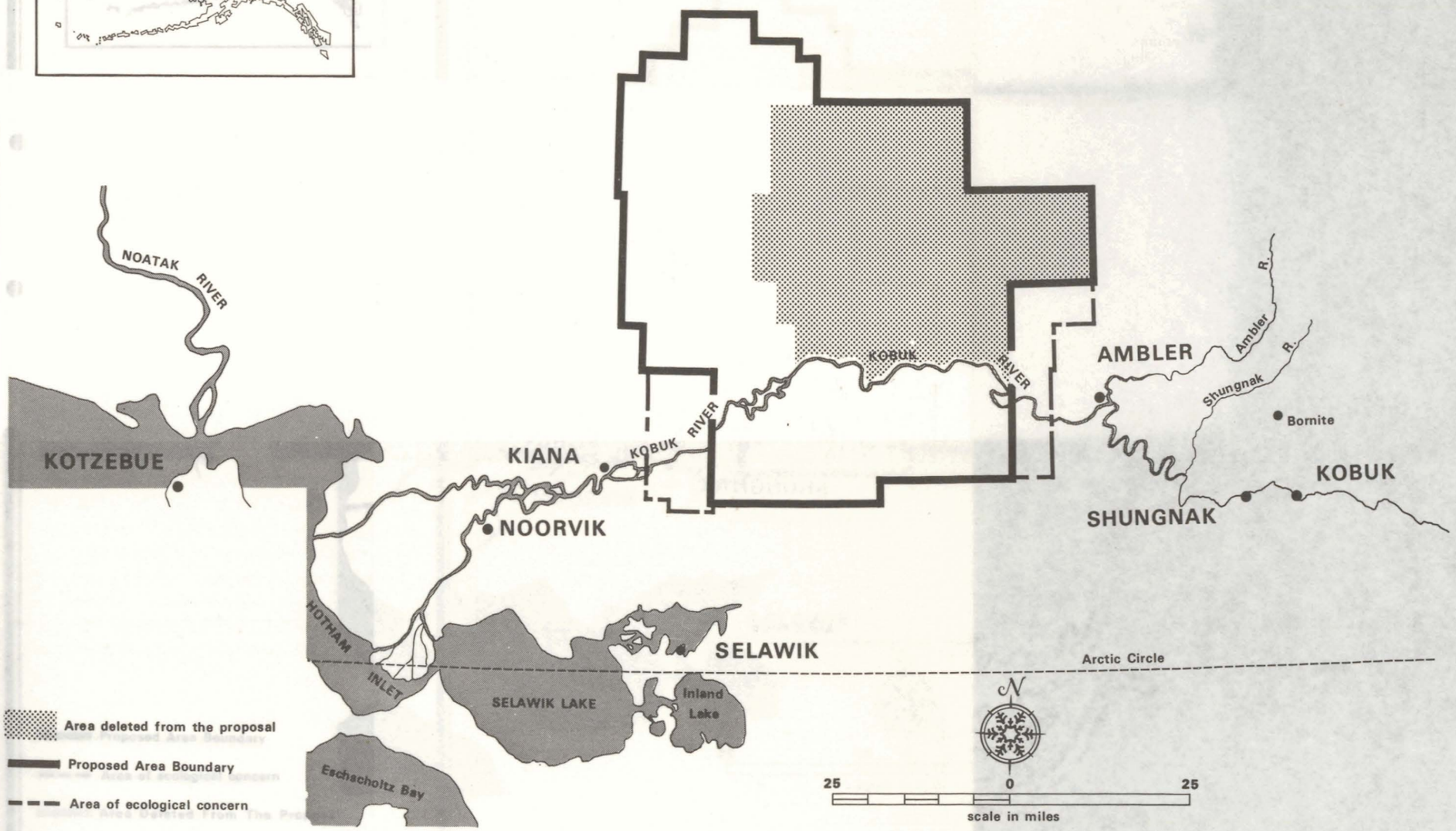


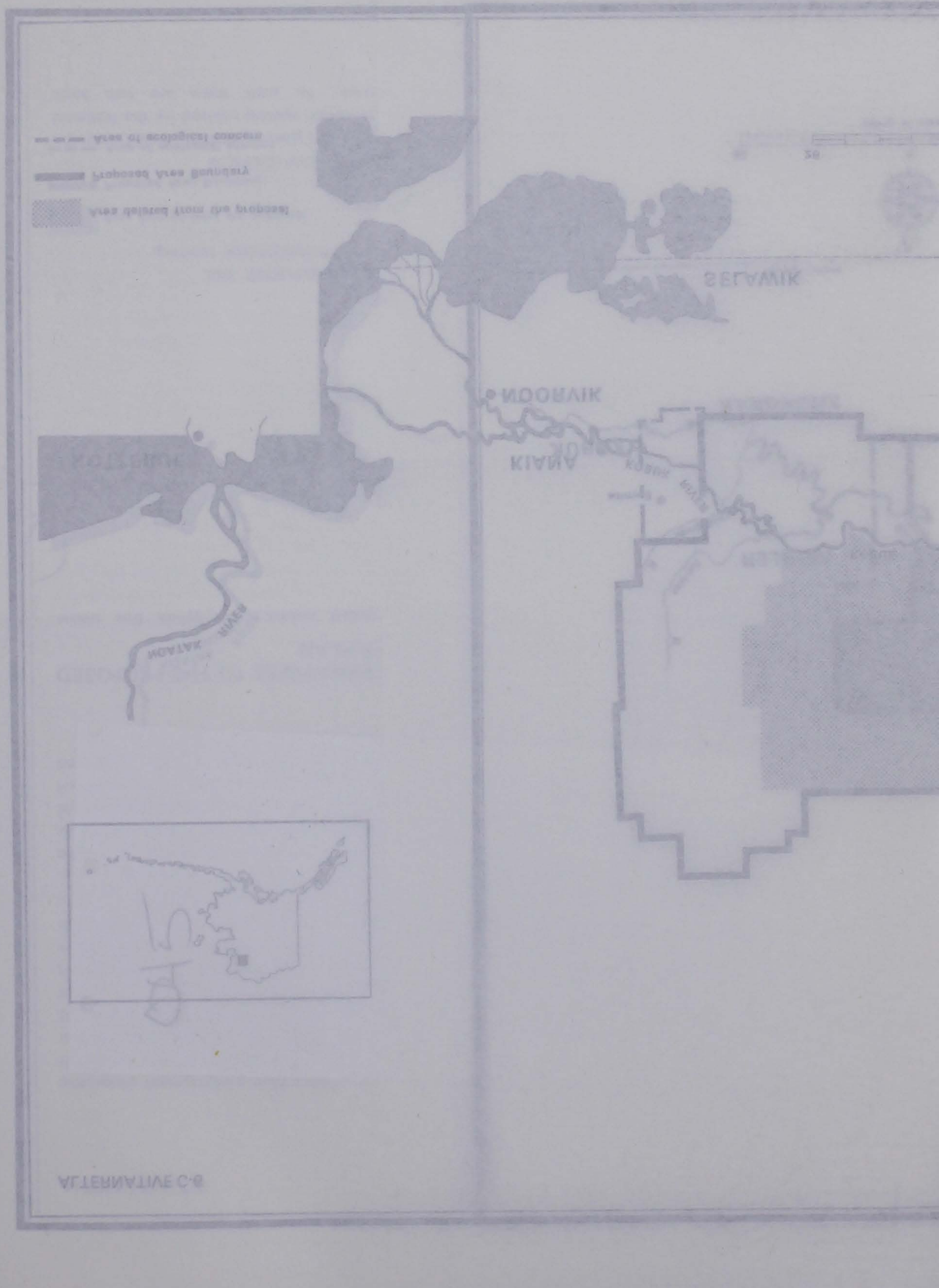

KOBUK
KIANA
NOORVIK
SELAWIK



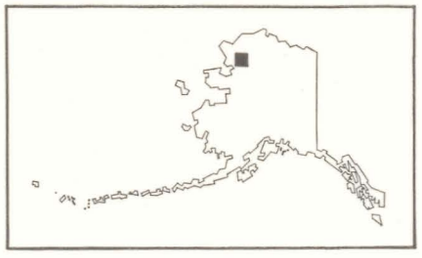
ALTERNATIVE C-6

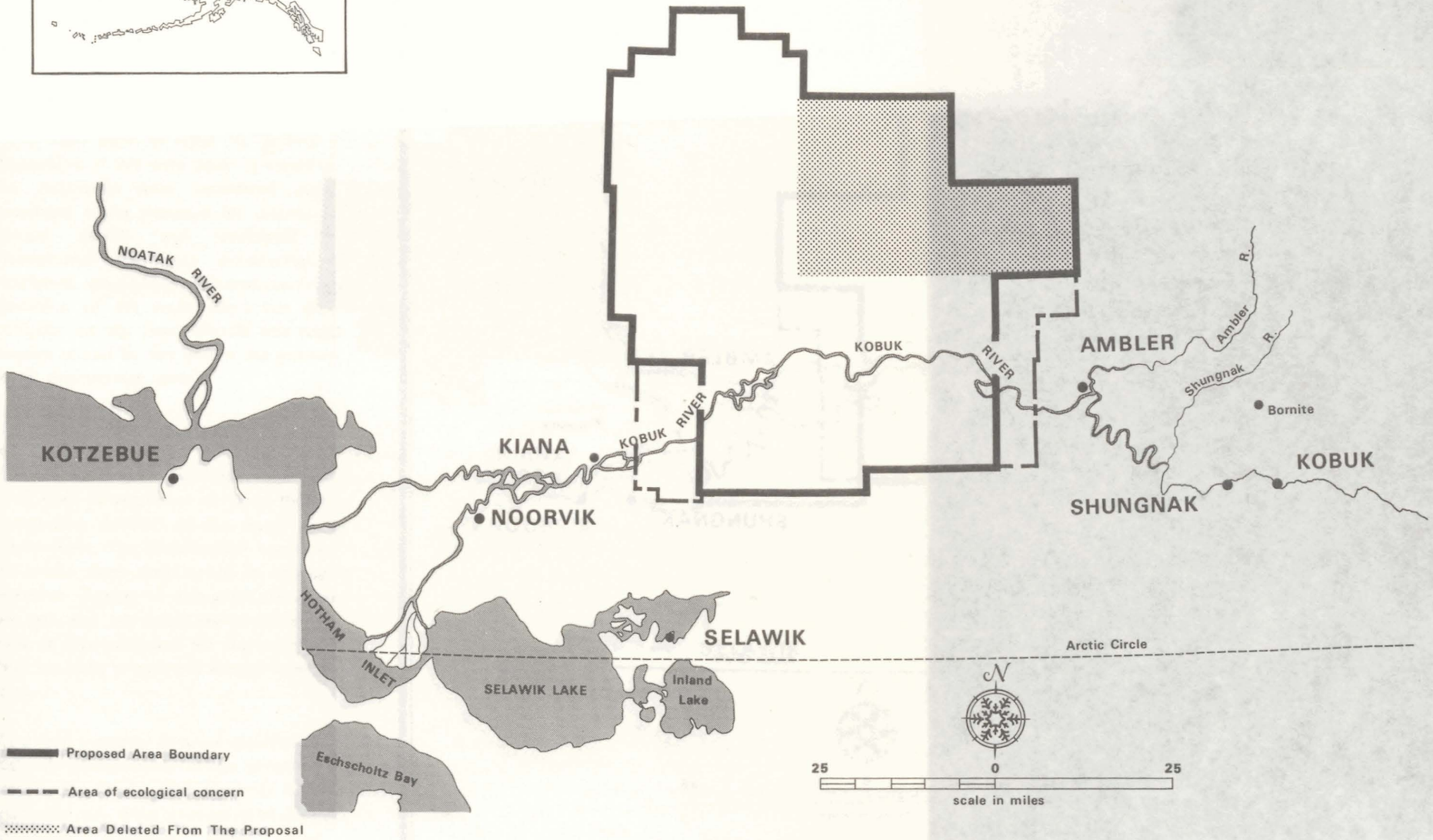


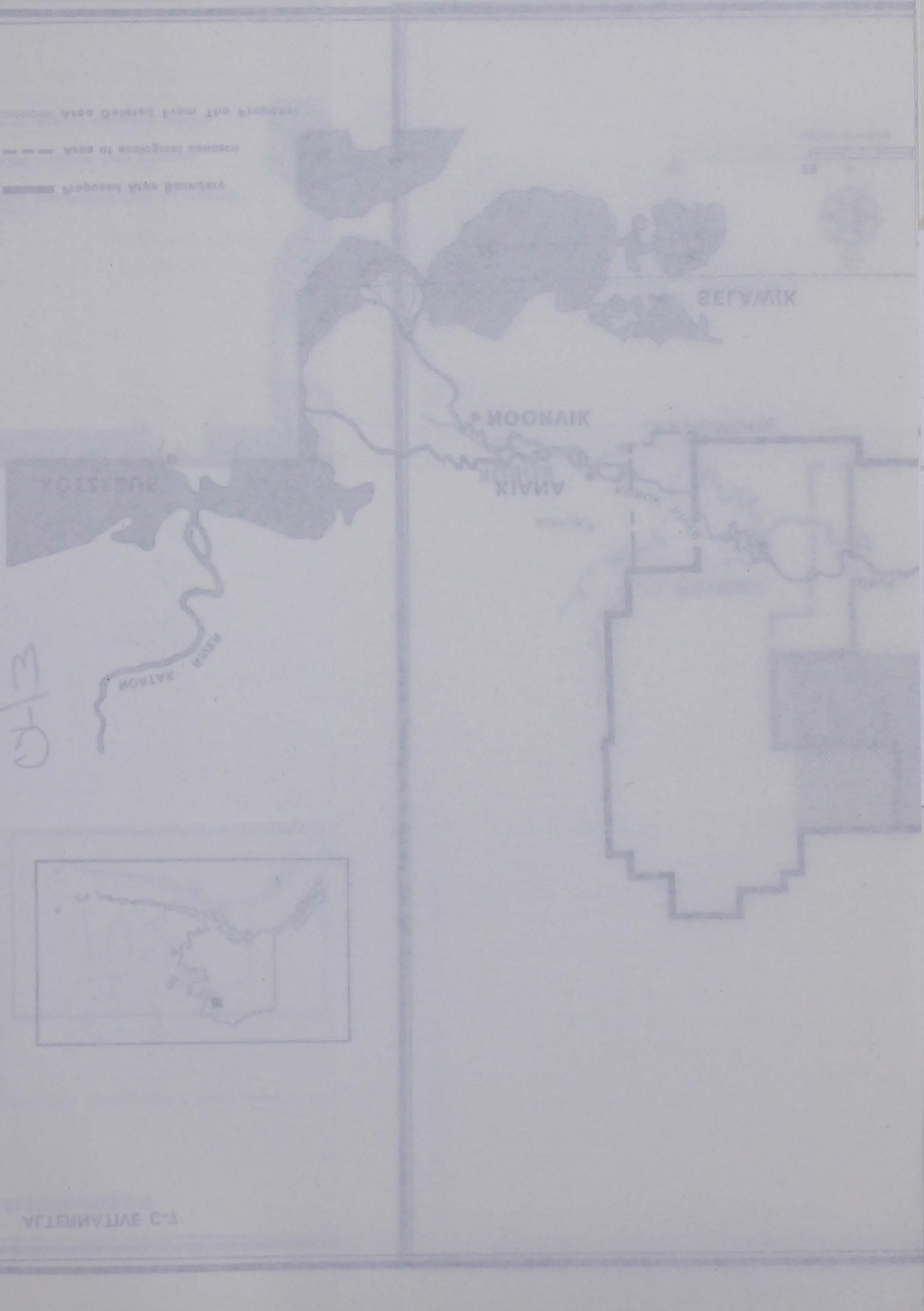



SELAMIK
NDOVAIK
KIANA
MATAK
ALTERNATIVE C-8

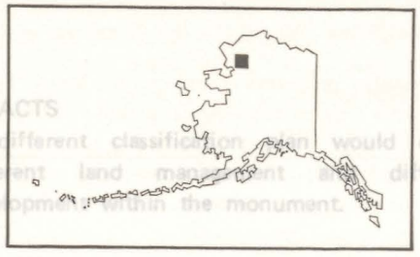
ALTERNATIVE C-7

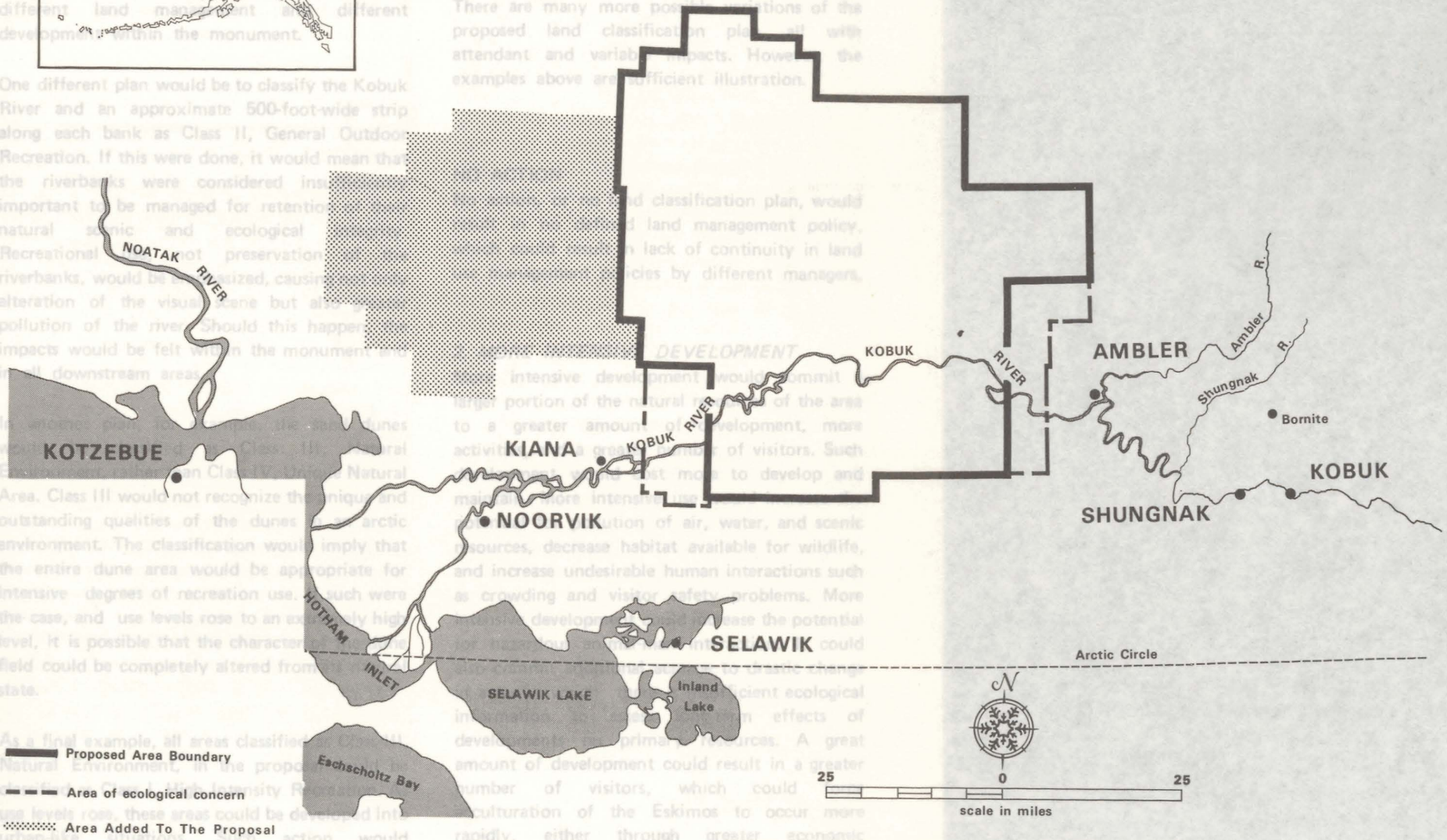





SELAWIK
NOORVIK
KIANA
KOTZEBUE
NOATAK
ALTERNATIVE C-1

ALTERNATIVE C -8






SELAMIK
NOORVIK
KIANA
KOBUK
KOTZEBUE
NOATAK
NOATAK RIVER

alternatives: (1) a different plan, using the same system, and (2) no land classification.

IMPACTS

A different classification plan would create different land management and different development within the monument.

One different plan would be to classify the Kobuk River and an approximate 500-foot-wide strip along each bank as Class II, General Outdoor Recreation. If this were done, it would mean that the riverbanks were considered insufficiently important to be managed for retention of their natural scenic and ecological integrity. Recreational use, not preservation of the riverbanks, would be emphasized, causing not only alteration of the visual scene but also greater pollution of the river. Should this happen, the impacts would be felt within the monument and in all downstream areas.

In another plan, for example, the sand dunes would be classified as Class III, Natural Environment, rather than Class IV, Unique Natural Area. Class III would not recognize the unique and outstanding qualities of the dunes in an arctic environment. The classification would imply that the entire dune area would be appropriate for intensive degrees of recreation use. If such were the case, and use levels rose to an extremely high level, it is possible that the character of the dune field could be completely altered from its natural state.

As a final example, all areas classified as Class III, Natural Environment, in the proposal could be classified as Class I, High Intensity Recreation. As use levels rose, these areas could be developed into urban-like situations. Such action would completely alter the landscape and would increase the probability of more wide-ranging adverse environmental impacts such as trampling, littering, potential for fuel spills, vegetation alteration, and effects on wildlife ranges. The need for more services would also cause greater environmental impacts, either in the immediate vicinity or at some removed point.

There are many more possible variations of the proposed land classification plan, all with attendant and variable impacts. However, the examples above are sufficient illustration.

NO ACTION

No action, or no land classification plan, would result in no defined land management policy, which could result in lack of continuity in land use management policies by different managers.

2. MORE INTENSIVE DEVELOPMENT

More intensive development would commit a larger portion of the natural resources of the area to a greater amount of development, more activities, and a greater number of visitors. Such development would cost more to develop and maintain. More intensive use would increase the potential for pollution of air, water, and scenic resources, decrease habitat available for wildlife, and increase undesirable human interactions such as crowding and visitor safety problems. More intensive development could increase the potential for hazardous animal-man interaction. It could also commit additional acreage to drastic change in areas in which there is insufficient ecological information to assess long-term effects of developments on primary resources. A great amount of development could result in a greater number of visitors, which could force acculturation of the Eskimos to occur more rapidly, either through greater economic opportunity, through destruction of subsistence resources, or both.

A greater amount of development could significantly alter the experiences that visitors could have in the monument. For instance, a skyline drive along the crest of the Waring Mountains could be proposed. Assuming for the moment that there would be some way for people to get their cars to the area, the experience would be quite different from that now contemplated for much of the area. First, the isolation of the Waring Mountains and of the sand dunes would be gone. Impacts would include alterations of the landscape and the air quality due to road construction and large numbers of internal-combustion vehicles. The quality of the visitor's experience at the dunes would be affected. Sound pollution would intrude on some parts of the dunes. There would be almost no place in the dunes that the natural scene would be unaltered by the visual presence of automobiles. Psychologically the visitor would feel less a part of this wild but friendly land and more a stranger on the edge of it.

Further, the Waring Mountains would no longer be suitable for wilderness hiking in a relaxed and easy atmosphere.

A greater number of developed areas would not significantly increase visitor understanding or add to the variety of visitor experiences possible within the monument, since the proposed plan has attempted to provide a sampling of as great a diversity of resources as possible.

3. INTERPRETIVE PROGRAM

The alternative to providing an interpretive program is no action; i.e., not providing an interpretive program.

If an interpretive program is not provided, there would be a significant decrease in public understanding and enjoyment of the outstanding resources of the area. The primary impact would be cultural--the visitor would leave with impressions, but little knowledge or indepth understanding of the natural and cultural resources for which the monument is proposed.

No available programs would explain the resources within the area, or tell ways in which visitors could enjoy or learn from resources. The history of the area would not be readily available to visitors. Little understanding of the cultural significance of the area would be gained.

Although the major impacts of this alternative are cultural, there are also impacts on the natural environment.

If an interpretive program was not instituted, impacts on the natural environment could be less than if the program was instituted, because much of the proposed development for the area could be eliminated. This would eliminate such impacts as increased interaction with animal populations, potential for dangerous man-animal contact, vegetative, landscape, and drainage alteration, and fuel spills and air pollution in areas not presently developed. However, adverse human impacts would probably be greater if the visiting public were unaware of the fragility of the resources or were unable to appreciate those resources because of lack of knowledge.

In the conceptual master plan, the bulk of the interpretive In the conceptual master plan, the bulk of the interpretive services; i.e., personal contact between interpreter and visitor. Other forms of interpretation require more facilities, audio visual devices, and signs, and consequently create larger impacts. They also might convey the interpretive story less successfully than personal interpretation.

4. PROPOSED TRANSPORTATION SYSTEM

No action would most probably result in the unevaluated acceptance of traditional

transportation based on roads and motor vehicles. If imposed upon the monument, these transportation systems might not be able to fulfill the intent of the master plan which is to meet the transportation needs of the monument. Roads, also, would damage presently undisturbed natural environments and would generate conflicts between public use and wildlife habitat requirements.

A number of alternatives to the proposed transportation system is possible.

First, the air tours of the monument could be eliminated. Such action would preclude the opportunity for many visitors to see or get to all or many parts of the monument. Without air transportation, ground transportation would have to be provided for visitors to experience the Salmon River, or the experience would be limited to those who could hike in. Provision of ground transportation would have effects similar to those outlined earlier in this chapter.

If air transportation was eliminated, the mandatory length of time required to get to the monument would be increased by a day or two, which would prevent many people from visiting the area.

Should all air transportation be required to make landings on airfields, rather than on water, greater damage to the natural resources would occur from construction of facilities.

The proposed river transportation system could be eliminated and replaced by a road. To do so would cause unnecessary environmental degradation and introduce increased pollutants into the air. Introduction of a road to the monument, unless roadside uses were carefully controlled, would also result in strip development of off-road parking in desirable locations along its route. It is also likely that road transportation for tourists would be expensive, since cars would have to rented in Kotzebue for at least the foreseeable future.

Elimination of boat transportation would also result in loss of an attractive opportunity for visitor recreation experiences--the boat trip to the monument itself.

Imposition of systems not suited to fulfillment of their intent would result in decreased quality of the visitor's experience while in the area. For instance, the proposed boat system is intended to be a moving interpretive center. If it is eliminated, the visitor will receive only transportation and no interpretation. Consequently, the visitor's experience would be reduced to only that which he could see and understand without interpretation. Also, greater development onsite would be necessary to provide for the interpretive functions.

5. DISCONTINUANCE OF THE OPPORTUNITY FOR SUBSISTENCE ACTIVITIES

The alternative to this proposal is to eliminate subsistence use of the area. To do so would unnecessarily limit the livelihood and the quality of life of a significant portion of the Native population. The probable effect of eliminating subsistence use at this time would be to create an even greater reliance on welfare than presently exists. This would increase the expense to the general public and increase the possibility for degradation of the self-esteem of the individuals involved. Such action would also embitter the local population toward the Federal Government.

In addition, curtailment of subsistence activity would limit, to some degree, the cultural significance of Kobuk valley by artificially removing a use that has existed in the valley for millenia.

Correspondingly, if the part played by subsistence living was eliminated, ecosystem balance would change or would have to be replaced by artificial management practices.

IX. CONSULTATION AND COORDINATION WITH OTHERS

A. CONSULTATION AND COORDINATION IN THE DEVELOPMENT OF THE PROPOSAL AND IN THE PREPARATION OF THE DRAFT ENVIRONMENTAL STATEMENT

Numerous agencies, groups, and individuals were contacted during the study that preceded the formulation of the proposal and during the preparation of the draft environmental statement. Individuals throughout Alaska and elsewhere, including Natives, provided data or leads to information; and several agencies provided comments in review of preliminary drafts of portions of the statement. The proposal plan as presented herein was not reviewed by participating groups, but the draft statement was circulated for public review and every effort has been made to coordinate and cooperate in the development of the overall planning.

The NPS contacted the State of Alaska Historic Preservation Office in developing the Draft EIS. The information on historic areas within the proposal area was gathered in coordination with his office.

The Joint Federal-State Land Use Planning Commission held a series of public hearings throughout the State of Alaska and the lower 48 States during the months of May and June 1973. The purpose of the hearings was to seek public input to the decision-making process regarding the uses to be allowed on the national interest lands withdrawn by the Secretary of the Interior in September 1972. Hearings were held in numerous villages and cities, including Kotzebue, Fairbanks, Anchorage, Seattle, San Francisco, Denver, and Washington, D.C. Representatives from the National Park Service attended all of these hearings and utilized the information and thoughts expressed to assist in the planning process.

In addition, three public meetings were attended by members of the NPS planning team. These were held in Ambler (15 persons on April 24, 1973), at Kiana (30 persons, April 17), and Shungnak (20 persons on April 24).

Individuals from the following organizations were contacted during the planning process. Those agencies marked with an asterisk (*) were sent copies of an earlier version of Chapter II of this document and provided comments on it:

Advisory Council on Historic Preservation
District Engineer, Alaska District, Corps of Engineers
Alaska Task Force, Bureau of Outdoor Recreation
Alaska Task Force, United States Forest Service
Division Engineer, Federal Highway Administration
*State Director, Bureau of Land Management
*Area Director, U.S. Fish and Wildlife Service
U.S. Geological Survey
*Regional Director, National Marine Fisheries Service
Area Director, Bureau of Indian Affairs
*Alaska Field Operation Center, Bureau of Mines
Superintendent, Anchorage Agency, Bureau of Indian Affairs
Federal Co-chairman, Joint Federal-State Land Use Planning Commission for Alaska
Resource Planning Team, J.F.S.L.U.P.C.
*Administrator, Alaska Power Administration
*Alaskan Regional Office, Federal Aviation Administration
Office of the Governor of the State of Alaska, Director of Planning and Research
Alaska Department of Fish and Game
State of Alaska, Department of Public Works, Division of Aviation
State of Alaska, Planning Director, Department of Highways

Staff, Alaska State Historic Preservation Officer
National Parks Advisory Board
Northwest Alaska Native Association
City Council, Ambler
City Council, Kiana
City Council, Kotzebue
University of Alaska, Institute of Arctic Biology; and Department of Wildlife and Fisheries
Alaska Conservation Society
Sierra Club
Friends of the Earth
Alaska Airlines
*General Manager, Alaska Railroad
Wien Consolidated Airlines
Western Airlines

B. COORDINATION IN THE REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

The draft environmental impact statement was sent to the following agencies and organizations for review and comment. Those which commented are marked with an asterisk (*).

FEDERAL:
- Advisory Council on Historic Preservation
- Department of Agriculture
  - *Forest Service
  - *Soil Conservation Service
- *Department of Commerce
  - National Oceanic and Atmospheric Administration
- Department of Defense
  - *Alaska Command
  - *Corps of Engineers
- Department of the Interior
  - *Alaska Power Administration
  - *Bureau of Indian Affairs
  - *Bureau of Land Management
  - *Bureau of Mines
  - Bureau of Outdoor Recreation
  - *Geological Survey
  - Office of Land Use and Water Planning
  - U.S. Fish and Wildlife Service
- Department of Transportation
  - *Federal Aviation Administration
  - *Federal Highway Administration
- *Environmental Protection Agency

STATE:
- Alaska State Historic Preservation Officer
- *Governor of the State of Alaska (State Clearinghouse)

OTHER AGENCIES:
- Ambler Village Council
- City of Kotzebue
- Kiana Village Council
- Kobuk Village Council
- Noorvik Village Council
- Selawik Village Council
- Shungnak Village Council

NATIVE ORGANIZATIONS:
- Alaska Federation of Natives
- Alaska Native Foundation
- *Ivisaapaagmiit Corporation
- Kiana Native Village Corporation
- Kobuk Native Village Corporation
- Kotzebue Native Village Corporation
- Mauneluk, Inc.
- Noorvik Native Village Corporation
- *NANA Regional Corporation, Inc.
- Selawik Native Village Corporation
- Shungnak Native Village Corporation

OTHER ORGANIZATIONS:
- *Alaska Conservation Society
- Alaska Historical Commission
- *Alaska Oil and Gas Association
- Alaska Professional Hunters Association
- Alaska Sportsmen's Association
- Alaska Wilderness Council
- *Friends of the Earth
- National Audubon Society
- *National Parks and Conservation Association

*National Wildlife Federation
Sea Grant Program
*Sierra Club
*The Wilderness Society

C. CONSIDERATION OF THE PUBLIC REVIEW IN PREPARATION OF THE FINAL ENVIRONMENTAL STATEMENT

The draft enviromental statement was available for review from December 18, 1973, to July 22, 1974. A total of 219 letters was received on the draft environmental statement from 18 Federal agencies, 1 State agency, 2 other government agencies, 3 Native corporations, 30 organizations, and 164 individuals. Some agencies and individuals submitted more than one letter, and some letters were signed by more than one author. All letters were analyzed, and 62 are printed. These include all agency and 4 Native corporation letters, 25 of the organization letters and 12 individual letters.

The 5 letters from organizations not printed contained comments identical in content to those in the letter from the Saquaro Ecology Club, which has been printed and responded to, to represent the other 5 letters.

Of the 164 letters from individuals, 129 commented on the adequacy of the statement. Of these, 120 letters contained comments identical in content. The letter submitted by Mr. Billy C. Wallace has been printed and responded to, to represent the other 119 letters not printed. In addition, 35 letters were received which responded to the environmental statement review only as a means of registering support or objection to the proposal. Letters submitted by Mr. Jim Gerritsen and Mr. John A. Pierog have been printed to represent the other 33 letters not printed which indicate those positions.

The draft statement was circulated for review of the accuracy of the information it contained and the adequacy of the environmental analysis. Many comments went beyond this and voiced support or rejection of the proposal itself. The proposal is before Congress, and the legislative process for considering the proposal will continue until at least December 1978. These legislative channels are open to any group to individual wishing to express a position on the proposal.

A total of 54 letters contained comments which raised questions requiring a written response. Both the comments and responses are numbered in consecutive order throughout the series of letters. The responses correspond in number to the comments and immediately follow each letter. Since similar questions were posed by several reviewers, the first time a question appears in the series of letters, it is fully answered. From then on, responses to similar questions are referred back to the first answer. To facilitate this referral system, letters are organized by category and placed in alphabetical order within each category as follows: Federal Government agencies, State of Alaska, joint agencies, other government agencies, Native corporations, organizations, and individuals.

INDEX OF LETTERS RECEIVED, EXCEPT FOR LETTERS FROM INDIVIDUALS

FEDERAL AGENCIES
Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Department of Defense
Alaskan Command
Corps of Engineers
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of the Interior
Alaska Power Administration
Bureau of Indian Affairs

Bureau of Land Management
Bureau of Mines
Bureau of Reclamation
Geological Survey
Department of Transportation
Federal Aviation Administration
Federal Highway Administration
Environmental Protection Agency
Alaska Office
Washington Office
General Services Administration

STATE AGENCIES
State of Alaska, Office of the Governor

JOINT AGENCIES
Joint Federal-State Land Use Planning Commission for Alaska

OTHER GOVERNMENTAL AGENCIES
Fairbanks North Star Borough

NATIVE CORPORATIONS AND ASSOCIATIONS
Doyon, Ltd.
Ivisaapaagmiit Corporation
NANA Regional Corporation, Inc.

ORGANIZATIONS
Alaska Conservation Society
Alaska Conservation Society--Tanana-Yukon Chapter
Alaska Geological Society
Alaska Wildlife Federation and Sportsmen's Council
American Society of Civil Engineers
Bryan Outdoor Resources Group
Business and Professional Women's Clubs, Inc.
The Conservation Foundation
Ecology Center of Southern California
Exxon Co., U.S.A.
Fairbanks Environmental Center
Friends of the Earth
Friends of the Earth--Arizona Chapter
International Pacific Halibut Commission
International Pacific Salmon Fisheries Commission
National Association of Counties
National Parks and Conservation Association
National Society of Professional Engineers
National Wildlife Federation
Northern Environmental Council
Northwestern University--Public Lands Project
Saguaro Ecology Club
Sierra Club
Society of American Foresters
Alaska Section
Juneau Chapter
Sitka Chapter
University of Alaska
Institute of Arctic Biology
University of the Wilderness
Western Wilderness Association
The Wilderness Society

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Washington, D.C. 20250

5510(5500)

JUN 24 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Here are our comments on the first six legislative proposals recommended by the Secretary of the Interior pursuant to the Alaska Native Claims Settlement Act (P.L. 92-203). Comments on the remaining proposals will be transmitted to you in July.

Our comments are organized in a "general comments" section which applies to all 28 proposed units of National Parks, Forests, Refuges, and Wild and Scenic Rivers and in "specific comments" sections covering each Park, Refuge and Wild & Scenic River proposals. We have not commented on the National Forest proposals since we will be involved in cooperating and assisting you in the preparation of the final statements for those.

We suggest that the general section of comments be included in the Final Environmental Statement of all the proposed units and the specific section be included only in the Statement to which it applies.

General Comments

Relationships Between Proposals

The 28 statements, in a sense, are related since they are a product of ANCSA. Collectively, the proposals create a significant impact not only on the State of Alaska as a whole but nationally as well. The individual statements describe the various impacts involved for that unit, however, the cumulative effect of the impacts of the several parks, forests, refuges and wild rivers is not discussed.

An example is the impact on sport hunting. Planning or curtailing hunting on one National Park may have a minor effect on guides, sportsmen and hunted populations whereas closing, carefully restricting or possibly

closing eleven units within 10 years could have a major impact and could result in serious long-range consequences by directing intense hunting pressure into areas remaining open. Secondary effects on subsistence living could be severe. The State of Alaska can take steps to prevent possible adverse results but it should be forewarned by complete discussion of possible cumulative impacts.

In each instance where land is withdrawn from some form of current or recent public use (e.g. mining, entry, hunting, travel) an evaluation should be made in each Statement based on the assumption that many or all of the units will be approved so the impact of the individual proposal can be related to the other units in the legislative package.

The approval of 83 million acres of reserved federal system lands is another example of cumulative impact that should be addressed. This action makes a long-term commitment of land and each unit should not be considered in isolation. It would be pertinent to point out in this regard that the ANCSA also makes a positive commitment of some 45 million acres to private (Native) ownership. In making the Settlement, the State of Alaska will be free to complete its 103.5 million acres entitlement -- another long-term allocation of Alaska land and resources. The part each unit plays in the total commitment to environmental quality, national economic development and regional development should be displayed so that the relationship of the proposals to the entire State can be more easily understood.

In this regard, some of the refuge proposals show the relationship of waterfowl populations to the entire North American continent. These kinds of relationships should be emphasized.

The geographic relationships of federal reserves in Alaska should also be discussed. For example, the continuum of Park and Refuge status proposed through the Brooks Range from the Canadian border to the Chukchi Sea, broken only by 48 miles along the pipeline corridor and 16 miles at Noatak Village, should be discussed with relationship to the impact it may have on the future of the Arctic. These total impacts may be viewed positively or adversely but they should be revealed.

1

Additionally, the impact of these proposals on the management systems to which they are added should be discussed.

We plan to include such discussions in the Final Environmental Statements for National Forest proposals.

Multiple Use - Sustained Yield

The descriptions of multiple use given in the several statements vary in their accuracy and objectivity and, in several instances are conflicting. In addition to comments we have given in those specific instances we wish here to quote the definition of multiple use as contained in the Multiple Use-Sustained Yield Act of 1960 (P.L. 86-517) as well as the definition of sustained yield. Any discussion of this subject is incomplete without these definitions.

"Sec. 4. As used in this Act, the following terms shall have the following meanings:

(a) "Multiple use" means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

(b) "Sustained yield of the several products and services" means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land."

2

We appreciate the opportunity to comment.

Sincerely,

Associate Deputy Chief

Enclosures

Kobuk Valley National Monument Proposal
(DES 73-88)

Specific Comments

1. Under Background (P. 21) the last sentence indicates the lack, in the National Park System, of representative portions of the Brooks Range. It is not clear how this proposal would differ materially from the Gates of the Arctic National Park proposal (9.5 million acres) with the exception of the 25-mile square Kobuk Sanddunes and the Onion Passage archeological site. 3

2. In Description of the Environment (P. 29) section the opening sentence referring to Alaska in general is misleading, is not descriptive of the Kobuk area and conflicts with other statements; e.g. . . . "a series of generally flat-topped hills . . ." (page 33), ". . . deltas composed of silt, sand and gravel . . ." (page 34), "Terrestrial mammals are few in number and kind" (page 69). 4

3. The section on Waterfowl (P. 73-78) implies a high population of waterfowl in the proposal. Only by careful study does it become apparent that this population is mainly outside the monument proposal and primarily within the proposed Selawik National Wildlife refuge proposal.

For proper evaluation, we believe the description should make a clear distinction of which resources are actually within the proposal and which are not. In this instance the waterfowl breeding populations within the proposal might better be described as nearer 10 ducks per square mile rather than the 44 implied by the "region" statistic. 5

4. The last paragraph on p. 158 indicates glaciers are abundant in the Kobuk area. Is this true? 6

5. In the Probable Future Environment Without This Proposal section the conclusions discussed on page 184-5 are suppositions with little substantiation. Based on current trends there is little in the report to indicate that all of these consequences would occur. Efforts being made toward State-wide Land Use Planning and interagency cooperation can lead to a markedly different set of "conclusions." 7

6. In Alternative B-4 Multiple Use Management (P. 251) the description of multiple use management is at odds with definitions set forth by Congress in the Multiple Use-Sustained Yield Act of 1960 (74 Stat. 215). For example, the Act does not state that "multiple use management attempts to place equal emphasis on as many uses as possible without seriously reducing the potential productivity of any individual resource." (See "General Comments" section). 8

The impacts suggested under multiple use management cite examples which are in direct conflict with Congress' direction under the Statute. The examples given of effects of mining, roads, dams, etc., are not examples of "harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land . . ." as is required in the Act. 8

7. Alternative C-4 Impacts (P. 263) fails to give a fair picture of the impacts of mining. For example it does not speak to the effect the availability of minerals could have on the resource needs locally, regionally or nationally.

Neither does it recognize that the Brooks Range Physiographic unit could be represented elsewhere in the National Park System (The Gates of the Arctic National Park proposal -- 9.5 million acres) if Congress so determines. 9

The implications that mining is a short-term activity is relative. Certainly the activities of major copper producers in the United States give evidence of long-term industrial producers. 10

There is no substantiation given regarding the likelihood of caribou movements shifting in the event of mineral development. 11

The implication is given that there are no hunting restrictions without a monument. The Alaska Department of Fish and Game should be consulted regarding this and the possible effect on Dall sheep reintroduction. 12

RESPONSE TO COMMENTS BY
DEPARTMENT OF AGRICULTURE, FOREST SERVICE

1. In passing the Alaska Native Claims Settlement Act of 1971, Congress itself gave very clear attention to the regional, State and national effects of the Alaska land transfers necessary to provide Native claim settlement, to meet the outstanding requirements of Alaskan statehood, and to provide for the continuing administration of the public lands. It directed the Secretary to withdraw lands for the Four Systems of National Parks, Forests, Wildlife Refuges and Wild and Scenic Rivers after other factors were taken into account in the planning process. Congress further provided for the establishment of a Joint Land Use Planning Commission and the orderly implementation of the planning process concerning areas planned and best suited for permanent reservation in Federal ownership. It called for recommendations to insure that economic growth and development was planned in an orderly and compatible way with State and national environmental objectives and the public interest in public lands, parks, forests, and wildlife refuges in Alaska, as well as the economic and social well-being of the Native people and other residents of Alaska. An agreement was reached with the State on the general area of the Four Systems proposals more specifically set forth here. These considerations and steps were examined and implemented prior to the individual development of Federal proposals with finite boundary lines and acreage limits. The need to consider cumulative impacts was recognized also during the development of the environmental impact statements on the detailed proposals. The cumulative aspects of each proposal, where they could be detected with reasonable assurance of significance, are noted in the evaluations of that proposal. Appropriate analyses in the statements are developed on a regional basis for some proposals and in other cases, on a statewide or broader basis. It would be repetitive to undertake an additional EIS to the 28 already completed.

Anyone wishing to ascertain overall effect, may do so by reading the aggregate impact of all or part of the proposals that would be involved and considering them the same as the sum of the impact discussed in each of the environmental statements. The statements are being issued and are available on the basis of sets of 28. Where the total cumulative impact in a region or the State appears

particularly significant in relationship to a given proposal, the subject statements involved are modified to include any additional impact considerations not previously described among the analyses involved. It is the considered opinion of the Department that these foregoing actions and the statements themselves, taken together, do constitute a good faith effort at providing a fair and accurate evaluation of aggregate or cumulative impact on major regions, the State, and the Nation as a whole.

2. The "Multiple Use Management" section in Chapter VIII has been revised to reflect these comments and to provide a more objective analysis of impacts; the citation and quote from the Multiple Use-Sustained Yield Act has also been included. It should be noted, however, that this definition refers only to renewable, surface resource uses. Also, the definition is developed for the purposes of the Act as applied to the U.S. Forest Service; as practiced, "multiple use" means different things to different people and organizations.

3. The southern slopes of the Baird Mountains, part of the Brooks Range, are included in this proposal because they are seen as an aspect of an area which should be managed as a comprehensive unit. It is this unit, the proposed monument, which represents "the scenic, biologic, geologic, and human resources of this portion (emphasis added) of interior and western Alaska and the Brooks Range." The "Background" section in Chapter I has been clarified and expanded, however, to emphasize those characteristics of the proposed monument which meet the criteria for inclusion in the system of national parks, and the "National Park System Plan Statement" for the Kobuk Valley National Monument, which details significant monument characteristics, has been included in Appendix I. Features of the proposed monument other than the sand dunes and the Onion Portage archeological site are, of course, discussed throughout Chapter II. Of particular interest might be the following sections: Vegetation (the Baird Mountain foothills constitute the northern limit of the boreal forest biome--as a result of its transitional location between forest and tundra, the Kobuk River area contains a complex pattern of tundra, forest, and forest-tundra vegetation), Outdoor Recreation Resources,

Cultural Resources of the Proposed Monument in Summary ("the banks of the Kobuk River are a continuous archeological zone"), Subsistence Activities and Harvests, and Wild and Scenic River potential (see also the Bureau of Outdoor Recreation statement on the Salmon River in Appendix E). Finally, and more specifically, the Baird Mountains are seen as integral to the Kobuk valley for aesthetic and ecological reasons (watershed management, scenic boundary, caribou habitat, and relationship with the vegetation of the valley).

4. The first sentence, and the rest of the paragraph of the "General Description" section of Chapter II is intended to be a broad, generalized description of the larger environment of the Kobuk valley proposal: Alaska. The Kobuk valley region is not seen as a microcosm of that State, possessing all of its characteristics. What follows in the document deals with the proposal area and its immediately associated region. The second paragraph in the draft environmental statement, which also dealt with the larger Alaskan environment, was misleading and biased and was consequently dropped.

5. The Waterfowl Habitat map, found in the "Birds" section in Chapter II delineates the various wetland habitats within the proposed monument and adjacent areas. The Waterfowl Habitat map also illustrates which areas are within the proposed monument and which are not. Also, it is stated in this section that "wetlands can be found bordering the Kobuk River" and that "the upland habitats, both forest and tundra, cover most of the study area." U.S. Fish and Wildlife Service biologists consider the portions of the proposal containing high and medium value wetland habitat as productive on a per-acre basis as the more extensive areas of similar habitat outside the proposed monument.

6. There are no glaciers within the proposal area. The revised statement now appears in the "Outdoor Recreation Resources" section in Chapter II.

7. This section has been revised to clarify the analysis.

8. This section has been revised; see response 2, above. With regard to the comment that "examples given of effects of mining, roads, dams, etc., are not examples of 'harmonious and coordinated management,'" this is a value judgment. All developmental land use has impacts; whether those impacts are severe or harmonious is a value judgment. This relativity is reinforced by the

language of the Act: "best meet the needs"..."most judicious use" ..."sufficient latitude"..."without impairment"..."with consideration being given to the relative values." Public policy may well determine that a dam, for example, with its attendant although controlled impacts, may be among the best, most harmonious resource uses; yet the impacts are still there.

9. The discussion in Alternative C-4 has been revised to provide a more objective analysis of impacts; national impacts cannot be determined since minable mineral quantity and world market conditions in the future are unknown.

10. Agreed, copper mining as a short-term activity is relative. A mine may only last a few years, while some have been active for 40 to 50 years, at various production levels. In rare instances, copper has been mined from large districts for thousands of years although not from the same mine. To be truly long-term, mining would last many centuries. In the Kobuk valley area the factors determining mining duration--such as market conditions and mineral quantity--are unknown.

11. This point has been clarified in Section C-4, Chapter VIII. It is a logical assumption that human activity through mining and mineral development would cause responsive movements of caribou, or impacts on caribou.

12. Although sport hunting would most likely continue to be permitted in the Salmon River and the Baird Mountain area, it is not necessarily true that if hunting pressures increased, there would be no restrictions placed on hunting by the Alaska Department of Fish and Game.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
204 East 5th Avenue, Room 217, Anchorage, Alaska 99501

June 12, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

The twenty-eight draft environmental impact statements for inclusion of federally-owned lands into four national systems - The National Parks, Forests, Wildlife Refuges, and Wild and Scenic Rivers, addressed to the Soil Conservation Service, Washington, D.C., on December 28, 1973, were referred to the Soil Conservation Service, Anchorage, Alaska, for review and comment. This response and attached specific remarks represent all comments of the Soil Conservation Service for the seven statements requested by June 24, 1974.

The task force that developed the proposals and environmental impact statements is commended. The statements represent considerable effort in the collection of available basic data and in effective presentation of numerous pertinent facts. The following general comments are presented for your consideration. We suggest that they be reproduced for distribution with the specific comments which are attached.

GENERAL COMMENTS

1. Use of soils information. Soils information available in the form of published soil surveys and in the recently completed "Exploratory Soil Survey," which is being prepared for publication by the Soil Conservation Service, contains specific and general soils information which would be useful in evaluating potential land uses. The National Cooperative Soil Survey is a continuing activity between the Department of Agriculture, the University of Alaska, and other state and federal agencies. More detailed information will be available over a period of time and should be used in developing more specific plans for the areas under consideration. 13

2. Alternative land uses. The range of choices for land uses on specific areas may be limited because of climate, soils, and topography. Where such choices do exist, the areas should be analyzed in terms of

tradeoffs (benefits foregone and benefits realized) under various potential land use choices and combinations. The short-term versus long-term impacts on both natural environment and human environmental needs from potential uses should be portrayed. 14

3. Options for future use. Even if archeological values, historic values, unique land forms, and fish, wildlife, and other natural environmental values may seem of highest priority at the present time, flexibility for accommodating different compatible uses in future years should be maintained. Research, experience, and needs of people will need to be evaluated periodically and changes in land use priorities considered. It appears that only those systems which propose multiple use can provide for a full range of agricultural activities should it be determined in the future that this is the highest and best use of the land. 15

4. Compatibility with land use plans. Land use plans for the state of Alaska are at an early development stage. A master plan for the state may be years away. Use of one-fourth of the land in the state for wildlife areas, national forests, national parks, and scenic rivers may be well justified. However, the exact locations, sizes, and distribution of such areas should be compatible with and a part of the overall land use plan for Alaska. 16

We appreciate the opportunity to comment.

Sincerely,

Weymeth E. Long
State Conservationist

Attachments

cc:
Kenneth E. Grant, Administrator, SCS, Washington, D.C.
Council on Environmental Quality (5 copies)
USDA Coordinator of Environmental Activities

PROPOSED

KOBUK VALLEY NATIONAL MONUMENT OF THE ALASKA NATIVE CLAIMS SETTLEMENT ACT (ANCSA) OF 1971 (35 STAT. 688)

SPECIFIC COMMENTS

We have enclosed a map, prepared by the University of Alaska, which displays potential grazing lands throughout the State.

Page 1 - First paragraph, Item B states "Administrative action to adopt a conceptual master plan for management of the monument so established." We suggest that the master plan should make use of available soil survey information.

Second paragraph. We suggest the location description should show the distances of the monument from Anchorage and Seattle, Washington.

Page 1 - A. Legislative Proposal. There is a need at this point, for a clear concise statement of the uniqueness of the area or other reasons why the area is proposed to be set aside as a national monument. 17

Page 2 - Items 2 and 4. The permitting of subsistence hunting (2) and trapping (page 209) and the closure to sport hunting and trapping (pages 209, 210, 211) appears in conflict with section 4 (B) of Public Law 92203 which states "All aboriginal titles, if any, and claims of aboriginal title in Alaska based on use and occupancy, including submerged land underneath all water areas, both inland and offshore, and including aboriginal hunting and fishing rights that may exist, are hereby extinguished." We suggest that clarification is needed. 18

Pages 5 and 6 - These sections explain development of a conceptual master plan for the park. We suggest the alternative of controlled and permitted grazing of reindeer be shown. The opportunities foregone if grazing is not permitted should be compared with the regions projected economic gain with enactment of the proposal. 19

Page 13 - Item 2. In the development of a land classification plan, we recommend the use of the Exploratory Soil Survey of Alaska with interpretations as a basis for planning and decision making.

Page 18 - Item 5 states "A vigorous program of identification, research, and interpretation of archeological and historic sites. Anthropologists believe the proposal area includes many imperfectly identified historic archeological and architectural resources of great significance." We suggest that decision making on the proposal would be aided by definite knowledge of these resources, not only within the proposal, but in the area of ecological concern associated. 20

Page 20 - Last sentence states "As noted, cooperative agreements should protect the areas of ecological concern within native village withdrawal lands." The probable impacts on the areas of ecological concern should be discussed if such agreements are not reached. 21

Page 22 - Second paragraph refers to the types of back country uses. We suggest the numbers of current and projected visitors and users be shown. 22

Page 27 - Last paragraph states "Within the proposed Kobuk Valley National Monument boundaries, there are 75 native allotment applications filed under the terms of the Native Allotment Act." We suggest a discussion of what will happen to the native allotment applications with enactment of the proposal. 23

Page 29 - First paragraph, last sentence states "Alaska is not an industrial state because of the extreme weather, and because of the high costs of living, labor, and transportation." Is this statement true? Third paragraph, last sentence states "It includes a discussion of past uses of regional resources as well as suggestions for intelligent use in the future." We suggest deleting the word "intelligent", for it implies any disagreement would be unintelligent. 24 25

Page 40 - The soil map is copied from a schematic map published by Kellogg and Nygard in 1951. This map was based in part on soil observations in a few areas, but mostly on interpretations of environmental factors. The soil classification contained in their report is no longer in use. The Exploratory Soil Survey of Alaska, now in the process of being published, contains general soils information, soil survey maps, and interpretive materials, and is available from the Soil Conservation Service and from the Joint Land Use Planning staff. 26

Page 179 - The impacts, adverse and beneficial, of the power potential should be compared with the impacts of the National Monument. 27

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Page 179 - The impacts, adverse and beneficial, of the power potential should be compared with the impacts of the National Monument. 27

Page 183 - First assumption. "That National Park Service management will bring to the proposal lands the most restrictive of possible management systems governing resource use." This assumption appears incompatible with prior statements regarding allowed subsistence use. 28

Page 184 - Third and fourth conclusions. These relate to people use and subsistence with or without the National monument. The conclusions as presented should be supported with data. 29

Page 206 - Last paragraph states "Present visitation levels in the monument area are very light, probably less than 500 people, and consisting mostly of sport hunters and fishermen." On page 2, "Proposed legislative provisions include: . . . (4) That the monument be closed to sport hunting." In light of these statements it is doubtful that more visitors will be attracted to the area (Subsistence Economy 1, page 205). 30

Page 254 - Last paragraph, first sentence states "Inclusion of the lands within the Kiana Village withdrawal would insure the protection of the entire watershed of the Salmon River. . . ." Our study of the statement and maps indicate that the Kiana Village withdrawal is not close to the Salmon River. 31

NOTE: The general comments are furnished with the cover letter, are applicable to this proposal, and should accompany these specific comments.

RESPONSE TO COMMENTS BY
DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

13. The Soils section and the Soils map, both in Chapter II, have been revised accordingly.

14. Chapter VI analyzes short-term versus long-term impact, and includes the natural and the human environment.

15. Agricultural activities are better provided for under multiple use management than under the management policies of the National Park Service; however, other than reindeer potential, there is no agricultural potential here. The management policy for Federal lands is determined by Congress, in the choice of administering agency and philosophy. Within its mandates, the National Park Service is flexible regarding the needs of research, experience, and people.

16. We intend to cooperate as fully as possible with State and Federal land use planning efforts as those efforts relate to this and the other 27 proposals. It is our hope that this cooperation will lead to compatibility of this proposal with future State land use master plans. You state, however, that a master plan "may be years away." Our time frame is governed by the Congress through ANCSA, and our proposals were directed to be submitted by December 1973. In addition, over the years to come these lands could be exposed to uses irreversibly incompatible with those proposed for Kobuk valley.

17. The Background section in Chapter I summarizes the reasons why the area is proposed as a national monument. Chapter II discusses the unique characteristics of the area. Please see response 3 for additional discussion.

18. In its report, the congressional conference committee on ANCSA made clear that it did not expect that subsistence activities would be eliminated on lands managed by the Department of the Interior. On the other hand, the Act extinguished all aboriginal title and rights. This proposal does not grant or confirm aboriginal title or rights. Also, traditional subsistence activities in National Park Service areas will be permitted without regard to race or previous aboriginal title or rights.

19. Reindeer grazing is discussed in Chapter VIII under Multiple Use Management.

20. The National Park Service looks forward to continued research of the historical, archeological, and anthropological resources of the proposal area and, with appropriate cooperative agreements, of the areas of ecological concern. Already, the NPS is conducting preliminary anthropological investigations of the region.

21. Although the two areas of ecological concern are important to monument protection, this environmental statement does not analyze impacts from activities other than those of the subject proposal. Nonetheless, the agreements to be sought by the National Park Service will probably be the result of a specific problem or concern, such as the protection of caribou herd habitat or archeological resources. If no agreement with the appropriate parties is attainable, each of the many possible values requiring mutual protection might receive impacts in many possible ways, varying in accordance with the extent of the threat and the vulnerability of the value. For additional discussion of areas of ecological concern, please see response 40.

22. Please see the Tourism and Service Industries section in Chapter II and the Impact on Local Market Economy section in Chapter III; each has been consolidated and revised to reflect this comment to the extent possible.

23. Valid Native allotments which are used for subsistence purposes compatible with monument purposes will remain in private ownership under this proposal. The National Park Service will attempt to purchase noncompatible allotments.

24. Extreme weather is not a significant factor in Alaska's industrialization, and the point has been deleted. However, the costs of living, labor, and transportation are real factors.

25. "Intelligence" has been deleted, to reflect your comment.

26. The soils information and the Soils map have been revised to reflect the Exploratory Soils Survey obtained from the JFSLUPC.

27. The sections on hydropower in Chapters II and III are revised, based in part upon suggestions from the Alaska Power Administration. Direct comparison of impacts, however, is judgmental and probably not comparable.

28. Even with subsistence, it is believed that the NPS will utilize the most restrictive possible management system. Nonetheless, Probable Future Environment Without This Proposal has been revised and clarified.

29. These conclusions are logical speculations based on the preceding assumptions. Designation by the NPS usually does lead to greater tourism. Please see response 22, above. Since the

monument status precludes commercial resource extraction, homesteading, and most construction, it follows that more of these activities could occur with NPS status. Since fostering traditional subsistence activities is the fourth purpose of the monument (see Legislative Proposal, Chapter I), it follows that monument status will permit subsistence use for game, or if habitat is destroyed by exploitive uses, it follows that subsistence activities would very likely become more difficult. The section has been revised and clarified, however, to strengthen this point.

30. The monument will remain open to sport fishermen, and the NPS will emphasize additional resource values which attract tourists. Please refer to the revised Tourism and Service Industries section in Chapter II.

31. Your statement is correct. Although nearby, the watershed which would receive protection by the addition of a portion of the Kiana village withdrawal is the Kallarichuk, not the Salmon. Most of the Kallarichuk watershed is within the proposed monument. The error has been corrected to reflect this comment. The situation had been correctly addressed in Chapter I in the discussion of areas of ecological concern.

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

June 26, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem:

The draft environmental impact statement for "Proposed Kobuk Valley National Monument, Alaska," has been received by the Department of Commerce for review and comment.

The statement has been reviewed and the following comments are offered for your consideration.

Summary

1. An overall environmental impact statement is required covering the cumulative impact of all 28 proposed withdrawals. Section 1500.6(d)(1) of the Council on Environmental Quality Guidelines states: "Agencies should give careful attention to identifying and defining the purpose and scope of the action which would most appropriately serve as the subject of the statement. In many cases, broad program statements will be required in order to assess the environmental effects of a number of individual actions on a given geographical area." This is one Federal action - not 28 - and the impact is aggregate. Particular emphasis should be placed on the benefits of environmental protection versus the costs to other national goals such as "Project Independence" with its heavy reliance on Alaskan petroleum. Consideration should be given to the effect of reduced domestic minerals supply on the overall economy in light of Secretary Morton's Foreword to his 1973 report to the Congress under the Mining and Minerals Policy Act where he stated that: ". . .energy and minerals are the lifeblood of our industrial economy. . ." and ". . .development of our domestic resources is not keeping pace with our needs. . . ." 33 36

2. The 28 draft environmental impact statements do not fulfill the National Environmental Protection Act requirements as set out in the decision of 34

the D. C. Circuit Court in the Calvert Cliffs case construing the requirements of Section 102(2)(c) to include an economic and environmental cost/benefit analysis.

Page 27 of the decision reads as follows: "In each individual case, the particular economic and technical benefits of planned action must be assessed and then weighed against the environmental costs. . . ." The decision clearly calls for cost/benefit analyses which are not contained in the draft environmental impact statement in even rudimentary form. **34**

3. Section 1500.2(b)(3) of the CEQ Guidelines state that: "In particular, agencies should use the environmental impact statement process to explore alternative actions that will minimize adverse impacts and to evaluate both the long- and short-range implications of proposed actions to man, his physical and social surroundings, and to nature." Consideration of man's social (economic) surroundings are completely deficient in the 28 statements. **35**

4. Section 1500.8(a)(1) of the CEQ Guidelines requires that: "The interrelationships and cumulative environmental impacts of the proposed action and other related Federal projects shall be presented in the statement." The 28 statements, on the contrary, completely disaggregate all impacts, social and environmental. **36**

5. Section 1500.8(a)(2) of the CEQ Guidelines specifically requires impact statements to cover "the relationship of the proposed action to land use plans, policies and controls for the affected area. This requires a discussion of how the proposed action may conform or conflict with the objectives and specific terms of approved or proposed Federal, State and local land use plans, policies and controls." The draft statements do not discuss the recommendations of the Federal-State Land Use Policy Commission as previously stated nor do they make any evaluation of the impact on the State of Alaska transportation plan. The responsibilities of the State and the Department of Commerce under the Coastal Zone Management Act of 1972 (P. L. 92-583) should also be considered in the statement. **37** **41**

6. Section 1500.8(c) of the CEQ Guidelines requires each statement "be prepared in accordance with Section 102(2)(A) of the Act that all agencies of the Federal Government 'utilize a systematic interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental arts in planning and decision making which may **38**

have an impact on man's environment.' " Social science (economic) input, essential to balancing the needs of man's environment against the environmental needs of flora and fauna, is not apparent in the statements.

38

General Comments

The aggregate "Four Systems" acreage is included in 28 separate proposals as follows: 11 additions to National Park Service areas, 32.2 million acres; 9 additions to the National Wildlife Refuges, 31.5 million acres; 4 additions to National Forest areas, 18.8 million acres; and 4 Wild and Scenic Rivers areas proposals, totalling approximately 1 million acres.

If these proposals are realized, Alaska will contain nearly 85 percent of the National Wildlife Refuges, 61.5 percent of the National Park lands and 16 percent of the National Forests as its portion of the total U.S. areas for the reserves. The distribution of the proposal areas will furthermore, become a serious obstacle to further resource and economic development in the State.

Taken independently, most of the proposals are excessively large for single use designation. When taken as a group, and in addition to other existing excessively large, single-use Federal land withdrawals in Alaska, the combined pattern interdicts a much greater area by restricting use and access. When the areas are also combined with another classification introduced in the proposals (areas of environmental concern, to be managed in a manner complementary to the initial proposal area), the total exceeds twice the stated withdrawal area. The restrictive areas include resource-rich but undeveloped areas which could be supporting prosperous regional economies as well as contributing essential raw materials to the gross national product.

Alaska's contribution to the national prosperity is currently limited by surface transportation and land classification problems. The proposals will compound these problems. Meanwhile, a recent set of figures states that for every Federal dollar collected in Alaska, 23 are spent in the State. This is far from a contributory position and raises questions of how withdrawals can be justified which perpetuate this economic dependency.

At the time of enactment of the Alaska Native Claims Settlement Act, less than 0.5 percent of Alaska was in private ownership. With full selection by the Native corporations and individual Natives, 10.7 percent of Alaskan land will be in corporate or private Native ownerships. State selections entitled under the Alaska Statehood Act should eventually reach 27.4 percent of the land area. This land currently stands at 9.7 million acres patented and 4.3 million acres tentatively approved. Patenting of Native lands has just begun.

The approach taken in preparation of the individual statements ignores the cumulative effect of its impact in addition to each of the other proposals and existing withdrawals. Each discussion, furthermore, approaches its area with single or limited resource purpose as its objective, and with a purely agency oriented interest. Assumptions far outnumber facts in discussions of alternatives, and these assumptions commonly apply only if the subject area were the single representative of its category.

The cumulative result will be more serious, as noted. The effect would not only cripple Alaskan economic development, but would also restrict the growth of the national economy by withholding sorely needed mineral raw materials from development. Present estimates are that Alaska can provide a continuing supply of mineral products on an orderly basis using only 0.3 percent of the surface area provided most of the required 0.3 percent is not locked up in single purpose withdrawals.

Some long term environmental interests are ignored. These vast areas of scenery and wildlife habitat are restricted to the use and enjoyment of a handful of those physically or financially able to enter the undeveloped wilderness. The great majority of people can only receive their impressions from the records and writings of the privileged few.

The 28 draft environmental statements are completely descriptive with little or no analysis. In all but the four National Forest additions, they use the argument that preservation is necessary for preservation's sake. Neither alternative uses nor the multiple use concept are weighed. Cost/benefit relationships are not attempted. 39

Specific Objections

Section 17(d)(2) of the Alaska Native Claims Settlement Act directs the Secretary of the Interior to withdraw "up to, but not to exceed, eighty million acres." The "Four Systems" proposals total 83.5 million acres. In addition, most of the impact statements define "areas of ecological concern" surrounding the proposed withdrawals. These areas appear to have no legislative authorization, are given no convincing rationale and further confuse an already complex land use policy issue. 40

The Joint Federal-State Land Use Planning Commission, established by Section 17 of the Alaska Native Claims Settlement Act, made recommendations to the Secretary of the Interior in July, 1973, regarding areas to be withdrawn and under what conditions. These recommendations have been substantially ignored; particularly the multiple use managment concept. 41

Many of the withdrawals are far too excessive for the stated purpose. Mineral and petroleum evaluations on the withdrawals are minimal and go largely on the basis that if it has not been mined or drilled it probably is not there. Even on this basis, significant resources are shown for many of the withdrawals. More information on which to base a legitimate cost/benefit relationship exists in:

a. U.S.G.S. Bulletins Number 1246, 1374, 1242-B
b. Reports soon to be printed by the Federal-State Land Use Planning Commission
c. Extant information from the Division of Geological and Geophysical surveys, Department of Natural Resources, State of Alaska. Open File Number Report 44 is particularly applicable to petroleum resources.
d. Senate Interior and Insular Affairs Committee Report, Mineral and Water Resources of Alaska, 1964

While hard information on mineral and petroleum deposits is generally scanty, indicators are not and our information is that the Department of the Interior (Park Service and Bureau of Land Management) may be inhibiting State, Native and even Federal (U.S.G.S.) attempts to further quantify deposits in the withdrawal areas.

42

The proposed withdrawals would seriously restrict proposed transportation corridors to the detriment of a viable transportation infrastructure of the State. In June 1973, the Alaskan Highway Department prepared a map showing proposed transportation system extensions plotted against extant and "Four Systems" Federal withdrawals. While the proposed corridors have been modified somewhat in the interim and the proposed withdrawals plotted at the same time have been significantly expanded, the map graphically illustrates the problem. While the Secretary of the Interior makes mention of this problem in his letter of December 17, 1973, transmitting the "Four Systems" Bill to the Senate, a provision to this effect is not provided for in the legislation itself. Without specific provision, any attempt by the Secretary to allow a transportation corridor through withdrawal areas would come under the National Environmental Protection Act with ensuing "quality of life review" and possible court actions such as was faced by the Trans-Alaska Pipelines.

43

With the exception of the cities of Anchorage and Juneau, Alaska as a whole is classified by the Economic Development Administration as a depressed area.

No indications of aggregated economic impact are supplied. Local economic impacts are mentioned only in passing and then frequently play up visionary benefits from tourist dollars and employment by the Department of the Interior.

Economic Potential

The environmental impact statement should consider the economic potential of the area. For the Kobuk area, this would consist principally of resource development, the qualitative importance of which is recognized but the quantitative significance of which is inadequately assessed. The draft statement should address the question: How essential are the available resources for national economic needs and well-being? Thus, the Kobuk statement should go beyond citing the existence of potential mineral resources. It should report on the potential contribution of mineral resources to national needs in terms of volume, volume relative to total national production and imports, and value. It is insufficient merely to state, as the Kobuk draft statement does, that bornite "is found in marketable quantities" (p. 52), that "chromite- and nickel-bearing ores are found in the upper Kobuk watershed" (p. 57), that fluorite appears to have "the greatest potential for development" (p. 57), and that asbestos deposits "have economic potential for development" (p. 57). It is essential to know whether there is an actual or anticipated need for these minerals and whether these resources can be tapped readily. These considerations need also to be addressed with respect to timber and other resources within the area. **44**

The potential development of mineral or other resources will set in motion forces that will alter the income and employment prospects of the area. Therefore, the potential gains in income and employment need to be assessed, quantitatively to the extent possible. In the event that potential mineral development is precluded by the use of land for other purposes, the income and employment foregone should be included as a cost. **45**

The process of resource development and income generation requires both capital and manpower resources. Capital may be obtained from within the State by being diverted from the other uses (opportunities foregone should be noted) or capital may be obtained from outside the State. With respect to manpower, a full discussion is necessary of the area's (and the State's) manpower resources to meet the growth potential. This necessitates an examination of prospective population growth, both natural and through migration. **46**

Potential development of the area's resources will mean community development in the form of transportation facilities, structures (schools, etc.), and other infrastructure. Since these entail both benefits and costs, the net benefits or costs should be ascertained.

Costs Associated with the Development of Economic Potential

Set against the benefits to be derived from development of the area's resources are the costs of doing so.

The statement should discuss in concrete terms how much environmental protection would be lost by resource development--in terms, for example, of land area displaced, wildlife killed or displaced, and vegetation destroyed. Whenever possible, quantitative estimates of the costs should be included.

The draft statement should also evaluate how much control over environmental preservation would be lost if resource development should take place in the area.

46

Environmental Protection

The draft statement should document how essential environmental preservation of the area is and will be to the nation's needs and well-being in terms, for example, of the preservation of wildlife, preservation of vegetation, and preservation of the culture of the area's inhabitants. This part is emphasized in the Kobuk statement, but it is not balanced against considerations relating to economic potential.

The draft statement should then consider, if the environment is preserved, what derivative benefits accrue, for example through tourism and recreation. To say that tourism will be fostered is not enough. The gains from tourism need to be measured against the losses from other economic activities that are foregone.

47

Costs Associated with Environmental Protection

The question must be asked: How much potential would be lost by environmental preservation with regard to the economic factor? The answer would be derived from the estimates of development potential that is available and would not be exploited because of the setting aside of lands.

The statement should also present an evaluation of how much control over potential economic development would be lost as a result of environmental preservation measures. One aspect of this question that must be addressed is the interrelationship between preserved areas. The Kobuk statement, for example, states that adjacent lands are or may be protected: page 19 mentions adjacent lands of ecological concern; page 21 states that the monument abuts the Bureau of Sport Fisheries and Wildlife proposal for the Selawik National Wildlife Refuge; and page 21 states that there are other NPS areas proposed within the region. The Kobuk statement cannot be considered in isolation; it must take account of the economic effects that may arise from environmental preservation covering a broader land area. The statement should address the question: How much of the State's economic potential will be shut off from use by the Kobuk National Monument and other adjacent areas which may be protected?

The framework suggested above would not militate against economic development or environmental protection. It would place each of these objectives in a more balanced perspective than may be provided by the Kobuk statement and others like it.

Fishery Impact

With regard to meeting the provisions of Section 102(2)(C) of the National Environmental Policy Act of 1969, Public Law 91-190, we believe the proposed action will have no significant adverse environmental impact upon the marine, estuarine, inland commercial, or certain anadromous fishery resources and their particular environments for which this Department has responsibilities.

Our only specific comments refer to Appendix C, page 297, in which "Grayline" should read "Grayling," and the specific name of the coho salmon should begin with a lower case "k."

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving a copy of the final statement.

Sincerely,

Sidney R Galler

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

RESPONSE TO COMMENTS BY
DEPARTMENT OF COMMERCE

33.&36. Please see comment 1 for a response to your request for an overall, aggregate cumulative environmental statement.

34. By directing the Secretary of the Interior to withdraw up to 80 million acres of land as units of the Four National Systems, Congress recognized the desirability of providing environmental protection and management for some of the natural resources in Alaska under recognized and existing national management systems; systems with a spectrum of differing objectives and emphasis in their management, not all economically oriented or subject to the quantification of cost-benefit analyses techniques.

This doesn't mean that Congress failed to consider environmental costs and environmental benefits or even economic costs and economic gains, for they clearly did recognize and consider them in the review and planning procedures established in the Act, and in the differing objectives set to be met by the Act's implementation. Nor does it mean that the Department of the Interior failed to consider economic or environmental benefits and costs in the planning process of developing these proposals in response to Congress' mandate. It is true the environmental statement itself does not contain a quantitative and traditional benefit-cost ratio of the type referred to in the above comment, for very good reasons; but it is not correct, as implied, that the planning process did not consider economic as well as environmental implications in advancing the proposals.

Thus the Department's planning and decision process is consistent with the Calvert Cliffs decision which indicated that NEPA requires that "...the particular economic and technical benefits of planned action must be assessed and then weighed against environmental cost..." Calvert Cliff's Coordinative Comm'n, Inc., V. United States Atomic Energy Comm'n, 449 F. 2d 1109, 1123 (D.C. Cir. 1971).

Moreover the Department has complied with that Section of the CEQ Guidelines which state "in each case the analysis should be sufficiently detailed to reveal the agency's comparative evaluation of the environmental (emphasis supplied) benefits, costs and risks of the proposed action and each reasonable alternative." CEQ Guidelines, August 1973 FTC Vol. 38 No. 147. This portrayal of the environmental benefits, risks and costs is undertaken in these statements, even if not in quantified form.

Each proposal and alternative attempts to identify as completely as possible, with the available information, the identity and scope, trend, or tendency, and size or relative significance of any significant environmental costs or environmental benefits inherent in the particular action or alternative. Where risks and uncertainties are involved, they too are noted. The nature of the actions themselves and the frequent lack of data involved in the different subject areas does not always lend this treatment to quantitative presentation, but it is undertaken qualitatively, so that objective description is provided the reader, and comparison by him, is made possible.

It should be noted that the Department of the Interior does not habitually prepare economic cost/benefit analyses of land and recreation resource actions, land transfers, and land classification actions. This is the case for the economic and technical reason that many aspects of such actions deal with the economic concept of "public goods." Public goods not being traded in the marketplace frequently deal with aesthetic and other intangible values of the environment not subject to readily agreed upon or rigorously disciplined systems of marketplace evaluation and quantification. Further, the incomplete evaluative nature of the economic benefit cost ratio as a decision tool has been widely recognized even where it is used.

35. Please refer to Chapter II, Social and Economic Considerations, and to Chapter III, Impact on the Local Market Economy, Impact on Mining and Mineral Entry, Impact on Transportation, Impact on Local Society and Culture, Impact on Hydropower Development, Impact on Timber Harvesting, and Impact on Subsistence, which

consider impacts on man's social and economic surroundings. Of course, the subsistence economy is extensively discussed throughout the document. In addition, mitigating measures to the proposed action may be found in Chapter IV, short and long term uses of the environment are discussed in Chapter VI, and a variety of alternatives are discussed in Chapter VIII.

37&41. Please refer to Chapter II, Transportation and Communication, and to Chapter III, Impact on Transportation, for much of the information you seek regarding transportation, and response 1 for overall impacts. The JFSLUPC recommendations were carefully considered in the development of this proposal, although the recommendations do not relate to management agencies or systems and, as such are not directly applicable to this statement. However, please see Chapter I, Interrelationships, which discusses the JFSLUPC; the information of the Commission was also used in the preparation of this statement.

38. An interdisciplinary approach was utilized in analyses of impacts resulting from this proposal; please refer to response 35 for response concerning social sciences. See particularly the policy and anslysis of subsistence throughout the environmental statement for a presentation of an important aspect of the needs of man's environment.

39. Alternative uses of the proposal are are discussed in Chapter VIII. Upon examination, we find no evidence in the environmental statement of an argument that preservation is necessary for preservation's sake, as suggested in the comment.

40. "Areas of Ecological Conern" are administrative, not legislative proposals. "Areas of Ecological Concern" are just that, areas of interdependent relationships to the proposal area in terms of wildlife habitat maintenance, maintenance of visual and scenic integrity, protective buffers around key waters and wildlife populations, interrelated vegetative and wildlife use patterns where degradation of one element could seriously alter the other and significant areas of cultural (archeological, historical, and sociological) relationship to the proposal or an adjacent native culture or population. It is hoped that specific cooperative agreements can be negotiated with any adjacent land managers and owners within the "Areas of Ecological Concern" to insure complementary protection of the values and resources of the proposal, with control and management of such lands retained by the owners and managers.

Management of the proposals as well as the "Areas of Ecological Concern" should include a mutual working dialogue between Federal landowners and surrounding land managers. It is reasonable that if landowners in "Areas of Ecological Concern" are to consider managing their lands in a "manner compatible with proposal values," then in return their views should be considered within the limits of applicable laws and regulations, in the management of Federal lands.

It should be noted that agreements regarding "Areas of Ecological Concern" represent only one approach to protection of Federal lands, and that the broad authority given the Secretary under 43 U.S.C.; 1363 remains unaffected by the legislative proposal.

42. A good effort has been made to include all available minerals information in the revised Minerals section in Chapter II. Regarding this comment, comment 41, and the more general discussion of land use alternatives, it should be said that in making D-2 land withdrawals and the recommendations to the Congress for management of these lands, a basic dilemma was faced which is implicit in a decision involving mineralogically unexplored lands such as those in Alaska. This dilemma was the choice between possible values of developable, nonrenewable resources such as minerals, and the resource values inherent in natural nad ecological systems.

In developing the final recommendations to Congress, the need to leave mineral resources available for development was given careful consideration. In the first place, some of the systems themselves herein advanced by those proposals contain the authority and objective of mineral development. And, it should be noted that the selections already made by the State of Alaska and the priorities provided the Native claims under ANCSA have excluded from "Four System" consideration vast areas of mineral potential already. In many cases, boundaries of proposals were redrawn to place mineral belts of prime potential outside proposals with restrictive management categories. In other cases, management options were left open to mining where identified mineral potential was sufficient to warrant such action, and where mineral extraction would not prove overly damaging to the environment. However, in order to comply with the intent of section 17(d)(2) of the Act and in order to afford adequate protection of these outstanding areas, some

areas which do have possible mineral potential were recommended for protective management that would exclude mining and mineral entry. These proposals reflect a need, set forth in ANCSA as a congressional mandate to preserve certain outstanding natural and ecological areas of national interest apart from mineral development.

In regard to research programs to inventory mineral potential in these areas, the park proposals provide that prospecting, mining, and the extraction of minerals or the removal of soil, sand, gravel, and rock will not be permitted, except for portions of Yukon-Charley, or where carried on pursuant to valid existing rights.

The National Park Service encourages and will participate in appropriate ways in the study of geological resources within proposals. Geological studies by recognized educational or scientific institutions, professional personnel of other Federal agencies, and accredited individuals will be permitted and encouraged when in consonance with the purposes of the area and the policies of the Service. Procedures which might result in damage or alteration to the resources would not be permitted.

43. This proposed action would not necessarily restrict the proposed transportation and utility corridors; an environmental impact statement would, of course, be required for such corridors, and the Secretary of Transportation may determine that section 4(f) of the Department of Transportation Act of 1966 is applicable in the case of the proposed national monument, in which case creation of a corridor through the area would require that no feasible and prudent alternative exists.

44. Quantitative minerals evaluation is impossible since quantities are unknown; even the qualitative analysis, such as the quotes in your comment, are highly speculative. Also, this environmental statement does not attempt an analysis of the international market for minerals, and so the actual or anticipated need for these minerals is not only speculative but also beyond the scope of this environmental statement. Whether unknown quantities of minerals of unknown quality can be tapped readily is similarly beyond our analysis. Regarding

timber, please refer to the Timber section in Chapter II and Impact on Timber Harvesting in Chapter III for what we know about known timber potential. The sections on minerals and timber, incidentally, have been revised to include the best information available to us.

45. In the absence of reliable quantitative minerals information, Impact on Mining and Mineral Entry has been revised to include discussion of development precluded by the proposed action. Of course, quantitative analysis of possible precluded development is impossible.

46. The kind of comprehensive statewide economic analysis envisioned in this comment is beyond the scope of this statement.

47. The sort of analysis envisioned in this comment is inappropriate to an action of the sort proposed in this statement. For example, for the purposes of the National Park Service, considtent with its congressional mandates, tourism is not primarily beneficial for quantifiable economic reasons. The primary gains of tourism to a national park or monument are recreational and educational, not economic. Please refer to response 34, above, which considers the cost-benefit issue in more depth.

48. Response 1 examines the central thrust of this comment. Additional general material may be found in response 34. More specifically, please refer to Chapter III impact discussions of mining and mineral entry, timber, local market economy, transportation, subsistence, and hydropower, as well as parallel sections in the environmental statements of the other Four Systems proposals for the region and, perhaps, those of the entire State.

HEADQUARTERS, ALASKAN COMMAND
APO SEATTLE 98742

18 FEB 1974

Mr. Theodor M. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem,

Reference Department of the Interior letter, serial 2650 (911), dated January 16, 1974.

Comments pertaining to all seven of the Draft Environmental Impact Statements numbered 73-85, 73-88, 73-94, 73-99, 73-107, 73-108, and 73-106 are given below. It is assumed the areas are defined accurately by the maps in Attachments 1 and 2.

a. The yearly resupply of Air Force installations by COOL BARGE (sealift barge) by coastal or inland waterways must continue as scheduled without change of route or docking area, unless such changes are agreed to by the Alaskan Air Command.

b. The regulations establishing the proposed areas should provide authorization to operate military, controlled aircraft below 1,000 feet altitude when required for emergency/rescue operations, and for Federal Aviation Administration approved low level training routes.

c. The establishing regulations should also provide for the removal of all land use restrictions during a national emergency.

49

More detailed comments are presented for Draft Environmental Impact Statements 73-85, Aniakchak Caldera National Monument, 73-94, Alaska Coastal National Wildlife Refuge, and 73-107, Beaver Creek National Wild River, in Attachment 2.

Sincerely,

James W. Bruso

JAMES W. BRUSO
LCDR, USN
Deputy Secretary

2 Atch
1. Maps
2. Impact Summary



13-85

NOATAK RIVER

BAIRD MOUNTAINS

Cutler River

Salmon River

Tutuksuk River

Akiak Creek

Hunt River

Caribou Lake

Akillik River

Jade Mountains

AMBLER

Ambler River

Kallarichuk Hills

Kallarichuk River

KOBUK RIVER

Squirrel River

Kiana Hills

KIANA

KOBUK

Kavet Creek

Niaktuvik Creek

Waring Mountains

Igichuk Hills

TZEBUE

NOORVIK

Fish River

Nuleargowik River

Little Kobuk Sand Dunes

Great Kobuk Sand Dunes

HOTHAM INLET

SELAWIK

Kugarak River

Arctic Circle

SELAWIK LAKE

Inland Lake

N

25 0 25

RESPONSE TO COMMENTS BY
DEPARTMENT OF DEFENSE
ALASKAN COMMAND

49. We see no conflict with the requirements of the Alaskan Command for resupply activities, flight altitudes as stiuplated in the comment, and land use restrictions in times of national emergency; therefore, there appears to be no need for additional legislative stipulations.

This proposal does not affect the areas served by barge supply. The National Park Service recognizes the authority of and cooperates with the Department of Transportation and the Federal Aviation Administration authorities regarding flightpath regulation; we look forward to cooperative, mutually acceptable arrangements concerning flight altitudes.

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314

IN REPLY REFER TO

DAEN-CWP-W

15 February 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

This is in response to your letter of 28 December 1973 to the Executive Director of Civil Works. The Corps of Engineers has reviewed the seven Draft Environmental Statements in regard to the Alaska Native Claims Settlement Act of 1971 for which the review period ends on 20 February 1974. Our review indicates the subject proposals do not adversely affect the water resources development program of the Corps of Engineers.

With regard to the remaining Draft EIS's for which the review period closes on 20 March 1974, we will be furnishing you comments of a substantive nature on one or more of the proposals. The opportunity to provide comments on the Draft Environmental Statements is appreciated.

Sincerely,

for J. W. MORRIS
Major General, USA
Director of Civil Works

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION X
ARCADE PLAZA BUILDING
1321 SECOND AVENUE
SEATTLE, WASHINGTON 98101

July 15, 1974 OFFICE OF THE REGIONAL DIRECTOR

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

This letter is in response to the 28 draft Environmental Impact Statements prepared by the Department of the Interior for the disposition of some 83.5 million acres of public land in Alaska. This land became available to the Federal government under terms of the Alaska Native Claims Settlement Act of 1971, Public Law 92-203.

Several persons within the Regional Office have reviewed various statements. Because the actions are fairly similar, involving the placement of land under the protection of the National Park Service, I find it most appropriate for DHEW to make general comments applicable to the actions in total.

In this vein, I must confess that I found the magnitude of the material submitted almost overwhelming. I am sure that the DoI must have had some master plan guiding the proposed disposition (or designation) for each of the 28 areas. I believe DoI should have provided an overall summary of the total effects of all these actions upon Alaska, especially upon the social, economic, and cultural framework of Alaskan Native life. In this regard, I refer you to Section 1500.6(d) of the Council on Environmental Quality's "Guidelines for the Preparation of Environmental Impact Statements" (Federal Register, Wednesday, August 1, 1973, pp. 20550-20562).

DHEW Region X finds the intention of these actions laudable, recognizing in them the desire to protect and maintain both the wildlife and topography in a natural state. In this respect, the proposals are well conceived.

As mentioned previously, DHEWs concerns center around the impact of these actions upon the Native population. I did not always find it clear what restrictions the various land designations would place upon the Native's subsistence or cultural activities.

I would like to quote comments made by Region Xs Indian Health Services liaison person:

"Review indicates that the subjects of 'subsistence' and 'Native culture' are dealt with in varying degrees, both in the general

text and alternatives of the proposals. While the purpose of the proposals are laudable relative to enhancing the environment of the areas discussed; it must be remembered that the Alaska Native and his culture are important components of the total scene and must be dealt with accordingly. It is my fondest hope that the proposers do not assume that the ANCSA lands distribution will solve all problems of Native cultural retention and subsistence.

"To assure and insure that cultural retention and subsistence activities are guaranteed, this should be spelled out and factored into each alternative so that acceptance of any one alternative will not destroy the Native features of the environment." 51

Another reviewer is concerned that consideration be given to the concept of training and utilizing Alaskan Natives as professional staff for the various new positions created to manage these lands on a protective basis. Page 20 of the EIS for the proposed Arctic National Wildlife Refuge indicates that Native employment will only be in non-professional capacities. 52

Region X DHEW appreciates the opportunity to comment upon these proposals.

Sincerely,

David P. Miller

David P. Miller
Acting Regional Environmental Officer

RESPONSE TO COMMENTS BY
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

50. For a discussion of aggregate impacts, please see Comment No. 1 .

For the Kobuk Valley National Monument, impacts on subsistence and cultural activities may be found in Chapter III, Impacts on Subsistence, which has been revised to clarify the impact of provisions and restrictions regarding subsistence activities on the monument. See also the revised section, Social and Economic Considerations, subsection Subsistence Activities and Harvests. This section has also been revised to reflect this comment by describing the existing subsistence lifestyle, since the Alaska Conservation Act provides that subsistence activities in existence at the time of the passage of ANCSA shall continue, subject to the preservation of primary resource values. See also provisions addressing subsistence and cultural activities throughout Chapter I, which have been clarified.

51. The impacts on the various alternatives on subsistence has been added to Chapter VIII where applicable.

52. The National Park Service hopes that qualified Natives will work on both the professional and non-professional staff; many area residents now have comprehensive knowledge of the resource which the National Park Service would like to tap. Training can be made available, if necessary.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ARCADE PLAZA BUILDING, 1321 SECOND AVENUE
SEATTLE, WASHINGTON 98101

February 12, 1974

REGION X

Office of Community Planning
and Management

IN REPLY REFER TO:

MS 307

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Subject: Draft Environmental Impact Statement, Number 73-83 thru 73-110

We have reviewed the appropriate portions of your draft statements submitted with your December 28, 1973 letter.

The statements include proposals covering 28 different sites in Alaska. Your proposals are to preserve significant archeological sites, preserve and investigate geological and biological features, encourage the preservation of native cultures and in general to develop an administrative and management plan for each site. You also indicate the planning process to include state, local and citizen input. We find nothing in your proposals that would have a significant adverse impact in our areas of concern. Thus, we have no objection to your proposals.

Thanks for letting us comment.

Sincerely,

(for) John R. Merrill
Assistant Regional Administrator
for Community Planning and Management

cc: CEQ (10)
Miller
Moore
Peyton
Riddell

United States Department of the Interior

ALASKA POWER ADMINISTRATION
P O BOX 50
JUNEAU ALASKA 99801

IN REPLY REFER TO:
700

February 14, 1974

AIRMAIL

To: Chairman, Alaska Planning Group
Department of the Interior

Through: Acting Deputy Assistant Secretary -- Energy and Minerals FEB 21 1974

From: Acting Administrator

Subject: Review of draft environmental statement, proposed "Kobuk Valley National Monument"

The subject statement covers one of the Department's proposals under Section 17(d)(2) of the Alaska Native Claims Settlement Act.

We have reviewed the statement from the viewpoint of Alaska Power Administration program areas of water, power, and related resources.

Suggested changes for clarification of the discussion on hydro resources at pages 178-179, and 221-222 are attached. 53

The discussion at page 253 implies that evaluation has been made of environmental impacts of dam and reservoir construction in this region. We think it would be more appropriate to state that these environmental impacts have not been evaluated in sufficient detail to judge their importance. 54

Our other comments are very general and addressed to regional implications of the Kobuk proposal and related proposals for the Gates of the Arctic, the Noatak, Selawik, and Chukchi-Imuruk, and a need to discuss these implications in the environmental statements.

As a group, we believe the proposals would very significantly restrict future development and use of the regional resources of water, power, energy and other minerals, and related transportation systems. Detailed evaluations would probably show that these impacts on social 55

economic, and resources values would be significant, long range, and widespread in terms of regional, state, and national interest. 55

Discussion in the Kobuk and related draft statements give strong implications that significant resource development activity in Northwest Alaska is undesirable. Each of the discussions on impacts of alternate uses of the land and resources seems to be written from this viewpoint.

It appears to us that discussion of these items in the environmental statement should indicate the range of viewpoints, the quality of the data used to judge environmental impacts, and a straightforward assessment of the broader regional implications of the several Northwest conservation system proposals.

We feel the statements should carry a general qualification that the assessments of environmental impact of alternate uses of the resources are largely judgement items in absence of detailed evaluation of potential impacts, and that there is probably a very wide range of viewpoints as to significance. 56

We appreciate the opportunity to comment.

J. V. House.

Enclosures

APA Draft
February 1974

Suggested rewording to replace first three paragraphs under "8. Potential Hydroelectric Sites," at pages 178 and 179:

There have been no detailed investigations of hydroelectric potential of the Kobuk River basin, but inventory studies by the Bureau of Reclamation, Corps of Engineers, and Alaska Power Administration have identified two potential projects.

One of these sites, Lower Gorge, is over 100 miles upstream from the proposal area. It is referenced in a 1957 report of the U. S. Army Corps of Engineers, and a 1952 report by the Bureau of Reclamation. The project is fairly small and would likely not have significant effects on the proposed monument.

The other site, Kobuk Project, is on the Kobuk River at the mouth of the Kavet Creek within the proposed monument. A dam here would create a reservoir which would cover about eight percent of the proposed monument. This project, according to the Alaska Power Administration, is the only identified water potential development in the Kobuk basin meriting continued interest. The project might have regional significance in future power planning for the State.

APA Draft
February 1974

Suggested wording to replace pages 221 and 222
of the draft statement:

L. IMPACT ON HYDROPOWER DEVELOPMENT

The proposed monument would preclude development of the Kobuk Project, and companion proposals for the Noatak basin would preclude hydroelectric development in the Noatak basin. The two basins are considered by the Alaska Power Administration as the most promising hydroelectric potentials of Northwest Alaska. The Land Use Planning Commission recommended against development of these sites.

Energy potential of the Kobuk site is estimated at 525,000,000 kilowatthours annually. Energy potential of the three Noatak sites is estimated at 2,300,000,000 kilowatthours annually. The renewable energy potential foregone is one measure of a potentially significant adverse effect of the proposals on long range regional energy and power supplies, and other multipurpose water development values may be involved.

However, there is no basis for assessing likelihood of development of the hydro projects without the monument and related conservation system proposals. Thus the actual regional impact of the proposals on waterpower and energy may prove to be either relatively minor, or very significant.

RESPONSE TO COMMENTS BY
ALASKA POWER ADMINISTRATION

53. These discussions in Chapter II and Chapter III have been revised. Thank you for the suggested revisions, which were very helpful.

54. The Multiple Use Management section in Chapter VIII has been revised for objectivity, and this comment is now reflected in that statement.

55. For response on aggregate and cumulative impacts, please see response 1. Please see response 42 for a general discussion of minerals and these withdrawals.

56. A number of examples of biased or justificatory language probably did appear in the draft statement. It is also true that judgmental analyses of impacts also appeared. To the extent possible, objectivity and clarity has been improved throughout the environmental statement.

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
WASHINGTON, D.C. 20242

IN REPLY REFER TO:
Trust Facilitation
Environmental Quality

OCT 3 1974

Memorandum

To: Acting Theodor R. Swem, Chairman, Alaska Planning Group

From: Deputy Director, Office of Trust Responsibilities

Subject: Review of Draft Environmental Statement for Proposed Kobuk Valley National Monument, Alaska (DES 73/88)

In response to memorandum dated December 28, 1973, this Bureau has reviewed the proposed ANCSA D-2 withdrawal environmental statement identified above with respect to its effects upon the Native Alaskans and the trust responsibilities of the Department. The following comments are provided for your consideration:

General Comments:

The Native Alaskan, by necessity, survives in a subsistence economy provided by the renewable resources available to him from the land on which he lives. Restricting the land base available to him can adversely affect not only his survival but the future of his community. Loss of land base can also prevent the Native Alaskan from progressing beyond today's survival economy. These social and economic impacts should be comprehensively discussed as they relate to the management or restrictions placed on the land which will be lost to the Alaskan Native by the proposed withdrawal. 57

Specific Comments:

Page 2. ". . .it is demonstrated that these uses are no longer necessary for human survival." This statement seems to be overly restrictive and seems to be in contrast to the rest of the statement where subsistence uses are discussed; i.e., pp 134, 144, 202, 205, 315, etc. Page 200 states "Subsistence users are crucial to the survival . . . 58

The development of the mineral resources in the valley has declined in recent years; however, a complete withdrawal could have a severe impact on the area in addition to restricting the availability of future mineral and energy resources of the Nation. 59

Page 215 indicates that area has a "high mineral potential" and forecasts "a substantial impact on the future potential for economic development" based upon land withdrawal discussed on page 2.

The Kobuk Valley does not have a wide diversity of economically attractive resources and removing any resource can only increase the resident's dependence on welfare and other types of assistance. To improve upon the marginal existence of the people in this area, multiple use and controlled development should be fully considered and presented in the statement.

Reviewed as a separate withdrawal, the Kobuk proposal would not appear to have a significant impact; however, the Noatak and Selawik proposals combined with the Kobuk would encompass almost all of the land in the region of the Northwest Alaska Native Association, and would have severe impact on any future economic development.

59

RESPONSE TO COMMENTS BY
BUREAU OF INDIAN AFFAIRS

57. Subsistence uses of the proposed monument will not be lost to those pursuing this lifestyle. On the contrary, one of the five purposes of the proposal is the perpetuation of the Alaskan Eskimo Culture by the continuation of traditional resource uses. In this attempt to support the intent of ANCSA the congressional conference committee, the Secretary of the Interior has proposed that traditional subsistence harvests shall continue on the lands selected for "Four Systems" proposals. This is in addition to the 40 million acres made available under ANCSA to Native Corporations. Restrictions which may be placed upon subsistence activities are based on the need for long-term perpetuation of the area's resources -- without these resources there can be no subsistence harvests anyway. The determination of just what are traditional subsistence uses and, therefore, the determination of policy toward and restrictions of subsistence will be made in consultation with all affected individuals, communities, organizations, and the ADF&G. There will be no racial distinctions as a basis for subsistence use. For additional discussion, please refer to the various policy statements in Chapter I, the section Subsistence Activities and Harvests in Chapter II, and Impact on Subsistence in Chapter III.

58. The "human survival" language was a poorly stated explanation of the policy toward subsistence. The policy has been re-stated as follows:

--Except as may be otherwise prohibited by Federal or State law, existing traditional subsistence uses of renewable resources will be permitted until it is determined by the Secretary that utilization of these resources is neither economically or physically necessary to maintain human life nor necessary to provide opportunities for the survival of Alaskan cultures centering on subsistence as a way of life.

--If it is demonstrated 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 the Alaska Department of Fish and Game, communties and affected individuals, shall have the authority to restrict subsistence activities in part or all of the monument.

The attempt here is to provide a continuing resource base for those engaged in true subsistence activities.

59. Please refer to Impact on Mining and Mineral Entry, for impacts on minerals in the area. Mineral deposits -- possibly copper -- of national significance may possibly exist within the proposal area; this is undetermined. Energy resources of national significance appear to be less likely. See Minerals, Chapter II, and response 42.

A general discussion of aggregate impacts may be found in response 1. Regional impacts on minerals is discussed in Chapter III, Impact on Mining and Mineral Entry, and Impact on Transportation. Of course, the policy toward mining and transportation is not identical in each of these areas. Mineral leasing, for example, may be permitted in the Selawik NWR but not in Kobuk; Noatak NAR, on the other hand, will observe a 20-year moratorium on development. Also, it would appear that road building would be particularly incompatible with the Kobuk Valley NM objectives.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

1792(220)

JUL 22 1974

DES-73/88

Memorandum

To: Chairman, Alaska Planning Group

From: Director, Bureau of Land Management

Subject: Kobuk Valley National Monument

We have reviewed the draft environmental statement and offer the following comments:

Maps

No coordinates makes the maps difficult if not impossible to use with other information. All geographic locations mentioned in the text should show on at least one map, e.g., Onion Portage. 60

Description of the Proposal

The EIS states that a proposed legislative provision is that the park be closed to sport hunting. Since the Arctic Caribou herd (242,000 individuals) utilizes the area, the EIS should state how the NPS proposes to keep the herd in balance with its food supply. We assume that the Park Service is counting on the ecosystem functioning in a complete manner; however, the proposal does not include the entire ecosystem of the Arctic Caribou herd. 61

P. 23. ANCSA is Public Law 92-203, not 92-302, as written. 62

P. 27, top of page. Should read: ANCSA directed the withdrawal of the townships which are contiguous to or corner upon the township in which the village is located. It also withdrew another tier of townships which are contiguous to or corner upon the first tier of townships. In general ...." 63

Description of the Environment

P. 85, Prehistory and History. This section is too long and too detailed, and makes for an unbalanced text.

P. 98, Cultural Resources, etc. This section is too long and detailed. It repeats a great deal of information contained in Prehistory and History.

P. 121, General Social Considerations. This section is too long and detailed, and makes for an unbalanced text.

P. 171, Transportation, etc. A summer road between Kobuk and Bornite, about 20 miles long, is omitted. This is a good road, drivable by passenger car. It is to the east of the proposal.

P. 176, first paragraph. What is meant by "squatter cabin"? If this isn't legal settlement it is a trespass. 64

P. 183, Probable Future Environment Without This Proposal

The analysis of what is likely to happen without a commitment to preservation, appears to be generally correct. There is a need, however, to state such specifics as (1) the area will revert from D-2 to D-1 and in so doing the land use restriction of D-2 will be retained; (2) the land use policies that are formulated and put in practice for the area could include preservation aspects. In any case, management would be guided by state and Federal law, multiple use land planning with public participation, and NEPA. 65

The Environmental Impacts of the Proposed Action

P. 203, G. Impact on Subsistence, last paragraph

This statement is made as if the conversion of the native life from a subsistence life to a wage economy is a good thing. However, this statement is open to many arguments. 66

P. 209. The EIS states that "... trapping for sale of furs or recreational purposes would not be allowed." Since furbearer populations would be dependent on the type and amount of food and cover present, managed trapping would not, in general, affect population numbers of furbearers and predators. It is a proven fact that wildlife, including furbearers, 67

cannot be stockpiled. If wildlife populations are not reasonably controlled by hunting and trapping, nature will utilize its own methods of control, notably disease (rabies) and starvation. Value of furs has greatly increased lately, and can assist the income of Alaskans. Prices on some Alaskan furs are : Otter, $65; lynx, $175; timber wolf, $175; cross fox, $85; mink, $55. 67

P. 214, first paragraph. Less than 1 percent copper ore may be low grade, but not very low grade. The portion of the Baird Mountains within the proposal area is highly mineralized, with known deposits of low grade copper occurring in large belts. Monument designation would prevent extraction and/or further exploration. 68 69

Pp. 216-220, Impact on Transportation. There is no discussion here pertaining to the existing winter trails and what the impacts will be if this access is shut off. 70

The Relationship Between Local Short-Term Uses and Long-Term Productivity of the Area

P. 240, second paragraph. Mining is not necessarily a short-term activity. Many mines run for several generations.

P. 251, Multiple Use Management. The discussion of multiple use management centers on the impacts that could happen. It does not recognize the major mitigating measures that would be incorporated starting with management objectives and concluding with technical mitigation. None of these multiple uses would be allowed without an environmental analysis and a decision made based on environmental costs, as well as other costs and needs. 71

James W. Monrae

Assistant Director

RESPONSE TO COMMENTS BY
BUREAU OF LAND MANAGEMENT

60. Map coordinates are added to the Proposal Boundaries map; Onion Portage now appears on Proposal Boundaries map.

61. Whenever possible, the Secretary of the Interior attempted to withdraw ecosystems for the Four Systems proposals. Ecosystems, of course, are not discrete, closed entities, and the Arctic caribou herd is an example of interdependence in northwest Alaska. The Caribou Range map in Chapter II illustrates this. Please note, in Impacts on Wildlife in Chapter III and in the listing of proposals in Chapter I (revised), the intent to establish cooperating agreements with appropriate State and Federal management agencies and private landowners to develop an overall management and land use strategy to maintain the population and integrity of the Arctic caribou herd, within natural population fluctuation. Note, too, that of the caribou which use the proposed monument area, the great majority migrate entirely through Federal land--all of it proposed for Four Systems management with the exception of Naval Petroleum Reserve Number 4. In addition, it should be remembered that relatively little caribou sport hunting currently takes place within the proposed monument, and yet the herd seems to be in balance with its food supply (see Impact on Wildlife, Chapter III). For additional information, please refer to Fish and Wildlife Management Policy in Appendix J.

62. The correction has been made in the citation.

63. The clarification has been made to reflect this comment regarding township withdrawals.

64. It develops, after all, that the cabin is a Native allotment, with swimming pool. The text has been changed to clarify this.

65. The technical point (#1) on land status is recognized and included in the Probable Future and in the No Action sections of this document. However, it is our assumption that no action on the proposal is most likely to result ultimately in some type of public multiple use management for these lands. Regarding point #2, preservation aspects could be included in land policy for this area if no monument is created; this is emphasized in Multiple Use Management in Chapter VIII. The point is not made strongly in Probable Future, however, since we do not believe that preservation is probable without this proposal.

66. The statement is open to many valid arguments; the possible misconception is in error, and so the statement has been clarified.

67. The recent increase in fur prices is noted in Chapter II, Subsistence Activities and Harvests.

68. The ore is low grade, not very low grade. The statement has been corrected.

69. Copper belts are suggested by copper occurrences in the Baird Mountains; it is not known, however, that large copper belts exist there. Monument designation would limit, not prevent, geological exploration; designation also would not necessarily prevent all extraction since three legally located and maintained claims with valid and existing rights exist within the area. The Impact on Mining and Mineral Entry section in Chapter III has been revised to clarify this point.

70. A discussion of existing transportation has been added to Impacts on Transportation, Chapter III. Traditional access to winter trails will not be affected, and snowmachines and other uses determined to be compatible with monument purposes will continue.

71. Both in terms of the human and the geologic history of the area, "several generations" of use of these nonrenewable resources is considered here to be short-term. See also response 10.

In each case in the Multiple Use section, the specific hypothetical use mentioned is only a possibility. Given that particular use is put into effect, certain impacts may result. The decision-making process, then, is beside the point.

The possibility that mitigating measures may be utilized is true; it is not necessarily true, however, that real mitigating measures would be utilized. Certainly, unless restrained by law, future private landowners would probably use fewer measures than the BLM. In addition, of course, the environmental analysis requirement does not mean that the multiple uses would not occur, nor that mitigating measures would be applied, nor that the impacts of possible multiple uses would not be as described in this section.

OFFICE OF THE DIRECTOR

United States Department of the Interior

BUREAU OF MINES
WASHINGTON, D.C. 20240

February 22, 1974

DES 73-88

Memorandum

To: Chairman, Alaska Planning Group, Office of the Secretary

Through: Acting Deputy Assistant Secretary--Energy and Minerals Wells MAR 1 - 1974

From: Director, Bureau of Mines

Subject: Draft environmental statement, proposed Kobuk Valley National Monument, National Park Service, Alaska

The Minerals sections in both the Description of the Environment and the Environmental Impact of the Proposed Action are generally good. However, a few corrections should be made. Specific comments and suggestions follow:

Page 3, Proposed Boundaries Map. To give the reader a perspective of the present proposal with respect to other nearby withdrawals, we suggest that this map show the outlines of other ANCSA proposals in the area. 72

Page 52, Minerals, 1st paragraph, 2d sentence. To avoid confusion, it is suggested that this sentence be revised as follows: "The area has a low to moderate petroleum potential in the Mesozoic Kobuk-Selawik sedimentary basin." 73

Page 55, Minerals II Map. Quaternary deposits shown on geologic maps are surficial deposits that mask the underlying bedrock. Quaternary deposits do not have petroleum potential. The zone showing petroleum potential should extend into the southern part of the proposed monument and include the Kobuk River Valley. It should be labeled "Kobuk-Selawik sedimentary basin having a potential for petroleum." 74

Page 57, 3rd paragraph, 1st sentence. "At the present, fluorite . . ." should be "asbestos" instead of "fluorite." 75

Page 57, last paragraph, 1st sentence. Only coal float would be found "in association with Quaternary deposits." The coal itself is probably Late Cretaceous in age. Either the part of the sentence after "region" should be eliminated, or the sentence should be changed to read about as follows: "Coal, probably Late Cretaceous in age, is found at a few scattered localities within the region." 76

Memo. to Chairman, Alaska Planning Group, Office of the Secretary, Subj: Draft environmental statement, proposed Kobuk Valley National Monument, National Park Service, Alaska

Page 57, last paragraph, 2d sentence. Each outcropping represents a coal-bed. Therefore, the term "and beds" is redundant and should be eliminated. 77

Page 214, line 11. How is it known that the copper deposits at Bornite are "larger" than those within the proposed monument? This sentence would better read, "There are large deposits . . . ." 78

Page 214, 2nd paragraph, 1st sentence. This sentence contradicts the writeup of coal on page 58 where "several thin coalbeds . . ." are reported. Also, a check of the analysis given by Barnes, 1967, shows that the coal is not "of low quality." This sentence would better read: "Coal of unknown potential has been reported at two localities within the proposed monument." 79

Page 214, 2d paragraph, 2d sentence. This sentence should be reworded somewhat as follows: "There is a sedimentary basin having low to moderate petroleum potential extending from southwest of the monument into the Kobuk River Valley." 80

Page 214, last sentence. The area(s) covered by the oil and gas leases and applications should be shown on Minerals II map (p. 55). This would give an excellent indication of petroleum potential. 81

Page 215, lines 6-9. We believe these sentences accurately describe the impact of the proposal on mineral resources. We are pleased to see their inclusion. We think they could well be incorporated in the section on Irreversible and Irretrievable Commitments of Resources, page 243. 82

Page 236, line 10. We believe the word "limited" should be replaced by "prohibited." 83

Pages 284-285. For the sake of objectivity, mineral-oriented organizations also should be asked to review and comment. We attach a list of minerals-oriented groups that we believe could assist in appraising the D-2 withdrawals.

Assistant Director

RESPONSE TO COMMENTS BY
BUREAU OF MINES

72. A statewide map showing the boundaries of all the D-2 proposals is included with this document.

73. The revision has been made to clarify petroleum potentials in the sedimentary basin.

74. The suggested map change has been made.

75. This paragraph is deleted, since we are unable to trace the reference.

76. The suggested change has been made to reflect the disposition of coal.

77&78. The suggested wording changes have been made in the text.

79. This section has been revised to reflect this comment and information derived from Barnes, 1967. Also, the additional coalbed has been added to the Minerals II map. The coalbeds referred to in Chapter II, however, are outside the proposed monument.

80. The section has been revised to reflect this suggested wording.

81. A recent search of oil and gas leases and applications indicates that no leases or applications are current.

82. The fact that all mineral exploration which may damage or alter the resource is prohibited under this proposal does not mean that anything irreversible and irretrievable other than those effects already mentioned has occurred. Quite the contrary. Congress may again open the area to such exploration in the future. Although there are no irretrievable impacts on the resource, opportunities would be irretrievably lost by those individuals who would otherwise exploit those resources for livelihood during their lifetimes.

83. With the exception of valid existing claims, all commercial exploration and development would be prohibited. The section has been clarified.

United States Department of the Interior

BUREAU OF RECLAMATION
WASHINGTON, D.C. 20240

IN REPLY
REFER TO: 150
120.1

JAN 24 1974

Mr. Theodor R. Swem
Chairman
Alaska Planning Group
Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

This is in reference to your December 28, 1973, transmittal of the 28 draft environmental statements in regard to the Alaska Native Claims Settlement Act of 1971.

Since we have only peripheral experience in the subject matter covered by these statements and considering the fact that we have no jurisdiction in Alaska, we do not plan to review and comment on these statements.

Sincerely yours,

G. G. Stamm

Commissioner

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

OFFICE OF THE DIRECTOR

DES 73-88

JUL 22 1974

Memorandum

To: Chairman, Alaska Planning Group

Through: Deputy Assistant Secretary--Energy and Minerals J. Udall JUL 23 1974

From: Director, Geological Survey

Subject: Review of draft environmental statement on proposed Kobuk Valley National Monument

We have reviewed the subject draft environmental statement as you requested in a memorandum of December 28.

Except for recognizing (p. 215) that "there may never be a complete inventory and analysis of these resources," the treatment of mineral resources is inconsistent with other resources, is incomplete, and is erroneous in part. For consistency on resources of this poorly known region, we suggest that a check list of mineral resources known to occur under similar geologic conditions be included along with those of fauna and flora expected to be present from analogy (Appendices A-D). 84

Attachments 1 and 2 to this memorandum indicate considerable evidence of mineralization, rather than only the "one known copper occurrence" (p. 214). The Salmon River is one of the few in the Baird Mountains that has been prospected geologically. Anderson (1944) found a relatively large number of mineral shows. Brosge and others (1967) report a high incidence of anomalies from reconnaissance geochemical sampling and mapping. The stream valley was prospected, partly by drill, before Anderson's visit. Values were promising but the river and alluvial fill were considered too shallow for the time. Remains of the old camp set up to prospect for copper still may be seen on the headwater branch. 85

Experience has shown that indications of minerals in the Baird Mountains are indeed misleading (p. 52). In the case of bornite, surface

indications gave little hint of the large copper deposit since discovered. The $2 billion deposit at Arctic camp and the five or six other prospects being drilled along the belt near the south edge of the mountains show no mineralization at the surface and escaped notice on several foot traverses across the zone. Their presence was discovered by intensive geochemical prospecting and their magnitude was outlined by intensive drilling. More detailed geologic investigation is outlining the host rocks and conditions for these deposits; this habitat was traced westward to near the proposed boundary in 1973 (Alaska Geology and Geophysical Division and U. S. Geological Survey).

Privately discovered barite deposits west of the boundary received attention in 1973. 86

The fluorite (p. 57) and asbestos (p. 53) potentials are unknown to us. 87

Coal outcrops are in Tertiary rocks which locally underlie the southern part of the withdrawal. The petroleum potential in the Cenozoic basins is moderate within the withdrawal, but is better westward where Tertiary sediments thicken under Kotzebue Sound. Some geothermal potential is present in the Shungnak area near the contact of intrusive and Paleozoic sedimentary rocks. A similar geologic terrane exists within the withdrawal. In addition, a metallogenic province favorable for gold, lead, silver, and uranium occurs along the southern part of the withdrawal. 88

The proposal would handicap, if not preclude, land transport along a natural corridor. Energy stores on the North Slope and potential mineral supplies in the Baird Mountains may require these land routes. 89

In conclusion, we believe the volume fails to present a balanced view of the resource potentials that must be weighed against one another. It clearly advocates a monument. In view of the energy shortage and impending mineral shortages, the public interest with respect to mineral resources and their transport is given too little weight. It would appear that the ideal set forth could be achieved by less restrictive land-management for most of the region.

The discussion of the impact of the proposed national monument on the water resources and related aspects of the environment is generally adequate and accurate. The area at present is undeveloped. Designation as a national monument would preserve the water quality except for some minor adverse impact incidental to the proposed minimal development within the monument.

We offer the following comments about the material presented on page 193. The average annual flow of the Kobuk River is 8,000 to 12,000 cfs. However, the average flow during the summer is about 18,000 cfs. Also, the concentrations of summer suspended sediments on the Kobuk River range up to 200 mg/1. The dissolved solids concentration on Kobuk River at Ambler was 100-130 mg/1 during the summer of 1970. Measurements of suspended-sediment and dissolved-solids concentrations have not been made on the tributary streams.

The desirability of baseline research to determine existing conditions and conditions after implementation of the national monument has been mentioned in the proposal. We suggest that some water-quality data be obtained, particularly on the proposed wild river, Salmon River, and at sites that will have the largest number of visitors.

Henry W. Coulter

Acting Director

RESPONSE TO COMMENTS BY
U.S. GEOLOGICAL SURVEY

84. Considerably less is known of the mineral resources of the proposed monument than of the flora and fauna; the checklist would be in no way comparable to the appendices mentioned; citations may be found with each appendix. The suggestion that the flora and fauna appendices were derived by analogy is wrong. The NPS will study and permit qualified study of the geology of the monument. (See also Basic Studies Necessary, Chapter IV.)

85. This statement is revised to reflect this information on mineralization.

86. This statement is added to the Minerals section.

87. This information has been deleted from the document.

88. This information has been included in the Minerals section, except for the comment on geothermal potential for which no information on location or significance within the proposed monument was available to us.

89. Information on transportation systems as they relate to the mining potential has been added to Impacts on Mining and Mineral Entry in Chapter III.

Land transport access would not be handicapped by the proposal; however, roads would either be precluded or permitted subject to a determination by the Secretary of Transportation based on demonstration of bona fide need and no reasonable or prudent alternatives (49 U.S.C. 1653(f)). All holders of patents within the area have right of access, of course.

U.S. ENVIRONMENTAL PROTECTION AGENCY

ALASKA OPERATIONS OFFICE
Room G66, Federal Building
605 West Fourth Avenue
Anchorage, Alaska 99501

June 20, 1974

REPLY TO
ATTN OF:

Mr. Theodore R. Swem
Chairman, Alaska Planning Group
U. S. Department of the Interior
Washington, D. C. 20240

Subject: Draft Environmental Impact Statements for:

Kobuk Valley National Monument
Alaska Coastal National Wildlife Refuge
Selawik National Wildlife Refuge
Beaver Creek National Wild River
Birch Creek National Wild River
Additions to the Chugach National Forest
Aniakchak Caldera National Monument

Dear Mr. Swem:

The Environmental Protection Agency has reviewed the subject draft environmental impact statements and does not anticipate any significant environmental impacts as a result of these proposed actions as related to EPA's areas of expertise. The major impacts will be primarily economic due to the limited use these lands will be subjected to. We assume that if these lands are reclassified or if specific developments are authorized on these lands at some future time, an environmental impact statement will be written which considers the environmental effects of the new proposed land uses.

The additions of new lands to the National Forest system will result in multiple use of some of these lands. The resulting activities could have significant environmental impacts. In the case of the Chugach National Forest the proposed additions would become included in the management plans being developed for the forest lands. This plan does not identify impacts resulting from specific developments that will be allowed to take place.

We would anticipate these impacts would fall within EPA's areas of expertise. Prior to the development of these lands we would expect the Forest Service to make an environmental assessment to determine the necessity of an environmental impact statement. We would then review those projects for which an EIS is prepared.

These draft impact statements have been classified as Category LO-1. The classification and the date of EPA's comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act.

Definitions of the categories are provided on the attachment. Our procedure is to categorize our comments on both the environmental consequences of the proposed action and the adequacy of the impact statement at the draft stage.

If you have any questions concerning our categorization procedures, please let us know.

Sincerely yours,

Oscar E. Dickason

Oscar E. Dickason
Director
Alaska Operations Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

22 AUG 1974

OFFICE OF THE
ADMINISTRATOR.

Mr. Theodore R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

This is intended as an addendum to EPA's comments of July 18, 1974, on the draft environmental impact statements (EIS's) on the "Alaska Native Claims Withdrawal Proposals." We are enclosing several additional comments on the individual EIS's, however, you should be aware that these additional comments do not change the earlier rating as expressed in the July 18, 1974, comment letter.

We do not feel that the cumulative impact of the withdrawals upon the Alaskan environment has been addressed by these separate statements. Accordingly, we believe that it would be appropriate for DOI to prepare an overview or summary EIS to accompany the individual final EIS's which would address these cumulative impacts. The overview statement might include a map displaying the scheme of the area withdrawals in relation to areas of prime ecological concern and to the existing National Parks and Forests in Alaska. A view such as this would facilitate the reviewers' understanding of the total area involved. It would also be useful to differentiate between the management practices and authorities at National Parks, Forests, and Refuges within the overview statement. The EIS's relating to National Forest proposals, for example, included a useful chart summarizing the current management practices under National Forest and Wildlife Refuge administration. This chart might be expanded to include National Park and Wilderness Area administration.

90

We appreciated the opportunity to review and comment on these proposals, and ask that this letter and attachment.be considered part of EPA's official comments on the subject impact statements.

Sincerely yours,

S Reldon Meyers

Sheldon Meyers
Director
Office of Federal Activities

Attachment

RESPONSE TO COMMENTS BY
ENVIRONMENTAL PROTECTION AGENCY

90. For a discussion of cumulative impacts, please refer to response 1. In addition, to assist in the understanding of the total area involved in these withdrawal proposals, a map is included with this Final Environmental Statement which plots the boundaries of all the proposals on the State of Alaska.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ALASKAN REGION
632 SIXTH AVENUE
ANCHORAGE, ALASKA 99501

TELEPHONE 272-5561

JUN 21 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U. S. Department of Interior
Washington, D.C. 20240

Dear Sir:

This letter is in response to the request that we review the Draft Environmental Statement pertaining to the proposed Kobuk Valley National Monument.

We wish to bring to the Planning Group's attention that in any consideration of the airspace above the public lands in question there exists a public right of transit through navigable airspace and that the authority to control the use of navigable airspace and to regulate both civil and military operations therein lie solely with the Secretary of Transportation. This exclusive responsibility and authority is statutory (49 U.S.C. 1303, 1347, and 1348). 91

While each land withdrawal for specific public purposes has its own individual characteristics, each should be viewed in relation to the composite effect of restricting the use of land in exceptionally large tracts or restricted uses that abut upon each other. In addition, there are site location circumstances that occur from time to time which require that electronic aids to air navigation be located in areas for which there is not always an acceptable alternate location. In such circumstances, we would request that every effort be made by federal agencies responsible for land management to cooperate in the public interest in the safety of airways, just as agencies are asked to cooperate with federal objectives in land management. 92

We appreciate the enormity of the task that faces your group. We also appreciate the opportunity afforded us to comment upon the proposal.

Sincerely,

LYLE K. BROWN
Director

RESPONSE TO COMMENTS BY FEDERAL AVIATION ADMINISTRATION

91. The Secretary of the Interior recognizes the statutory authority of the Secretary of Transportation.

92. Needed air navigation aids would be planned in collaboration with the Federal Aviation Administration and should be installed and used in conformity with the standards established by that agency. DOI hopes that cooperative agreements can be established with the FAA whenever mutually beneficial.

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
412 Mohawk Building
222 S. W. Morrison Street
Portland, Oregon 97204

March 18, 1974

IN REPLY REFER TO
10-00.33

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
U. S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem:

Your letter of December 28, 1973 provided FHWA with copies of draft EIS #73-88 for the National Park Service proposal to establish Kobuk Valley National Monument and Salmon Wild River near Kotzebue, Alaska. We appreciate the 120 day extension for review on this and other draft environmental impact statements as noted in Secretary Morton's February 20, 1974 news release.

Following are comments for your consideration in preparing the final EIS:

1. The Joint Federal-State Land Use Planning Commission is developing Statewide Transportation System proposals and has received from the Alaska Department of Highways and the Alaska Railroad a proposal on surface transportation and utilities corridors. Public Hearings to present the proposals and obtain input on Native concerns regarding transportation have been scheduled by the Commission at various locations throughout the State in April 1974. We feel the National Park Service should review these transportation system proposals, the public hearing testimony resulting therefrom, and provide further discussion in the final EIS regarding national monument-wild river impacts on surface transportation corridors being planned to serve the Kobuk Valley area. 93

2. In the proposed monument vicinity, the National Park Service has indicated two Areas of Ecological Concern; one on the east of the Proposal Boundaries near Ambler and one on the west near Kiana (see map on page 3). We are concerned by what appears to be an effort by the Department of the Interior to expand the land area under control of the National Park Service (and subject to NPS land use restrictions on utilization) even though the land may not be formally designated as part of the Kobuk National Monument. This proposal could significantly affect transportation planning in the Kobuk Valley area. The affect 94

of such proposals on the planning and implementation of transportation facilities within the boundaries of these Areas of Ecological Concern should be thoroughly addressed in the final EIS, including the Department of Interior's position regarding applicability of Section 1653(f) of the DOT Act of 1966 to such Areas. 94

3. We are in general agreement with the National Park Service's management objective #15 on page 10 of this draft EIS which recognizes the importance of transportation and land use planning being cooperatively developed to serve the national monument-wild river proposal and this region of northwest Alaska.

4. On page 21, it is noted the proposed monument abuts the Bureau of Sports Fisheries and Wildlife proposal for the Selawik National Wildlife Refuge and that there is an interrelationship of the monument with other National Park Service proposals in this northwest region of Alaska. It would be helpful to reviewers of the final EIS if these BSF&W and NPS proposals could be labeled on the Land Status Map on page 23. Also, it is noted there is no legend shown on this Land Status Map for the Village Deficiency Area. We presume it is those areas along Noatak River, Hotham Inlet and Selawik Lake. We suggest this be clarified in the final EIS. 95 96

5. Regarding IMPACTS ON TRANSPORTATION on pages 216-220, the draft EIS incorrectly indicates the State of Alaska proposal for a 20 year highway plan. This plan, as shown on page 217, represents proposed railroad and highway corridors that were jointly planned by the Alaska Railroad and the Alaska Department of Highways. We request this map be modified to correctly indicate which routes are planned as highways, railroad, or dual highway-railroad corridors. 97

For your information, the FHWA has approved for placement on the Federal-Aid Secondary Highway System the Bettles-Kobuk and Kobuk-Nome highway corridors. Currently, the Alaska Department of Highways is conducting preliminary engineering and environmental studies on these route segments. To date, no request for Federal-Aid Highways systems approval of the Kobuk-Ambler-Kiana segments has been submitted to the FHWA. Extensive consideration is being given in these studies to the DOT study of transportation corridors between Bettles and Kobuk conducted as a part of its North Slope transportation study. 98

As noted by the National Park Service on pages 216 and 219 of the draft EIS, the requirements of the National Environmental Policy Act of 1969 and other Federal legislation pertaining to highway construction must be considered in FHWA and Alaska Department of

Highways planning. We do believe, however, that any attempt by the National Park Service to predict at this time that any studies conducted by the Alaska Department of Highways and FHWA would preclude road construction altogether in the Kobuk Valley area is premature. We would expect to work cooperatively with all Interior and other Federal-State agencies in planning surface transportation corridors to serve all foreseeable land use needs in this remote region of Alaska.

6. We have examined Chapter VIII ALTERNATIVES TO THE PROPOSED ACTION rather closely. It is felt Alternative B-4 Multiple Use Management would be much less restrictive than the National Park Service's proposal on page 3 regarding planned State surface transportation corridors by the Alaska Railroad and the Alaska State Department of Highways. Likewise, Alternative Boundaries concepts C-3 Delete the Salmon River Watershed from the Proposed Monument (page 258) and C-5 Exclude all Lands North of the Kobuk River (page 264) would also be less restrictive on planned surface transportation corridors than the National Park Service Proposal as shown on page 3.

   Also, D-1 LAND CLASSIFICATION (pages 270-274), D-2 More Intensive Development (pages 274-276) and D-4 PROPOSED TRANSPORTATION SYSTEM (pages 277-279) provide more latitude for the National Park Service to give additional consideration to planned State surface transportation corridors. We trust the final EIS will reflect additional NPS consideration of alternative master plan concepts to allow for other modes of transportation besides aircraft and boats.

We appreciate the opportunity to participate in this review. Please advise if the FHWA can be of further assistance to the Department of the Interior and NPS regarding this proposal.

Very truly yours,

Hugh B. Henry

Hugh B. Henry, Director
Office of Environment and Design

93. The National Park Service has followed these transportation system proposals with interest; the NPS State Director in Alaska commented at length on the draft EIS for the Western Access Road being studied for northwest Alaska. Review is currently underway in the Department of the Interior. Further discussion of the impacts on transportation and utility corridors, resulting partially from review of various transportation proposals, is included in the Impacts on Transportation in Chapter III. We are aware of six public hearings for Natives in April 1974, which addressed Native easements.

94. We assume the intended reference was to section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 1653(f)). Specific determination of the applicability of section 4(f) of the Department of Transportation Act of 1966, as amended, (49 U.S.C. 1653(f)) to AEC's is within the authority of the Secretary of Transportation, and would be based upon the facts of record at that time, i.e., land ownership and land use. For additional information on AEC's, please see response 40.

95. A map of Alaska, with all Four Systems proposal boundaries, is included with this final environmental statement.

96. Your presumption is correct. The printing error in the legend is rectified.

97. The "highway plan" language has been deleted from the Proposed State Surface Transportation and Utility Corridors map. We understand that modal decisions have not been made; designation of route uses would be premature.

98. This information has been added to Chapter II, Transportation and Communication, and Chapter III, Impact on Transportation.

99. We do agree that such studies and analyses are the responsibility of the Federal Highway Administration and the Alaska Department of Highways. The Department of the Interior, as well, expects to work closely with the FHWA and ADH in planning surface transportation corridors. In that regard, we would like to

point out that the State of Alaska and this Department reached general agreement on the d-2 withdrawal areas nearly a year prior to public release of the ADH's "potential" transportation plan of July 1973. Nevertheless, DOI has not had the opportunity to review the entire systemic plan since no environmental impact statement on the whole system has ever been prepared and circulated by the FHWA. The draft environmental statement for the Western Access Road deals only with a segment of the system, does not analyze the entire system, but instead addresses a considerably later stage of development -- construction of a road.

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
WASHINGTON, DC 20405

FEB 13 1974

Mr. Theodor R. Swem
Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20405

Dear Mr. Swem:

As requested in your December 28 letter, the General Services Administration has reviewed the draft environmental impact statements in regard to the Alaska Native Claims Settlement Act of 1971.

Our review of these draft environmental impact statements discloses no problems of concern to this agency.

Sincerely,

LARRY F. ROUSH
Deputy Administrator for
Special Projects

STATE OF ALASKA

OFFICE OF THE GOVERNOR

STATE PLANNING AND RESEARCH

WILLIAM A. EGAN, GOVERNOR

Phone 465-3512

POUCH AD—JUNEAU 99801

July 22, 1974

Mr. Theodor Swem, Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Attached hereto is the response of the State of Alaska to the 28 draft Environmental Impact Statements submitted by your office for review on January 3, 1974.

We appreciate this opportunity to comment on the draft statements, and hope that our review will be helpful to the Department of the Interior in the preparation of a comprehensive final Environmental Impact Statement relative to the proposed legislation known as The Alaska Conservation Act (S.2917), prepared and submitted by Secretary Morton.

Yours truly,

R. W. Pavitt, AIP
Director

STATE OF ALASKA

Response to the Draft Environmental Impact Statements for lands withdrawn under Section 17(d)(2) of the Alaska Native Claims Settlement Act, and proposed by the Department of the Interior for inclusion in the National Parks, Forests, Wildlife Refuge and Wild and Scenic Rivers Systems.

Juneau, Alaska
July 22, 1974

I. OVERVIEW

The comments contained in this report and the attachments thereto should be considered as the State's formal response to the Department of Interior's recommendations regarding land withdrawn pursuant to Section 17 (d) (2) of the Alaska Native Claims Settlement Act (Public Law 92-203). The comments apply to all 28 of the Draft Environmental Impact Statements and include the State's comments on seven of the proposals which were submitted on June 22, 1974.

The one overriding area of concern relating to all of the proposals is that each individual statement deals with a small area of Alaska and does not look at the impact on the State as a whole, nor even on a major region. The "major federal action" involved in the proposed implementation of Section 17 (d) (2) is the addition of over 83 million acres (130,000 square miles) of land in Alaska to the over 47 million acres already included in the National Wildlife Refuge, National Park, National Forest and Wild and Scenic River Management Systems. Although individual environmental impact statements can and should be required for individual federal actions, it is obvious that in this instance a single comprehensive environmental impact statement relating to the social, economic, physical and environmental consequences of the proposed federal action concerning 83 million acres is needed to comply with the provisions and intent of the National Environmental Policy Act. The State will demand and require that such an impact statement be prepared, as the examination of individual parts of the overall proposed action do not give a fair and accurate evaluation of the impact upon the State as a whole, and upon the nation as well.

100

The ultimate effect of the approval of the proposed actions would be to divide the State into a number of isolated enclaves having little or no relationship with each other. Such fractionalization can and will lead to serious administrative problems at federal, state and local levels, tend to break down the prevailing cooperative spirit for the solving of problems, and can only lead to serious adverse social, economic, and environmental consequences for Alaska.

101

Recognizing the imminent shortage of metals and minerals, Congress enacted the Mining and Minerals Policy Act of 1970. This Act requires an annual report to Congress from the Secretary of Interior on the state of the mineral industry both domestic and foreign, apprising the nation of domestic shortcomings. These reports have pointed out the increasing world demand and decreasing future supplies of necessary and strategic minerals. In his 1973 report to the Congress, Secretary Morton pointed out:

1. Energy and minerals are the life-blood of our industrial economy...";

2. "Development of our domestic resources is not keeping pace with our needs..."

The emphasis by the Secretary on these increasing mineral deficiencies both domestic and worldwide appears inconsistent with the creation of the proposed vast National Parks, Refuges and Wild and Scenic Rivers in Alaska's rich mineral potential areas. Many of the Draft Environmental Impact Statements have indicated that mining and mineral exploration will be one of the first activities which will be restricted or completely forbidden within the newly created management areas. In fact, the proposals of the Department of Interior contained in S.2917 actually employ language that would prohibit geological and geophysical studies to identify and evaluate the mineral content of many of these areas; even by the Department of Interior.

The State of Alaska has been described as one of the major remaining untapped storehouses of mineral wealth in the North American continent. Yet, only a very small part of the State has been geological mapped or subjected to geophysical exploration to determine the mineral potential. In nearly all of the Draft Environmental Impact Statements, a subtle argument has been presented suggesting that not knowing the mineral potential in an area is tantamount to it not having potential. This is then used to justify statements to the effect that the closure of these areas to mining and exploration will have only a slight impact on the State or the nation. This is, of course, a completely fallacious argument and must be most strenuously objected to.

It is the position of the State of Alaska that if long range plans are not developed now for the careful inventory of mineral resources and provision for supervised extraction of resources within the proposed withdrawals, as well as the remainder of the State, the time will eventually come when the minerals will be exploited under conditions of extreme national pressure, and with little regard to the ecology which they were proposed to protect. It is necessary that stipulations be reached to allow scientific research, inventory, and planned supervised extraction of natural resources as needed and required by the State and the nation prior to the final classification of any of these areas.

102

Within each of the 28 Draft Environmental Impact Statements there is a reference to a number of hearings which were held by the Joint State-Federal Land Use Planning Commission in regards to that particular proposal. However, the hearings held by the Land Use Planning Commission in May and June of 1973 were primarily concerned with eliciting the feelings and views of the residents of the State of Alaska on what the appropriate land use would be for the (d) (2) withdrawals. At the time of the Land Use Planning Commission hearings, the specific intentions of the federal agencies for classification of the (d) (2) were not known to the public (and probably not to the agencies themselves). One of the underlying purposes of the LUPC hearings was the possibility of the development of innovative management systems within the withdrawals which could accommodate the needs and wishes of the peoples of Alaska and of the nation as a whole.

Since that time the Department of Interior has distributed its proposals for classification of the (d) (2) lands, and the public has become more aware of Interior's intentions. Many people would like the opportunity to voice their opinions on the Department of Interior's controversial proposals at a public hearing. To facilitate this purpose, the Department of Interior, in all fairness, should hold public hearings on each of the specific proposals in the area to be affected, to obtain and consider public opinion in the overall environmental assessment. If this course of action is not taken, it can only be assumed that the Department of Interior is not interested in public views and does not wish to expose itself to opposing elements.

103

There appears to be a tendency in each proposal to propose withdrawal and classification of land areas vastly exceeding that necessary to protect the features and qualities which prompted the action. An example of this tendency is the proposed Kobuk Valley National Monument where the Department has seen fit to recommend the withdrawal of 3,000 square miles to protect 30 square miles of sand dunes.

104

The Draft Statements uniformly fail to justify the need for the classification, boundaries and size of the proposals, although most of the reports imply that controls and regulations are needed for even an expanded area which would extend beyond the boundaries of a given withdrawal to avoid significant impacts on the area withdrawn. To justify these extraterritorial areas of cooperative management, the Department of Interior has created the term "Area of Ecological Concern", although no basis can be found in Section 17 (d) (2) of the Alaska Native Claim Settlement Act authorizing such a land classification.

105

The concept of an "Area of Ecological Concern" established in conjunction with a national park or a wildlife refuge is in theory quite commendable, and represents an innovative step on the part of the Department of Interior. As has been stated many times in the (d) (2) environmental impact statements, the arbitrarily drawn straight boundary lines which encompass parks, refuges, etc. many times do not provide an effective management area for the protection of ecological features. The (d) (2) proposals indicate that in theory the Areas of Ecological Concern would be administered by cooperative agreements between the managing agency of the federal withdrawal and the adjacent landowners within the Area of Ecological Concern. This can be an effective and important management tool for the protection of these areas as long as the affected land owners are considered and treated as an equal partner in the relationship. Equal partnership, however, means that the Department must be as willing to let its neighbors know and affect what it proposes to do inside of the federal withdrawal as the neighbors in turn must be willing to comply with federal requests and restrictions.

A factor not adequately addressed in any of these proposals and which makes it imperative that a single draft environmental statement for the entire 83 million acres be prepared concerns the cost to the American taxpayer for administering

107

the regulations, restrictions and management systems which will be imposed if these areas are designated by Congress as additions to the "Four Systems." At the present time, all four of the management agencies in question, i.e., the National Park Service, the National Forest Service, the Bureau of Sport Fisheries and Wildlife, and the Bureau of Land Management are all understaffed and underfunded in fulfilling their responsibilities in Alaska. It is only with extreme difficulty that these agencies presently operate within the State, and it will require radically expanded staffs and funding in order to adequately administer the new areas. 107

It is incumbent upon the Department of Interior to prepare a fiscal note as a part of the Draft Environmental Impact process which adequately addresses the benefit/cost ratios of these proposals and an indication of the sources of funding for each. 108

In these times of national energy shortages, careful scrutiny should be given to the manner in which the author agencies have consistently and glibly passed over potential sources of fossil fuels, geothermal and hydroelectric energy. The Alaska Power Administration has indicated that potential hydroelectric sites occur in 20 of the proposals, potential geothermal sites in 9 of the proposals and potential petroleum reserves are in 19 of the proposals. As the Nation's requirements for fuels having low pollution characteristics become greater, and are mandated by law in the future, it is more and more important that adequate provision be given to the inventorying and development of these potential energy sites. If the potential of these areas is not adequately developed, it will become increasingly necessary to substitute other energy sources with high pollution characteristics in the very areas of the nation where improvement is most required. One of the major shortcomings in the approach to preparing these Draft Environmental Impact Statements is the failure to consider on a regional or statewide basis, the significance and importance of the untapped energy potential in these withdrawn areas. 109

Of great concern to the State of Alaska is the withdrawal of millions of acres of tide and submerged lands belonging to the State under the Submerged Lands Act and the Statehood Act and similarly, the designation of other tide lands and navigable waters as Areas of Ecological Concern. This raises the serious question of preemption of the right of the State of Alaska with respect to these lands and navigable waters, and in some instances can be considered as expropriation of State property. 110

The apparent jealousies, and lack of confidence and trust among the various federal agencies is made abundantly clear in the analysis of these documents. The advocative inference that only through a particular agency's management system can the national interests in a particular proposal be truly protected does little to instill confidence in the federal management system.

111

Although it is to be expected that an individual agency would lobby within the Draft Environment Impact Statements for the establishment of its particular management system, this advocacy has unfortunately been allowed to color their analysis of information and throws serious question as to the validity of their conclusions and recommendations. The draft statements are replete with incorrect, biased and misinterpreted information. Agencies have suppressed information which disagreed with their predetermined positions, and have resorted to the use of emotional cliches and outright distortion of facts in an apparent attempt to display their environmental fervor.

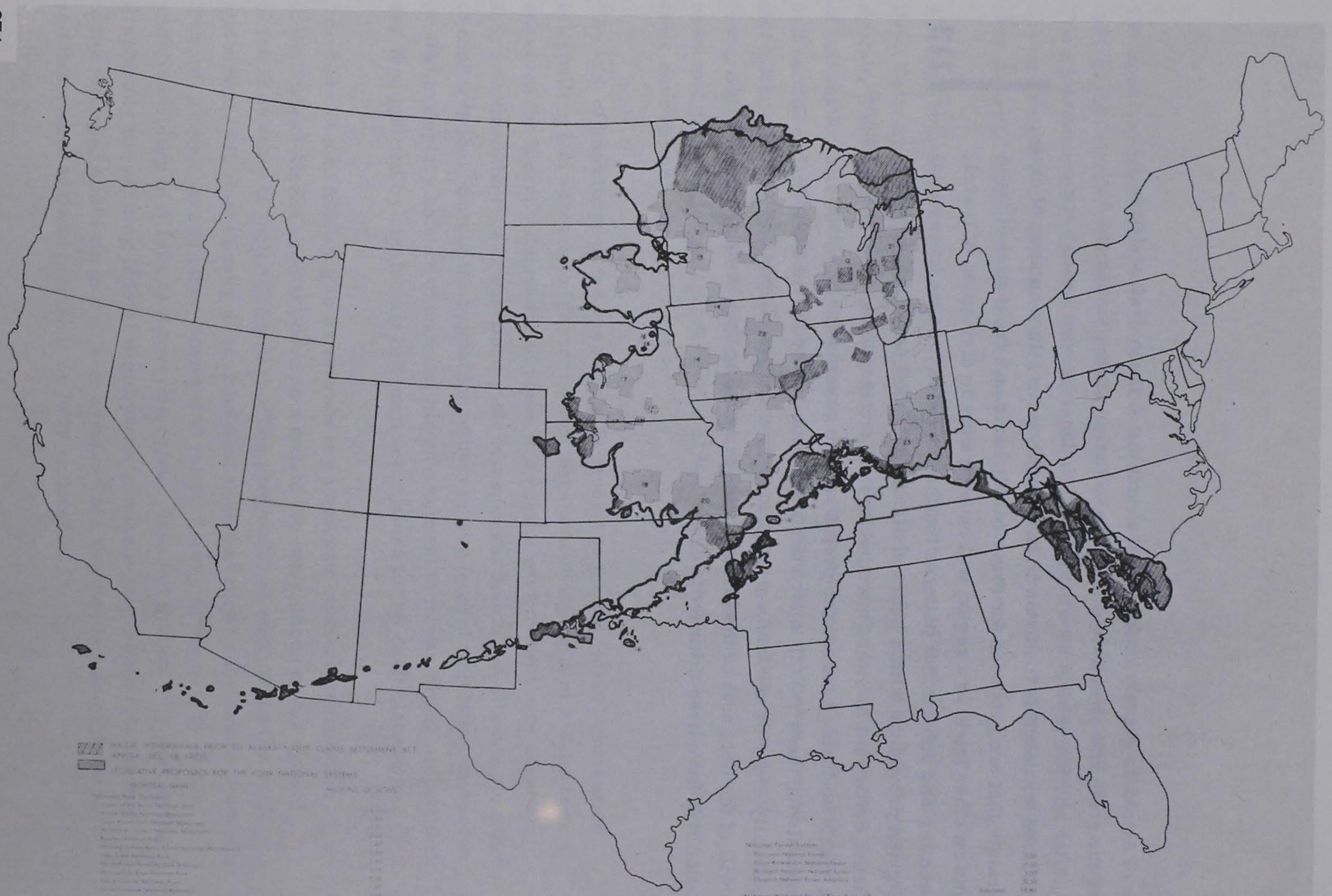
112

The lack of knowledge of the agencies with respect to the subject of subsistence is appalling and appears to ignore the fact that the Native people of Alaska have survived for literally thousands of years in a hostile environment only because they practiced the type of sustained yield management that is the ultimate objective of conservation. Surely the imposition of bureacratic federal regulatory measures on this exemplary balance of man and his environment is unwarranted, unjustified and unsupported by any factual information contained in the draft statements.

The fold-out map following this overview is an accurate scale representation of the State of Alaska superimposed on a map of the coterminous states drawn to the same scale (1 inch = 135 miles). The proposals, as outlined in the draft statements, will dramatically affect land use, transportation, subsistence, communications, recreation and other factors that relate directly to the quality of life and the viability of Alaska as a sovereign state. It is felt that only by portraying graphically the existing federal withdrawals and their geographic relationship to the proposed additions to the "four systems" can the true impact of the size and importance of these proposals be fully understood.

The State of Alaska is gravely concerned that nothing in these draft statements addresses the goals and objectives of the Alaska Native Claims Settlement Act which is, after all, the vehicle by which these "National Interest Lands" are being evaluated for possible inclusion in the Four Systems. In a number of cases, the constraints that are proposed for these (d) (2) lands and the impact of those constraints on other lands in a region will cause traumatic disruption of travel, access, hunting and subsistence patterns that have existed for time immemorial. The land grant provisions within both the Alaska Statehood Act and the Alaska Native Claims Settlement Act were intended by the Congress to assist in the development of a viable economic base for the people and the government of Alaska. If the proposals for these (d) (2) lands effectively prohibit the Native peoples from beneficially enjoying the lands granted to them under the Claims Settlement Act, the will of the Congress of the United States in adopting this landmark piece of legislation will have been thwarted.

113



PROPOSED FEDERAL WITHDRAWALS
STATE OF ALASKA

KOBUK VALLEY NATIONAL MONUMENT

KOBUK VALLEY NATIONAL MONUMENT PROPOSAL

General Comments

The proposal for creating the Kobuk Valley National Monument has several deficiencies which should be corrected before long-range decisions are made about the area.

There is one major National Register Archaeological District located in the area, Onion Portage, and for this reason a broader archaeological review should be made in this project. It will require review under Section 106 of the National Historic Preservation Act. 114

This proposal does not consider the combined impacts of concurrent proposals to establish other large controlled-use areas abutting the Monument (Selawik, Gates of the Arctic, Noatak). It is not reasonable to consider them separately as the individual studies do not show the magnitude of the proposals. 115

There appears intent to control adjacent areas of ecological concern almost as tightly as the Monument. What is the reason for not classifying all the land as Monument? 116

Lands withdrawn for the Monument block access to State and Native lands that are or will be patented. Lack of access will prevent owners from deciding the use of their land. 117

According to the Statement, access into the area is to be only by riverboat or aircraft. Visitor use, therefore, would be limited to the affluent and persons seeking a true wilderness experience. The Statement does not justify the dedication of approximately 1.8 million acres to this single-purpose use. 118

Onion Portage Archaeological District contains 16,000 acres to protect the 1-acre excavation site. The Kobuk Sand Dunes contain about 30 square miles - 5 in the Little Dunes and 25 in the Great. Almost 2 million acres, more than the combined 119

areas of Zion, Bryce, Yosemite, Shanandoah, the Grand Teton and the Rocky Mountain national parks, seems unnecessary to protect features which do not compare in significance to those in any of the above parks.

119

No estimates of cost for administering the Monument are provided. These costs represent a commitment of national resources and as such must be addressed by the Park Service. Based on the inability of the NPS to staff and administer their other domains, it appears that the Agency will be precluded from exercising proper management of the Kobuk area. The Monument would have to compete not only with established NPS areas, for funding and staffing, but also with whatever new areas are transferred to its jurisdiction as a result of the Alaska (d) (2) proposals and studies underway in other states.

120

An EIS should honestly assess advantages and disadvantages of alternative management systems. The multiple use management discussion in this report is unrealistic and biased. The authors fail to show how or why a mining operation which might disrupt 2 or 3 square miles of land would contaminate 1.8 million acres. Both State and Federal regulations prevent practices, common at the turn of the century, which meant that mined land was desecrated land.

121

The Park Service fit their recommendations to NPS management rather than to conditions. An alternative not compatible with NPS philosophy is considered infeasible.

This proposal would prohibit all mining and mineral entry, stating that this would have no impact on the present-day economy since no production currently takes place. No consideration has been given to the future import on trade balances, national economy and so forth, of importing copper, lead, and zinc as a consequence of not mining Alaskan deposits. A joint geological party, DNR and USGS, is extending its Brooks Range mineral belt mapping into the Baird Mountains of this and adjacent proposed withdrawals. Closure of these areas to mineral resource evaluation would be a national mistake. A complete Energy and Mineral Inventory followed by realistic development plans should be stipulated in the Monument if it is established.

122

The NPS makes glowing projections of increased employment from implementation of this proposal and others in the area. While the Park Service is entitled to be optimistic, it is our feeling that they should furnish support for their projections. The projections should also be compared to employment which could reasonably be expected were the areas allowed to remain open for prospecting, mining, and other commercial developments. 123

Although the report alludes to "restrictions" of surface and air transportation, mineral development and so on, actual restrictions are generally not described. It is impossible to completely analyze the impact of the proposal without this information. 124

The draft environmental statement is an assembly of much technical data from other publications. It appears that in some cases the authors have selected their material with care, omitting data which would not support the proposal to establish the Monument. Footnotes should be provided throughout the Statement for direct reference. 125

Impacts of the proposed Monument not considered in the Statement include:

1. Effect on surrounding areas of restrictions upon subsistence and sport hunting. Species protected within the Monument may be subjected to increased hunting pressures elsewhere. This secondary impact, which would increase the management problems of the Alaska Department of Fish and Game, must be addressed by the EIS if it is to meet the requirements of NEPA. 126

2. A statement of dependence on private enterprise for visitor services in the Monument is not adequate. The Park Service must address the impact of visitor generation resulting from implementation of their proposal. What will be the cost to the State and Kotzebue of providing those services which the Park Service will not provide within the Monument? 127

3. If the proposed use of barges for in-monument facilities continues to be a part of the plan, an impact statement should be prepared on the effect of barge use on waters of the Kobuk and any other rivers traveled by the barges. 128

KOBUK VALLEY NATIONAL MONUMENT PROPOSAL

Specific Comments

Page i — Acreage included in the proposal should be given in the Summary.

Page 1 — The description should include specific boundaries of the proposed Monument. Existing improvements, such as airports, cannot be identified without a definite boundary statement (latitudes and longitudes or aliquot parts). 129

Page 2 — Varying interpretations of "subsistence" occur in the report. The EIS should contain a definition for the word as used throughout the text. 130

Repeated references to regulation and control of subsistence hunting and fishing ignores the fact that the State of Alaska, not the Federal Government, is the sole entity with legal responsibility for management of fish and game within the State. 131

Page 5 — The Statement says the area is unique and the Park Service has nothing else like it. NPS may not, but the Federal Government does - in Selawik, Noatak, Gates of the Arctic, etc. 132

Page 5 — Purposes 1 and 5 are both negated by other proposed (d) (2) withdrawals in the Brooks Range. 133

Page 5 — None of the five purposes listed is in any way dependent upon NPS administration nor is national monument status necessary to accomplish any of them.

Page 5 — The conceptual master plan should be outlined in the proposal to show how NPS will react to varying sets of circumstances and what role the State of Alaska will have. 134

Page 9 — Management objectives 3 and 4 should be re-examined. There are no populations of indigenous animals in danger under existing or foreseeable management. 135

Page 9 — Proposed management of the area as a "single ecological unit" is either a hypocritical statement or an indication of complete unfamiliarity with the area. The proposal area is no more a single ecological unit than any other large piece of real estate (larger than the state of Delaware) with great diversity of topography, vegetation, hydrology, etc., from sand dunes to mountaintops. 136

Page 9 — Objective 6 would limit visitor uses to those necessary and appropriate to the purposes of the Monument. But Purpose 4 on page 5 is "public use and enjoyment." What is the real objective? The real purpose? 137

Page 10 — Objective 15, for an "efficient and energy conserving transportation system, contradicts the Proposal. For example, seaplanes are notoriously less efficient than land planes. 138

Page 13 — Presumably only access will be through Kotzebue. The area is within light aircraft range of Fairbanks. Also there are other visitor origination points and potential points such as Bettles, which NPS proposes as headquarters for the Gates of the Arctic National Park.

Page 13 — Locating the information and interpretive services in Kotzebue, over 100 miles from the center of the Monument, would be objectionable.

Page 14 — The inference that visitors will all utilize commercial aircraft does injustice to Alaska, with its high percentage of pilots and private plane owners. Boat travel from Kotzebue to the Monument is not practical. 139

All references in the Statement pertaining to seaplanes should be re-examined; there has been an obvious trend in past 20 years to supplant them with land planes. Considerations are capital investment, operating cost and increased availability of improved landing areas. 140

Page 17 — Barge mounted facilities are impractical. Extensive marine ways would have to be provided for winter storage, the barge system would have to be adaptable to different water stages, and there are major problems with power and sewage. 141

Page 20 — Omitted under Interrelationships, here and later on pages 171, 195, 216, and 277, is mention of an established 100-foot right-of-way between Kotzebue and Alatna. This is described on Page 45 of the December, 1973, Department of Interior publication, "Draft Environmental Statement - Proposed Selawik National Wildlife Refuge." According to the map on page 47 of that publication, the right-of-way generally follows the river through the proposed Kobuk Monument. The existence of this trail and right-of-way should not be ignored in the Statement. 142

Page 20 — Cooperation with State agencies is intimated, but no mention is made of coordinated consultation for research and management with the Alaska Department of Fish and Game. 143

Page 20 — The role of the Department in fish and game research and management of the fisheries inside the proposal area is not touched upon. Monitoring of annual salmon escapements, for example, is a necessary tool to management of the fisheries. The Department may want to establish research sites in the proposed monument, and thus build small, wood frame or log cabins, construct stream weirs or counting towers and use single engine aircraft for access.

Page 21 — Wording used "plans for two highways proposed" is in error. The State has advocated two corridors within the proposed monument; however, they are not for any specific mode. They are for surface transportation in general, including pipelines and utility facilities. **144**

Page 21 — The NPS lacks a land unit representing this portion of Alaska? See page 5 comment. **145**

Page 29 — Extreme weather is not the prime control over industrial potential; transportation difficulties and costs are. This Proposal will limit transportation both within the Monument and between adjacent lands and will, therefore, hamper industry. **146**

Page 30 — There is no mention of "Hippy Hollow" located on the Kobuk River just above the Hunt River. **147**

Page 36 — The sections on geology and minerals in this impact statement are reasonably accurate, and the references indicate that research of the literature is fairly complete.

The following additional information should be included:

1) The geologic exploration in the area is limited, and not adequate for the proper evaluation of the mineral resources. The southern parts of the mountains and the adjacent lowlands are covered by USGS mapping at a scale of 4 miles to the inch, and such work can only be considered the broadest type of reconnaissance. The mountainous parts of the area have not been mapped in sufficient detail to permit publication of even the large quadrangle maps.

2) The area has a high potential for copper, lead, zinc, silver, and gold. The very rich copper-lead-zinc metallogenic belt that has recently been defined along the southern part of the Brooks Range trends into the proposal area. Known reserves in this belt near Arctic Camp, north of Bornite, are reported as more than $2 billion in value. Similar deposits might exist in this belt within the proposal area. The known deposits at Arctic Camp have very little surface expression, and were discovered in the late 1960's by modern prospecting techniques. It is now clear that this belt has an enormous economic potential, but exploration along its known length is still in preliminary stages.

3) Many of the known deposits in the southern Brooks Range have been discovered by the modern prospecting technique of geochemical sampling. Parts of the proposal area have had some reconnaissance coverage of this type, but much remains to be done. **148**

4) There are placer gold deposits in the Kleary Creek area near the western boundary of the area. The source of these placers may be in a sequence of metamorphic rocks which trend into the proposal area.

5) There is some known copper mineralization in the proposal near the headwaters of the Salmon River. The mineralization is apparently similar to the type found in the very rich deposit at Bornite. 148

Page 57 The coal is probably Cretaceous in age, not Quaternary. The coal could have economic significance for local use. 149

Page 84 Repeated observations by Fish and Game biologists indicate that the Kobuk River in the proposal area is often turbid in the summer due to natural erosion factors. 150

Page 84 The next to last sentence in paragraph 1 mentions "two species of trout" while McPhail and Lindsay (1970) report the occurrence of only the arctic char. 151

Page 84 The last sentence in paragraph 3 should read, "Fish management of the Kobuk River system will continue to have a high priority." 152

Page 84 Spawning chum salmon have been documented in the Kallarichuk, Salmon and Tutuksuk rivers. The main Kobuk River in the proposal area is an important migration waterway for salmon, sheefish and other resident species. Alaska Department of Fish and Game documentation is available for spawning ground surveys or the numbers of fish and game actually harvested from the area. 153

Page 115 Preservation of the archaeologic and historical sites is already better provided for in the National Antiquities Act and the National Historical Preservation Act than under the NPS. 154

Page 128 "Pickerel" is a local name for northern pike. Also, "mud shark" and "ling cod" are local names for burbot. 155

Page 139 The figures provided are inflated. 156

Page 141 The annual fish catch figures in paragraph 4 are high. For instance, in most years the sheefish catch is about a quarter of that indicated. Alaska Department of Fish and Game would appreciate the opportunity to view a specimen of the "humpey salmon sucker." 157

Page 142 Paragraph 1 should be corrected to read "subsistence fishermen use set gill nets and beach seines to . . . ." Villagers consume very few fish heads and entrails these days. 158

Page 142 Paragraph 2 is from the annual management report of the Division Of Commercial Fisheries, Alaska Department of Fish and Game; the source should be cited. Also, this statement indicates that the 159

federal government may promulgate regulations liberalizing the commercial salmon fishery, so state jurisdiction in this regard should be emphasized.

Page 144 (Paragraph 2) Where have sheep, caribou or muskoxen been extirpated in recent years? 159

(Paragraph 3) It is doubtful that anyone in the area has paid $3,000 for a new snow machine.

Page 146 Opportunities for permanent year-round employment are limited in small villages. The few permanent jobs are primarily in government. 160

Page 155 Figures in paragraph 2 are inaccurate. The price of chum salmon in Norton Sound exceeded Kotzebue this year. 161

Why is it permissible to kill and can fish, but not kill and use surplus mammals? 162

Page 156 "Figure 6" should read "Table 6". There are errors in the table. 163

Page 157 This section should be rewritten to reflect a renewed interest in trapping since the dramatic increase in value of wild fur. 164

Page 158 Trends established before the fuel shortage may not continue. Tourism, as well as snow machine and heating fuel use, may be reduced, if only owing to cost. 165

Page 159 The implication in paragraph 1 that Dall sheep have been extirpated from the Baird Mountains is inaccurate. Authors should refer to Alaska's Wildlife and Habitat, published in 1973 by the Alaska Department of Fish and Game. 166

Page 160 (Paragraph 5) Alt's study did not include any current data, angler utilization or harvest records relevant to the Kobuk River.

Char fishing in the tributaries of the Kobuk is not good.

Page 161 Pike should be added to the list of sport fish. The statement that "sheefish, grayling and salmon are fished for sport" contradicts page 84, paragraph 2, which states that "salmon are only rarely taken by anglers." 167

Page 161 Polar bears do not exist in the subject area nor are they likely to immigrate to it. Kotzebue is not part of the Kobuk area. 168

Page 167 Data are in tabular, not figure form. Also, Kobuk has air transportation and is associated with mining. 169

Page 170 Kobuk has two stores.

Page 171 River bars provide only limited landing facilities for aircraft; they may be soft and muddy, or too dry and fluffy to use. Seasonal floods rut and scour them and leave driftwood and other debris. In this stretch of the Kobuk, the few bars that might make marginal landing areas are not suited for other facilities. Visitors, baggage, food stuffs and other supplies would have to be lightered to some other headquarters site. River bars do not constitute safe, dependable aircraft landing areas. **170**

Page 172 The mobility of ski-equipped aircraft should be emphasized more.

Page 172 The Statement should address management and activities during the winter season. Visitor activities between September 1 and June 1 are ignored. By far the majority of local cultural activities are in winter when people congregate in the villages and have more leisure time. **171**

Page 176 Paragraph 6 should include mention of Hippy Hollow. **172**

Page 183 Objective discussion is lacking of the listed effects which would take place if the proposal is not implemented. Would mining despoil the entire 1.8 million acres or just a few square miles? Why could not subsistence uses of the land be better administered under alternative management systems? Why does lack of park status mean continued loss of some cultural elements of Native life? Why would a mix of land ownership decrease the possibility of effective regional planning and management? **173** **174** **175** **176**

Page 184 There are no "guarantees," but under sustained yield principle, the State gives subsistence fishing the highest priority in most remote areas. Also, subsistence uses are declining.

Page 185 The Arctic caribou herd does not "fluctuate enormously from year to year" but the number within an area can. The winter range within the proposal area is not critical to the entire herd. **177**

Page 185 It is questionable that the habitat within the proposal area produces 10 percent of the Kotzebue Sound waterfowl. **178**

Page 188 The estimate that 200 people use the monument area for subsistence purposes is questionable. The impact of closing the area to sport hunting could be major instead of minor, because hunting will be displaced from other areas by similar actions. No logical reason is given why sport hunting will not be allowed. **179**

Page 189 Sport fishing could have a major impact on sheefish populations. However, the Department of Fish and Game has regulatory power and procedure to avoid overuse and authority to protect important fish habitat in the area. **180**

Page 189 Attraction of large numbers of visitors to the area could also be a reason for NOT providing monument designation.

Page 189 — The Monument will have no roads. What is to be coordinated with the "State Department of Transportation?" Was this term copied from a report concerning another state which does have a Department of Transportation?

Page 189 — Increased visitation would be an obvious conflict with Purpose 3 on page 5.

Page 189 — Impacts of visitation on wildlife would be controlled by concentrating visitors in areas of low wildlife use. If the visitors are not to be permitted to view the wildlife, what is the purpose of the withdrawal? **181**

Objective assessment is necessary of the economic impact of closing the two transportation corridors through this area. The north-south corridor is keyed to one of the few passes in the western Brooks Range suitable for highway and pipeline construction. It is possible to locate a highway south of the east-west corridor, but at greater initial construction cost and probably greater environmental degradation. However, loss of a Kobuk Valley corridor for a railroad could seriously deter development of coal fields northwest of the proposal area. **182**

Page 190 — Do proposed cooperative agreements with State and Native groups owning adjoining land mean that NPS will dictate management of nearby lands also? **183**

Page 195 — One airstrip for an area 60 by 65 miles would not be adequate.

Page 196 — If monument-related services are to be centralized in villages outside the monument boundaries, impact on the villages should be analyzed. **184**

Page 198 — If 5,000 visitors arrived by boat and air during 60-day season, that would be approximately 50 per day by air, or 100 movements. With 3-passenger aircraft that would take 17 round trips per day. Add to that employee travel, air freight for food stuffs, mail and other supplies. The impact on the tranquillity of the Monument might be severe enough to consider use of planes capable of carrying 20 or more persons. Airport facilities would have to be adjusted accordingly. **185**

Page 201 — Very few pounds of trout are taken in the Kobuk River. **186**

Page 203 — Char were never numerous or important in the Kobuk River. What are the expected levels, and how is this conclusion supported? Are these populations within the Kobuk River proposed monument or another portion of the Kotzebue Sound drainage. Authors should cite their reference. **187**

Page 207 — Commercial salmon fishing is presently closed in the proposal area and potential for commercial fishing of other species is limited. **188**

Page 208 — What document of the Alaska Department of Fish and Game reported potential earnings by the 50 most successful commercial fishermen? **189**

If protection of the spawning habitat of the Kobuk will contribute to continued strength of the Kotzebue fishery, it should be justified by the percentage of Kobuk River salmon that comes from within the Monument boundaries. 189

Page 209 Who says beaver pelts are not marketable? "Subsistence" needs to be defined. The sale of furs to obtain cash to purchase food, staples, heating oil and equipment to enable one to further pursue the fish and wildlife resources in the area is considered subsistence. 190

Page 210 The impact on guiding is not adequately covered. 191

Page 211 The value of a sport caught fish should be included; the impacts from increased sport fishing would be significant. The authors demonstrate a lack of knowledge of the ecology of various fishes in the area. 192 193

Page 212 An insignificant impact of this proposal on the economy is not consistent with discussion on pages 68 and 69 of a "relatively large" stand of timber which could result in a profitable manufacturing enterprise competitive with villages from Kotzebue to Barrow. 194

Page 214 An objective assessment of the effect of foreclosing the proposal area to prospecting, development and mining has not been made. The future impact of non-utilization of these mineral resources could affect the entire Nation's welfare. 195

Page 216 The effect of traffic flying over the area should be considered in "Impacts on Transportation". Pages 235 and 249 both refer to aircraft restrictions. These should be clarified since Kobuk Valley is a major air corridor. 196

Page 216 The text is misleading in saying that "large barges use the Noatak, Kobuk and Selawik Rivers;" it is widely known that the rivers are difficult to navigate during seasonal period of low water. 197

Page 216 The State has title to a number of surface transportation route right-of-ways in the proposal area, some dating back to Territorial days. Also State and Territorial legislatures have granted a right-of-way on nearly all the protracted section lines which lie within the area. These rights-of-way cannot be extinguished by the Federal Government. Election to use them for road construction would be at the sole discretion of the State. Any park proposal must recognize these long standing rights, shown on the attached maps. 198

Page 219 The analysis of impact on transportation needs re-evaluation. The impact of excluding or restricting access could be regional and national as well as major. How can roads not be justified if the socio-economic needs have not been investigated? 199

Page 252 Copper compounds owe their toxicity to other combined elements; copper is no more toxic than gold, it is merely more active chemically 200

Page 253 The discussion shows unfamiliarity with the processes and importance of mineral production. The regional economy of the Kobuk region can thrive on mineral industry activity for the long pull, with realistic access and operating rules. 201

Page 263 Comments about the effects of large scale mining on caribou migration routes are not necessarily true. Caribou still migrate past the mine at Bornite. 202

Page 263 Nationally significant wilderness, wildlife, cultural and historical values would be adequately preserved and protected by implementation of Alternative C.4.

Page 264 The statements in paragraph 2 cannot be supported with factual data and, for that reason, should not be used. 203

Page 264 Alternative 5 is one of the more attractive alternatives mentioned; however, specious logic is used to discredit it.

Page 278 While references are made to snow machine travel (pages 134, 133, and 171) a thorough analysis of this mode of transportation is lacking. The potential of air cushion vehicles is also not considered. 204

Page 278 Alternative transportation facilities such as road connections eastward to the rest of the State have not been evaluated, although equally as feasible as Kotzebue-only, air and boat-only, access. 205

Page 282 If the Park Service is truly concerned about fish and wildlife resources in the area, why is not the Alaska Department of Fish and Game included with other agencies who are contacted during the planning process. 206

Page 297 The proposed area is not part of the Seward Peninsula. A list of fish species found in Kotzebue Sound area would be more applicable. 207

* * * * *

100. In most cases, the statewide or regional impacts can be derived from a sum of the impacts of the various environmental statements. This point is more completely discussed in response 1.

101. In order to maintain and improve upon the prevailing cooperative spirit for the solving of problems, the Department seeks administrative and cooperative agreements with appropriate agencies, organizations, and individuals. Chapter I, sections B and C outline the areas of sought-after agreements. Nonetheless, we do not feel that the proposals divide the State into enclaves as you describe. The proposals were prepared within a cooperative planning effort and cooperative management, and planning with the Federal, State, and local agencies and individuals is indicated throughout the document. The geographic relationships of all 28 proposals may be seen on the map included in this document.

102. As the revised Impact on MIning and Mineral Entry makes clear, geological and geophysical studies which do not damage or alter the proposed monument's resources will be encouraged. One of the five purposes of this proposal is "To provide for nonmanipulative research on Arctic ecosystemsl" Known mineral reserves to the east of the monument are not included in the proposal. The Secretary of the Interior and the Department are committed to the balanced development of natural resources and the perpetuation and preservation of natural and historic areas of antional interest. General aspects of these points are further elaborated in response 42.

In all cases found in which an impression is given that lack of knowledge of mineral potential is tantamount to no potential, the document was clarified to remove this impression.

103. The Secretary included the recommendations of the JFSLUPC and many other organizations and individuals in making his proposals. At this point, Congress is the most appropriate forum for the discussion of the Kobuk valley proposal.

The value of public input and consultation with local residents and others in planning the new proposals in recognized. Some contacts were made with local representatives and organizations during the limited study period designated by Congress. However, the contacts were solely to obtain information and in a few cases to seek reaction to possible alternatives for use of the land involved in absense of any specific proposal. Since final decisions were not made within the Department of the Interior until November 1973 concerning the specific Park, Wildlife Refuge and

Scenic and Wild Rivers proposals there was no way to go to the public for comment on the proposals until the draft Environmental Impact Statements and plans were released in December. The Forest Service, in the Department of Agriculture, which was involved in studying possible additional national forests did present specific proposals to the public in a series of meetings that took place in the areas of concern.

Information gathered during the studies has been augmented with cimments from transcripts of the Joint Federal State Land Use Planning Commission public hearings on use of the 17 (d)(2) withdrawal lands. The Federal agencies also had representatives at the public hearings to identify and take note of special problems requiring consideration. Comments received as a result of the public review of the draft environmental impacts statements have also been considered in development of the final environmental impacts statements.

Please see Chapter I, Interrelationships, for a discussion of the JFSLUPC.

104. Please see the response to response 3 in which some of the many values of the proposal area are discussed and where references to further discussion within the document are offered. The purpose of the proposal is not only to protect the Great Kobuk Sand Dunes; please see Chapter I Legislative Proposal, for the five purposes for the proposed monument establishment.

105. An environmental impact statement does not justify a proposal but, rather, analyzes the impact of that proposal.

106. The comment correctly points out that straight lines complicate management concerns, but they were not arbitrarily drawn and include complete watersheds as muce as possible. The observation by the State that cooperative agreements are a two-way street is absolutely correct' the AEC concept cannot work without mutual cooperation within the limits of applicable laws and regulations. For additional explanation, of AEC, please see response 40.

107. Administrative costs <u>per se</u> is not an appropriate part of an environmental statement. It is expected that, should Congress designate this area as a monument, Congress will see fit to provide adequate funding. Administrative costs, no doubt, will be among the concerns of Congress while evaluating this proposal.

108. Analysis of the environmental costs, benefits, and risks of the proposed action is a fundamental aspect of this environmental statement. The inadequacies and inappropriate nature of a <u>fiscal</u>

119. Please see response 3 where some of the many values of the proposal area are discussed and where references to further discussion within the document are offered. The National Park Service and the Secretary of the Interior feel that the Kobuk Valley National Monument compares very favorably with the named parks. In fact, because of the ecosystem concept implicit in the proposal, the proposed monument avoids many of the mistakes and chronic problems associated with the named parks, which have been found to be too small to be managed effectively as ecological units.

120. It is not necessary to include costs of managmenet in an environmental statement. Should Congress establish this proposed monument, it is assumed that Congress will provide adequate funding.

121. The Multiple Use Management section of Chapter VIII has been revised to improve objectivity and to discuss additional impacts of mining activity. See also Chapter VIII, section C-4.

122. With no present production, there is no present impact, economically or otherwise. Long-term impact on future mineral development may be significant as clarified in Impacts on Mining and Mineral Entry in Chapter III. Further explanation of mineral entry and mineral inventory policy may be found in response 40 and also response 69.

123. Our analysis of the impacts of the proposal on the local and regional economy suggested that "gradual but substantial increases in service industries and related jobs" would occur along with general increase in tourism to the region, which are expected to reflect the growth of tourism to Alaska in general. It is noted that establishment of the proposed monument and other NPS proposals in the region would contribute to the this growth. This was based on the character of the tourist industry as fairly labor-intensive, and on the State's own predictions of the rate of growth of the industry. Some revisions in the discussion of the tourism and services sector of the economy, and in the discussion of impacts on tourism have been made to sharpen the analysis and to place the proposal in perspective in relation to growth in the tourism industry which might be expected to occur without the added stimulus of establishment of park unites in the region.

The section on Impact on Mining and Mineral Entry has been revised to reflect additional considerations brought to our attention by several agency and individual comments, including the impact on employment in the mining industry. Unfortunately, both the analysis of employment in tourism and mining industries are necessarily general and imprecise due to absence of appropriate measures on which to base projections.

124. Mineral restrictions are described in Impact on Mining and Mineral Entry; surface and air transportation are not restricted per se (in absence of a reference it is difficult to determine the exact point of the comment).

125. Literature citations appear throughout the document.

126. The ADF & G will be consulted prior to any limitation of subsistence for resource protection reasons. See Impact on Sport Hunting for significance of this monument designation on regional considerations such as increased hunting pressure do subsistence policy. The policy toward subsistence is explained in response 58.

127. It is expected that tourism increases will be sufficiently gradual to allow for an orderly, perhaps enthusiastic development of necessary facilities in the private sector. Should the private sector be unable to provide adequate public works, the NPS can limit the number of visitors entering the monument. For further information, see discussion of tourism in Chapter II and III. Otherwise, the NPS lacks the methodology and time to compute future costs or revenues to the State and to Kotzebue.

128. An environmental assessment and/or an environmental impact statement will be prepared prior to the implementation of any development.

129. The Proposal Boundaries map now appears with township and range.

130. As all who are familiar with subsistence lifestyles in Alaska are aware, subsistence is a dynamic cultural phenomenon, its definition is elusive, probably impractical, and very likely undesirable. Traditional subsistence, with dominant dependence upon hunting and gathering activities is functionally described in Chapter II, Subsistence Activities and Harvests (revised).

131. The Secretary is aware of the legal responsibilities of the State for the management of fish and game within the State. However, subject to existing law, the NPS can further limit hunting and fishing activities. Under this proposal, all changes in hunting and fishing policy would be preceded by consultation with the ADF & G. Please see Interrelationships, Chapter I.

132 & 133. Please see response 3.

134. As described in Administrative Action, Chapter I, the conceptual master plan outlines only broad guidelines. A copy is available from the National Park Service. The role of the State, in quite a variety of circumstances, is described throughout this document.

135. Although there are no known indigenous population in danger now, it is foreseeable that such a situation could develop.

136. Thinking holistically, the area, is an ecological unit, more than a disassociated assemblage of mountains, sand dunes, vegetative associateions, animals, and bodies of water. All are interrelated. The use of the term and the recognition of its implications recommends that management function in terms of its interrelationships.

137. Objective 6 recognizes that use of the area is not without limit and defines those limits. Perpetuation of the area, for public use and enjoyment (Purpose 4) requires those limits.

138 & 140. Amphibious or float equipped aircraft are somewhat, not notoriously less efficient than wheel equipped aircraft; yet do not require costly and environmentally damaging airports and attendant facilities.

139. Kotzebue is already a center for tourism in northwest Alaska, where a need for information and interpretive services is seen. Of course, private pilots and aircraft owners are able to visit the area from these origination points. Planning was directed toward visitors who must rely on commercial transportation.

This point is clarified in the section.

141. Barges are not necessarily impractical. The attendant problems are recognized and solutions are currently feasible. Further studies would be made prior to commitment to any transportation mode.

142. This right of way is to the Bureau of Land Management. It follows the Proposed Surface Transportation and Utility Corridors map route across the proposed monument. Please see response 124.

143. The role of the ADF & G is clarifed in the Interrelationships section of Chapter I.

144. The wording has been changed to reflect this comment.

145. See response 3.

146. The point has been changed to reflect this comment.

148. The section on Minerals has been revised to include the substance of the comment.

149. The sentence has been changed to reflect this comment. Impact on Mining and Mineral Entry includes the local significance of the coal deposites.

150. Changes have been made in this section and in Water Resources to reflect this information.

151. The cited reference indicates that two species of trouts occur in the area, Arctic char and lake trout, although only the former is known from the Kobuk River. Presumably the survey includes lake-caught fish as well.

152. This sentence refers to monument development policy, and is not meant to reflect negatively upon the ADF & G.

153. The document has been altered to include this information, and a table has been added to this section of chum salmon aerial surveys of the Salmon and Tutksuk Rivers.

154. The National Historic Preservation Act already is administered under the NPS.

155. Although the information in the document was a paraphrase of cited material, the information has been included.

156. The concern that these figures are inflated has been added to the document along with ADF & G statistics.

157. The document should have read, "humpey salmon, sucker." The appropriate comma has been added.

158. Changes have been made in the document to reflect this comment.

159. The observation is correct and the ADF & G has been cited. Similarly, the "regulations...liberalized" referred to the ADF & G, and has been clarified accordingly.

160. In northwest Alaska, muskoxen were exterminated during the nineteenth century. Coastal caribou populations were adversely affected and locally displaced by introduction of and subsequent overgrazing by reindeer. Documented evidence of sheep population reduction can not be found, and reference to sheep has been deleted.

161. This outdated information is not necessary to the discussion and has been deleted.

162. This discussion, referring to fish canning, centers on areas outside the proposal area.

163. The table has been corrected, although it is still labled "figure."

164. This section on trapping has been revised and added to the reorganized section, Subsistence Activities and Harvests.

165. The impact of increased fuel costs are not taken into account in the trends of tourism. It is possible that these figures might more properly be adjusted downward, although it is too early to tell. Tourism information has been reorganized and reevaluated and appears now in the section, Tourism and the Services Industries. See also up-dated figure, Number of Tourists entering Alaska by Transportation Mode.

166. Recent information from the ADF & G is included in the reorganized section, Outdoor Recreation Resources.

167. New information from Ken Alt is printed in the section on Outdoor Recreation Resources. ADF & G Commercial Fish Division biologist Paul Cunningham has recently made a survey, but we were unable to acquire the results by press time.

168. Culturally and economically Kotzebue exerts a strong force in the Kobuk area. This is the reason information on polar bear hunts is included in the statement. Guides, deprived of polar bear for legal hunts, now may shift their activities elsewhere. Of course polar bear do not exist within the proposed monument. The State asked for regional considerations and this is one of them. The point has been clarified in Tourism and the Services Industries.

169. Information is noted in the revised Businesses and Services figure, and in the text.

170. Winter activities were discussed in Subsistence, and Recreation and Leisure Activities and are now discussed under General Social Considerations, and Subsistence Activities and Harvests. Additionally, winter activities are added to Transportation and Communication.

171. The section has been revised to reflect the comment.

172. The nomenclature is revealing; the revision is found under Land Uses.

173. Please refer to response 121.

174. Please refer to response 29, on the subject of competition with sport hunters and possible habitat destruction.

175. Lack of park status would "probably," not necessarily, lead to loss of some elements for the reason stated.

176. A mix of land ownership "could", not "would", decrease the possibility of effective regional planning management, because the greater the number of owners the greater the diversity of land use, the more difficult regional planning possibly becomes. Also, Probable Future Environment without this Proposal has been revised and clarified.

177. Again, the original quote was "The population of caribou that use the area fluctuates enormously from year to year." Also, there is no statement that the winter range within the monument is critical to the entire herd; the habitat would be critical during periods of use, by the individuals that use it.

178. For a response regarding waterfowl population, see response 5.

179. The section analyzes the impact on wildlife, not sport hunting. Closing the area to sport hunting will have a light impact on wildlife.

180. Agreed; the impact on sheefish populations could be significant. (See also section on Fish, Chapter II, and Impact on Sport Hunting and Fishing, Chapter III.) Also, ADF & G has the power and the procedure to protect important fish species.

181. The proposal has five purposes. They appear in Chapter I, Legislative Proposal. Aspects of the purposes include perpetuation of indigenous plant and animal communities; archeologic, historic, and cultural research; provision for traditional resource uses; provision of resources unimpaired for future generations; and nonmanipulative research on Arctic ecosystems.

182. See Impacts on Transportation for an assessment, although the specific assessment requested would be carried out by the agency proposing the corridor, since this proposal does not definitely preclude such corridors.

183. Please refer to the response 40 discussion of Areas of Ecological Concern to ascertain the motive of the NPS. See, in addition, the proposals contained within the conceptual master plan, Chapter I, Administrative Action, for a discussion of cooperative programs, Areas of Ecological Concern, and administrative agreements.

184. With the exception of ranger contact stations at Ambler and Kiana, the services referred to are those provided by the private sector, not by the NPS (see General Development map.)The centralized services referred to in Impact on Visual Integrity is not the establishment of these services by the NPS as the comment seems to suppose, but an attempt to avoid the unfortunate, sprawling service

development that sometimes grows around tourist centers. The cooperative agreements, then, would involve an offer by the NPS of planning assistance to the private sector which might emerge in response to monument proposal and are beyond the requirements of a specific impact analysis. However, in addition to Impact on Visual Integrity, see Impact on the Local Market Economy, Tourism, for a discussion of private sector services.

185. Following enactment, funding will be requested to initiate a detailed comprehensive internal and external regional transportation study. The purpose is to determine the most adequate means of moving people to and within the proposed monument. Continuing carrying capacity studies and master plan development will reflect any changes in visitor numbers projected, and consequently any new environmental impacts will be evaluated according to legal requirements. The maintenance of the tranquility of the area will be a major objective of plans and studies, and transportation facilities and modes will be updated accordingly.

The projected visitor demands are preliminary in nature and are subject to revision and refinement to include consideration of important developments as they occur or become known. Actual visitor use leveles in the proposed monument would be managed and accord with additional studies regarding the carrying capacity of the proposal area. Refined carrying capacity estimates will include consideration of social and cultural factors as well as biological considerations. Appropriate and least environmentally damaging means of access will be developed and will reflect visitor demand levels as well as carrying capacity.

If the estimate of 5,000 visitors annually within 10 years after enactment is accurate and in accord with more precisely determined carrying capacity, it is expected that the increase will occur gradually over the time period, and that local communities will have developed the necessary facilities and services to accomodate accommodate visitor demands. If visitor demand in the region should increase suddenly, with likely adverse impacts on local communities adjacent to the proposal area, NPS would establish carrying capacity appropriately to minimize such impacts. See Impact on Local Market Economy, Tourism, for additional information on visitor projections.

186. This information has been included in the revised and reorganized section, Impact on Subsistence.

187. We have deleted this statement due to inability to locate source.

188. This information is added to Impact on Local Market Economy, Commercial Fishing.

189. Available data on chum salmon escapement on the Salmon and Tutuksuk Rivers have been added in Chapter II, discussion on Fish; statement on "50 most successful fishermen" deleted.

190. The revised, Impact on Subsistence reflects this comment, except for the definition. For that concern, please see response 130.

191. The discussion of the impact on guiding has been expanded.

192. Please refer to response 180, and to Sport Hunting and Fishing, Chapter III.

193. Discussions with ADF & G indicated that relatively little is known about the ecology of fish species in northwest Alaska.

194. "Relatively large" is in comparison with other subarctic stands of timber; as related in the Impact, the profitability is marginal, depending upon a series of very fortuitous events. (See Timber, Chapter II.)

195. Impacts on mining and mineral entry have been revised to improve objectivity. The NPS is unable to determine the impact of the non-utilization of potential mineral resources upon the entire Nation's welfare, especially when considering the many variables of the international market for minerals which, along with unknown costs of production and transporation, ultimately affect the feasibility of ming potential mineral resources.

196. Authority over airspace lies with the FAA; however, the NPS has in the past reached agreements with the FAA on restrictions. Such restrictions could affect low altitude flying over high visitor use areas, important wildlife areas, and wilderness areas, for example. Specific restrictions would follow study--see response #185. Incidentally, the NPS has dropped plans to develop "Caribou Lake" as a center for visitor access. "Caribou Lake" has important waterfowl values, vulverable to floatplane use. (See General Development map.)

197. Deep draft barges reach as far up the Kobuk as Kiana; shallow draft barges can reach Ambler during most of the ice-free season. "Large" has been deleted to avoid confusion.

198. See response 124 for a discussion of DOT #70 rights of way.

199. The reverse is also true. This statement has presented descriptions of existing and proposed transporation facilities and services in the region. Since this is not a proposal for a transportation facility or system, an exhaustive study of transportation needs is not necessary here. This, of course, does not eliminate the possibility for such a study, or future determination of needs for surface or alternative transporation systems or services. In fact, this Bureau of Land Management and the JFSLUPC is presently engaged in such a study.

200. True. Copper (metal) is not toxic, Soluble copper salts are very toxic and can be present in mining of minerals concentrations such as acid leaching of mine tailings. The erroneous statement has been deleted.

201. See responses #71 and 10 for a discussion of the long pull.

202. Particular mining activity may not necessarily affect Caribou migration, but the effect large scale mining-- with attendant human impacts -- may be very significant. Please see revisions of Chapter VIII, Multiple Use Management and Alternative C-4.

203. The reference to Dall sheep is deleted, and a correction made.

204 & 205. These sections are intended to describe the existing situation, not an evaluation of future transporation alternatives. This is not the place to assess the potential of ATVS. The proposal for air and boat access from Kotzebue as most in harmony with the proposed monument's values.

206. ADF & G was consulted during the research phase of the Kobuk Valley Study. In June or early July 1972 in the Fairbanks office, the ADF & G provided what help it could regarding animal inventories in the area, although little information was available. ADF & G publications were also consulted although no substantial information was obtained, except for caribou. An ADF & G biologist from Nome took part in ground studies with the NPS along the Salmon River. Since the printing of the draft environmental statement, the ADF & G provided the NPS with some very useful information, some of which can be found in this document. The ADF & G was not included in Chapter IX through error.

207. A list of fishes believed to occur in the Kobuk drainage has been substituted for Appendix C.

Federal-State
Land Use Planning Commission
For Alaska

733 W. FOURTH AVENUE, SUITE 400
ANCHORAGE, ALASKA 99501

July 12, 1974

Mr. Theodore Swem, Chairman
Alaska Work Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Bailey Breedlive advises me that you did not receive our technical comments on seven of the draft Environmental Impact Statements on the d-2 lands.

Enclosed are copies of our comments on the following:

Alaska Coastal, N.W.R.	Beaver Creek, W.R.
Selawik, N.W.R.	Birch Creek, W.R.
Kobuk, N.P.	Chugach, N.F.
Aniakchak, N.M.	

Sincerely yours,

T. G. Bingham
Executive Director

TGB:vsc

Enclosure

Technical Adequacy Review of Proposed

Draft Environmental Impact Statement

Completed Only For Chapter II Description and
Chapter III Environmental Impact of Proposed Action

<u>Proposed Kobuk</u>

Prepared by

Resource Planning Team, FSLUPC

January, 1974

Kobuk Valley
Chapter II Description of the Environment

Page 34 Climate

"The mean annual temperature at Kotzebue is 21° F, with record extremes of -52° F and 85° F."

Comment: (Should state averages for coldest and warmest months, e.g., "The mean annual temperature at Kotzebue is 21° F, with a January mean of -5.7 and a July mean of 52.7; record extremes are -52° F and 85° F."

208

Page 52 and 53 Minerals

Brief mention is made of copper occurrences at Bornite (Ruby Creek).

Comment: Text should state that Bornite is some 40 miles east of the proposed monument. The estimated tonnage may be considerably greater than the 100 million tons mentioned in the text. However, the grade and tonnage figures are proprietary, and have not been released.

209

Comment: The use of the term "are" with respect to chromium - and nickel - bearing rocks in the upper Kobuk watershed is not justified. These occurrences are not presently of minable grade. Further prospecting and exploration are required.

210

Comment: The coal-bearing rocks referred to at the bottom of page 57 are probably of Late Cretaceous age, not Quaternary age

211

as suggested by the text. This coal may have economic significance for local use.

211

Page 83 Wildlife - Line 13

"Due to climatic change"

Comment: Hardly more likely associated with cyclic population changes -- no data is presented to support climatic change.

212

Page 84 Wildlife - Line 20 and 21

"Fish can be badly damaged"

Comment: No supporting data.

213

Page 84 Wildlife - Line 22

"Fish management"

Comment: This statement is in wrong section - if needed at all it should be in Part IV, page 134.

214

Page 184 Probable Future Environment Without This Proposal - Line 21

"With a park subsistence uses are guaranteed."

Comment: How?

216

Chapter III

Page 188 Wildlife - Line 12 and 22

"Closed to sport hunting."

Comment: There is a conflict.

217

Page 212 - Impact on Timber Harvesting

Comment: Information in here tends to down play the impact on Future Timber Harvest. On page 68-69 a relatively large stand of timber is discussed and it seems economically feasible to harvest.

217

Page 215 Impact on Mining and Mineral Entry

The proposed action would prohibit all mining and mineral entry in the 2,900-square mile area of the proposal. The text states this will have no impact on the present day economy since no production currently takes place.

Comment: If the Kobuk Valley monument is not established, then major mineral exploration programs will probably be carried out in the Baird Mountains west of the known copper discoveries in the Bornite and Aurora Mountain areas. Exploration projects could generate significant future employment opportunities for local inhabitants.

218

Because the geologic setting in the northern part of the proposal area is highly favorable for the occurrence of metalliferous deposits.

RESPONSE TO COMMENTS BY
FEDERAL-STATE LAND USE PLANNING COMMISSION
FOR ALASKA

208. This additional information has been added to the text.

209. This information has been added to the text.

210. The text has been altered to include the information on grade.

211. The text has been changed to reflect this information on coal deposits; the comment on the economic significance of coal has been added to Chapter III.

212. The reference has been deleted from the discussion. The reasons for moose range expansion are not understood.

213. The reference has been deleted and the discussion revised. Yet see also comment 180, from the State.

214. The sentence has been deleted.

215. The Probable Future section has been revised and clarified. The sentence was supposed to mean that subsistence uses would remain available since one of the five purposes of the monument would be to manage the area to do just that. This is predicated on the idea that subsistence uses would leave primary resource values unimpaired. The sentence did not mean that traditional subsistence uses would inevitably continue forever.

216. The legislation intent is that the area be open to monitored subsistence hunting but closed to sport hunting. The objective is to foster traditional subsistence lifestyles based primarily upon hunting and gathering activities. Sport hunting or trophy hunting might conflict with this objective; nonetheless, in all but extraordinary cases it is the policy of the NPS to prohibit sport hunting.

217. Please see response 194, on the timber stand.

218. The section, Impact on Mining and Mineral Entry, has been revised to include future impacts on mining. Also, lost possible future employment opportunities is discussed.

FAIRBANKS NORTH STAR BOROUGH

Box 267, Fairbanks, Alaska 99707

January 21, 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
U. S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem:

In response to your letter of December 28, 1973, regarding the Draft Environmental Statement (ANCSA) of 1971 (35 Stat. 688) d-2 lands proposed by the Secretary for inclusion in the National Wildlife Refuge, National Park, National Forest, or Scenic River System; our comments are:

The listed parks, monuments, refuges, forests and ranges all merit a high level of protection; while bearing in mind the fact that certain transportation corridors are essential to the unity and economy of the state, as designated in the various inputs to the Joint Federal-State Land Use Planning Commission.

The specific area proposals list unavoidable adverse effects, including bans on mining and costly relocation of right-of-way corridors. These should be qualified in the context of state-wide effect and compared with benefits. Where the cost-benefit analysis of restrictive measures appears to be negative, solutions should be sought for achieving compatibility between nature and a reasonable level of commerce.

219

Very truly yours,

John A. Carlson

JOHN A. CARLSON
Borough Mayor

TAG:JAC:nic

cc: Planning and Zoning

307

RESPONSE TO COMMENTS BY
FAIRBANKS NORTH STAR BOROUGH

219. For a response discussing statewide, or aggregate and cumulative impacts, please refer to response 1. Cost-benefit analysis is discussed in response 34.

NANA REGIONAL CORPORATION, INC.

POST OFFICE BOX 49 / KOTZEBUE, ALASKA 99752 / TELEPHONE (907) 442-3261

May 30, 1974

NANA-74-261

Mr. Theodore R. Swem, Chairman
ALASKA PLANNING GROUP
United States Department of the Interior
Washington, D. C. 20240

RE: DRAFT ENVIRONMENTAL STATEMENTS;
Proposed Cape Krusenstern National Monument
Proposed Noatak Ecological Range
Proposed Selawik Wildlife Refuge
Proposed Kobuk Valley National Monument
Proposed Chukchi-Imuruk National Reserve

Dear Mr. Swem:

These comments are submitted on the above referred draft environmental statements on behalf of NANA Regional Corporation, Inc., its shareholders, and the village corporations of Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Kotzebue, Noatak, Noorvik, Selawik, and Shungnak, and the respective shareholders of each.

It is essential for all who are involved and who hold the destinies of our people in their sometimes capricious, if not fumbling, hands to understand that our people always have and always will have to live by subsistence, not annuities, and that without our caribou and our fish, we are vegetarians without vegetables. Without our trails and our shelter cabins, without our streams and our camps, we are isolated from our relatives and our friends, frozen and stranded in our villages; in effect, landless, the promise of our future broken, because we will be isolated from one another, cut off from our resources, left to decay slowly, to slide into poverty.

If you and others ask how can this be so, then you and others have not analyzed the effects of the Native Claims Settlement Act and its long-term implications.

We do not charge that we, the people of the region effected by the proposals, the most important resource of the region, were ignored or forgotten by those who prepared the proposals, but we do charge that those who prepared the proposals misconstrued the Settlement Act and its effect on us. So we must set the record straight.

First, the Act will not make us rich, as many assume; and the payments will cease almost before they start. The money each individual will receive is small, ominously misconceived by many to compensate for ramifications of all aspects akin to the past uses of lands surrounding respective native villages. It will always be insufficient to support the majority of our people, even at a subsistence level. In effect, we must live off the land if we plan to survive, and we can assure you that we plan to survive.

Therefore, we must turn to the land -- and the first thing we must do is disabuse people as to how much land we have. Forty million acres? Not here. What little land we have, as compared to what we used, will be grossly insufficient to support our subsistence needs. Which means that we must continue to have access to the Federal lands covered by the d(2) proposals, and State lands not so covered, for all of our subsistence needs. Access must be guaranteed to us, and the parks, refuges, and monuments covered by the proposals must be managed with our needs always receiving first priority.

Therefore, your proposals must be altered and any legislation must embody at least these basic provisions:

1. Each park, refuge, monument, or area of ecological concern must always be open to all subsistence uses by the Natives of the region, with no projected or proposed cut-off date for such uses; for, as the years pass, the subsistence needs of our people will have to be satisfied more and more by the lands and waters of our area, not less, for the monies of the Settlement Act will be gone. The subsistence uses must be complete, extending to hunting, fishing, trapping, berry and green gathering, the use of wood for fuel and shelter, and the necessary trade with other Natives. 220

2. All sport hunting and fishing must be prohibited. 221

3. Management of all parks, refuges, and monuments must be by Natives of our region. If we cannot be trusted to manage parks, refuges, and monuments as we have in the past, which is why others perceive these areas to be valuable as parks, refuges, and monuments, then we ask: Who can be trusted to manage them?

4. All trails and navigable waters must be open for Native use. Shelter cabins must be allowed on the trails, camps by the waters, and the use of the waters must extend back for at least a mile from any bank. 222

5. All allotments must be allowed to pass to the heirs. 223

6. There must be no controlled burning and all necessary action must be taken immediately to extinguish any fire. 224

7. All artifacts found must be maintained in the NANA region, in suitable display, either by the regional corporation or a responsible Federal agency.

8. The proposed areas must be reduced in size. They are far too large.

9. The boundaries of the proposed areas must be reconsidered and redrawn. They bear no relation to the management of wildlife. For instance, caribou migrating from the North will cross Petroleum Reserve #4, then through an ecological range, then a national monument, then a wildlife refuge, and throughout this process they also will cross Native and State owned lands, and each of the lands crossed will be under different management. This administrative checkerboard will not foster good management and will only confuse the people of our area, interfering with their subsistence activities. 225

10. Development of natural resources must not be closed from these areas before careful evaluation, taking into consideration national and local needs.

11. Designated areas of ecological concern must not be closed to development and any arrangement entered into by the Secretary of the Interior for management or control of such areas must reflect the general positions stated in this letter. 226

Very truly yours,

NANA REGIONAL CORPORATION, INC.

JOHN SCHAEFFER
Executive Director

cc: Secretary R. Morton
Senator M. Gravel
Senator T. Stevens
Senator H. Jackson
Representative D. Young
Representative J. Haley
Representative L. Meeds
F/S Land Use Planning Commission
Alaska Federation of Natives, Inc.
NANA Board of Directors
NANA Regional Village Corporations
Tundra Times
Anchorage Daily Times
Anchorage Daily News
Fairbanks Daily News-Miner
The Nome Nugget
Kotzebue News
The Seattle Times (Stan Patty)

220. Access for subsistence activities will be available subject to the policy discussed in Chapter I, Legislative proposal and response 58. In addition, of course, access is the right of a holder of a Native allotment. See also Impact on Subsistence, Chapter III, especially regarding trapping.

221. All sport hunting will be prohibited on the proposed monument; sport fishing will be permitted but commercial fishing will be prohibited.

222. Trails will be open for Native use; navigable waters are the immediate responsibility of the State, although so far as NPS planning is concerned, they will be open to Native use. Shelter cabins and camps, compatible with monument values and required by subsistence needs would not be inappropriate. Subsistence cabins and camps as well as visitor circulation patterns will be the subject of future specific planning.

223. They do pass to heirs, given that the allotment uses are compatible with monument purposes and resources.

224. The policy of the NPS toward fire and fire control, from Administrative Policies for Natural Areas of the National Park System is as follows:

FIRE

The presence or absence of natural fire within a given habitat is recognized as one of the ecological factors contributing to the perpetuation of plants and animals native to that habitat.

Fires in vegetation resulting from natural causes are recognized as natural phenomena and may be allowed to run their course when such burning can be contained within predetermined fire management units and when such burning will contribute to the accomplishment of approved vegetation and/or wildlife management objectives.

Prescribed burning to achieve approved vegetation and/or wildlife management objectives may be employed as a substitute for natural fire.

FIRE CONTROL

Any fire threatening cultural resources or physical facilities of a natural area or any fire burning within a natural area and posing a threat to any resources or physical facilities outside that area will be controlled and extinguished.

The Service will cooperate in programs to control or extinguish any fire originating on lands adjacent to a natural area posing a threat to natural or cultural resources or physical facilities of that area.

Any fire in a natural area other than one employed in the management of vegetation and/or wildlife of that area will be controlled and extinguished.

Fire control for a Wilderness Area is as follows:

Wildfire will be controlled as necessary to prevent unacceptable loss of wilderness values, loss of life, damage to property, and the spread of wildfire to lands outside the wilderness. Use of fire lookout towers, fire roads, tool caches, aircraft, motorboats, and motorized fire-fighting equipment would be permitted for such control.

225. The boundaries of this proposal were drawn according to watershed protection, which is considered to be a good unit for self-perpetuating wildlife populations as well. Migrating herds of caribou and migrating birds, however, have ranges which extend considerably beyond watersheds. Please see response 136, for the ecosystem concept which was determined to be the best way to manage the proposed monument. Specific protection of the Arctic Caribou Herd will be sought through cooperative agreements with the various land management agencies, the Corporations, and others (including the ADF&G) responsible for the Herd.

226. Areas of Ecological Concern are not necessarily closed to development. Please see response 40, concerning AEC.

Telephone (907) 452-4755

Doyon, Limited

527 Third Avenue
Fairbanks, Alaska 99701

June 12, 1974

Mr. Theodor R. Swem
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Environmental Impact Statements

Doyon, Limited has reviewed in some depth all of the draft environmental impact statements relating to the so-called (d) (2) "Four Systems" land withdrawals in our region. This letter is our response to your request for comments by interested and effected parties.

Each of the draft statements reflects considerable study and analysis by the prospective managers. Certainly the over-all goals and objectives cannot be criticized; unfortunately, however, the proposed methods of determining and implementing what is "good" for Alaska (and the nation) ranges from the ludicrous to the sublime. Conceptually we can support a number of the proposals but would strongly object to the enactment of others. To endorse any at this time would tend to dilute our strongest criticism of the statements as they now exist.

We have pending the result of an 83 million acre land grab. Intentionally or otherwise, each of the "Four Systems" was encouraged to compete for and justify, in any way they could, why they should be allowed to manage a given area. Bureaucratic objectivity is questionable regardless of the stated goals and objectives. Assuming the areas are to be administered as proposed, over 200 million acres of the nation's most valued lands, as well as a high percentage of Alaska's Coastal areas, will be withdrawn and placed under varying restrictions, of which the total effect has not yet been considered. We view the proposals as a <u>first step</u> toward needed land use planning; it seems prudent, however, to now consider the <u>overall impact</u> (social and economic) to the state and the nation

227

228

as a whole. The combined impact of the proposals is a necessity not to be overlooked.

At this stage, Doyon, Limited can endorse only the need for an overall rational and coherent land use plan which will preserve and protect without frustrating reasonable development expectations. Please let the record indicate that we are using this letter as a vehicle to indicate that we feel another step should be incorporated prior to Congressional action on the proposals. There is now a need for another environmental impact statement, one that will encompass all twenty-eight proposals and their effect upon the state and the nation as a whole.

228

We appreciate the opportunity to respond.

Sincerely yours,

Sam Kito, Jr.
Executive Director

SK/mm

cc: Governor Egan
Senator Stevens
Senator Gravel
Representative Young
Representative Meeds
Senator Jackson
Joe Josephson - State Co-Chairman
Burt Silcock - Federal Co-Chairman
AFN
12 Regions
ANF

RESPONSE TO COMMENTS BY
DOYON LIMITED

227. We have made a good faith effort to study and recommend lands for inclusion in the Four Systems in accordance with ANCSA. For a response concerning objectivity, please see response 111.

228. For a discussion of the overall impacts, please refer to response 1.

Ivisaapaagmiit Corporation
Ambler, Alaska 99786
June 18, 1974

Working out a cooperative agreement between either or both the Ivisaapaamiit and Nana Corporation and the National Park Service so that the Alaskan Natives can have the first right of refusal to become involved with economic benefits that may result, due to the establishment of the monument. It could include, but not be limited to, such things as: constructing the monument headquarters facilities and leasing them back to the National Park Service, boat tours, backpacking trips, guide service, etc.

Working out a joint management agreement between the Ivisaapaagmiit and/or Nana Corporation and the National Park Service to manage the "Kobuk Valley National Monument." The long-range goal would be that of the National Park Service providing the funds for the development and management of the monument and the concessions and management people being provided by the Alaskan Native people. 229

Working out a satisfactory agreement between the National Park Service and the Alaskan Native allottees to where the allotments within the monument can be retained by the family. 230

Developing a long-range training program between the Ivisaapaagmiit, the Nana Corporation, and the National Park Service so that your people can qualify for the National Park Service position within the monument. 231

cc: Theodor R. Swem, Chairman
Alaska Planning Group
United States Department of the Interior
Washington, D.c. 20240

Nana Regional Corporation, Inc.
P.O. Box 49
Kotzebue, Alaska 99752

Bob Bellous

318

Harriet G. Douglas
Harriet G. Douglas,
Secretary

Ivisaapaagmiit Corporation
Ambler, Alaska 99786
June 18, 1974

KOBUK VALLEY NATIONAL MONUMENT
RECOMMENDATIONS:

Subsistence use for AMBLER to continue; including all Nana region. 232

Use local people for guides. Give local people priority in job opportunity. 233

Guides for hunting should be from Nana region.

Harvesting should be allowed in the Park Service for local people.

No dam for hydro-electric power should be structured blocking the Kobuk River; only those streams flowing into Kobuk River. 234

Any Native allotment within the park be willed to the nest of kin. 235

Areas of ecological concern be selected by the people.

Recommend that Is-a-kag-lik (lake east of Hunt River) not be used for aircraft landing on any source of activity, because water for fowl mault in the lake, also within immediate area caribou migration. 236

Ah-new-e-tut Lakes not be disturbed, because water fowl mault and fish sponging.

If the proposal should change in any way, Ambler would like to be informed before any revising in the book. 237

No road or airfields be proposed in the area. 238

Harriet G. Douglas
Harriet G. Douglas, Secretary

cc: Theodor R. Swem, Chairman
Alaska Planning Group
United States Department of the Interior
Washington, D.C. 20240

Nana Regional Corporation, Inc.
P.O. Box 49, Kotzebue, Alaska 99752

Bob Bellous, National Park Service

RESPONSE TO COMMENTS BY
IVISAAPAAGMIIT CORP.

229. The National Park Service looks forward to working with local residents in the development and management of the monument. For further information, please see Chapter IV.

230 & 235 The NPS expects that all allotments within the monument can be retained by the families with the allotments, provided that the allotments are used for subsistence purposes which do not conflict with monument purposes.

231. The NPS recognizes that the many abilities of the Natives of the region may be very useful to the professional responsibilities of the NPS in managing the area. As much as possible, therefore, the NPS will try to employ the local people, both Native and non-Native, to meet personnel needs. We cannot say now, but perhaps a training program can be worked out.

232. Subsistence uses by the people of the region who chose to live a subsistence way of life will continue within the monument as long as no progressive reduction of resources occur because of subsistence. For further explanation, please see response 58 and Chapter I, Legislative Proposal.

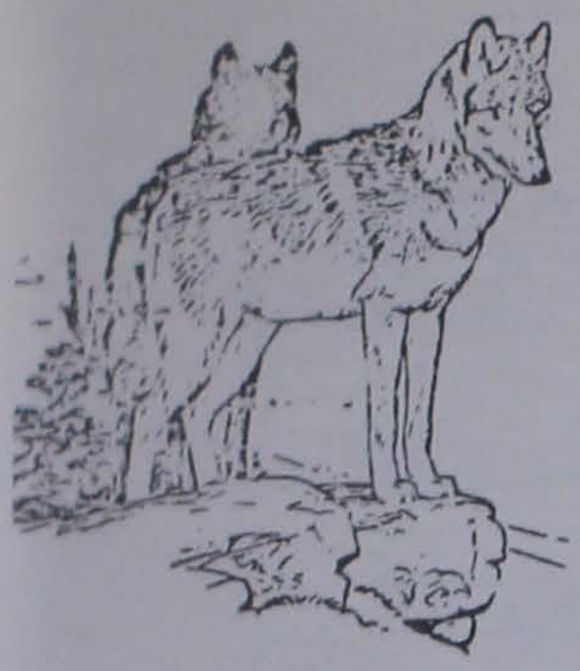
233. Subject to Park Service regulations, local people could serve as guides. However, there will be no sport hunting in the monument, only subsistence hunting.

234. Under this proposal, no hydropower dam will be constructed within the proposed monument.

236. This lake, called "Caribou Lake" on the General Development map in the draft document, has been eliminated as an aircraft landing area in this final document. Your contribution in protecting waterfowl at Is-a-kag-lik is greatly appreciated.

237. Ambler will be informed if any change takes place in the proposal of the Secretary of Interior.

238. No roads are proposed by the National Park Service in the monument. One airfield is proposed.



Alaska Conservation Society

Box 80192 College, Alaska 99701

June 21, 1974

The Honorable Rogers C. B. Morton
Secretary, Department of the Interior
Interior Building, C Street between 18th & 19th NW
Washington, DC 20240

Attention: Mr. Theodor R. Swem, Chairman
Alaska Planning Group
US Department of the Interior
Washington, DC 20240

Dear Secretary Morton:

This letter concerns your Department's proposals for Congressional action on Alaska lands under Section 17 of the Alaska Native Claims Settlement Act. It constitutes the viewpoints of the statewide, parent body of the Alaska Conservation Society on the seven proposals for which comments are due on draft environmental impact statements by June 24, 1974: Aniakchak Caldera and Kobuk Valley National Monuments, Alaska Coastal and Selawik National Wildlife Refuges, Beaver and Birch Creek National Wild Rivers and additions to Chugach National Forest. We request that our comments be made part of the public record on these proposals.

The Alaska Conservation Society has approximately 800 members whose activities support the statewide Society and regional chapters in Ketchikan, Petersburg, Sitka, Kodiak, Kenai, Anchorage, and Fairbanks. Many individual members will provide you with their views on the above proposals, and various chapters will submit statements incorporating local members' knowledge of particular areas. We do not wish to duplicate these reviews; no purpose would be served by doing so. Rather, we will attempt to review the overall approach and substance of the draft environmental impact statements, focusing on policy issues more than detail. We sincerely hope our comments are helpful to you in your revision of the draft statements into final form.

We recognize that impact statements under the National Environmental Policy Act are intended to help us - citizens and agencies - make the wisest decisions humanly possible, a goal to which we contribute the following thoughts.

1. Relationship of Section 17 lands to other federal, state and private (including Native) lands:

When Congress is asked to consider administrative proposals for 17 D-1 and D-2 lands it would be highly desirable for your Department to provide the legislative branch with a comprehensive analysis of the relationships between federal and non-federal lands and land uses in Alaska. To us this seems an essential introduction to the specific proposals and the issues they raise. The initial debates in and out of Alaska already seem to focus so narrowly on D-1 and D-2 lands that one would think all of the region's acreage were involved, instead of only one-fourth to one-third; and that all Alaskan resources would be disposed of or preserved through future Congressional decisions, ignoring the existence of huge federal and state acreages already committed to resource development or scenic preservation.

An analysis such as we propose would provide the basis for an appreciation and understanding by Congressmen and all other Americans of such matters as:

a) the extent of existing federal parks, monuments, refuges and forests (National Forests) in Alaska, the nature of the resource values they contain, the historical management approach within them, and the fraction of Alaska's varied natural resources and environments they contain;

b) the geographic and economic realtionships between federal and state lands in Alaska;

c) a comparison of management goals on federal and state lands in Alaska;

d) the relationships between federal and private land management - notably Native lands - in this State;

e) a comparison of federal interests with State and local interests, both as to their similarities and differences, in the Alaska context.

In our opinion the draft environmental impact statements do not accomplish this perspective adequately, even if the reader laboriously combines all germane statements made in individual reports.

2. The problem of boundaries:

The crazy-quilt pattern of land ownership and management emerging in Alaska today (in part as a result of the politics of statehood and ANSCA) is not one a sane person would devise by choice. We understand fully that the present D-1 and D-2 proposals reflect a hodgepodge of constraints: previous federal decisions, previous and ongoing state land selections, Native selections, intra and interdepartmental compromises at the federal level, the obsession of surveyors with right angles, etc.

Many of these boundary problems are not solvable. Nevertheless, we believe that the draft environmental impact statements reflect boundary choices that were often too responsive to the politics of the situation, not responsive enough to basic land characteristics. Perhaps the best examples among the seven proposals under review at this time are Kobuk Valley National Monument and Selawik National Wildlife Refuge. The large Squirrel River drainage, adjacent to and similar (geographically, ecologically, and in terms of human use patterns) to the Kobuk Valley National Monument lands, is not even mentioned as an alternative addition to the proposed monument. Instead it is appended to the Noatak Ecological Area, perhaps mainly to enlarge the acreage assigned to BLM. The highly important estuarine areas west of the Selawik National Wildlife Refuge proposal are mentioned but not adequately examined as possible additions to the proposal. One is left wondering whether the fear of Native opposition to inclusion of unselected coastal townships in the refuge was the main reason for the approach taken in the impact statement.

The boundary problem often can be lessened by cooperative agreements among landowners controlling parts of a particular ecosystem or resource. We are extremely pleased that a number of the draft environmental impact statements discuss the benefits of such agreements. We fervently hope that the "territorial imperative" characteristic of past management of public lands will be ameliorated in the future in Alaska. Your Department and Congress have an opportunity to show true leadership and innovation in the designation of proprietorships and management systems for D-1 and D-2 areas. The need for agreement between the State, which controls the use of tide and submerged lands, and the Bureau of Sport Fisheries and Wildlife, which will

manage island bird refuges, is obvious. So is the need for a concerted approach to management of Native lands and refuge lands in the Selawik proposal.

3. Subsistence hunting:

When people hunt they derive both pleasure and (if the hunt is successful) food. The precise mixture of food benefits and mental benefits derived is highly individualistic, varying with the hunter's mood, economic situation, the animal sought, etc. Altogether, hunting in Alaska encompasses nearly the full spectrum of mixtures of the two elements.

The policy maker's problem comes when he feels obliged to distinguish between hunting mainly for food and hunting mainly for pleasure, so as to be able to allocate a limited supply of hunting experiences and game animals preferentially. Serious problems are now arising because of the strong tendency of the Department of Interior to use race and place of residence (within Alaska) as criteria for pigeonholing people into "sport hunter" or "subsistence hunter" categories. To suggest that subsistence hunting is some thing only Eskimos, Indians, or Aleuts can do, or that any hunting done by members of those races falls in that category, obviously is completely arbitrary, unrealistic, and socially devisive. To propose formal procedures for giving local residents sole or majority opportunity to hunt in particular federal areas is also a highly questionable choice, (see Selawik proposal, page 221 to 224).

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The draft environmental impact statements at hand contain language indicating that subsistence hunting will be allowed in national monuments as long as it is critical for survival. Since no Alaskan now depends entirely on subsistence hunting for survival (that is, would starve to death if prevented from hunting), there is a great deal of uncertainty in many people's minds as to how federal agencies now interpret this language, or will interpret it in the future.

240

It seems quite likely that in the parts of Alaska covered by the seven proposals under discussion, game is not in short supply relative to current demand. If this is true, built-in preferences for "subsistence" users may be premature as well as inflammatory. A better approach may be to determine whether any hunting should be permitted, considering the primary management objectives of each area. Where hunting is advisable, it should be permitted under regulation of the Board of Fish and Game. If data are needed to

determine whether excessive competition for game is occurring in an area the management agency should obtain use statistics which it can present, along with proposals for new regulations, to the state Board of Fish and Game. Any preferences among users deemed necessary would thus be accomplished under state law, consistent with practice elsewhere in the state. Management agencies would have recourse through the rights inherent in land proprietorship, if state decisions were deemed unsatisfactory.

4. The dilemma of development:

The national monument and wild river proposals (Aniakchak Caldera, Kobuk, Beaver Creek, Birch Creek) face a common dliemma: how much "development" of recreational facilities should be planned in areas established mainly for their primitive, natural character? On one hand, encouragement of recreational use helps the proposals by counteracting the argument against prohibiting commodity resource use. On the other hand, promoting visitor use erodes or destroys the primitive values proposed to be maintained. The draft impact statements attempt to compromise or "waffle" - not very successfully. At best the impact statement authors suggest an estimated carrying capacity (Beaver Creek statement, page 47; Birch Creek statement, pages 56,65), but provide no support for their estimates. More often the impact reports contain contradictory statements about retaining primitive character or studying areas for wilderness designation, and supplying new trails, permitting summer and winter off-road vehicle use, building camprgounds, etc. The public is left confused as to what the Department really wants. At a minimum, the final drafts should eliminate these internal inconsistencies.

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5. Timber resources:

Two shortcomings seem to be present in the impact statements with regard to wood resources.

First, the authors accept the standard definition of commercial timber (an area of at least 20 acres containing at least 8000 board feet of timber per acre). This practice exaggerates commercial timber values because most of the D-2 areas discussed are at the margin of forest distribution. Stands meeting the volume requirement are scattered, small, and far from markets. Growth rates are excessively slow.

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Second, subsistence uses of timber are underrated. Stands of less than "commercial" quality often contain trees useful for cabins, caches, sheds, firewood, and miscellaneous home uses. The impact statements should discuss these values and propose management measures.

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6. Mineral values:

One of the serious barriers to wise land use designations in Alaska is scarcity of firm information on subsurface (mineral) resources. As a result, different groups can make widely disparate claims about the value of these resources, with little evidence available to judge the claims. The impact statements are replete with references to mineral occurrences, mineralized zones, prospects, and other qualitative comments about mineral values. Wherever a surface use is proposed that would prevent mineral development, or the reverse, it is necessary - but impossible - to weigh the conflicting values.

One approach might be to calculate, on the basis of market prices and costs of extraction, processing, and transportation, how large a deposit of a given mineral (fluorite, copper, gold, etc.) would be required in a given area to allow profitable extraction. The probability of such an occurrence could then be estimated. The opportunity cost of prohibiting mining could thus be roughly calculated.

It is also obvious that not all mining is necessarily in the public interest from a national or even statewide viewpoint, even if a profit could be derived by a private firm. The calculus must include the degree to which other mines or other metals could substitute for production from the site in question, the reduced value of surface resources resulting from production, and so on.

In one instance we believe that the impact statements dismissed too lightly the possibility of eliminating mineralized areas from a national monument (Kobuk). There may be justification for reducing the proposed monument by removing the area north of Caribou Lake and east of Kaliqurichеark River, where high asbestos and copper potential exists. Surface cultural and natural features in this area are not exceptional.

244

Several impact statements advise that mineral resource inventories be made before areas are proposed for wilderness status. We agree with this approach provided that nothing happens before or during

the inventory-to degrade wilderness values. In general, the National Park Service and Bureau of Sport Fisheries and Wildlife presently have statutory authority allowing them to provide such assurance. The Bureau of Land Management does not, and the Forest Service does only on designated Primitive or Wilderness Study Areas.

The above comments touch most of the important general shortcomings of the seven draft environmental impact statements. It should be stressed that each area impact statement contains other significant, but specific, errors of fact or omission and cross-threaded reasoning. We urge that your Department study the specific comments of Alaska Conservation Society members and chapters, toward the end that these D-2 statements will better serve their purpose as planning and decision making aids.

Sincerely yours,

Robert B Weeden

Robert B. Weeden
President
Alaska Conservation Society

RBW:ts

237. This point has been clarified in Chapter II, Subsistence Activities and Harvests. Race will not be a consideration in the determination of who does and who does not pursue a subsistence lifestyle.

240. This point has been expressly clarified in Chapter I, Legislative Proposal, and response 58. The "human survival" language is dropped.

241. No development inconsistent with wilderness designation will take place on the Kobuk Valley National Monument prior to a completion of wilderness studies. The concern over the potential foreclosure of options for wilderness designation is understandable, but the management objectives for the proposals do not preempt wilderness options; they further the intent of the Wilderness Act.

Decisions regarding management policies, including development and public use, must be within the guidelines of the basic legislation of the managing agency and the authorizing legislation for the particular area. A wilderness study and proposal would be made within the context of these management policies.

The studies of the d-2 lands which were carried out during the two-year period designated by Congress identified the resources at hand, and although not specifically directed towards wilderness designation, the wilderness values of the area were given consideration. These values were tentatively identified in the environmental impact statements.

The legislative proposal does not foreclose further wilderness designation by Congress. Also, any developments to be considered would require an environmental assessment or statement, which would include a further look at the impact of the development on wilderness values.

242. The sections on timber in Chapters II and III point out that timber has only marginal commercial value and that slowness of growth is a factor. Availability of timber resources for subsistence users is permitted under this proposal. See also response 194. Chapter VIII, Multiple Use, analyzes the impact of commercial lumbering upon subsistence use.

243. Alternative C-4; Chapter VIII has been expanded to more fully analyze the impacts of deleting this section of the proposed monument.

245. Please refer to the new alternative boundary, C-7, in Chapter VIII.

TANANA - YUKON CHAPTER

Alaska Conservation Society

Box 80071
College, Alaska 99701

June 20, 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
U.S. Department of Interior
Washington, D.C. 20240

Dear Mr. Swem:

I am forwarding to you comments prepared by Dr. Peter C. Lent on the draft environmental impact statement for the proposed Kobuk Valley National Monument.

The Board of Directors, Tanana-Yukon Chapter, Alaska Conservation Society, has endorsed these comments as representing its view and position on the proposal.

I particularly want to direct your attention to the comments regarding "subsistence". The word is regularly used to characterize a particular life style common in Alaska, which is extremely difficult to concisely define. Dr. Lent has made several important points that indicate what subsistence, or subsistence life-style, is not, in contemporary Alaska: 1. subsistence living is no longer total dependence on local resources for survival; 2. natives are not the only Alaskans who pursue a subsistence life-style; 3. "subsistence" does not mean that the products of hunting, trapping, fishing, or food-gathering are only used locally and are not sold for cash.

"Subsistence living", or the "subsistence life-style" as found in Alaska, is constantly changing, but it does involve heavy dependence on local resources of various kinds, it is pursued to various degrees by numerous Caucasians, and some proportion of the products of "subsistence" pursuits is generally converted to cash in order to obtain equipment ordinarily considered necessary to continue subsistence pursuits.

Perhaps the most consistent characteristic of the "subsistence life-style" is that it makes possible a greater degree of local, or regional, self-sufficiency than is commonly found in the U.S. today.

I stress this subject because it is of considerable importance in much of Alaska affected by the D-2 proposals, and because, as Dr. Lent pointed out, the subject is so poorly handled in this (and other) proposals.

I hope these comments will be helpful in improving the D-2 proposals.

Yours truly,

R. H. Bishop

Richard H. Bishop, President
Tanana-Yukon Chapter
Alaska Conservation Society

cc: Robert Weeden, President
Alaska Conservation Society

KOBUK VALLEY NATIONAL MONUMENT
Comments on the Draft Environmental Impact Statement

By: Peter Lent, PhD
for the Alaska Conservation Society

May 15, 1974

We support the concept of a Kobuk Valley National Monument. However, we find the proposal and the draft Environmental Impact Statement both unacceptable, as written. We are extremely disappointed in the overall quality of this EIS. Agencies of the Department of Interior should be leaders in producing professional, objective Environmental Impact Statements. The Kobuk Valley National Monument (KVNM) EIS is not one that either the National Park Service or the Secretary of Interior should be proud of. In the following text we first summarize our major comments and then provide details on these and other matters in the page by page commentary.

We find the draft EIS severely deficient in the following matters:

1. The terms "Native" and "subsistence" are used throughout the EIS but are never adequately defined. Understanding of the usage of these terms is critical for evaluating both the proposal and the EIS.

2. The unfavorable social, political and economic impacts resulting from closing of the proposed KVNM to "non-subsistence" hunting and trapping are not adequately considered. Further the unfavorable political and social impacts of proposed regulations that would permit one

or more races ("natives) to hunt [illegible] in the area but not other races ("non-natives") are not dealt with. The tremendous problems that would arise from the National Park Service attempting to enforce the types of regulations they propose are totally ignored. The management of the area requires innovative thinking on the part of the National Park Service and not just extention of traditional approaches to hunting and fishing.

3. Current uses of the area and its resources by "non-natives" are ignored or underestimated.

4. The EIS does not adequately evaluate the economic impacts which would result from inclusion of a zone of high copper and asbestos potential in the northeastern part of the proposed monument. Since almost no mention is made of natural or cultural features falling within this part of the proposed area the reader is unable to weight the alternatives adequately. The most logical and practical boundaries may indeed lie somewhere in between the proposed boundaries and the alternates discussed under C.4 and C.6 (see attached map).

5. Inclusion of the adjacent and contiguous Squirrel River drainage, which is also in the D-2 category, is not even mentioned or considered as an alternative. We believe that serious consideration would be given to deletion of this river drainage from the Noatak Ecological Area proposal and inclusion of it in the KVNM. The Squirrel River is geographically a part of the Kobuk River System, not the Noatak System. Ecologically it is much more similar to the rest of the Kobuk River

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drainage than it is to most of the Noatak drainage. Culturally it is more closely connected with the villages of the lower Kobuk, especially Kiana and Noorvik, than it is to Noatak village.

The following are our detailed comments:

page 1: "The Natives" is a vague term the usage of which is not clear. It is critical for proper evaluation of the EIS to have a clear definition of the term. Does it refer only to Alaskan Eskimos? What about subsistence use by "Caucasians" resident in the area? Why is the impact on these "non-natives" ignored throughout the EIS?

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page 2: The statement regarding subsistence uses being permitted until "...no longer necessary for survival," borders on the absurd. Is the National Park Service seriously suggesting that the actual survival of Kobuk River Valley residents is dependent today on subsistence uses in the area of the proposed KVMN? We think not. What, then is meant? The EIS itself documents to a certain extent the large amounts of welfare funds and services that support the residents of the area, the considerable amount of wages that are available on a seasonal basis or that flow into the area from labor performed outside. These statistics, however, are better documented in the Selawik National Wildlife Refuge EIS. We could agree that the general health and mental and physical well-being of the Kobuk Valley residents are aided by "subsistence" activities, but to imply that these people are at this time dependent upon these activities for their very survival is highly

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misleading!

page 6, p.241 and elsewhere: The words "Native" and "subsistence" are used frequently but are nowhere adequately defined. Understanding their usage is absolutely critical for proper understanding and evaluation of the proposed actions. Is a "Native", for example, 1) any native as defined in ANSCA (Public Law 92-302), 2) only those as defined in this law who are residents of the Kobuk River drainage, or the NANA Region, or 3) only those who have traditionally performed subsistence activities in the area of the proposed KVNM? Would the NPS, for example, permit an Eskimo resident in Fairbanks to fly an airplane to the area for "subsistence" caribou hunting while at the same time excluding a Caucasian resident of Ambler or Kotzebue from hunting for food in the area? These are very real and serious question that must be directly addressed and are certainly not hypothetical. Caucasian individuals have lived and carried out subsistence pursuits in the proposed KVNM for ten years or more, although the authors of this EIS seem to be unaware or ignore their existence. Missionaries and other "non-natives" of relatively low income status have used the area for meat supplies. What will be the greater impact on the state of Alaska of the racial schysms likely to arise from such discriminatory regulations as the NPS proposes? What is the impact on federal-state relations to be when the NPS attempt to enforce regulations on hunting and fishing on a racial basis when the constitution of the state of Alaska specifically prohibits such discriminatory laws? Questions of

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such larger scope are not even considered.

We know of no reasons why sport hunting, however defined, should be curtailed within the proposed unit. Indeed, no good reasons are clearly stated in the proposal or the EIS. It is stated that such hunting is light and will continue to be so in the absence of proposed actions. We believe that traditional, local uses of fish and game resources can be adequately protected by regulating the timing and methods employed in hunting activities and that these regulations, as required, should be developed in close cooperation with the Alaska Department of Fish and Game. For example, appropriate restrictions on use of aircraft for hunting purposes and restrictions on legal aircraft landing sites alone would be likely to resolve most foreseeable resource use "conflicts". Other types of temporal and spatial zoning could be employed to accomplish specific management goals. 249

page 10: In keeping with our comments above and our remarks throughout we believe that Management Objective 13 be reworded by deletion of the word "subsistence" to read: "Continue the opportunity for hunting, fishing, and harvesting based on defined limits of tolerable resource degradation and within historical amount of such use".

page 21: No mention is made of the Alaska Department of Fish and Game. Cooperation with this agency is essential. See Management Objectives 10 and 11, page 10. 250

251 page 30: Here, as elsewhere, the EIS authors fail to mention non-native (Caucasian) residents and subsistence users of the proposed KVNM area, and fail to discuss impacts on these individuals.

253 page 52-55: Other maps showing larger zones of high petroleum potential have been prepared and submitted to the JFSLUPC. We suggest that these be reviewed for the final EIS.

254 page 84: It is recommended that the NPS consult with Alaska Department of Fish and Game biologists to obtain more accurate data on fish harvest in this area.

page 115: We believe that every effort should be made to include the entire Onion Portage Archeological District in the boundaries of the proposed KVNM.This 12,800 acre addition would greatly strengthen one of the major purposes of the proposed monument.

page 182: We concur strongly with the need for and the importance of wildlife habitat protection in the area.

255 page 188: The comment is made that Dall sheep have virtually disappeared "for unknown reasons". Evidence for such drastic declines is weak. However, we contend that the estimated annual harvest for the village of Ambler of twenty sheep is far in excess of the real figure. Our contention is based on information from local residents and the opinion of knowledgeable ADF&G biologists.

The proposed action to close the area to sport hunting but leave it open to sport fishing is not justified adequately nor are the impacts adequately assessed. We suggest that the conclusions reached are illogical and highly influenced by traditional NPS attitudes and practices that may have no applicability to the Kobuk situation. On one hand sport hunting would be abolished when it is clearly stated that its impact is and will be light. On the other hand it is proposed to continue sport fishing which, it is stated, may have moderate unfavorable impact. Logical and rational treatment is entirely lacking. 256

page 190: We agree strongly with the need for inter-agency and private - government agreements to develop over-all management and land-use strategies for maintenance of the Arctic caribou population.

page 191-192: Statements here reveal a naive approach to plant ecology. Vegetation adapted to natural phenomena such as ice-scouring is not necessarily resistant to human disturbance effects. 257

page 194: The reference to "seasonally used cabins" is misleading. At least one of these structures has served as a home for a family for approximately 40 to 45 months over the past five years and one other has been occupied on a year-round basis during at least one recent year. The authors of this EIS have again chosen to ignore the well-known fact that families of "non-natives" have resided and still are residing within the boundaries of the proposed KVNM, and have carried out subsistence activities there. 258

259 page 196: The sentence reading "Impacts on existing cabins could be purchased and removed..." makes no sense.

260 page 195: Specific proposed developments of such a major nature should either be treated in adequate detail or deleted at this time. The NPS treats the proposed air strip in an almost tribal fashion. Any private corporation proposing such a development in de facto wilderness on federal lands would undoubtedly be required to develop a detailed EIS for such. Why should the NPS do any less?

261 page 205-207: Figures are presented for projected visitors resulting in the Kotzebue area five to ten years after establishment of the proposed KVNM. No clear basis for these estimates is given, no analysis, survey or report is cited. The reader has no basis for evaluting the accuracy of these estimates so important to evaluation of the overall economic, cultural and biological impact.

262 page 209: The statement that beaver pelts from the Kobuk area are not marketable is unquestionably false. It follows that the statement that beaver trapping is done entirely for local consumption is also incorrect No indication is given of how the NPS authors arrived at these remarkable conclusions. It appears, however, to be part of a subtle attempt throughout the EIS to convince the reader that all or almost all of the resource utilization currently practiced in the area is "subsistence utilization (according to the authors' narrow usage). We disagree strongly with the proposed action to prohibit trapping for sale of furs.

The NPS has again displayed a lack of logic and a strong and irrational bias in their treatment of this resource use. On page 208 we read, "Trapping remains a subsistence activity but has become more of a part-time economic activity and even a recreation activity for some." This statement, however, vague and equivocal it may be, does express some essence of the situation: human activities in the area do not neatly fall into categories: such as "recreational", "economic", and "subsistence" as the authors' would have us believe in most of the document. Indeed, for all the lip service given in the proposal to understanding and preserving Eskimo culture the authors totally fail to realize that this cultural quality, in which one's daily and annual cycles of activities do not fragment into such neat categories, is perhaps the very essence of what distinguishes it from typical "American" culture.

After this digression let us return to beaver trapping, however. The authors inform us that 400 beaver are killed by Ambler residents annually. The magnitude of the harvest figure is dubious but if it is correct are we then to believe that all 400 beaver are consumed locally for food and clothing? This stretches the imagination. Our local informants have not noticed the entire populace of Ambler going around dressed in beaver pelts.

All that is a side issue, however. The crux of the matter is that it makes no biological sense and certainly no economic sense to permit use

snowmachines for "subsistence" purposes in the proposed area but prohibit sale of furs taken to help pay for the snowmachines. We contend that sale of furs is just as much a "logical continuation of the generations of activities that make the area important in archeological terms" (p.) as is the use of snowmachines! Indeed the EIS points out that the historical and archeological record clearly demonstrates the importance of trade between Kobuk Valley residents and neighboring groups. Would the NPS permit barter of beaver skins for seal oil but not permit their sale? We hope the absurdity of attempting to draw such distinctions is clear. We must point out that there is no significant biological difference in a properly managed fur resource harvest whose end result is a fur coat in Topeka, Kansas, from one whose end product is a fur coat in Kiana. Finally, we again note that the authors have failed to report the fact that "non-native" trappers have used the area and we see no legitimate reason why they should not be permitted to continue to participate in using this resource.

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page 210-211: Our opinions on the proposed prohibition of sport hunting are expressed elsewhere. The treatment of impacts is very misleading because the text emphasizes unduly non-resident hunts and, again, pays no attention to resident "sport" hunting. Data on polar bear hunting is totally irrelevant and should be deleted. The adverse impact of such a prohibition on local residents (including Kotzebue) who are not natives would be substantial. This is because their activities would not be considered "subsistence" as described in the EIS. We suggest

that for a proper treatment of this subject the NPS should at very least attempt to document the amount of caribou, moose, bear and small game hunting carried out in this area by non-natives resident in NW Alaska. We believe that if the NPS does the above they will not be able to conclude that the effects of a hunting ban would be "non-significant"
It seems also necessary to remind the Task Force authors that almost all the other land in the area will become regional or village property and therefore, may not be available and open to non-native use.

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page 214-215: We consider the one and one-half page treatment of the impacts to result from closing the area to mining and mineral entry to be totally inadequate. More space was devoted to trapping than to mineral industries! Alternate boundaries seem possible that would exclude most of the zone of high copper and asbestos potential in the NE part of the proposed area (East of the Kaliqurichcark River and north of Caribou Lake) without any loss of the natural and cultural features that are the major justifications for the establishment of the KVNM.

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page 215: The EIS fails to consider that by "potentially precluding transportation corridors through the proposed area" they may be enhancing cultural values and maintaining quality of life for the people, an impact far outweighing the minor economic impacts discussed. These comments apply to the "cultural impacts" discussion (p.223-225) as well.

265

page 226: We concur strongly with the need for and beneficial impacts from full protection of the Salmon as a Wild River. We doubt that

construction of an air strip on this river is compatible with that goal

page 231-233: We must question the ability, financial and otherwise, of the NPS to carry out the "basic studies necessary" as listed. We suggest a good case could be made that such studies have not yet been carried out on any of the long-existing NPS units in Alaska to any degree of adequacy.

page 235: Prohibition of sport hunting is here recognized to be a significant adverse effect.

page 236: We believe that proper wilderness study and classification will minimize and confine the adverse effects of "mandated" developments for public use.

266 page 247: Management for wildlife as the dominant value would not necessarily entail significant habitat manipulation. Such manipulation would not be likely to be carried out until after the wilderness classification studies have been completed. Wilderness areas delineated would be unavailable for such "biotic manipulations".

page 254: We agree with the plan to add contiguous lands to the proposed KVNM that lie within the Kiana and Ambler village withdrawals, if these are not selected. These parcels of land will undoubtedly be identified before Congress takes action on this proposal.

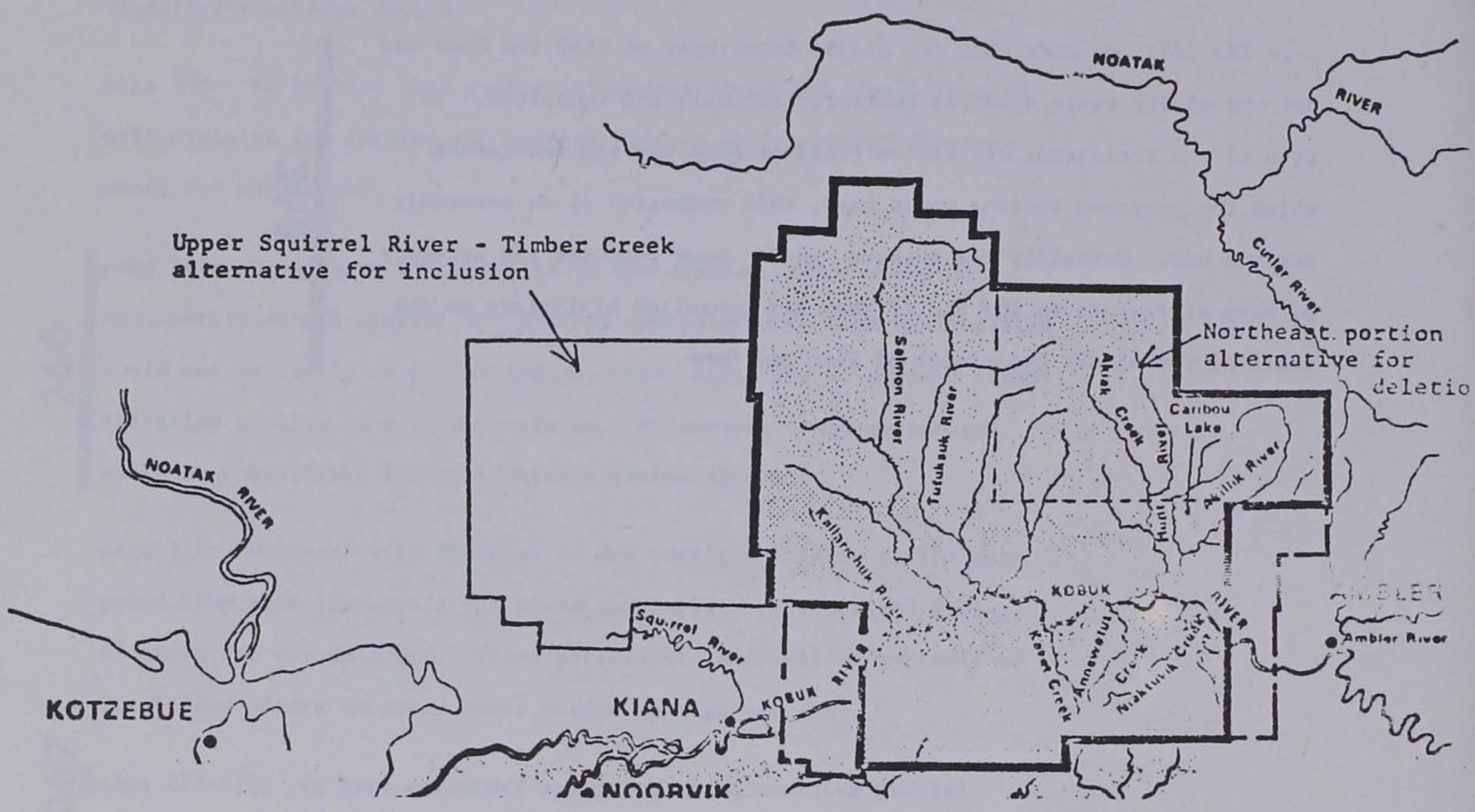
267 page 263-271: We have elsewhere suggested an alternative partial

deletion from the proposed KVNM in that portion of the Baird Mountains to east of the Salmon River drainage and north of a line running north of Caribou Lake. This would remove much of the zone of high copper and asbestos potential from the monument without seriously affecting any of the major natural or cultural features recommended for protection and would retain the Salmon River drainage intact as a wilderness river.

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page 282-283: We note that the Alaska Department of Fish and Game was not one of the state agencies contacted directly and consulted. In view of the tremendous effects on resident game and its management which the proposed actions would have, this ommission is an extremely serious one. Certainly the authors would have improved the accuracy of many statements in the EIS if they had consulted biologists on the staff of the Alaska Department of Fish and Game.

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Upper Squirrel River - Timber Creek
alternative for inclusion
NOATAK
RIVER
Curlew River
Northeast portion
alternative for
deletio
Selmon River
Tutuksuk River
Akiok Creek
Caribou
Lake
Killik River
Kallarchuk River
KOBUK
Kobuk Creek
Annaweluk Creek
Niaktuvik Creek
AMBLER
Ambler River
NOATAK RIVER
KOTZEBUE
Squirrel River
KOBUK RIVER
KIANA
NOORVIK

RESPONSE TO COMMENTS BY
ALASKA CONSERVATION SOCIETY
TANANA-YUKON CHAPTER

246. "Native refers to Eskimos, Aleuts, and Indians. Within the area of the proposed monument the Inupiat Eskimo are the Natives who predominantly inhabit the area. Non-Natives (including caucasians) are among those who undertake the subsistence lifestyle. This is clarified in the sections on subsistence us in Chapters II and III; particular concern for the fostering of the Alaskan Eskimo culture (Chapter I, Legislative Proposal, purposes) is derived from the NPS's responsibility to the history of the United States and the very significant contribution of the Alaskan Eskimo to this nation's heritage, as well as the historic continuity of the Eskimo culture for thousands of years to the present. However, guided by the intent of ANCSA, no racial distinctions will be established in the material management of the area.

247. The "survival" language is deleted and policy clarified in Chapter I, Legislative Documents. See also response 58.

248. Please refer to response 246, above, which addresses your concern that subsistence implies a racial distinction. Concerning your request for a subsistence definition, please refer to Chapter I, Legislative Proposal for the policy of this proposal toward subsistence. In accordance with this policy, any necessary procedures relating to subsistence will be determined with the consultation of affected communities, individuals, and the ADF&G.

249. Under this proposal sport hunting will be prohibited. Hunting is permitted in National Monuments in only the most extraordinary of circumstances. The extraordinary exception here is subsistence: "The monument would be managed as a Natural Area as defined by the National Park Service, but with an important policy alteration to allow continuance of local resident subsistence uses."

250. A recognition of the role of the ADF&G is added to the section. Specific ADF&G roles regarding hunting and subsistence activities had been outlined in the Alaska Conservation Act.

251. Specific mention of the non-Native subsistence users is added.

252. Additional petroleum information, from the U. S. Geological Survey and the American Association of Petroleum Geologists has been added to these sections and to the Minerals II map; a Petroleum Provinces map has been added.

253. The ADF&G has been consulted, additional information has been obtained, information has been added to the text in Chapter II, including sections on Subsistence Activities and Harvests, Wildlife and Outdoor Recreation Resources.

255. Recent information from ADF&G biologists indicates uncertainty of the population trends of the Dall sheep. ADF&G concern that NANA subsistence figures are high is added to appropriate places in the document.

256. Impact on Wildlife regarding the provision to ban sport hunting has been expanded to address longer-range impacts. Impact on Sport Hunting as been substantially revised to address the prohibition of sport hunting. However, it is not the purpose of this statement to justify policies toward hunting and fishing, but to analyze their impacts.

257. The statement does not assume that the vegetation is impervious to human impact. It states that the impact will be slight. With the visitor facilities located on barges, the major impact on the vegetation will be hikers and this impact can easily be mitigated by periodically changing the location of the barge facilities.

258. There was no intention to mislead; the comment does not appear to contradict the statement in the document. Further, we can find nothing here which indicates that the document "ignores" non-Native residents.

259. The garbled sentence is unnecessary and has been deleted.

260. Please review Chapter I, Administrative Action, second paragraph. All development will be preceded by an environmental assessment. Any development of significant impact will, of course, require an environmental impact statement--airfields included.

261. This comment is answered in the response to response 185, and discussion of the methodology of the projections is reviewed in the revisions to Impact on Local Market Economy, Tourism in Chapter III.

262. Subsistence trapping, or trapping in which the activity either directly or indirectly (through cash) supports a lifestyle dominantly patterned after traditional subsistence, has been discussed in greater detail in Impact on Subsistence. Sources have been added. The statement that beaver pelts are not marketable has been deleted. The "400 beaver" figure comes from the NANA survey.

Commercial trapping, or trapping which supports a lifestyle based primarily upon the cash economy, remains under Impact on Local Market Economy which has been revised. Commercial trapping would be prohibited.

263. Chapters II and III have been revised to include discussion of local resident sport (non-subsistence) game harvest activities. Data on polar bear has been deleted, although the reason for including polar bear in the discussion remains in the revised Impact on the Local Market Economy, Sport Hunting and Fishing, which also addresses the impact on the sport hunter.

Again, race is not the standard criterion for subsistence use. Ongoing subsistence studies may answer many questions of resource use.

264. Impact on Mining and Mineral Entry has been revised to be more objective, but the fact is that very little is known of potential mineral resources. More specific to this comment, however, would be Alternative C-4, Chapter VIII. See also comments and references in response 3 and 6.

265. The impact that potentially precluding land transportation and utility corridors may have on subsistence is discussed in Impact on Local Society and Culture and Impact on Subsistence, which have been revised to include this discussion.

266. This alternative assumes management for wildlife rather than wilderness values. The text has been revised to indicate that habitat manipulation is only one option available under this use option.

267. This alternative is added to Chapter VIII. Deleting the northeast portion has similarly been included. The Squirrel River additions map has been redrawn to more closely follow the watershed.

268. ADF&G was consulted. Please see response 206.

ALASKA GEOLOGICAL SOCIETY

P. O. BOX 1288
ANCHORAGE, ALASKA 99501

June 24, 1974

Mr. Theodor R. Swem
Chairman-Alaska Planning Group
U. S. Department of Interior
Washington, D.C. 20240

The Alaska Geological Society, affiliated with the American Association of Petroleum Geologists, recognizes its obligation to speak and act on environmental problems. The responsibilities of the earth scientist as stated in the AAPG Environmental Policy include:

1) Maintenance of a quality environment,

2) Provision of man's material needs by planning and supervising the extraction of mineral resources, and

3) Participation in the conservation and wise use of resources.

In this context the Society respectfully submits the following general comments for your consideration concerning the Draft Environmental Impact Statements prepared for lands withdrawn for classification pursuant to Section 17 (d) (2) of the Alaska Native Claims Settlement Act. We also plan to submit additional comments on individual draft statements under separate cover.

GENERAL COMMENTS

Certain problems are apparent in all of the draft EIS's. The major problems are:

1) The geologic descriptions provided are inadequate. In each case the descriptions merely emphasize the lack of basic resource data available for the proposed withdrawal areas. For example, the statement prepared for proposed additions to the Chugach National Forest does not even mention the word "Geology". Nine sentences purport to describe the "Minerals, Oil and Gas" of an area comprising 672 thousand acres.

2) The impact statements do not meet the same high standards of scientific research required of industry by Federal agencies. A typical example is the statement for the proposed Selawik National Wildlife Refuge. In the description of the environment, an unreferenced list of mineral occurrences" in certain areas of the Kotzebue Sound Region" highlights the geological section on page 76. The bedrock of the region is undescribed, as are the geologic structure, seismicity and groundwater potential.

3) The impact statements seem designed to justify the proposed actions rather than to analyze objectively the far-reaching implications of each proposal. The reasoning under "Impact on Mining and Mineral Entry" of the proposed Kobuk Valley National Monument is revealing:

> "Since prospecting would not be allowed, there may never be a complete inventory and analysis of these (mineral) resources. Therefore a full assessment of the impacts of the proposal's preclusions of resource removal would not be carried out." (from page 215; emphasis added.)

269

4) Many of the statements dismiss the impact of banning mineral exploration and production as minimal because of the supposed low potential or relatively small area of the proposed withdrawal. Such reasoning ignores a fundamental characteristic of mineral deposits: their limited areal extent. The cumulative effect of all withdrawals is also ignored.

270

The Selawik proposal again is representative:

> "However, in our judgment it is doubtful that forgoing the extraction of the deposits would have more than minimal impact on the industry or on the industry or on the total need of the nation since the potential is believed to be low within the refuge and not sufficient to affect the nation's supply and demand for the resource." (from page 171; emphasis added).

These comments cover a virtually unexplored area of 1.4 million acres adjacent to another (Kobuk) proposed withdrawal of 1,850,000 acres.

RECOMMENDATIONS

Before large tracts of land are closed to mineral entry, the U.S.G.S. should pass judgment that ore deposits or petroleum fields are not likely to be present. In order to make this judgment, the U.S.G.S. should supervise detailed geological, geochemical, and geophysical exploration by its own personnel, other State and Federal agencies, and private industry. Withdrawals accomplsihed without this judgment will be subject to great pressures for future exploration and development when commodity shortages intensify. It will be easier to maintain park and refuge integrity if the U.S.G.S. can prove that further exploration would be either fruitless or economically infeasible.

When the d (2) proposals are given further consideration, additional studies should more carefully refer to existing geological literature. Most important is the series of resource evaluations now being conducted by the Alaska State Division of Geological and Geophysical Survey. If existing literature is not fully utilized, the impact statements could easily become the objects of protracted litigation.

We appreciate this opportunity to comment on behalf of the membership of the Alaska Geological Society.

Yours very truly,

Thomas Wilson,
President

T. Wilson /FDK

By: Robert L. McCollom
Environmental Committee Chairman

RLM:cw

RESPONSE TO COMMENTS BY
ALASKA GEOLOGICAL SOCIETY

269. The section, Impact on Mining and Mineral Entry, as been revised to improve the objectivity. The quoted statement, however, is considered objective and non-justificatory (see letters from the Bureau of Mines and U.S. Geological Survey, this Chapter).

270. For cumulative effects, please refer to response 1.

ALASKA WILDLIFE FEDERATION
AND SPORTSMEN'S COUNCIL, INC.
1700 GLACIER AVENUE, JUNEAU, ALASKA 99801

AFFILIATES
iry
'age Chapter,
Valton League
~~Conservation Society~~
ity of Alaska Wildlife Club
a Chapter,
Valton League

Range Association
Sportsman's Association
Rifle & Pistol Club
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Sportsman's Association
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nan's Association
rial Sportsmen, Inc.

April 1, 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
National Park Service
Department of Interior
Washington, D. C.

Re: Kobuk Valley National Monument

Dear Mr. Swem:

The Council does not accept the statement as adequate justification for creation of the subject monument. If the area must be included in a withdrawn status, we suggest a National Forest or National Refuge and thus provide for multiple use and all of the objectives stated for the proposed monument.

The terms "subsistence hunting" and "sport hunting" are not defined. The discrimination of allowing "natives" to take game is contrary to the Alaska Constitution. 271

The purpose "to foster the continuation of the Alaska Eskimo culture" is wholly unrealistic, inhuman, and undesired by the Eskimo youth desiring a better way of life. The social and "welfare" life of people of the Kobuk is critical and every effort should be made to either use all potential resources or permit the people to move to areas of greater potential. We also believe the tourist potential shown in the statement is unrealistic simply because of the cost to, and age of, those tourists presently flying to Kotzebue. 272

If this proposal endures through the Congress, we suggest that (1) the area be a "Park" and not a "Monument." (2) Mineral resources be more fully appraised and the potential conflict with controlled mining and the monument. (3) The effect of the proposed roads, both beneficial and harmful, to the monument be appraised before access is denied.

Very truly yours,

A. W. "Bud" Boddy

A. W. "Bud" Boddy, Executive Director
Alaska Wildlife Federation and Sportsmen's Council

RESPONSE TO COMMENTS BY
ALASKA WILDLIFE FEDERATION AND SPORTSMEN'S COUNCIL, INC.

271. Please refer to responses 130 and 248 for a discussion of subsistence hunting. Additional functional description of subsistence may be found in Subsistence Activities and Harvests, Chapter II. Sport hunting generally is all hunting except subsistence hunting.

272. Please refer to response 185 and also to Impact on Local Market Economy, Tourism, for discussions of tourist projections.

EUGENE ZWOYER, *Executive Director*

AMERICAN SOCIETY OF CIVIL ENGINEERS

345 EAST 47th STREET • NEW YORK, N. Y. 10017 • (212) PL 2-6800

July 1, 1974

Honorable Rogers C. B. Morton
Secretary of the Interior
Washington, D. C. 20240

D-2 LANDS IN ALASKA

Dear Secretary Morton:

Very careful study by knowledgeable members of the American Society of Civil Engineers has produced commentary on the proposed restrictions on use of D-2 lands in Alaska.

Review by the Task Force on Land Use Policy Planning, a national committee of this Society, resulted in endorsement of the observations and conclusions expressed. These statements are enclosed, with the intent that this may be helpful in the continuing studies in your Department.

Should the circumstances indicate any useful purpose to be served, this Task Force offers to have representatives meet with your officials to discuss this issue of national significance.

Sincerely,

Eugene Zwoyer

Eugene Zwoyer
Executive Director

Enc.

COMMENTS ON THE DRAFT E.I.S.

FOR KOBUK VALLEY NATIONAL MONUMENT

Page 1

In the description of the proposal, it is suggested that the relationship of this Monument to that of the Selawik and Gates of the Arctic proposals, be mentioned. Also in the third paragraph, how does this proposal differ trom the Gates of the Arctic proposals other than the Kobuk Sanddunes and the Onion Passage archeological site? Certainly, the fact that the National Park System does not contain an area of interior and western Alaska cannot be taken as an overwhelming reason to establish a park.

273

274

Pages 5 and 6

It is difficult for an agency not to write a justification statement. These two pages sound very much like a justification statement.

Page 17

The third paragraph and following paragraphs outline the research proposed on the Onion Portage Archeological District. This is commendable, and certainly should be pursued.

Page 21

The third paragraph states, "The proposal for a Kobak Valley National Monument is also interrelated with the other N.P.S. areas proposed within the region." It might be interesting to explain how.

275

Page 22

Again the statement that N.P.S. does not contain a representative area of this part of Alaska. This in itself is not and cannot be a valid reason for establishing a monument. 276

Second paragraph. Boating and canoeing are available in many parts of the state and will continue to be available whether it's a park; B.L.M. land, state land, or private land, as long as it is a navigable stream.

The sand dunes and Onion Portage are valid reasons for a monument.

Page 31

This would be an excellent map to show how the rest of the D-2 proposals relate in the northwestern part of Alaska. 277

Page 55

From information gleaned from other papers, the Quaternary deposits having a potential for petroleum deposits extends into the monument. This map should be revised. 278

Pages 73-79

A great deal of time was spent on birds, particularly the migratory species. The Park Service has made a thorough presentation. However, it tends to over emphasize the importance of the value of the monument land. The map on page 75 indicates the majority of the habitat is only of medium value. Perhaps a downward revised value for the ducks per square mile is in order. 279

Page 85

A well-done prehistory and history section. I enjoyed reading it.

Pages 183-185

This section is very biased, in that everything bad will happen if the land is not managed as a N.P.S. monument. A typical justification statement.

First assumption: Possible, but the state could also make it a park.

Second assumption: Possible and, hopefully, not all these lands chosen should become a park. Some lands should be state or native corporation lands.

Third assumption: True, change will occur, in spite of how hard we may try to stop it.

Conclusions to assumptions: "If economically exploitable minerals are found mining" could "take place." It is not a certainty. Resources can be taken out with a minimum damage to the environment.

"Tourism would increase at a slower rate...." Perhaps that's good. Some resources such as gas and oil can be taken out with very few permanent people, thus minimizing the impact.

Habitat improvement projects could also be initiated if the lands were not managed as a monument and thus increase wildlife.

There are many advantages to hydroelectric projects, as well as disadvantages. The sentence implies they are all bad.

Page 208

First paragraph. It should be mentioned here that no habitat improvement projects can take place in a monument. The success of these projects can be outstanding, thus really improving the Kotzebue fishery, not just maintaining the status quo. 281

Page 214

Near the middle of the paragraph it is mentioned that larger deposits exist outside of the park proposal. It could also be stated as fact that larger deposits exist outside Alaska and elsewhere in the world. But the point is that a large deposit exists within the proposed monument, and this should not be minimized. 282

Perhaps the extent of the moderate petroleum potential in the proposal needs also to be pointed out. This is mentioned briefly and casually in the second paragraph. 282 283

Page 219

First paragraph. If a monument will preclude the construction of a road through the park, then this is a major impact on the surrounding area. A copper mine cannot depend on two months of river transportation to have an economically feasible mining operation. It is suggested that the N.P.S. consult with the Highway Department and further coordinate their statements prior to making the assumption that the impact will be minor. 284

Page 236

Last sentence, first paragraph. Exploration and mining... would be prohibited by the proposal (not limited). 285

Page 240

Second paragraph. Mining is not necessarily a short term use. There are mines which have supported communities for 100 years or more. It is a probability that a mine would have to have 15 to 20 years of minerals to even start up in Alaska. How long is short-term? 286

Pages 254-270

The alternatives seem to be weighted heavily in favor of additional lands, rather than lesser areas. Alternate boundary C-4 or C-5 appears to be a reasonable compromise. C-4 would have to allow a transportation corridor on the north side of the river. These two alternatives preserve the Great Kobuk Sand Dunes and protect the Onion Portage site. The mineralized Baird Mountains would then be available for development, as well as the jade deposits. With proper state or federal controls, the mining would not interfere with caribou or recreational opportunities.

The State Fish and Game can provide hunting and fishing controls or management improvement projects to regulate the wildlife population. Subsistence hunting would be a difficult management responsibility and may antagonize many more people.

In closing, it is recommended that the above comments be considered and addressed in the final impact statement. It is further urged that Alternate C-5 be established as the Kobuk Valley National Monument rather than the original proposal.

360

RESPONSE TO COMMENTS BY
AMERICAN SOCIETY OF CIVIL ENGINEERS

273. For a description of the Selawik National Wildlife Refuge proposal and the Gates of the Arctic National Park proposal, please see the Alaska Conservation Act in Appendix K. For the geographical relationship of the various proposals, a map of Alaska showing the proposal areas is available with this document.

274 & 276. For this, please see response 3 and also the National Park Statement for this area in Appendix I.

275. The other NPS proposals in the region, Cape Krusenstern National Monument and Chukchi-Imuruk National Reserve, will be administered out of Kotzebue, and coordinated whenever appropriate. Also, as in the case of the Arctic Caribou Herd, coordinate management policies will be observed with these areas as well as the Selawik National Wildlife Refuge and Noatak National Arctic Range.

277. A map of Alaska showing the various proposal areas is available with this document.

278. This Minerals II map has been revised based upon U.S. Geological Survey information.

279. For a response on duck population please see response 5.

280. This section has been revised for objectivity.

281. Please see Chapter VIII, Dominant Use Management for Wildlife Values. It is not entirely true that no habitat "improvement" projects will be permittted. Under NPS policy, projects may be permissible which minimize human-created change and which perpetuate the natural ecology and indiginous species.

282. The size of deposits within the proposed area is indeed the important point of analysis; implications to the contrary have been deleted. The size of potentia- deposits is unknown.

283. Information regarding extent of petroleum potential from the comments of the U.S. Geological Survey (see this Chapter, this section) has been added to Impact on Mining and Mineral Entry, Chapter III.

284. The monument itself would not necessarily preclude a road. Impact on Transportation has been expanded to clarify this point. Information regarding the relationshi between transportation and mining and transportation is added to Impact on Mining and Mineral Entry, Chapter III. A monument would preclude a road only if there is no feasible alternative and no bona tide need as determined by the Secretary of Transportation (49 U.S.C. 1653(f)).

285. For a response, please see response 69.

286. On our view of long-term vs., short-term, please see response 10.

THE
NATIONAL
FEDERATION
OF

BUSINESS AND PROFESSIONAL WOMEN'S CLUBS, INC.
of the United States of America

2012 MASSACHUSETTS AVENUE, N. W.
WASHINGTON, D. C., 20036
293-1100

February 8, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

I have recieved your letter requesting The National Federation of Business and Professional Women's Clubs, Inc. to submit recommendations on the Draft Environmental Statements of the Alaska Native Claims Settlement Act (ANCSA) of 1971 (35 Stat. 688). Our organization is involved with many legislative matters, however this is not an item on the current platform. Therefore we can not take a position for or againist the statement pertaining to the Alaska Native Claim Settlement Act.

Thank you for giving us an opportunity to recieve the material.

Sincerely,

Lucille Shriver

(Mrs.) Lucille Shriver
Director

LS:dmm

THE CONSERVATION FOUNDATION

1717 Massachusetts Avenue NW Washington DC 20036 • (202) 265-8882 Cable: CONSERVIT

January 22, 1974

Mr. Theodor R. Swem
Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem:

I wish to acknowledge your letter of December 28, 1973, and its transmittal of draft environmental impact statements on 28 Department of the Interior proposals under Section 17(d)(2) of the Alaska Native Claims Settlement Act. The Conservation Foundation has a long background of interest in, and studies concerning, Alaska and we are following closely the tremendously significant proposals for the creation of new National Park, Wildlife Refuge, National Forest and Wild and Scenic River areas there. We appreciate your forwarding the impact statement to us.

As Mr. Atkeson has explained to you, we ourselves expect to undertake a one-year study of the management issues involved in Congress' final designation of the D-2 areas. Rather than make isolated comments on the impact statements on the basis of the information available to us now, we propose to prepare a systematic report on these management issues that will take account not only of the impact statements but also the forthcoming recommendations of the Federal-State Land Use Planning Commission and our own field survey of selected D-2 areas in Alaska. We will keep you advised of the progress of our study and hope to work in close cooperation with both the Department and the Land Use Planning Commission.

I would like at this time, however, to compliment your Alaska Planning Group on the excellent work in the impact statements. Our preliminary review indicates that they are

both thorough and useful. In particular we wish to compliment the exposition of alternatives on the various areas and the very clear identification of "areas of ecological concern" extending beyond the boundaries of the particular D-2 area proposals. These aspects assure that the public and the Congress will have available to them the type of impact and policy analysis intended by the National Environmental Policy Act.

One observer has already identified the Alaskan D-2 area designations as having as great long term significance for the Nation as the original adoption of the National Park concept at Yellowstone 100 years ago. We concur in this view of the importance of your work and will hope to play a helpful role on our part in clarifying the issues involved in the ultimate decisions to be made by the Congress.

Sincerely,

William K. Reilly

William K. Reilly
President

cc: The Honorable Rogers C. B. Morton
The Honorable John C. Whitaker

EXXON COMPANY, U.S.A.
POST OFFICE BOX 120 · DENVER, COLORADO 80201

EXPLORATION DEPARTMENT
WESTERN DIVISION

CRANDALL D. JONES
MANAGER

June 4, 1974

Re: Draft Environmental Statements
"Four Systems" Lands
State of Alaska

Mr. Theodore R. Swem
Chairman, Alaska Planning Group
United States Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Pursuant to the "Notice of Availability of Draft Environmental Statements" which was published in the Federal Register, 38 FR 35508, December 28, 1973, as amended by "Notice of Extension of the Review Period" which was published in the Federal Register, 39 FR 7817 February 28, 1974, Exxon Company, U.S.A. makes comments as follows:

We have examined the twenty-eight Draft Environmental Statements and it appears to us that the statements accurately assess the impact of the planned uses on these lands. We feel, however, that since the proposed plans would have the effect of closing to entry approximately 64 million acres under the public land laws, including the mineral leasing laws, the alternative to this (i.e., allow mineral leasing) should be given more consideration in these statements.

While there may be time in the future for public expression on the desirability of the legislative proposals, it is our opinion that once the Environmental Statements are finalized it becomes extremely unlikely that the plans will then be amended to provide for mineral leasing of any lands within the withdrawn areas.

Millions of acres of Alaska lands have been unavailable for oil and gas exploration for several years due to the Native claims. Now that the time for Native selection of lands is near, pursuant to the Alaska Native Claims Settlement Act, it seems to us that now is also the time for the Secretary of the Interior to seriously consider an orderly opening of public domain lands to mineral leasing as opposed to permanently withdrawing these lands from oil and gas exploration. While much of the land, proposed to be withdrawn from mineral leasing under the "Four Systems" plans, does not presently appear to have an oil and gas potential, future information may considerably alter this. The critical shortage

of oil and gas in the U.S.A. is, in our opinion, a strong reason for the Secretary of the Interior to carefully consider the oil and gas potential of these lands prior to placing them in classifications which would permanently withdraw them from oil and gas exploration.

We shall sincerely appreciate your consideration of our above comments.

Very truly yours,

CDJ:mws

FAIRBANKS ENVIRONMENTAL CENTER
Box 1796
Fairbanks, Alaska 99707
(907)-452-3312

James E. Kowalsky, *Director*

Mr. Theodore Swem
Room 1351
Office of the Director
Alaska Planning Group
National Park Service
US Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem,

It is my pleasure to submit this letter and the enclosed comments on the draft environmental impact statements for the establishment of certain lands as units of the four national systems for the record of the final environmental impact statements on behalf of the Fairbanks Environmental Center, Inc.

Our comments are made on the statements for the establishment of the Birch and Beaver Creek National Wild Rivers, the Kobuk Valley National Monument, the Selawik National Wildlife Refuge, the Coastal National Wildlife Refuges, the Aniakchak Caldera National Monument, and the Additions to the Chugach National Forest.

It should be noted that the Fairbanks Environmental Center, Inc. is a broadly-based community supported organization established for educational purposes. It is governed by a local board of directors who set all policy for the Center, and it has a membership of more than 150 people.

As our comments will reflect, we are very concerned for the future of our Alaskan lands, for its outstanding populations of land and marine mammals, birds, and fish as well as for the water and land habitat which supports them. We are concerned for the vast unspoiled stretches of wildlands, the unique scenic attractions, and the great variety of these features which are found in our state. We are concerned for the protection of whole, unspoiled ecosystems with the pure land and water resources found within them. We are also very concerned for the perpetuation of whole indigenous aboriginal cultures which have evolved within these regions of Alaska over many centuries.

We are also concerned and aware that there is yet a great opportunity at hand to give these features of Alaska strong, statuatory protection by an act of Congress, and we support the concepts which will give this protection to our land.

We have reviewed these statments, agreed or disagreed with some of them, suggested improvements, and made a technical review of their adequacy. We sincerely hope that they will be useful to the agencies and that they will be helpful in writing strong, well documented and analyzed final statements.

Thank you for your consideration.

Sincerely,

Barbara Tabbert

Barbara Tabbert
President
FAIRBANKS ENVIRONMENTAL CENTER, Inc.

6-F-2

Fairbanks Environmental Center
Kobuk Valley National Monument Proposal
Comments on Draft Environmental Impact State
June 14, 1974

Summary

We support the establishment of a Kobuk Valley National Monument (herein described as "Monument").

The Draft Environmental Impact Statement (herein described as "Statement") is lacking in discussion of regional relationships of the Monument. There is virtually no discussion of how this proposal would relate to The Gates of the Arctic National Park, the Noatak National Arctic Range, the Chukchi-Imuruk National Reserve, or the Selawik National Wildlife Refuge with the proposed Chimasso addition, all D-2 proposals of the region. There also should be a discussion of how these proposals, in relating to each other, also relate to the present and future land uses of the region. Would certain uses be preempted, discontinued, dictated or otherwise be directly or indirectly affected by the enactment 287
of any or all of these proposals? What would the regional impact be of these proposals, if enacted, be upon the Arctic Caribou herd and other resources of the region? How does this Monument relate to the critical calving ground of this caribou herd within Naval Petroleum Reserve Number Four, for 288
example?

How does this Monument affect future transportation developments throughout the entire region? How would this proposal affect future development of mineral resources on a regional basis? 289

We also feel that this Statement needs better to define the <u>regional</u> socio-economic impacts which would result from this proposal. Also, a clearer definition of the terms "Native" and "subsistence" need to be developed, and a more clearly stated policy needs to be developed as regards Native, non Native and non subsistence hunting and trapping uses, and the regulation of these uses. 289 290

<u>General Comments</u>

There also needs to be a clear statement which tells why the proposed status is for national monument rather than national park. 291

One alternative not discussed, and which we find highly logical and attractive, is the inclusion of the Squirrel River within the Monument. This inclusion of a watershed now in the Noatak D-2 proposal makes greater sense than to leave it in the Noatak proposal since it is a part of the Kobuk River System and ecologically much more similar to it. 292

Under discussion of regulation of subsistence uses, the proposed actions sound vague and weak as regards protection by regulation of critical habitat and depleted species.

We also find that several contradictions within the Statement are apparent. The projected conversion of the area's residents to a cash economy as a result of administrative and other jobs resulting from the establishment 293

ofthe Monument, and the projected annual visitations to the Monument and to the region seems to be severely at odds with the purpose: "To foster the continuation of the Alaska Eskimo culture---"(pg. 5).

293

Comments Which Are More Specific

Language suggesting "survival" as the necessity to allow subsistence might be adjusted to better reflect other services / which help residents of the area. At the same time, a clear definition of subsistence would be appropriate. Such a statement might well reflect the need for these residents to augment their gathered and hunted food, clothing and shelter supplies with subsistence activities, and also that the subsistence activity contributes importantly to the cultural, spiritual, mental and physical well-being of these residents.

Natives should be specifically defined within the context of special uses of resources. All references to a racial basis for determining such uses should be removed, and recognition should be clearly made of the need for local, indigenous residents of any possible race to receive subsistence and other regional benefits.

294

Consultation with the Alaska Department of Fish and Game must be conducted and was apparently not (pg.21). If this is not accomplished, the final Statement must indicate exactly why this has not been done.

293

Maps showing more detail and larger petroleum zone potential which were submitted to the Joint Land Use Planning Commission should be included in the final Statement.

The 12,800 acres of the Onion Portage Archeological District left outside the Monument but within the Area of Ecological Concern should be added. A lucid explanation for this exclusion is missing. 298

Local residents and knowledgeable biologists suggest the local harvest figure for Dall Sheep (pg. 188) is very much too high. 297

Continuation of sport fishing may have unfavorable impact within the Monument. This should be explored more in the final Statement with proposed policy changes if then found necessary. 296

The proposed inter-agency-private-governmental agreements to develop an over all management and land use strategy for the Arctic Caribou herd (pg. 190) is very desperately needed. It should receive much more attention, and could be placed in higher perspective within this proposal, and in the final Statement. 299

The Statement should not assume that vegetation which adapts to and survives ice scour is therefore impervious to the impacts of human activity (pg. 191-192). 300

"Seasonally used cabins," (pg. 194) may ignore the fact that some of these structures have served as homes for families in the past for longer than a particular season. The State- 301

ment also, again, needs to reevaluate the presence of non-Native families residing and subsisting within the boundaries of the proposed Monument. 301

The proposed air strip in the de facto wilderness of the Upper Salmon River area is completely contradictary to the declared policy to not alter or destroy cultural resources pending the "professional examination of the affected area (to be) conducted to determine whether any such values are present---"(pg.230). Furthermore, "The proposal of an air and boat transportation system will insure minimum impact of people on the land---"(pg. 228) further contradicts the study-before-develop posture the Statement alleges to set forth. The National Park Service (no more than the US Forest Service or any other federal land agency) should not expect to propose developments for de facto wilderness in pristine areas to be acceptable to the public.

We strongly object to the inclusion of this air strip without first fully assessing its purpose and its total impact, framing these efforts within the main context and purpose of this proposal. 302

The earlier comment for better regional impact analysis is apparent on pages 205 to 207. Visitor projections lack basis, analysis and references. In turn, socio-economic, cultural and biological impacts are very difficult for the reader to reassure, given this incomplete picture. 303

Trapping and Subsistence Questions

This section (page 209) needs to be rewritten to more logically set forth the rationale for the proposed treatment of these activities in the proposal.

For example, the difficulty of easily arranging beaver trapping into economic, subsistence and recreational activities is apparent here (pg. 203). It may be that the proposed purpose (to understand, and preserve the Eskimo culture) requires this section to be rewritten. The Eskimo culture may not be as easily categorized as our culture is with respect to such matters as trapping.

The reference to 400 beaver annually taken by Ambler residents suggests that all could not easily be utilized totally by Ambler residents. Perhaps some are traded and sold?

Prohibition of fur sales resulting from snow-machine use, while allowing snow machine use for subsistence perhaps underscores this lack of ease in conveniently categorizing Eskimo cultural activities, and probably denies the fact of dog sled use evolving to snow machine use among thse people.

The Statement does recognize that trade exists between these inland Eskimos with coastal peoples, but does not make clear that it would allow barter but not sale of beaver skins and seal oil to coastal peoples. If cultural patterns are to be encourages to exist as a result of this proposal, and if categorizations are not easily established, then we believe extensive rethinking and rewritting is need-

ed here to more reasonably and convoncingly set forth in this proposal.

We do recognize that game managers and wildlife biologists are not in the business of making value judgements, but are qualified to recognize that, biologically speaking. hunting, trapping, and snow machine useage in these activities may be valid, necessary, and not necessarily damaging to the resource.

However, we also recognize that these are National Interest lands and are of interest to the nation as a whole. The fact that the general public desires to have some preserves, such as National Park Service lands, managed to protect wildlife, unhunted, is not necessarily a situation dictated by biological necessity, and it should not necessarily be such. We recognize rather that this practice reflects a value judgement to which our public is entitled. In other words, not all decisions are biologically based, nor need be.

Our purpose here is not to advocate all hunting, trapping, fishing and other gathering, or free sale, barter and trade of byproducts because these activites are biologically reasonable, which they may be.

Rather we urge the National Park Service to face the question of subsistence use within this proposal head on, realistically, and with thourough documentation, such

as of the amount of caribou, moose, bear, and small game hunting by Natives and non Natives of the entire region. In this light, the significance of a ban on sport hunting (pg. 210-211) could be better described.

The relationship of the closure within the Monument to the closure of Native owned lands in the region to non-Native sport hunting should also be examined in this light. 305

More evaluation should be given to the advantages of precluding surface transportation corridors to the purpose of preserving the Eskimo culture (pg. 215, and pages 223-225 under "cultural impacts."). 306

Salmon Wild River

We strongly support the stated need and beneficial impacts of protection of the Salmon as a wild River. An air strip is inconsistent with this desired goal.

Alternatives

Under No Action, it is not clearly stated as to precisely what D-1 status is, or what its resultant developments would be in the proposed area. 307

Wilderness designation under management for wildlife as the dominant value would preclude habitat manipulation, a practice not necessarily needed for this alternative anyway (pg. 247).

We support the plan to add contiguous lands not se-

lected within the Kiana and Ambler village withdrawals.

Any deletions from the proposed Monument for mining potential (pg. 227), or contemplated in future proposal as an alternative action, should thouroughly assess the impacts upon the ecological unit described in the Statement, as well as on the area's cultural importance.

RESPONSE TO COMMENTS BY
FAIRBANKS ENVIRONMENTAL CENTER

287. For aggregate impacts, please refer to response 1. Please see also Chapter I, Interrelationships, as well as Chapter III, Impact on Wildlife, Impact on Subsistence, and Impact on Transportation.

288. Cooperative agreements will be sought with all appropriate parties, including the Naval Petroleum Reserve Number Four, to develop an overall management strategy for the Arctic Caribou.

289. Please see Impact on Transportation in Chapter III, and also Impact on Mining and Mineral Entry.

290. Specific definitions of permissible subsistence activities within this monument will be determined by consultation with affected individuals, communities, and the ADF&G; however for a response, please refer to responses 246 and 248.

291. As Administrative Policies for Natural Areas of the National Park System states:

> National parks and national monuments, generally, differ in these significant respects:
>
> Parks are relatively spacious -- monuments may be any size. Parks, generally, possess two to more unique scenic or scientific values of superlative quality -- monuments need only one attribute of scientific or prehistoric significance.

The proposal area would qualify as a monument within the National Park System.

Please note, however, that all natural areas -- whether national parks or national monuments -- receive the same protection and subject to the same administrative and management policies.

292. Please see Chapter VIII, where this alternative is added.

293. Any statement within the document which might lead to the mistaken impression that the NPS is conducting a policy to eliminate subsistence has been clarified. The NPS will make the monument area available for subsistence pursuits, but it would not dictate to residents of the region what kind of lifestyle, cash or subsistence, they may pursue. Some cash employment will result from monument establishment for some who desire it; the NPS will attempt to minimize the adverse impacts of visitor use on subsistence..

294. Regarding the definition, see your comment, (290) above. Any references to race as a basis for subsistence have been removed. "Human survival" language poorly expressed the intention of the NPS; please see response 58 for policy clarification.

295. The NPS consulted with the ADF&G before the draft and final statements.

296. The sections, Impact on Sport Hunting and Fishing and Impact on Wildlife recognize that increased visitation could put significant pressure on popular species. The ADF&G will still have regulatory power to avoid overuse of the sheefish and other populations. The NPS may restrict access or require access permits if pressures become excessive.

297. For a response, refer to response 255.

298. The subject legislation provides that all of the Archeological District unselected by Native withdrawals be included in the monument.

299. The intent of the NPS to develop cooperative strategies to maintain the Arctic Caribou Herd has been clarified in Chapter I, proposals contained within Master Plan, #4.

300. For response, please see response 257.

301. For response, please see response 258.

302. Please see response 260; study will precede development.

303. Please refer to #185 for response.

304. Please refer to #262 for response.

305. The impacts of the policies of private landowners are beyond the review of this statement, although some of the regional considerations regarding sport hunting may be found in Impact on Sport Hunting and Fishing.

306. The potential impacts of a possible preclusion of transportation corridors on subsistence is discussed in Impact on Local Society and Culture and in Impact on Subsistence, which have been revised to include this discussion.

307. D-2 status is clarified in No Action, Chapter VIII. It should be remembered that d-2 lands which revert to d-1 status are under the same protection as d-2 until specific action is taken to change that status.

FRIENDS OF THE EARTH

DAVID BROWER, *President*

BOX 1796, FAIRBANKS, ALASKA 99707

(907) 452-3312

JIM KOWALSKY, *Alaska Representative*

June 19, 1974

Mr. Theodore Swem
Room 1351
Office of the Director
Alaska Planning Group
National Park Service
US Department of the Interior
Washington, D.C. 20240

RE: Enclosed comments on Draft EISs for Alaska National Interest Proposals

Dear Mr. Swem,

Enclosed herewith you will find various comments on each of seven proposals for Alaska's National Interest lands as follows: Birch and Beaver Creek National Wild Rivers, Kobuk Valley National Monument, Selawik National Wildlife Refuge, Coastal National Wildlife Refuges, Aniakchak Caldera National Monument, and Chugach National Forest Additions.

These comments represent a position taken by Friends of the Earth, Inc. whose principal offices are located at 529 Commercial, San Francisco, California 94111. It is understood that, as Native and state selections of lands are made, certain boundary changes will be made, and that exchange arrangements may further influence currently proposed boundaries in all proposals.

Furthermore, it is also understood that certain areas of administrative consideration are necessarily flexible because they require additional thought, such as subsistence uses of resources contained within each proposal area. It should be very clearly understood that Friends of the Earth has always strongly supported the traditionally oriented aboriginal ways of our Native people, and that we shall continue to support these practices as they relate to these lands, based upon demonstrated needs of Native peoples, desires to retain cultural patterns among them, and based upon good conservation practices which assure continued productivity. Friends of the Earth is a friend of Native peoples everywhere, and is establishing a record of assisting them in Alaska where they need and seek our help.

It should also be clearly understood that we consider any subsistence rights and priorities which are made along racial lines to be unconstitutional. We are mindful of this point because certain non-Native peoples living in generally Native areas also depend upon a continuation

of the use of certain resources in a subsistence context. We support that continued practice under the same general guidelines as for Native people, and we note that these non-Native residents are few in number. We do urge the Department of Interior to come up with some solid guidelines which will protect both the resource and these people. It is very necessary, for example, to set forth clearly how the Secretary will review the need to allow continued subsistence uses on these lands after specified periods of time. To allow Interior at the Secretary's level, or at the agency level, to make such deliberations and decisions on their own without direct input and full participation by the people involved is wrong.

308

There must be a process described in the Final EISs which demonstrates that Natives and others involved in subsistence uses will cooperatively decide such matters.

It should also be noted that our comments frequently refer to substitute bills to establish these D-2 units which have been introduced in Congress this year: S.2918 by Senator Henry Jackson, and H.R. 13564 by Morris Udall. These substitute bills have been written after extensive input from Alaska conservationists, wildlife managers and biologists, economists and sociologists, and others who are well aquainted with Alaska and its people, including botonists and plant ecologists, anthropologists, archeologists, fisheries biologists, foresters, sportsmen, geologists, housewives, lay people and others, all acting in the private sector. This input was participated in by Friends of the Earth at the Alaska and national levels. The whole effort was coordinated by the Alaska Wilderness Council, an Anchorage-based study group.

The Council helped to coordinate this input with national interests in order to assure that national interests were represented in the drafting of the substitute bills, S.2918 and H.R. 13564, which were introduced in Congress by request.

Friends of the Earth is a national conservation organization with a national membership of about 25,000 including nearly 200 members who are located in Alaska from Barrow to Ketchikan. It retains a conservation field representative in Alaska and works closely with Alaska conservation matters. It also has sister organizations in foreign countries and operates a Friends of the Earth International. As such, it has an interest in the World Areas Ecological Program's Ecological Reserves, conceived at the recent UN Stockholm Conference on the Human Environment. We suggest several D-2 proposals be recommended by the Secretary for this program. We will make this recommendation for other D-2 areas as we comment on those Draft EISs in the next few weeks. Questions on the program should be directed to David R. Brower, President of Friends of the Earth at our San Francisco address.

We consider the D-2 National Interest Lands in Alaska as one of mankind's greatest opportunities to give careful management and protection to some of the greatest expanses of wild country containing vast undisturbed ecosystems which support great populations of wildlife of major significance in the entire world. This opportunity truly represents our last chance to do things right the first time, on a world-wide scale. As such, we are aware that the protection of these vital lands fits into the overall land planning opportunities of the

State of Alaska, and that it represents opportunities unsurpassed for the Nation and for the World at large.

Friends of the Earth will continue to take a major interest in this matter. We ask that our comments along with this letter be made a part of the official record of comments to be considered in the writing of the Final Environmental Impact Statements for these proposals. We will also vigorously pursue the improvement of certain among these proposals, to more satisfactorily round out an entire ecosystem where they are fractured or segmented in the Interior proposals, of which there are several notable examples. Surely in Alaska there is the opportunity to keep entire systems in tact, a promise which the Secretary also made, but which he has been forced to break by purely political considerations.

Enclosures

Sincerely,

Jim Kowalsky
Alaska Field Representative
FRIENDS OF THE EARTH, Inc.

FRIENDS OF THE EARTH

DAVID BROWER, *President*

BOX 1796, FAIRBANKS, ALASKA 99707

(907) 452-3312

JIM KOWALSKY, *Alaska Representative*

Kobuk Valley National Monument
Comments on the Draft Environmental Impact Statement (EIS)
May 31, 1974

Conclusions and Recommendations

Friends of the Earth favors the proposal to establish a Kobuk Valley National Monument.

We support the stated purposes of this proposal, including the perpetuation of "indigenous plant and animal communities, geologic features, and scenic values," and the fostering of the Alaska Eskimo culture. To accomplish the latter we appreciate and support the necessity of making the resources of the area available for hunting, fishing, and gathering activities to the established residents of the area, including the Eskimo people. We also recognize that a few non-Native families and individuals are established residents of this area and require / be used these resources/in the same subsistence manner.

Friends of the Earth does not support the taking of such resources on racial lines, but rather, based upon established residency, need of those indigenous peoples, and "provided that such use is consistent with the preservation of primary resource values."

We recommend that subsistence as an activity be

better defined in the Final EIS, and that "Native" be more clearly defined in the Final EIS.

309

Friends of the Earth strongly agrees and supports the proposal to place the Salmon River in the National Wild Rivers System. We find that the air strip on the Salmon proposed in the EIS conflicts with this intent, as it does with the proposed study of the Monument for possible wilderness classification, and we strongly oppose the planning or building of an air strip in this de facto wilderness area.

310

Friends of the Earth also urges that the entire 12,000 acre Onion Portage Archeological District be added to the Monument proposal. This action would greatly strengthen one of the stated purposes of the Monument.

311

Furthermore, we believe that the stated purposes of this Monument has significance world-wide. Friends of the Earth therefore recommends that the Kobuk Valley National Monument be included as a unit of the World Areas Ecological Program as conceived at the recent Stockholm Conference on the Human Environment. The Final EIS should explore this program to establish a world gene pool, and to assure survival of those hunter-

gatherer cultures who choose to retain this activity.

We also recommend that the final EIS make a major attempt to relate the proposed Monument to regional land use options, and to regional social, cultural and economic impacts.

Furthermore, Friends of the Earth recognizes the national interest in this unique region, and urges that the Final EIS relate the proposal to the nation's interest and its needs with specific examples.

The Final EIS should also directly relate the proposal to regional D-2 proposals, such as to the Chukchi Imuruk, Selawik, Cape Krusenstern, Noatak and Gates of the Arctic proposals. 312

Comments, Questions

Why was this proposal for a national monument rather than a national park? 313

Why is the Squirrel River not in the proposal, but in the Noatak proposal instead? It is a part of the Kobuk River valley. 314

Proposed regulations of subsistence uses are weak and poorly defined as regards protection of critical habitat and depleted species.

In more clearly defining "Native" and "subsistence," all racial references as regards proposed special uses should be deleted, and indigenous peoples with established needs should be emphasized. Subsistence should also reflect the cultural, spiritual and physical needs and fullfillment required by these people. 315

The Final EIS should resolve the conflict which now exists between the proposal's stated purpose, "To foster the continuation of the Alaska Eskimo culture..." with the annual projected visitor rates to the Monument. Furthermore, the projected conversion to a cash economy resulting from this proposal is at odds with the proposal's stated purpose, and this should be resolved. 316

Sport fishing impacts in the Monument look unfavorable in the Draft EIS.

The proposed alternative agreements to develop a management strategy for the Arctic Caribou herd is greatly needed, and will help tie this proposal to a regional consideration. 317

The section on trapping and subsistence needs extensive reworking. It is apparent from the statement itself that the various aspects of the Eskimo culture may not be easily or narrowly identified in relation to these activities as in the non-Native culture. 318

Whereas recreational hunting and trapping, or the practice of these for commerce, or for subsistence, may easily find a convenient slot in the non-Native world, it does not in the Eskimo world.

Barter with coastal Eskimos is known to be widely practiced, but it is not known from this proposal whether sale of beaver skins and seal oil will be permitted.

The National Park Service needs to discuss all these matters more clearly in the Final EIS with perhaps some rethinking of the subsistence discussions. 318

What is the land classification plan developed by the Outdoor Recreation Resources Review Committee as modified by the National Park Service, and how does it relate to this proposal? 319

Why was the Alaska Department of Fish and Game not listed as being consulted? Were they approached, and, if so, what was their response? Since wildlife matters are of the essence in this proposal, the Department's role in helping prepare this proposal must be clearly outlined. 320

Alternatives

The reader cannot easily determine what would

happen if the no action alternative resulted in land reverting back to D-1 status. What does D-1 status mean? 321

Wilderness designation would neither allow nor require habitat manipulation under management for wild- 322
life as the dominant value.

The addition of the Squirrel River needs discussion as an alternative. 323

Kiana and Ambler village withdrawals not selected by Natives should be included in the Monument.

Areas within the Monument which would be reviewed for possible mining activity should be thouroughly assessed to demonstrate the adverse impacts this action will have upon the ecological unit described in the Draft EIS. The impact upon the cultural aspects of the proposal should also be measured in discussion of this alternative.

308. Specific subsistence criteria and policy will be established with the consultation by the National Park Service with the affected individuals and communities involved and, of course, with the ADF&G.

309. For a response, please see responses 246 and 248.

310. Please refer to response 260.

311. All Archeological District lands, not selected under Native Withdrawal, are provided under this proposal for inclusion in the monument.

312. For response, please see response 1, the National Park System Plan Statement in the Appendix for how the proposal relates to the nations interests and needs; see also response 275, for relationship to other proposals.

312. Please see response 291.

314. The Squirrel River area was not considered for inclusion in the proposed monument; the Secretary determined that the necessary values of the interior and northwest Alaska were represented in the proposed area; see Alternative C-8, Chapter VIII.

315. Subsistence activities will not be permitted on the basis of race. See also response 58.

316. Please see response 293.

317. The NPS intent to develop cooperative strategies for the maintenance of the Arctic Caribou Herd is clarified in Chapter I, proposals contained within master plan, #4.

318. Please refer to response 262, for a response.

319. The map, Land Classification, shows the system as modified and applied to this proposal.

320. The ADF&G was consulted; it is not listed through an error. A complete response may be found in response 206.

321. Please see No Action, Chapter VIII, for an explanation.

322. This alternative assumes management for wildlife rather than wilderness values. The text has been revised to indicate that

habitat manipulation is only one option under this management system.

323. This alternative is now included in Chapter VIII, C-8.

MMISSIONERS:
IARTIN K. ERIKSEN
PRINCE RUPERT, B.C.
EILS M. EVENS
PETERSBURG, AK.
/ILLIAM S. GILBERT
BAINBRIDGE ISLAND, WA.
RANCIS W. MILLERD
VANCOUVER, B.C.
DBERT W. SCHONING
WASHINGTON, D.C.
/ILLIAM M. SPRULES
OTTAWA, ONT.

50th Anniversary
1923 - 1973

INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA
AND THE UNITED STATES OF AMERICA

BERNARD E. SKUD
DIRECTOR OF INVESTIGATIONS
AND COMMISSION SECRETARY

OFFICE AND LABORATORY
ROOM 250
OCEANOGRAPHY TEACHING BLDG.
UNIVERSITY OF WASHINGTON
SEATTLE, WASH. 98105

MAILING ADDRESS
P.O. BOX 9
UNIVERSITY STATION
SEATTLE, WASHINGTON 98105
TELEPHONE ME. 4-1838

8 January 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

This will acknowledge receipt of the Environmental Statements in regard to the ANCSA and Wildlife refuges. I am uncertain whether your plans effect halibut fishing in the areas concerned. If the refuge regulations do not effect commercial halibut fishing, we can accept the draft report. If the plans will effect this fishery, we will have to know what specific rules or regulations are intended.

324

Sincerely yours,

Bernard E. Skud

Bernard E. Skud
Director of Investigations

RESPONSE TO COMMENTS BY
INTERNATIONAL PACIFIC HALIBUT COMMISSION

324. To our knowledge, the proposed Kobuk Valley National Monument, a National Park System proposal, will in no way affect commercial halibut fishing.

THOR TOLLEFSON, CHAIRMAN
RM. 115, GENERAL ADMINISTRATION BUILDING
OLYMPIA, WASHINGTON
W. R. HOURSTON, VICE-CHAIRMAN
DEPARTMENT OF THE ENVIRONMENT
VANCOUVER, B.C.
RICHARD NELSON
BOX 2204
VANCOUVER, B.C.
DONALD R. JOHNSON
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
SEATTLE, WASHINGTON
RODERICK HAIG-BROWN
2250 CAMPBELL RIVER ROAD
CAMPBELL RIVER, B.C.
DE WITT GILBERT
2852-44TH AVENUE WEST
SEATTLE, WASHINGTON

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

ESTABLISHED BY CONVENTION
BETWEEN CANADA
AND THE UNITED STATES
FOR THE PROTECTION
PRESERVATION AND EXTENSION OF THE
SOCKEYE AND PINK SALMON FISHERIES
OF THE FRASER RIVER SYSTEM

A. C. COOPER
DIRECTOR

OFFICE AND LABORATORY
P. O. BOX 30
NEW WESTMINSTER, B.C. V3L 4X9

TELEPHONE
521-3771

January 7, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Sir:

We wish to acknowledge your letter of December 28 and enclosed Draft Environmental Statements in regard to the Alaska Native Claims Settlement Act.

We do not believe it is within the authority of this Commission to offer comment on these particular environmental issues.

Yours very truly,

INTERNATIONAL PACIFIC SALMON
FISHERIES COMMISSION

A.C. Cooper
Director

national association of counties

1735 new york avenue, n.w., washington, d.c. 20006 (202) 785-9577

January 15, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U. S. Department of Interior
Washington, D. C. 20240

Dear Mr. Swem:

This is in response to your letter dated December 28, 1973 concerning the Draft Environmental Statements in regard to the Alaska Native Claims Settlement Act (ANCSA) of 1971.

We have looked over the draft and appreciate being given the opportunity to comment on it. However, we do not have enough information on the issue or the staff capacity to make a comment on the proposal. At the same time, however, it should not be assumed that our organization agrees with the draft just because we have not submitted a comment on it.

Although we will not be making comments on these drafts, we would like to continue to receive these proposals for our information. Thank you for your interest in NACo's ideas on this matter.

Sincerely,

Carol Shaskan

Carol Shaskan
Legislative Research Assistant

NRA

February 15, 1974

To: Theodor R. Swem, Chairman, Alaska Planning Group
From: National Parks and Conservation Association
Re: Kobuk Valley National Monument, Alaska

Having received the recommendations (December 17, 1973) of the Department of the Interior and having reviewed the Draft Environmental Statement (DES 73-88) concerning proposed Kobuk Valley National Monument, the National Parks and Conservation Association (NPCA) is pleased to go on record in full support and agreement with the concepts of this proposal. The Kobuk Valley is a superb natural area and a valuable sample of an arctic tundra ecosystem with high potential as a natural area of national significance.

NPCA notes that the Draft Environmental Statement is complete, well prepared, and complies fully with the intent of the National Environmental Policy Act of 1969. The document is a useful and interesting reference work, and upholds commendable standards of workmanship.

Policy guidelines outlined by the Department will protect the fragile and pristine nature of the Kobuk River Valley. NPCA agrees fully with this approach, and we support the stated goals in the proposal to perpetuate the ecological relationships and natural processes found in the valley. Further, we support the provisions for wilderness review with the expectation that nearly the entire area will be included in the National Wilderness Preservation System.

NPCA is interested in the two areas of ecological concern: the Ambler withdrawal to the east and the Kiana withdrawal to the west. Pending settlement of the Native and State selections without conflict, NPCA supports inclusion of these valuable watersheds in the proposed national monument.

Pursuant to the management goals outlined for Kobuk Valley, the Department needs to strengthen its position on two important issues, namely, Alaskan highway proposals, and Native allotment applications filed under the Native Allotment Act.

Concerning Native Allotment applications, the Department needs to prevent the pending Native applications from becoming permanent inholdings in Kobuk Valley National Monument. Although the Department is bound by the Native Allotment Act, those claims which are approved by the Bureau of Land Management can be restricted by life-tenure clauses written by the National Park Service. This would avoid unnecessary complications in the future and would enhance protection of the monument.

Alaskan highway proposals do not immediately threaten Kobuk Valley due to its remoteness. However, it is important at this time to restrict the highway rights of the State. It is pointless to publish an excellent proposal based on minimal developments and ultimate respect for the pristine character of the wilderness, while allowing potential highways to be drawn through the monument. NPCA strongly

urges the insertion of a provision into the proposal which exempts the monument from future intrusion by state highways.

Certainly one of the dominant natural features of the tundra ecosystem is the population of caribou. The map on page 81 of DES 73-88 illustrates the importance of proposed Kobuk Valley National Monument in the migration patterns of the caribou. Thus, an opportunity exists in this stage of the planning process to develop an ecosystem approach to protection of the arctic habitats, based on the caribou nerds.

The caribou, of course, recognize only the need for proper habitats at various times of the year. They move from calving areas in Naval Petroleum Reserve #4, through (in part) the proposed Noatak National Arctic Range and the Kobuk Valley to areas to the south, including the proposed Selawik National Wildlife Refuge.

Without proposing that either the Noatak or Kobuk Valley be managed as caribou ranges, this comment is based on the recognition that caribou herds are a dominant ecological feature of the far north, and as such they should exert a dominant force in the formation of land use guidelines for these natural areas. We are seeking, then, a unified scheme for natural area administration which would insure protection of the habitats and north-south migration routes of the caribou. Management plans for Kobuk Valley are adequate in this respect as proposed, but coordination with the other areas is needed,

325

including Naval Petroleum Reserve #4.

328

NPCA appreciates the opportunity to comment on proposed Kobuk Valley National Monument. We trust that our suggestions are helpful, and we look forward to the final plan.

Respctfully Submitted by

Toby Cooper
Administrative Assistant, Parks
National Parks and Conservation Association

RESPONSE TO COMMENTS BY
NATIONAL PARKS AND CONSERVATION ASSOCIATION

325. The National Park Service intent to develop cooperative strategies to maintain and protect the Arctic Caribou herd is clarified in Chapter I, No. 4, proposals contained within master plan.

National Society of Professional Engineers

2029 K STREET, N. W., WASHINGTON, D. C., 20006

(202) 331-7020

OFFICE OF THE
EXECUTIVE DIRECTOR

March 13, 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
U. S. Department of Interior
Washington, D. C. 20240

Dear Mr. Swem:

The National Society of Professional Engineers is pleased to submit the attached comments on the Draft Environmental Statements with regard to the Alaska Native Claims Settlement Act of 1971. These were prepared in consultation with our affiliated state society, the Alaska Society of Professional Engineers.

We appreciate being given the opportunity to review these statements.

Very truly yours,

Paul H. Robbins

Paul H. Robbins, P.E.
Executive Director

PHR:jr
Enclosure

cc - Donald R. Dent, P.E., President,
Alaska Society of Professional Engineers
Robert L. Reitinger, P.E., President, NSPE

COMMENTS ON ALASKA
LAND RECOMMENDATIONS E.I.S. REPORTS

The National Society of Professional Engineers recognizes that our natural resources are a priceless, yet exhaustible, heritage; that the practice of sound conservation should always be the National policy; and that many of this country's natural resources have been and are being exploited and wasted because of political or economic short sightedness in their development.

Since many of these resources are both finite and irreplaceable, we believe that their conservation and development require a high degree of engineering competence in cooperation with other professional skills necessary to a sound conservation program.

It is with these premises that members of the Alaska Society of Professional Engineers reviewed the draft environmental impact statements prepared by the Alaska Planning Group.

Subjects of principal concern and which are primarily in the engineers area of expertise are; (1) transportation planning and development; (2) mineral use and development; and (3) balanced land use planning. Before commenting on specific impact statements we believe some general statements on the total proposal package should be made.

For example:

1. Either by design or accident the entire northern portion of Alaska (except for the trans-Alaska oil pipeline corridor) may be blocked from land access if all recommended areas are placed in management systems which basically oppose development of land transportation. While land transportation may prove unnecessary in future decades the subjective decision to presently prohibit or grossly restrict it in view of the gas, oil, and other mineral potential (e.g. Kobuk, Brooks Range, Naval Petroleum Reserve 4, etc.) does not appear to be in the national interest, particularly in view of recent shortages. Review of the impact statements indicate that the information developed for the statements has been gathered and interpreted by agency personnel operating from a viewpoint (except for Forest Service proposals) which basically opposes resource utilization or development.

2. Most of the proposals indicate that development of any facility or any utilization of resources will require further detailed analysis and most likely a separate environmental statement. We recommend that this concern be extended to include a complete economic and resource analysis of values foregone by placement of particular recommended areas into particular systems.

3. The attempt to introduce innovative ideas in various management systems is refreshing, although as proposed it is confusing and administratively questionable. In terms of mineral development in National Parks and Wildlife Refuges, for example, assurance must be given that adequate access, with feasible environmental constraints, may be developed and proposals will be given an objective analysis by administrative personnel.

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4. The areas of ecological concern appear to add 80-90 million acres to the proposed 84 million acres with little apparent justification other than agency desire to manage more land. Further explanation and justification is needed to establish credibility for objective land use planning.

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While the above comments are general concerns, we request that final impact statements address the following specifics:

Chukchi-Imuruk National Reserve - Report indicates (p. 270) that severity of climate, distance from population center, and location preclude extensive development or use of area even if not included in National Park or Wildlife Refuge. An analysis should be made objectively setting forth that climate, remoteness and inaccessibility limit tourism and recreational values and compare this with other resource uses which will be foregone.

Beaver Creek Wild River - The logic in this statement does not appear objective. Comments on page 21 recognize that life styles are changing towards a cash economy which will require rural development, yet the proposal is biased against transportation development, mineral exploration and timber harvesting and states that these necessary uses might be foreclosed (p. 68).

Kobuk Valley National Monument - Precluding hydroelectric development (p.211) and land transportation (p. 219) without a complete study and objective analysis is neither sound land use planning or in the National interest. This is especially true when the same basic philosophy is extended throughout 34 million acres of adjacent and/or nearby lands. We believe it is in the National interest to work out a more objective compromise between preservation and wise use of resource.

Stated bias against transportation development (p. 216) precludes any rational analysis of future need unjustifiably. The stated intent of the Nana Native Region to select Onion Portage appears to negate this report's most important justification thus--the withdrawal of 1.85 million acres possessing high copper, asbestos, jade and other minerals is questionable in view of mineral shortages.

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Noatak National Arctic Range - Justification for the subjective time limit (20 years) prohibiting any mineral development or transportation development in a area with high mineral potential (p. 197) and geographically located in an area containing two proposed primary transportation routes (p. 191) is needed. With the energy and mineral crisis presently confronting us, placing this 7.6 million acres which is either contiguous to or nearby an additional 11.8 million acres preserved for the same purposes should be further justified. We recommend that prior to placing this area in the Refuge System an interdisciplinary team should make a detailed, objective cost-benefit analysis.

Gates of The Arctic National Park - The errata sheet states that wilderness designation is not certain; however the 278 page analysis is based on immediate wilderness designation for most of the area. Since the original Gates of The Arctic proposal (HR 1127) was for 4.1 million acres and this proposal encompasses 8.4 million acres, the objectivity and rational analysis of the proposal is questioned. We agree that there are areas of

tremendous scenic splendor in the Brooks Range which should be placed in a National Park. However, mineral values in particular should be quantified before a decision on this area is made especially since the report (p. 51) states that metallic mineral resources have not been evaluated. The report should also mention that approval of this proposal in conjunction with the Noatak, Kobuk, Selawik and Yukon Flats proposals would preclude rational development for almost all of Northern Alaska.

Yukon Charley National Rivers - This 2.3 million acre proposal contains highly mineralized areas (p. 195), a proposed major land transportation route (p. 201), and two major hydroelectric proposals (p. 193). The report recognizes (p. 202-203) that substantial increase in demand for transportation facilities will result if the proposal is implemented. For example, the report conveys the need for both conservation and use of resources (multiple use) and proposes that mining in certain areas be permitted, sport hunting with certain qualifications be permitted, etc. This rationale leads to the conclusion that the area should be placed in a multiple use system rather than be made a unit of the National Park System.

Togiak National Wildlife Refuge - From a systematic land use planning viewpoint the facts presented do little to support the conclusion. For example, it is recommended that this 2.8 million acres be withdrawn from mineral development, (p. 58 states that the area is within a major hard metal province) and future land transportation be restricted (p. 120). The justification for this action is the need for wildlife protection. However, the statistics in the wildlife section appear low in comparison with other areas (i.e. 32 ducks/sq. mi. in this proposal compared with 60 ducks/sq. mi. in the proposed Chukchi-Imuruk National Wildlands Park and 99 ducks/sq. mi. in the Yukon Flats Refuge proposal). The lowland (waterfowl) habitat is only a small portion of the whole area. For other game: caribou (non-existant p. 73), few moose (p. 74), few black bear, east of proposal (p. 74), grizzly (less than 100). We suggest that a complete inter-disciplinary economic analysis and inventory of mineral resources be completed on this area before congressional action.

Lake Clark National Park - The U.S.G.S., Bureau of Mines and Federal-State Land Use Planning Commission have all stated that the Lake Clark area has very high mineral (copper specifically) potential yet this report does not consider these assessments and prohibits mineral development, hydroelectric development and places major restrictions on future land access in an area which is critical (geographically) to future development on the entire Alaska Peninsula-Bristol Bay Area. We recommend an inter-disciplinary team prepare a complete resource (including mineral) and economic analysis on this area prior to congressional action.

National Forest Proposals - Since these proposals will be managed for multiple use we believe adequate analysis of future uses, developments, and protection can be made as the occasion arises. Our major concern in these proposals is that the recommendations for Wild and Scenic River classification appear to be made with a minimum of information. Further analysis should be made. Immediate classification, especially for wild rivers appears inconsistant with the agency's stated multiple use approach to planning.

326. For a discussion of pipeline corridors, please refer to Chapter I, Interrelationships.

327. With the exception of patented mineral lands, this proposal would preclude all mining within the monument. Holders of patents will have the right of reasonable access.

328. For further explanation of Areas of Ecological Concern, please see response 40.

329. The Joint Federal-State Land Use Planning Commission recommended against the Kavet Creek hydropower site. This proposal in itself would not preclude land transportation. Such a determination would be made by the Secretary of Transportation, after stydy to determine bona fide need and no feasible and prudent alternative (49 U.S.C. 1653(f)). See also sections on transportation in Chapters II and III.

The minerals you cite are potentials, not known resources in "high" quantities. The relationship between mineral development and transportation is discussed in Impact on Mining and Mineral Entry, Chapter III.

National Wildlife Federation

412 16TH ST., N.W., WASHINGTON, D.C. 20036 Phone: 202-483-1550

July 1, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Reference is made to your letter of December 28, 1973 transmitting the draft Environmental Impact Statements (EIS) on that part of the Alaska Native Claims Settlement Act (ANCSA) pertaining to disposition of previously identified "17 (d)(2) lands".

The purpose of this letter is to comment briefly on each of five separate proposals for additions to existing components or establishment of new units in one of the four National Systems - wildlife refuges, parks, forests, and wild and scenic rivers. Our brief addressal of the proposals now should not be interpreted, though, as a lack of interest in this important action. It simply means that the Federation feels it will have ample opportunity to comment in depth on the proposals, if it elects to do so, as each is reviewed by the Congress in public hearings during the next several years.

Before commenting on the specific proposals we would make one general observation and recommendation relative to many of the proposals being made pursuant to paragraph 17 (d)(2) of ANCSA. We note that sport hunting is to be permitted in some, but not all, of the areas earmarked for inclusion in the National Park System . While, that approach, in our judgment, represents an enlightened move for the National Park Service (NPS), it nevertheless implies irregular scientific management of Alaska's still-bountiful wildlife resources with cropping by hunting used as a management tool in certain areas only.

As an organization dedicated to encouraging the management of all natural resources - especially those which are renewable such as wildlife - the Federation is firmly opposed to any plan which could limit or restrict activities associated with sound wildlife management. We believe that professional resource managers should be given the widest possible latitude and be permitted the greatest practicable flexibility in the decisions made and the actions taken to enhance Alaska's wildlife resources. We anticipate that such actions will cover the full management spectrum, ranging as appropriate from total protection to selective harvesting through sport hunting.

Because of our beliefs, the Federation has never been completely satisfied with the title "national wildlife refuge". The designation implies a sanctuary totally dedicated to protection of the wildlife resources. As you know, that is misleading since wildlife are scientifically managed in refuges with hunting permitted as deemed desirable.

In view of the above, the Federation recommends that scientific management of wildlife resources be implemented in all Alaskan areas intended for inclusion in the National Park System and that all decisions regarding the management tools to employ in this regard be left up to the professional managers. The remainder of our comments in this letter, as well as the contents of all future correspondence on this subject of Alaskan lands disposition, should be viewed in that context.

The National Wildlife Federation's comments on specific proposals follow:

Kobuk Valley National Monument:

Our main concern is for the welfare of the abundant fish and wildlife resources, both resident and migratory, contained in the area. Hence, the Federation can support any proposal, including that described in the draft EIS, which will afford optimum enhancement of the area's fish and wildlife resources. Also, the area's other resources should be used, and such practices permitted, as would be clearly compatible with the continued protection of Kobuk Valley's ecosystem. Subject to the above, the Federation endorses, in principle, the proposal for the 1.85 million acre Kobuk Valley area.

Aniakchak National Monument:

As with the proposed Kobuk Valley National Monument, our greatest interest is in the welfare of the area's outstanding fish and wildlife resources. In this instance, the wide diversity of fish and wildlife species - including the brown bear, salmon, and many forms of migratory waterfowl which use the area as a staging area - make it especially imperative that all realistic, practical measures be taken to protect the habitat from commercial encroachment and environmental pollution. Also, we recognize the economic importance of the area's fish and wildlife resources to Alaska Natives. Thus, we do not object to subsistence hunting nor to the continuation of commercial fishing as proposed. There seems to be good justification for opting for national wildlife refuge status for the Aniakchak area in view of the importance of the coastal plain component of its ecosystem to migratory waterfowl. Nevertheless, the National Wildlife Federation can support the proposals to establish a national monument and a national wild river, provided: (1) the fish and wildlife resources are subject to reasonable scientific management; (2) the NPS makes a special effort to preserve the great migratory waterfowl habitat values of the 215,000 acres on the Bristol Bay coast in a so-called "Area of Environmental Concern".

Birch Creek National Wild River:

The Federation supports the proposal in principle. Because of its convenient access by road and air from Fairbanks, the uppermost 135-mile segment of Birch Creek recommended for wild river status will provide Alaskans, and others, with an area of great outdoor recreation value.

Beaver Creek National Wild River:

The Federation supports the proposal in principle. While Beaver Creek is not easily accessible by road, its relative isolation and quiet-flowing waters add to the stream's superior outdoor recreation values. Because of its interrelationship with the world-important Yukon Flats migratory waterfowl habitat, Beaver Creek is deserving of special recognition and treatment.

Additions to Chugach National Forest:

The Federation supports the proposed addition in two units, of about 672,000 acres to the National Forest System for management under the multiple - use concept. Both units possess outstanding recreational and watershed values. Moreover, the College Fiord unit contains significant wildlife resources and habitat while the Nellie Juan unit has excellent wilderness potential.

We appreciate this opportunity to express our views.

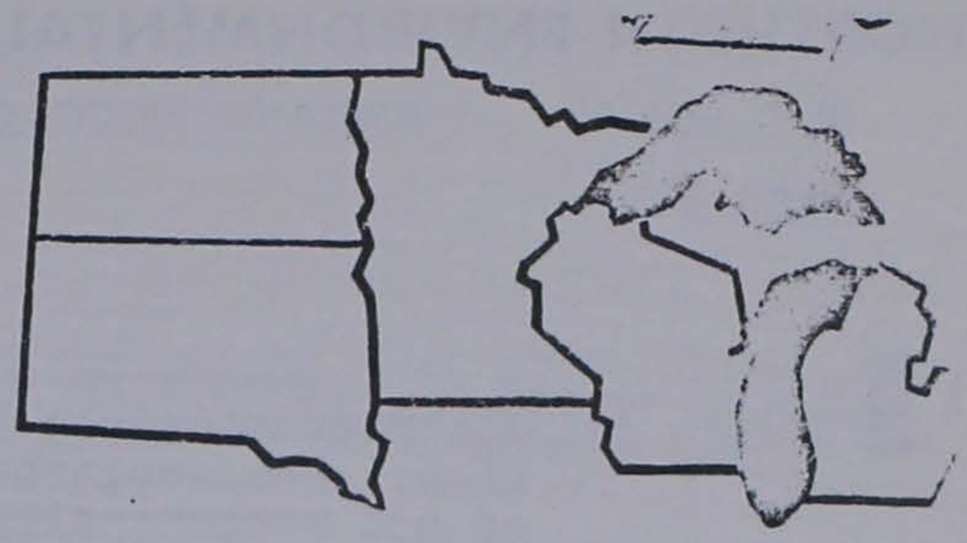
Sincerely yours,

THOMAS L. KIMBALL
Executive Vice President

cc: Secretary of the Interior
Secretary of Agriculture
Chairman, Senate Interior and Insular Affairs Committee
Chairman, House Interior and Insular Affairs Committee
NWF Officers and Staff
A. W. "Bud" Boddy

NORTHERN ENVIRONMENTAL COUNCIL

P. O. BOX 89 — ASHLAND, WISCONSIN 54806



June 17, 1974

Theodor R. Swem, Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

The Northern Environmental Council, an affiliation of environmental organizations from the states of Michigan, Wisconsin, Minnesota, North & South Dakota, wishes to submit the following comments on the Draft Environmental Impact Statement for Kobuk Valley National Monument in Alaska. We have carefully reviewed this proposal and wish to compliment the National Park Service for their many hours of hard work in the preparation of this Draft Environmental Impact Statement. A considerable amount of information has been gathered and is well presented. However, we feel that significant considerations have not been presented, and that several needed changes would make this important proposal even more critical as a push towards the establishment of a Kobuk Valley National "Park". In consideration of all of the values, this proposal should have National Park status.

First, and most important, is the choice of the Area of Ecological Concern on which the study is made. The reasons for such a choice are a most significant consideration but are not a part of this proposal. We ask that this be added in the Final Environmental Impact Statement.

In this proposal the Area of Ecological Concern is bounded by other Areas of Ecological Concern, i.e. Noatak on the north and Selawik on the south. Hence this proposal is directly related to both of these additional proposals, and if the Area of Ecological Concern considered in these other proposals is not adopted it would directly effect the Kobuk Valley proposal. These considerations are not examined in the Environmental Impact Statement and should be seriously reviewed - with the resulting impacts discussed. The remaining proposal boundary is determined by drawing the boundary lines at the edge of the native village Withdrawal Areas. However, the proposal acknowledges that the Area of Ecological Concern contains some of the lands in the Native Village Withdrawal Area, and the proposal fails to consider the impact from having these lands within the Area of Ecological Concern unprotected by not considering these lands for National Park Service status. - In the alternative boundaries section (Chap. VIII) it appears that this is justified as it would otherwise

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OFFICE — SECOND FLOOR, BAY THEATRE BUILDING, ASHLAND, WISCONSIN (715) 682-5564

NORTHERN ENVIRONMENTAL COUNCIL

P. O. BOX 89 — ASHLAND, WISCONSIN 54806



restrict possible Native Village Selection. However, the proposal fails to consider the effect of not recommending the entire Area of ecological concern as a total proposal. - The possibility of a joint agreement between the Native Village and the National Park Service, as is done in other creative Alaskan proposals, should be part of the total proposal. This is especially so in the case of this proposal since it contains such a significant historical and cultural aspect. Consideration is not given as to the possibilities of resolving a conflict if the same areas are selected as part of a Native Village selection, and a National Park Service proposal under D-2 National Interest lands.

The chapter III section of the Draft Environmental Impact Statement discusses the environmental impact resulting from the adoption of the proposal. While much of this chapter consists of favorable impacts which would tend to preserve the environment, it does not detail the favorable effects upon the soils, permafrost, sand dunes, the total flora, fauna, water drainage systems, cultural & historical resources resultant from avoiding possible development of a traditional transportation system, or other likely supportive facilties if the area is left unprotected and without effective National Park Service status - or the area becomes a focus of the usual exploitive development. A recent example is the tricky move by Alyeska to establish a haul road over Anaktuvuk Pass in the Brooks Range before these proposals become law, indicates what can happen.

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The impact of alternatives covers barely eight pages - - not considering boundary changes - out of this 352 page document. The results of 'no-action' are not adequately detailed. Reclassification as D-1 lands must be considered in its ramifications on the resource values listed in chapter III - referred to as "possible eventual multiple use". This does not detail the likely effects upon this delicate ecosystem and the cultural resources almost certain to be lost in this occurrence. -- In addition, the total ecological disaster inherent in developing transportation, utility, communication needs and supporting developments - should be considered.

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Dominant Use consideration does not include the likely destructive impacts from various development possiblities, which would ruin the natural, wildlife, scenic, and cultural values. The Draft Environmental Impact Statement indicates in the beginning that no similar unit, i.e. Kobuk Valley is available elsewhere; hence to destroy these unique values through development - would effectively remove this one chance of maintaining these values. More careful consideration of the wilderness

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OFFICE — SECOND FLOOR, BAY THEATRE BUILDING, ASHLAND, WISCONSIN (715) 682-5564

333 alternative along with the proposal is necessary.. It may not be a final wilderness proposal; however, a review of areas which appear to meet the 'wilderness criteria' is needed. 333

The consideration of Multiple Use Management is restricted to an evaluation of economic uses only. Certainly there are many major uses that can be considered as compatible which are not economically oriented.

334 Both proposals C-1 and C-2 would add land that is important ecologically to the proposal, but they are not considered as a joint proposal so as to protect the entire area of ecological concern. In this 335 case, for instance, the Arctic Caribou herd is considred, but significant information of the dynamics of the Arctic Caribou herd, their migration, effect upon cultural patterns, the relationship to other elements in this ecosystem, is totally missing. This consideration needs to be made, and then the effects of a deletion can be better understood. 334 335

336 Once a complete ecosystem is described and justified as the Area of ecological concern, the interactions, interrelationships, dependencies, that are part of the dynamics of a functioning ecosystem must be considered as the basis for a proposal of this importance. Chapter III is an excellent start towards this need, but it tends to consider each of the elements in isolation, rather than part of a dynamic intra related ecosystem. These factors become the basis for the proposal, and 337 any need to deviate or delete areas for any reason what-so-ever must be completely documented and the effects upon the ecosystem need to be evaluated and justified if any of the area of ecological concern is to be deleted from the proposal. Adequate consideration is not given to the effect of the possible deletions that are discussed in this proposal. 336 337

Thank you for the opportunity to present this statement.

Sincerely yours,

Robert A. Hanson

RAH/pm

Robert A. Hanson
Consultant
P.O. Box 999
Marquette, Michigan 49855

330. Consideration of impacts on lands within Native Village Withdrawal areas is beyond the scope of this environmental statement, which analyzes impacts only of what is being proposed.

331. Aspects of the "avorable" impacts of this proposal are included in Chapter III in the various sections; an analysis of the impacts of transportation systems, however, is the responsibility of those who seek to construct such systems.

332. Please refer to the revised Probable Future section in Chapter II as well as the Multiple Use Management section of Chapter VIII which attempts to include possible futures which -ay be objectively ascertained. However, the conclusions and direction requested in this comment are difficult to detail; since the region is almost entirely undeveloped at present and no trends can determined for the near future, it is not possible to completely predict or evaluate environmental impacts of alternate land management proposals beyond assuming that "development" will occur in the indeterminate future. One can assume that if certain developments occur, impacts will result.

333. A wilderness study will be initiated three years after implementation of the proposal.

334. Taken together, alternatives C-1 and C-2 will provide the cumulative picture requested.

335. This consideration is discussed in alternative C-4, Chapter VIII.

336. The intent to develop cooperative strategies to maintain the Herd has also been inserted in Chapter I. The Caribou Range map indicates the relationship of the proposal to caribou use areas of the Arctic herd. Sections Impact on Wildlife and Impact on Subsistence include regional impact discussions relating to the Herd. The Secretary recognizes the overriding importance of regional land use planning to protect values extending beyond proposal boundaries, as indicated by his withdrawal of all uncommitted federal lands in Alaska for future classification under Sec. 17 d(1), and the efforts of his representatives on the JFSLUPC.

337. The proposal boundaries and objectives were drawn up with composite ecological considerations, rather than individual features givens primary consideration. Justification on the proposal is not a purpose of this document.

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS 60201

PUBLIC LANDS PROJECT

2040 SHERIDAN ROAD
EVANSTON, ILLINOIS 60201
TELEPHONE (312) 492-3559

July 17, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem,

We have reviewed the following draft environmental impact statements prepared by the Department under the Alaska Native Claims Settlement Act:

Iliamna National Resource Range;
Mount McKinley National Park;
Yukon Delta National Wildlife Refuge;
Katmai National Park;
Koyukuk National Wildlife Refuge;
Cape Krusenstern National Monument;
Togiak National Wildlife Refuge;
Noatak National Ecological Range;
Selawik National Wildlife Refuge;
Kobuk Valley National Monument;
Lake Clark National Park;
Alaska Coastal National Wildlife Refuge.

We do not have specific comments to make on these individual draft impact statements. This letter constitutes neither support for nor opposition to the proposals, as described in the DEIS's.

We do have two, general comments on these proposals:

(1) Subsistence hunting use of the designated areas by Alaskan Natives should be allowed even when no longer necessary for human survival to preserve cultural traditions, and a valued way of life;

(2) Areas of Ecological Concern should be included within boundaries of the designated areas, if these AEC's are not selected by Native Corporations as "deficiency lands; these areas may properly be included because the present withdrawals included the lands withdrawn for Ramparts Dam, and this prior withdrawal should not count towards the Secretary's 80 million acre limitation.

We wish to receive a copy of the Final Environmental Impact Statement for each of the above-mentioned Proposals.

Sincerely,

Paul J. Culhane

Saguaro Ecology Club
6250 82nd Street
Scottsdale, Arizona
85253

Please reply to:
4725 N. 70th St.
Scottsdale, Az. 85251

May 30, 1974

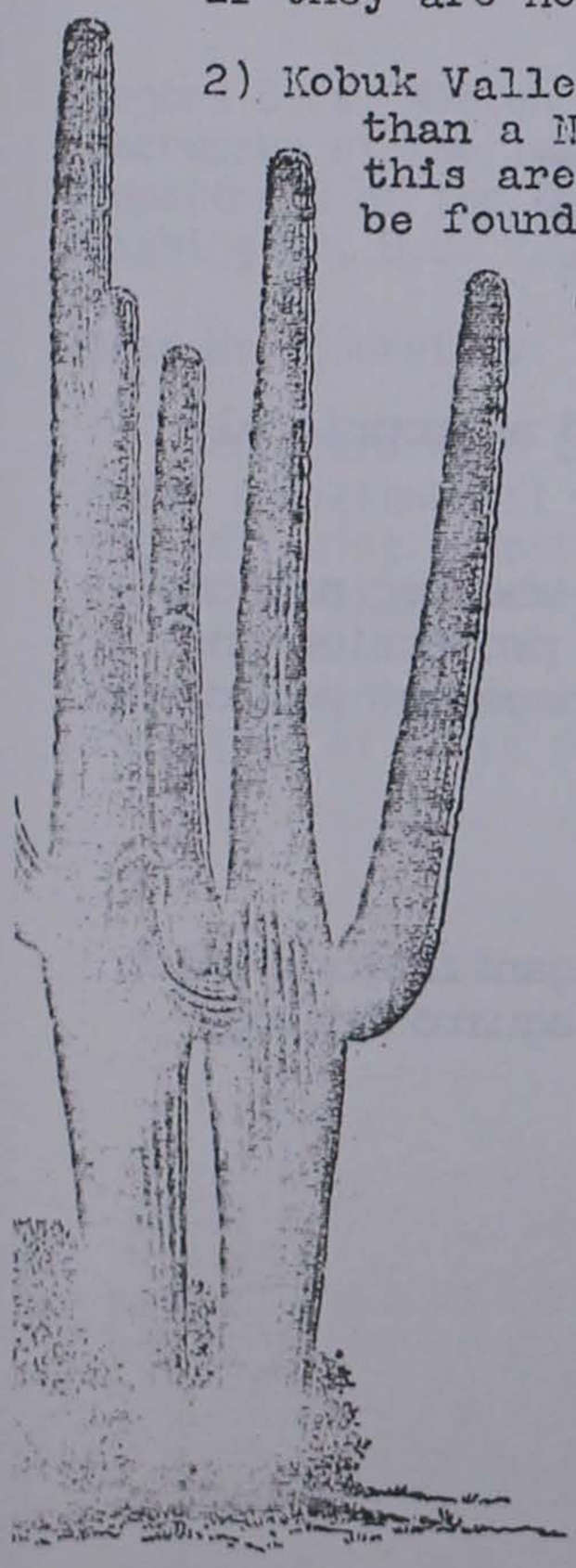
Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington D,C. 20240

Dear Sir:

The Saguaro Ecology Club urges the establishment of a 1,850,000-acre Kobuk Valley National Monument. However, we have two comments on this proposal.

1) The Environmental Impact Statement should discuss the possibility of including in the Monument important native-withdrawn lands if they are not selected by the natives. 338

2) Kobuk Valley should be designated as a National Park rather than a Nat'l Monument, thus giving greater protection to this area and recognizing the full spectrum of values to be found there. 339



Thank you very much for receiving our comments.

Sincerely,

Tom Wright

Tom Wright

RESPONSE TO COMMENTS BY
SAGUARO ECOLOGY CLUB

338. Important lands relating to this proposal, presently under withdrawal for Native selection, are the proposed Areas of Ecological Concern to the east and west of the proposed monument. Consideration for the inclusion of these lands within the monument may be found in Chapter VIII, sections C-1 and C-2.

339. As Administrative Policies for Natural Areas of the National Park System states:

> National parks and national monuments, generally differ in these significant respects:
>
> Parks are relatively spacious--monuments may be any size.
>
> Park, generally, possess two or more unique scenic or scientifiec values of superlative quality--monuments need only one attribute of scientific or prehistoric significance.
>
> It was determined that the proposal area would appropriately be a monument within the National Park System.
>
> Please note, however, that all natural areas--whether national parks or national monuments--receive the same protection and are subject to the same administrative and management policies.

Five other letters were received from five other organizations which were identical in content to this letter from the Saguaro Ecology Club. Those organizations are:

THE BRYAN OUTDOOR RESOURCES GROUP
THE ECOLOGY CENTER OF SOUTHERN CALIFORNIA
THE FRIENDS OF THE EARTH, ARIZONA BRANCH
THE UNIVERSITY OF THE WILDERNESS
THE WESTERN WILDERNESS ASSOCIATION



by Ansel Adams in *This is the American Earth*

SIERRA CLUB Mills Tower, San Francisco 94104

June 6, 1974

Rogers C. B. Morton
Secretary of the Interior
Department of the Interior
Washington, D.C. 20240

Dear Mr. Secretary:

Enclosed with this letter are the comments of the Sierra Club on the draft environmental impact statements of the Department of the Interior on the following proposals in the state of Alaska: Aniakchak National Monument, Beaver Creek National Wild River, Birch Creek National Wild River, Additions to Chugach National Forest, Coastal National Wildlife Refuge, Kobuk Valley National Monument, and Selawik National Wildlife Refuge. We will appreciate inclusion of these comments in the record.

Sincerely,

Edgar Wayburn

Edgar Wayburn, M.D.
Chairman, Alaska Task Force

EW/jk

Overall, this environmental impact statement is adequate. Some specific comments follow.

In the "Description of the proposal" section, there is no explanation why this area is proposed for national monument status and not national park status. 340

It is stated (pages 6, 9) that the monument could be managed as a "Natural Area" as defined by the National Park Service. This and other NPS management categories should be explained. 341

Similarly, the land classification plan developed by the Outdoor Recreation Resources Review Commission and modified by the National Park Service should be described and its application to the proposed monument (p. 11) justified. 342

References to regulations on subsistence uses (pp. 188, 203) should be clarified. It is stated that if local wildlife populations are threatened or affected, regulations for subsistence use could be inaugurated (emphasis added). Again: "If essential, a limit on use or access could be imposed to protect critical habitat," (emphasis added). Regulations on the harvest of currently depleted species "might" have to be imposed. Does or does not the National Park Service intend to protect the wildlife? If not, then we will have no choice but to support an alternative management system that will, such as that available under Bureau of Sport Fisheries and Wildlife jurisdiction. 343

On page 191, the discussion of the role of forest fires is superficial. Whether a forest fire is of natural or man-made 344

origin may take some time to determine. Meanwhile, the fire is burning. Does the NPS intend to assume, for example, that all fires begun during lightning storms are natural in origin? 344

Regarding mining, it is stated (p. 227) that "Boundaries have been proposed which exclude most areas of mineral importance." Which areas were excluded, and how do these areas relate to the "ecologic unit" that the draft E.I.S. says the monument constitutes? 345

On wilderness, the statement is made (p. 250), "During the period (three years) development will be restricted to prevent damage to areas having wilderness qualities." Does this restriction apply to the landing strip on the upper Salmon River? 346

RESPONSE TO COMMENTS BY
SIERRA CLUB

340. For a response, please refer to response 339.

341. Natural Areas are national parks or national monuments of scientific interest. Historic Areas are national historic sites, national battlefield sites, national historical parks, national military parks, national memorials, national memorial parks, and national monuments that preserve antiquities, such as prehistoric Indian ruins. (The management policies of the National Park Service of historic areas will be applied to the proposed monument where appropriate.) Recreation Area are national seashores, national lakeshores, national waterways, national riverways, national recreation demonstration areas, and similar areas which embody either the physical resource base or the functional purpose to be served.

342. The Land Classification map shows the system as modified and applied to this proposal. Justification is not one of the purposes of an environmental statement.

343. Primary resource values will be protected; subsistence activities will not be permitted to lead to a long-range alteration of the ecosystem. The use of the words "could" and "might" reflect the fact that this is an unimplemented proposal, and also that alternative means of management and control might be more appropriate in a real situation, rather than the hypothetical examples given.

344. Natural forest fires in the area most frequently occur as a result of lightning storms. Specific decisions will be made in a fire plan. However, it can safely be assumed that any fire originating in an area not frequented by people would be a lightning-caused fire. Where doubt was present, human causes would be assumed and appropriate action taken. Please see response 244 for quotations from Administrative Policies for Natural Areas of the National Park System for the policy statements on fire control.

345. The Bornite area to the east of the proposal and the areas of greater petroleum potential to the southwest are not included in the proposal. The boundaries are drawn to insure a secure ecologic unit while including important values of the National Park Service Plan. (See NPS Plan Statement in Appendix I).

346. No landing strip will be constructed on the upper Salmon River until completion of the wilderness study.

COOK INLET CHAPTER
JUNEAU CHAPTER
KETCHIKAN CHAPTER
YUKON RIVER CHAPTER

SOCIETY OF AMERICAN FORESTERS

Alaska Section
333 Madison
Ketchikan, Alaska 99901



June 13, 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
U. S. Department of Interior
Washington, D. C. 20240

Dear Mr. Swem:

The Alaska Section of the Society of American Foresters, representing more than 150 forestry professionals throughout the State of Alaska, is keenly aware of the many important contributions that forest resources can make to the material, social, and spiritual well-being of the nation and the State of Alaska. These contributions are determined in large measure by the objectives, policies, and means of the forest landowners, whether the landowner is the public, shareholders of a corporation, or individuals. The Alaska Section of the Society is especially interested in the Draft Environmental Statements on the Secretary's Proposals for land withdrawals under the Alaska Native Claims Settlement Act of 1971, since basic objectives and policies for much forest land owned by the public is proposed. These objectives and policies will have substantial effect on the quality, quantity, and variety of outputs provided by forest land managed under the proposed withdrawals and will play a key role in guiding prescriptions by forestry professionals of practices necessary to achieve such goals and objectives.

Forest lands normally provide the largest net sum benefits to society when managed for multiple use. Multiple use is a strategy of deliberate land management for two or more purposes which utilizes, without impairment, the capabilities of the land to meet different demands simultaneously. Uses of forest lands should be skillfully coordinated unless there is demonstrable need for exclusive use. Establishing priorities of land use is valuable procedure in the multiple-use management of forest lands, especially where land-use conflicts may occur. Land use priorities should be based on the objectives and needs of the landowner, reviewed periodically and, where necessary, changed to reflect changing conditions of resources and changing needs of people.

The Section finds that many of the proposals for these land withdrawals eliminate large areas of forest lands from multiple use management by inclusion in proposed parks, monuments, and refuges, unnecessarily eliminate mining, one of the traditional multiple uses where adequate safeguards could be included in legislation, and preclude access to and through withdrawals which would deny the most productive use of adjacent State, Federal, Native, and private lands.

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ETCHIKAN CHAPTER
UKON RIVER CHAPTER

Society of American Foresters

Alaska Section



With the above thoughts in mind, the Alaska Section of the Society of American Foresters requests that this general statement be included as part of the comments on each proposal.

I have enclosed specific comments which should become a part of the review of individual proposals.

Sincerely,

Magnus E. Chelstad

MAGNUS E. CHELSTAD
Chairman

Enclosure

OOK INLET CHAPTER
JNEAU CHAPTER
ETCHIKAN CHAPTER
JKON RIVER CHAPTER

SOCIETY OF AMERICAN FORESTERS

Alaska Section



Specific Comments:

1. There is little attention paid in any of the Statements to Alaska's contribution to National or world-wide supply of natural resources. What will be the division of resources between Federal, State, and Private if all of these proposals are implemented? This impact on the social and economic environment has not been adequately considered. 347

2. Except in rare or unique situations, management for less than all of the values of forest and related environments is not wise use and is contrary to good conservation practice. We fully recognize the opportunities for outstanding National Parks and Refuges in many places in Alaska. At the same time, creation of units in the National Park System and National Wildlife Refuge Systems in lands best suited management for a combination of uses is a questionable pursuit. Pheraps one of the reasons multiple use management is not considered in a better light is because of the inadequate and often totally erroneous descriptions given in some of the alternative sections. Multiple use, practiced by professionals of various disciplines, does not result in serious environmental degradation. Better representation of multiple use and its impacts should be given, particularly in the Aniakchak Caldera, Mt. McKinley, Katmai, Kobuk, Gates of the Arctic, Chukchi-Imuruk, Yukon Delta, Alaska Coastal, Togiak, and Iliamna proposals. 348

3. The Yukon-Charley National Riverway proposal does not recognize nor give proper weight to the variety of resources available. At the same time, the historic and cultural values, while important, seem to be exaggerated. Timber and agriculture resources are not accurately portrayed. Timber volumes, according to U. S. Forest Service, is near one billion bd. feet. The Soil Conservation Service reports areas of real crop land and grazing potential.

The development of hydropower is not properly discussed. The effect of the proposal on mineral extraction does not indicate the full extent of restriction and probable result under National Park administration. The opportunity to develop wildlife habitat might be restricted and this lost opportunity is not discussed.

4. The Lake Clark proposal does not adequately portray the diversity of resources of this area. Only the scenic values are adequately described. Sport hunting and other wildlife values, mineral potential and timber potential are underplayed. Current timber surveys by USFS and BLM indicate 74 million cubic feet of forest resources in the area. The emphasis on the importance of the proposal in protection of water quality by preventing mining and road building does not square with Federal and State water quality control laws applicable to all jurisdictions, and fails to relate the already high turbidity and sedimentation of the glacier-fed rivers and streams.

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5. The volume of timber in the Koyukuk proposal is not known precisely. Consideration of this resource should be related to the entire region rather than to the proposal area. Sustained yield of timber resources relies on policies which maintain the largest inventory to permit rotations throughout a broad region. Withdrawal of availability puts additional pressures on other areas and could well mean the difference between an economic and environmentally sound program in the total region. This area should be managed under authorities to manage and utilize the renewable resources with proper safeguards for wildlife values.

6. The Yukon Flats region contains one of the most significant stands of interior forest. It is a major habitat for nesting waterfowl. It is a known oil and gas province of promise. As discussed in the Koyukuk proposal, the long-term effects on the total Alaskan environment can be affected by the amount of resources available for utilization. In the Yukon Flats proposal, waterfowl protection and utilization of wood products need not be mutually exclusive. Authorities should be included and considered which will foster the conservation of wood fiber resource in concert with all other sources of wood in the upper Yukon Valley in all ownerships. Although the harvesting of timber is <u>permissable</u> on refuges, it is not an active program. Good land management should <u>provide</u> for wide use of all resources compatible with the area's primary values.

7. The proposal to place the extensive Fortymile River system into a Federal reserve system without also including its total watershed in a reserve system does not seem logical. The Wild and Scenic proposal should provide for protection and management of all of the watershed under authorities as permanent as the River itself.

8. The Porcupine National Forest proposal states as major management emphasis "development of . . . measures which will lead to sustained yield forest management on this unit and adjacent ownerships". This is an admirable goal, but no details are given on how this may be achieved. In fact, in view of statements made in the Yukon Flats National Wildlife Refuge proposal, it seems unlikely this goal can be achieved.

9. The Yukon Kuskokwim National Forest proposal brings a long-range conservation philosophy to a region which might not otherwise enjoy an overriding objective of environmental quality. Although seen as decades away, integrated management of this area for its various resources should serve as a stabilizing influence for regional development. We are pleased the Secretary has recognized that large areas of lands with combinations of resources are of national interest as well as areas with dominant scenic or wildlife features.

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Society of American Foresters

Alaska Section



10. Major management emphasis for the Wrangell Mountains National Forest proposal omits any mention of forest management. Protection and maintenance of scenic forests through advanced forestry measures may be one of the more important actions to augment the recreation resources of the area. Also, the contributions of timber from the Upper Tanana Valley within the proposal will help alleviate pressures to overcut timber on State and Private lands elsewhere. We should hope that the practice of forestry will continue on this National Forest proposal.

RESPONSE TO COMMENTS BY
SOCIETY OF AMERICAN FORESTERS, ALASKA SECTION

347. For a response on overall impact, please see response 1.

348. Description of multiple use has been revised, and may be found in Multiple Use Management in Chapter VIII.

K INLET CHAPTER
.AU CHAPTER
CHIKAN CHAPTER
ON RIVER CHAPTER

SOCIETY OF AMERICAN FORESTERS

Alaska Section
Juneau Chapter
P.O. Box 1305
Juneau, Alaska 99801



May 28, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of Interior
Washington, D.C.

Subj: Env. Impact St.
Secretarial Proposals
for Land Withdrawals

Dear Mr. Swem:

Members of the Juneau Chapter of the Society of American Foresters, being knowledgeable in the field of land management and Alaska in general, have reviewed the subject proposal. Following thorough discussion, the Chapter on April 22 resolved as follows:

WHEREAS many of the environmental statements for Alaska land withdrawals: (1) eliminate large areas of forest lands from multiple use management by inclusion in proposed parks, monuments and refuges, (2) unnecessarily eliminate mining, one of the traditional multiple uses where adequate safeguards could be included in legislation, (3) disregard results of hearings held by the Joint Federal-State Land Use Planning Commission which preceded release of the Department of Interior's proposals for parks, monuments and refuges, thus denying this Society from public input, (4) preclude access to and through withdrawals and thus deny the best use of adjacent State, Federal, Native and private lands for their most productive use.

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NOW THEREFORE BE IT RESOLVED that the Juneau Chapter of the Society of American Foresters urges the Secretary of the Department of Interior to reassess and amend the proposals and the environmental statements to provide for the above mentioned deficiencies.

We request that the above statement be added to all proposals.

Adopted May 22, 1974.

Very truly yours,

Joseph Zylinski

JOSEPH ZYLINSKI
Chairman, Juneau Chapter

RESPONSE TO COMMENTS BY
JUNEAU CHAPTER SOCIETY OF AMERICAN FORESTERS

349. In making his withdrawals, the Secretary considered the recommendations of the JFSLUPC; a number of the members of the Commission are representatives of the Secretary. The Secretary also considered many other recommendations from many other sources.

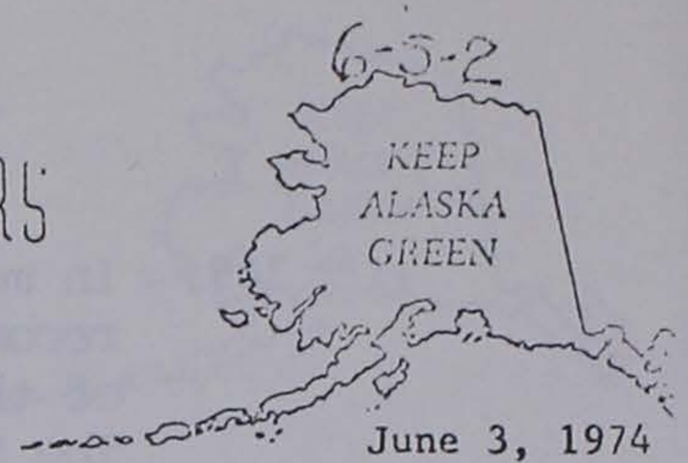
350. Access to and through the withdrawals is not precluded by the proposal. For more specific information, please refer to Impact on Transportation, Chapter III.

COOK INLET CHAPTER
JUNEAU CHAPTER
KETCHIKAN CHAPTER
YUKON RIVER CHAPTER

SOCIETY OF AMERICAN FORESTERS

Alaska Section
Sitka Chapter
P.O. Box 850
Sitka, Alaska 99835

6-5-2



June 3, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of Interior
Washington, D. C.

Dear Mr. Swem:

Members of the Sitka Chapter of the Society of American Foresters would like to add their support to the resolution you recently received from the Juneau Chapter of the Society of American Foresters.

We urge the Secretary of the Department of Interior to reassess and amend the proposals and the environmental statements to provide for the deficiencies mentioned in their resolution.

A copy of their resolution is attached for your information.

Sincerely yours,

Alan J. Aitken
Chairman, Sitka Chapter

INSTITUTE OF ARCTIC BIOLOGY

UNIVERSITY OF ALASKA
FAIRBANKS, ALASKA 99701

February 15, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Biologists on our staff favor caution in development of access to areas of Alaska that are still largely in their natural state. We have no special expertise in the general economical or social uses of the proposed areas of withdrawal. Individuals in our staff are aquainted through biological studies with the animal and plant life and people of many of the areas proposed for withdrawal. Our future program will involve studies of the animals, plants and people of Alaska. In hese we will be joined, as in the past, by colleagues of national and international institutions for research and with associates in state and federal agencies concerned with management of natural resources. Ihrough the knowledge of its resident staff the Institute of Arctic Biology has become a center through which national and international scientists carry out studies of the Alaskan biological environment.

We note with interest a proposal that facilitation of better scientific information is regarded of importance in the statements on impact of the withdrawals. The statements prepared by Interior outline rather well the known aspects of biological information in the several areas proposed for withdrawal. These statements also indicate that information about the several biological environments is still insufficient for management and by no means shows the full value for public interest and use of the animals and plants in the diverse environments. For Alaska and the nation it is important to intensify studies of life in Alaska, which contains a vast store of still unknown biology applicable to practical and theoretical developments as well as being of exciting interest for popular education.

We presume, although it is not expressly stated, that the very knowledgeable personnel of the Alaska Department of Fish and Game have been consulted with regard to the impact statements. It would be desirable to utilize their knowledge, experience and devoted interest as residents in effective manner in a combination of federal and state planning and management. That bureaucratic procedures have made these combinations difficult to implement should be no obstacle to devising a reasonable cooperation.

In fact, very vociferous and realistic objections to large federal withdrawals in Alaska will come from the possibly adverse impact upon the state's government by sequestrations under non-resident management. Unless concord with the people and government of the State of Alaska is carefully prepared, hearings on the proposed withdrawals are sure to be disturbed by arguments in which federal bureaus, state government and citizen organizations appear as adversaries. They should, of course, appear as collaborators in fact and principle.

UNIVERSITY OF ALASKA
INSTITUTE OF ARCTIC BIOLOGY

The biologists of this Institute will carefully observe the deliberations on the impact statements. Individuals among us who have special scientific knowledge of the life in an area proposed for withdrawal will offer their opinions as individual scientific testimony where appropriate. The Institute of Arctic Biology is ready to serve the Department of the Interior in fact-finding studies if such studies should be requested from the University of Alaska.

Sincerely yours,

Laurence Irving

LAURENCE IRVING
Advisory Scientific Director
& Professor of Zoophysiology

LI:hw

RESPONSE TO COMMENTS BY
UNIVERSITY OF ALASKA, INSTITUTE OF ARCTIC BIOLOGY

351. We have been in contact with the Alaska Department of Fish and Game in the development of these proposals and the environmental statements. As is stated in Interrelationships, Chapter I, the NPS looks forward to good relations with the people and government of Alaska.

The Wilderness Society • 1901 Pennsylvania Avenue N. W., Washington, D. C. 20006

June 24, 1974

Chairman,
Alaska Planning Group
U.S. Department of the Interior
Washington, D. C. 20240

Dear Sir:

We appreciate the opportunity to comment on the adequacy of the draft environmental impact statement (DEIS) on the proposed Kobuk Valley National Monument, Alaska. The Wilderness Society, a national conservation organization with 100,000 members and cooperators in all fifty states, has a long and deep involvement in Alaska public land matters.

The following comments are directed specifically to what we consider deficiencies in the Kobuk Valley DEIS and are intended to assist you in preparing a final impact statement which will be more acceptable to citizens from a public land dedication standpoint and protect the national interest in these lands.

1. The most serious deficiency of the DEIS is that it asks the public to comment on a draft statement on which a final decision has already been made. The public is being asked to participate in a review exercise of commenting on a proposal which the Secretary of the Interior has already transmitted to the Congress for final decision in accordance with the provisions of the Alaska Natives Claims Settlement Act. Thus, it appears that the exercise of commenting on the draft environmental impact statement is meaningless unless suggestions of the American public are taken into consideration relative to preparation of the final impact statement. But, just how the final impact statement will reflect change in a legislative proposal of the Secretary already being considered by the Congress is not clear. But it must be done! 352

2. The DEIS does not discuss the various alternatives involved in including in the Monument certain lands which have been withdrawn for native selection, but which may not ultimately be selected by natives. It is essential that these alternatives be fully explored and documented so that critical natural values be fully protected in the proposed national monument. 353

In summary, while we appreciate the opportunity to comment on the DEIS for the proposed Kobuk Valley National Monument, we feel that the exercise could be meaningless unless citizen input is fully considered in final decisions. These decisions must then be reflected in changes in the Secretary of Interior's proposals to the Congress. The public must be fully informed as to the substance of those decisions and the process involved in arriving at final recommendations.

We trust that these brief comments will be helpful to you in meeting the important goal of including the Kobuk area in the National Park System.

Sincerely,

Harry Crandell

Harry B. Crandell
Director of Wilderness Reviews

RESPONSE TO COMMENTS BY
THE WILDERNESS SOCIETY

352. The Department had originally intended to produce final EIS's with these legislative proposals even though the CEQ Guidelines offer the option of using drafts in cases like this. However, it soon became obvious that we could not accomplish this within the severe time frame allowed, i.e., before the December 18, 1973 date specified by the Act. Nevertheless, final statements will be completed and sent to Congress and the Native organizations for consideration in the actions which have yet to be taken. Submission of a draft with new legislation does not shut off the opportunity for full public review and disclosure of those review results. In the ANCSA case, particularly, those results will be before the Congress in the Final Environmental Statements and it will undoubtedly be some time before Congress can act due to the time allowed for the village and regional corporation selections. Final Environmental Statements will be available considerably before that time. The opportunity for input to the decision process, as in all legislation, remains completely open to the public throughout the legislative process yet to come. Congressional Hearings will most likely be held and public comment sought.

353. Lands with important natural values within Native Village Withdrawals have been discussed as alternative additions in Chapter VIII, section C-1 and C-2.

UNIVERSITY OF ALASKA
FAIRBANKS, ALASKA 99701

January 11, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U. S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem:

Thank you for including us in the distribution of draft environmental statements under the Alaska Native Claims Settlement Act. We are extremely interested in the activities of your group and the actions relating to d-2 areas, and we look forward to receipt of further reports and related information.

The institute cannot, of course, take a position as to whether an environmental statement does or does not adequately examine the issues. However, as individuals, our staff will certainly provide what assistance we can. The extent to which this will be done depends primarily on the interests, knowledge, and time of individual staff members. Subject to these constraints, we will do what we can to review the draft statements and provide technical comments, primarily in the area of socioeconomic impacts. It would, by the way, be useful to know exactly how deep and extensive an analysis is required, and if you have any appropriate guidelines, we would greatly appreciate receiving them.

I can give you two general comments at this time, and these are strictly personal. First, the draft analyses of socioeconomic impacts that I have looked at seem rather vague and weak. Second, and this is extremely important, the impact statements essentially view each proposal in isolation from other proposals, and from other major land actions in the region, including state and Native selections. It is doubtful that a piecemeal approach can provide the basis for evaluating total impacts, either in terms of regional, statewide, or national perspectives. I make these comments now, as they apply to the total set of proposals and will not be reflected in individual statement reviews.

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UNIVERSITY OF ALASKA

In any case, we will do what we can to provide you with useful comments. We have, of course, provided much information and individual assistance to agencies working on the statements. This we are continuing to do, and if we can be of any service to your group beyond the reviews, please let us know.

Best wishes.

Sincerely,

Victor Fischer, Director
Institute of Social, Economic
and Government Research

VF:jd

RESPONSE TO COMMENTS BY
VICTOR FISCHER

354. Socioeconomic impacts throughout Chapter III have been expanded and strengthened.

355. Please refer to response 1, and to the Alaska Conservation Act (Appendix K) for a view of this proposal in the context of the other 27.

GERALD GANOPOLE
CONSULTANT-CERTIFIED PROFESSIONAL GEOLOGIST
BOX 4-1261
ANCHORAGE, ALASKA 99509
907 - 277-0124

March 8, 1974

Mr. Theodor Swem
Chairman, Alaska Plan Group
U.S. Department of the Interior
Washington, D.C. 20240

Re: EIS-Alaska Public Domain
Lands - 28 Units.

Dear Mr. Swem:

I have had occasion to review some of the proposed National Parks and Monuments statements and I was shocked to note the erosion of National Park principles into the political expediency of allowing hunting in the proposed Parks and Monuments.

At present, the only readily accessible area in Alaska in which any wildlife can be seen by the casual visitor or city dweller, is McKinley National Park. Most of the proposed scenic areas will endure long after man has passed...no matter what protected or unprotected status you may designate. But even controlled hunting in these areas will reduce many wildlife species to a rarity - - seen only by aerial spotting and ultimately through the high powered scope of a rifle.

In many of the areas, I would hold the wildlife values are at least equal to or higher than the scenic values and I respectfully request that no hunting be allowed in any of the Parks or Monuments.

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Further, I have never quite understood the logic in operating even the present wildlife and game refuges in Alaska as breeding areas for the sole benefit of a relatively few hunters and guides. Individuals interested in killing animals should vie with each other for the few remaining animals to be found outside of the restricted areas and all wildlife and game refuges should become refuges...as their name implies.

Limited subsistance hunting by indigenous inhabitants should, of course, be permitted but even this should be very closely controlled.

Thank you for the opportunity to offer my comments for your land-use planning.

Very truly yours,

Gerald Ganopole

Gerald Ganopole

GG/sc

RESPONSE TO COMMENTS BY
GERALD GANOPOLE

356. Please refer to Fish and Wildlife Management Policy in Appendix J for the NPS policy on hunting. It is true that hunting is permitted in national monuments in only the most extraordinary circumstances. No sport or commercial hunting or trapping will be permitted within the monument. However, subsistence hunting will be permitted pending congressional approval; see Legislative Proposal, Chapter I.

Subsistence harvest activities are an important part of this proposal and are supported by one of the five purposes (Chapter I) for the proposal. Primary resource values will be protected, since this protection is also among the purposes and because continued subsistence activities depend upon the protection and perpetuation of these primary resources.

Route 1, Box 248
Arcata, CA 95521
June 18, 1974

Rogers C.B. Morton
Secretary of the Interior
U.S. Department of the Interior
Washington, D.C. 20240

Dear Secretary Morton:

I am writing to present my views on the environmental impact statements on the first seven of the Interior Department's selections of Alaska National Interest Lands. Basically, I think the Interior Department has failed to live up to its early pledge of striving for "ecosystem" protection, and substituted political expediency in its place.

On only one of the seven areas can I agree fully with the Department's recommendations. This is the Kobuk Valley National Monument proposal. Here, the Interior Department has successfully achieved ecosystem protection and fulfilled its past pledge. However, this area stands alone in its acceptability.

An excellant example of the Interior's poor decision-making lies with the proposed Selawik National Wildlife Refuge. In this case the Interior decided not to include an important area in the western portion of the Selawik basin. Several hundred thousand acres of former "d-2" land-withdrawls were within this area, but were dropped altogether in favor of a native village deficiency withdrawl. According to the EIS this ommitted western portion of the basin is "of comparable or greater value to fish and wildlife that the proposed refuge itself." Interior could easily have allowed for native selection and reserved the remainder for the Refuge proposal. This action should have been taken, but it was not.

Similarily, Interior has allowed native withdrawls to override d-2 lands of several areas; the Refuge proposals at Cape Thompson and Cape Lisburne, and the proposed Aniakchak Caldera National Monument. In these cases the Interior Department could have provided for this deficiency acerage elsewhere. In the case of the Nellie Juan River Valley, as in the case of the Selawik basin's western portion, the Interior failed to retain important lands not selected by native withdrawls.

These last examples seem indicative of the way the Interior Department has conducted its land selections: more with a regard for expediency, than for ecological concern. I think it imperative that the Interior Department live up to its earlier pledge of "ecosystem" protection. Only when this is done can the selections be made in a prudent manner.

Sincerely,

Jim Gerritsen

CLEMSON UNIVERSITY

CLEMSON, SOUTH CAROLINA 29631

COLLEGE OF FOREST AND
RECREATION RESOURCES

DEPARTMENT OF RECREATION
AND PARK ADMINISTRATION

May 27, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U. S. Department of the Interior
19th and C Sts., N. W.
Washington, D. C. 20240

Dear Mr. Swem:

In response to your letter of December 28, 1973, enclosed are comments on the twenty-eight draft Environmental Statements concerning those lands involved with the Alaska Native Claims Settlement Act.

These comments have been prepared by my graduate class in Comprehensive Recreation Resource Planning. They have been limited to responses to the draft environmental statements and the studies of alternatives. Of course they are also limited in the fact that none of the respondents have visited the areas under study.

Nonetheless, these remarks are transmitted to you in the hope that they will be of some assistance in your final deliberations.

Thank you for the opportunity to study the proposals. I look forward to receiving any reactions you may have to the enclosed comments.

Sincerely yours,

H. Jesse Grove

H. Jesse Grove
Associate Professor

COMMENTS ON KOBUK VALLEY PROPOSAL

Page 5: Purpose or goal no. 4--"to provide for public use and enjoyment of the area in a way which will leave its resources unimpaired for future generations" may mean curtailing tourism in the future. It is no problem now but the trend shows great increases in tourism in Alaska year by year.

Page 14: "Although float-equipped aircraft will offer the greatest mobility--with landing areas designated along the Kobuk River and at selected lakes--an airstrip will provide access to the upper Salmon River valley." Since the Kobuk valley is located in the northern reaches of Alaska, it would seem that lakes and rivers in the area would be frozen over for a major portion of the year. If this is the case float plane access would be curtailed and a major method of transportation would be inoperable. Has this been taken into consideration when planning for transportation needs and methods? Suggested solution: Designate certain areas of lakes that are frozen solidly as ski plane landing strips. Note: This ski plane utilization method is mentioned later in the proposal but it should be mentioned in this portion also. This method of landing should be stressed more than it is in this proposal.

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Page 73: "The low productivity in this arctic environment will dictate, to a large extent, the type and volume of acceptable public use. This is one of the most important statements in the entire proposal. All implications which result from this statement should be studied carefully because this arctic land productivity is low and slow, and if a mistake were made concerning use of the area--resulting in destruction of certain

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vegetation or wildlife, it would take much longer to rejuvenate the damaged species than in other environments.

Pages 197 and 198 state "Onion Portage is by far the most important and best known site (referring to cultural resources). Vandalism is already a problem there now. When visitor use rises, vandalism will probably increase proportionately. The proposal states that the presence of uniformed personnel will probably make vandalism minimal. I'm not so sure. Isn't there a better or less expensive way to decrease vandalism? Visitor education, maybe. 358

Page 213--Since a guided hunt costs around $5000, with much of this money going as profit to the guide and his assistant, (guides and assistants live in the proposal area villages) it seems that a ban on sport hunting would be significant to the economies of the local villages. These villages only have a few hundred citizens so when one of its higher or highest paid members loses his job, it will probably affect the economy of the whole village. This impact would be significant. 359

Page 229--paragraph 3 --states, "All socioeconomic changes are maximally disruptive if they occur rapidly. With this in mind, the National Park Service's plan envisions slow transition between the present conditions and those eventually desired." From this last statement is sounds like the National Park Service is planning to have full control over the determination of the future of the land area and therefore have full control over the future of the inhabitants of the area.. It is not right for the NPS to fully determine the futures of these people. I hope the natives of this region 360 have a great say in planning the use of the land.

Page 258-- It would not be a good idea to delete the Salmon River Watershed from the proposal because the protection which monument status would give this area would aid it immensely in retaining its pristine qualities while still providing subsistance for the natives. If the area were deleted, much

degradation to wildlife habitat could take place, as well as other adverse effects mentioned on page 258.

Page 279--The alternative of discontinuance of the opportunity for subsistance activities should be thrown out. If subsistance activities were discontinued while opportunities for economic development, i.e. mining, land development, or industry were being stifled, as would be the case if the proposal passes, the natives would have no way of making a living. They have depended on subsistance activities for about 80% of their livelihood. If it were discontinued they would have to move or starve. Throw out this alternative!

The actual selling of the product, not the product itself, predominantly determines whether it is accepted or rejected. This written version of the proposal left much to be desired. In order for the proposal to have been more attractive, and therefore a better sale job, these changes should be made:

1. A different method of binding should be used. It took half my strength and both my hands just to keep this proposal open!

2. All pages should be uniform in boldness of type--some pages were too light in type and were difficult to read.

3. No misspelled words or two or more words typed together--self explanatory.

All in all, this proposal was quite thorough and it was difficult to improve on what was written.

RESPONSE TO COMMENTS BY
H. JESSE GROVE

357. Information on ski plane landings is added to Transportation and Communication, Chapter II; it is implied in Chapter I.

358. For a discussion of visitor education, please see Interpretive Program, Chapter VIII.

359. Sport Hunting and Fishing, within Impact on Local Market Economy, has been expanded to include this observation.

360. The NPS will not have nor does it want full control over the inhabitants of the area. Rather, we are very aware that monument designation may have a significant impact, nonetheless, upon the land and the people. Therfore, the proposal seeks to minimize any possible harmful impact of its presence by slow transitions. We also hope that the people of the region--Native and non-Native-- will consult with the NPS in the future development of the area.

INSTITUTE OF ARCTIC BIOLOGY

UNIVERSITY OF ALASKA
FAIRBANKS, ALASKA 99701

February 15, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

Comments on the proposed Kobuk Valley National Monument (73-88):

This region of the middle Kobuk River and its watersheds from the western Brooks Range is an important source of migratory fishes and game. It has been sparingly utilized by Eskimo residents who have adopted a style of life on the forested river and adjacent mountains. Formerly it was traversed as an ancient route of traders between the coast and interior. The region is still only modestly known by scientific exploration but it contains migratory caribou, sheep, moose, and bear, and interesting but little known small animals, birds and fishes, and plants typical of the most northwestern forests and adjacent tundra.

Less spectacular than Gates of the Arctic, it is nevertheless of special interest as the most northwesterly forested land of America, with resident indigenous people competent to serve in management and for guidance of visitors desiring views and studies of the region. It contains sites of special archaeological interest showing the life styles of ancient man for several millenia, and perhaps many more that are not yet discovered.

Unregulated access for any purpose could soon degrade the beauty and inspirational and educational value of the region. It might well serve as a focus of interest for the present native residents to facilitate the study of the present and past conditions for their educational and pleasurable values.

Sincerely yours,

Laurence Irving

LAURENCE IRVING
Advisory Scientific Director
& Professor of Zoophysiology

LI:hw

PURDUE UNIVERSITY
DEPARTMENT OF AGRONOMY
LIFE SCIENCE BUILDING
WEST LAFAYETTE, INDIANA 47907

February 26, 1974

Mr. Theodore R. Siven, Chairman
Alaska Planning Group
U. S. Department of Interior
Washington, D. C. 20240

Dear Mr. Siven:

I have been asked to contact you on behalf of the Institute of Agricultural Sciences, University of Alaska, Palmer, Alaska. First, I should mention that I have been a consulting scientist in climatology at the Palmer Research Center, but I do not have any other contacts or interests in Alaska.

In reading the climate and soils descriptions in the proposed D-2 withdrawals I find this information to be so general as to be in error, particularly in meso and micro scale -- a necessary scale consideration for agricultural potential. Most potential agricultural areas in Alaska require a favorable deviation in meso-micro scale in climatic matters, soils, and topographic features. The land description of the proposed areas in the D-2 withdrawals by the Department of Interior disregards the favorable areas with agricultural potentials.

361

Decisions made in this fashion are likely to be very shortsighted because at some point in the future agricultural development is very likely to take place without prior research and in the absence of seientifically based plans so necessary to properly guide such development in the sub-arctic.

My work in Alaska has been confined to climate as related to the potential development of agriculture in this sub-arctic region. I have been concerned with delineating such areas in Alaska. I am attaching a reprint of two papers which represent a portion of my work in Alaska. I can provide three technical bulletins published by the Institute of Agricultural Sciences dealing with climatic data in potential agricultural areas. Perhaps these publications will interest you and your committee.

In my work, I have tried to address myself to basic, as well as practical considerations in developing a proper sub-arctic agriculture in a few of the most favorable areas in the state. Such development should be preceded by several years of careful survey and experimentation, in my view. Such an approach would be very different that in the past where too often agricultural development has been attempted by transferring mid-latitude agronomic practices to a sub-arctic region. And, I might add, too often the same can be said for much of the other living practices among the wite population now living there. But, these shortcomings of the past should not serve as a

model for all future attempts to develop a sustaining sub-arctic agriculture in the very restricted potential areas of the state.

I will be glad to appear before your committee for further questioning.

Sincerely yours,

James E. Newman
Professor of Agronomy,
Bioclimatology

JEN:er

Encl.

cc: Institute of Agricultural Sciences
University of Alaska

RESPONSE TO COMMENTS BY
JAMES NEWMAN

361. There is no agricultural potential in the Kobuk Valley. Soils materials have been completely revised based on information obtained from the JFSLUPC.

Nome, Alaska 99762
Box 451

March 20, 1974

Theodor R. Swem, Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem

Attached is a copy of a letter, the original of which I sent to Senator Ted Stevens with copies to those listed in the letter, which expresses my views toward the 28 proposals for (d(2) lands in Alaska. I have only reviewed four of the proposals to date, but the general patterns for implementation and the material contained in these four, appeared to have the same goal: single purpose uses of the lands with restrictions or elimination of development activities, recreational enjoyment and subsistence pursuits. I would like to express my opposition to the proposals as they are now written and if time permitted, would have made specific comments on each of the draft environmental impact statements.

Respectfully,

John K. Pierog

Nome, Alaska 99762
Box 451

March 8, 1974

The Honorable Ted Stevens
United States Senate
317 Senate Office Building
Washington, D. C. 20510

Dear Senator Stevens:

In the past, Alaskans have witnessed many incidences of the "outsiders" imposing their wills on the people of this great State. Some of these impositions were consistent with the desires of Alaskans--others were contrary. Some were beneficial, while others were detrimental. As an Alaskan who enjoys our State's outdoor resources and who would like to see the State develop for self-sufficiency, I have a deep interest in present and proposed future events and developments in our State.

I have been following developments and progress under the provisions of the Alaska Native Claims Settlement Act since its implementation in December of 1971. Recently, the Secretary of the Interior submitted his recommendations to Congress concerning proposals for d(2) lands. There were 28 draft environmental impact statements prepared which outlined boundaries for lands at various locations to be included in the four national systems of parks, forests, refuges and wild and scenic rivers. The proposals also contained recommendations as to the types of land uses that would be permitted within the individual proposal boundaries. The Land Use Planning Commission (LUPC) submitted its recommendations for land uses to the Secretary prior to his transmittal for Congressional review. The LUPC, in most cases, recommended multiple uses of the d(2) lands involved. The multiple use recommendations would provide for the preservation of fish, wildlife and other natural resources, but would still permit the development of mineral and other resources in potential areas which would greatly benefit the State. The Secretary disregarded the recommendations of the LUPC and asked Congress to approve plans for single purpose uses of the lands. I feel, as many other Alaskans I have talked to, that the Secretary's actions, if approved, would be contrary to the wills of the majority of the people of this State and would greatly deprive Alaskans of the right to develop their own state and their own lives.

As a sport and subsistence hunter and fisherman, and a member of the National Rifle Association, I view the proposals with great caution in regard to possible future controls on fish and wildlife resources should the proposals be approved. As a member of the National Wildlife Federation and a conservationist,

March 8. 1974

I recognize the need for protection and preservation of our natural resources. Restrictions on the harvest of fish and game resources, based on field observations and counts, are a necessity when species populations are endangered. In the recent past, Alaskans witnessed the passing of the Marine Mammal Act. This Act was a prime example of the imposition of "outsiders'" wills on the people of this state. Not only was the Act contrary to most Alaskans' opinions, but its implementation illustrated a complete disregard of the Alaska Department of Fish and Game's field observations and management integrity.

I would like to express my opposition to the Secretary's recommendations to Congress regarding single uses of the lands and the restrictions implied in the proposals regarding recreational and subsistence pursuits, unless the latter is necessitated as a result of the depletion of fish and game populations beyond the point of sustained harvest. Development of mineral potential, much needed overland transportation systems and the enjoyment of recreational pursuits by hunters, fishermen and outdoor enthusiasts would all be discouraged or eliminated if the d(2) proposals are adopted as they are now written.

I hope you will support my opposition to these needless restrictions. Alaska can preserve some of its natural resources and develop others in harmony with the environment by sensible and careful planning and management without restricting the enjoyment of life or degrading the quality of the environment significantly.

Sincerely,

John A. Pierog

John A. Pierog

Copies to:
Senator Mike Gravel
Rep. Don Young
Gov. William Egan
Senator Willie Hensley
Rep. Chuck Degnan
Natl. Rifle Assn.
Natl. Wildlife Federation
Alaska Magazine

JOHN R. SWANSON
P. O. Box 922
Berkeley, California 94701

May 20, 1974.

Chairman
Alaska Planning Group
U.S. Department of the Interior
Washington, D.C. 20240

Dear Sir:

Please accept my Comments, as follows, concerning Proposed Yukon Valley National Monument within the State of Alaska.

I fully favor the adding of this Proposal to our National Parks System as the area certainly qualifies relative to its impressive resources of Wilderness, Wildlife and Scenic values. 362

I do urge, however, that this area be classified as a National Park as it is of Substantial National Park quality. And I strongly suggest that this proposal be expanded to include all of the "Areas of Ecological Concern" as they are a necessary part of this proposal. And that the entire Yukon River Watershed be included in such National Park Proposal as this entire Watershed is of certain National Park quality. In fact preserving entire intact Watersheds must be a primary goal in affording certain areas of Alaska permanent preservation as natural land-water complexes. 363

I also urge that the mouth of the Yukon River become apart of this expanded National Park, such as: Hotham Inlet, Baldwin Peninsula, Selawik Lake and environs.

Such a complex including several complete watersheds to form the basis of a Yukon Valley National Park of some 4,000,000 acres, or more, is of certain important National Park potential.

Nearly all of this area to be afforded permanent Wilderness status.

And as a fully established National Park no hunting nor any type of consumptive exploitation permitted. And to acquire all inholdings.

Sincerely, John R. Swanson.

RESPONSE TO COMMENTS BY
JOHN SWANSON

362. Please see responses 364 and 365 for a discussion.

363. Watershed protection is an important principle in the management of the proposed area. For this reason, entire watersheds of the tributaries of the Kobuk are included in the proposal. In fulfillment of the National Park System plan, however, (see Appendix I) the sought biotic province of the proposed area will not require the inclusion of the entire Kobuk watershed. Also, potentially significant mineral areas lie up river from the monument, and most of the other lands along the Kobuk are within Native withdrawal areas. The headwaters of the Kobuk are, of course, included in another NPS proposal--The Gates of the Arctic National Park; these headwaters lie within the Brooks Range physiographic area believed to be more appropriately included in a National Park with a major objective of representing the Brooks Range.

Cooperating agreements will, of course, be sought when necessary to protect significant Kobuk River values with appropriate landowners, managers, or affected agencies.

These are among the major reasons NPS planners recommended the area as proposed.

915 Will Rogers Drive
Stillwater, Oklahoma 74074
April 12, 1974

Mr. Theodor R. Swem
Chairman, Alaska Planning Group
U. S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Swem:

This letter is in response to Secretary of the Interior Morton's recommendations and proposed legislation to establish limits of the National Park, National Wildlife Refuge, Wild and Scenic Rivers and National Forest Systems on the Federally-owned lands of Alaska. The Draft Environmental Impact Statements which were submitted by the Secretary have many deficiencies which should be corrected before the final impact statements are submitted.

The impact statements seem to have the following general shortcomings which I recommend be reconsidered and corrected as appropriate.

Discussion of the alternative of a wilderness designation in most proposals is generalized. Each statement should discuss and consider a <u>specific wilderness proposal</u>.

The alternative of <u>not</u> permitting mining or oil and gas leasing in National Wildlife Refuge System areas was not discussed.

Interior proposes to name some National Park System areas national monuments. Because of their high scenic beauty and great natural values, all such areas should be named national parks.

364

Interior proposes to name all wildlife system areas as "National Wildlife Refuges." Since their wilderness condition is necessary to wildlife, however, they should be designated "wildlands" or "wildlife ranges." They are not merely sanctuaries, but have other values as well.

No areas proposed for "multiple use" should be permitted to stand as the Secretary has submitted them.

458

The following comments are submitted for each specific impact statement which has been made, and it is requested that the final statements adequately discuss the omissions as indicated:

1. Mount McKinley National Park Additions.

This is one of the better Interior Department proposals. Its additions do much to correct boundary inadequacies existing since the park was established in 1917. The environmental statement does not analyze: 1. The significant impacts on the park proposal that have resulted from the 1972 giveaway of critical lands on the south to the State of Alaska, or whether such lands should be included in the park. 2. The problems or impacts of omitting Chelatna Lake from the park.

2. Katmai National Park.

The environmental statement recognizes that the entire Katmai brown bear population is not protected - as the proposal erroneously claims— because the critical Battle Lake and Alagnak River watersheds are left out of the proposal. But the statement does not adequately discuss: 1. Long term impacts on the park or wildlife values which would result from this omission. 2. The impacts of expanding Brooks Camp, which already suffers from bear-human conflict.

3. Aniakchak Caldera National Monument.

The environmental statement does not discuss: 1. the impacts of an agreement with the State that leaves this park system unit open to hunting. 2. The impacts of hunting on the area's critical bear populations, now over-hunted. 3. The impacts of extensive private inholdings through native ownership within the monument. 4. The alternative of establishing an urgently needed brown bear wildlife refuge adjacent to the monument.

4. Harding Ice Field-Kenai Fjords National Monument.

This is a basically sound proposal, but the statement does not discuss: 1. Whether the inclusion of native-selected lands (with the natives' consent) within the monument boundaries should be allowed. 2. The alternative of establishing a major national park to include national forest lands to the east of Seward to Prince William Sound. 3. The alternative of eliminating the conflict with natives by identifying deficiency withdrawals outside their corporation boundaries. 4. Problems inherent in "dual (two agency) administration" of the area, a practice which has never proven satisfactory.

5. Cape Krusenstern National Monument.

This is a good proposal to protect significant archeological areas. The environmental statement, however, does not adequately discuss the alternatives of including additional lands to the north and east—if not selected by the natives—in the proposal.

6. Kobuk Valley National Monument.

The environmental statement does not discuss the alternatives of including those essential native-withdrawn lands within the monument if not selected by the natives. The Interior Department pursued this imaginative approach for such lands within the Onion Portage Archeological District, and this concept should be expanded to protect other critical natural areas as well.

7. Lake Clark National Park.

The environmental statement does not adequately discuss: 1. The impacts on Cook Inlet natives, who have considerable interest in the area. 2. Associated impacts upon the park of "dual withdrawal" lands, should they be selected by the natives' corporation. 3. The alternative of a land swap with the State for the Wood-Tikchik area. 4. The alternative of withdrawing lands for the Cook Inlet natives outside their regional corporation. 5. The impacts of allowing hunting within the park.

8. Wrangell-St. Elias National Park and Wrangell Mountain National Forest.

This is the worst of the Interior proposals. It amounts to an outright giveaway of much of the greatest potential park lands in the nation to commodity exploitation under "multiple-use" management practices of the Forest Service. These environmental statements completely divorce treatment of the park and forest proposals, thereby preventing any comprehensive analysis of the impacts of the overall decision. The impacts of inevitable, extensive mining on the park values in these areas are not adequately discussed. The long term impacts of extensive roads and associated developments the Forest Service encourages is not discussed. There is not even enough detailed environmental assessment to properly evaluate whether the reduced park proposal is even a viable management unit. The alternatives of adding lands to the park are not adequately discussed regarding their environmental impacts and, more important, their impacts on the long term viability of a superb national park proposal. The impacts of hunters are not discussed. The relationship between the Interior Department's forest proposals and the State of Alaska's plans for the Copper River and Chitina-McCarthy roads (opposed by conservationists) is not discussed. Nor are the impacts of these Forest Service-supported highways on park values and on the decision-making process considered.

9. Gates of the Arctic National Park.

The environmental statement discusses an imaginative proposal which merited serious consideration, the establishment of a National Wilderness Park, and a cooperative National Wildlands with the north slope natives. However, last minute decision-making by the Office of Management and Budget threw out this good proposal, substituting a traditional approach that does not address the area's needs and problems. *This environmental impact statement is totally inadequate since it considers a different proposal than that actually submitted!* **Thus there is inadequate treatment of the alternatives, which should have been considered. Such alternatives would create a truly great national park, including: 1. Adding state lands to the south. 2. Adding portions of Naval Petroleum Reserve No. 4 (PET 4) to the north. 3. Creating a great National Wilderness Park. 4. Creating a cooperative wildlands area with the north slope natives, to include some of their lands jointly.**

10. Yukon-Charley National Rivers.

This is an essentially sound proposal, but the environmental statement does not analyze: 1. The impacts of the area's being *the only national park area proposed to allow mining within its boundaries* **2. The long term impacts upon park values of visitation such mining would bring within the Yukon portion. 3. The impacts of recreation and allowing mining along the Yukon on the need to protect critical wildlife populations like the peregrine falcon.**

11. Chukchi-Imuruk National Reserve.

The statement mentions that an area outside the proposal would be managed for watershed protection by the BLM, but does not discuss the impacts of such a proposal on the area's watershed values critical for waterfowl. Nor is there adequate discussion of alternatives to the proposal, and there is no discussion of problems inherent in "dual administration."

12. Alaska Coastal National Wildlife Refuges.

Alternatives not discussed in this essentially good proposal are: 1. Including additional coastal and offshore areas—many should be in the proposal. 2. Closing the wildlife refuges open to mineral leasing. 3. Including surrounding waters and submerged lands essential to protect complete island ecosystems and their unique wildlife populations.

13. Arctic National Wildlife Refuge.

The impact statement does not adequately discuss: 1. Alternatives of greatly expanding this proposal to the west and south. 2. Cooperative international wildlife refuge opportunities with Canada. 3. Impacts of leaving the area open to mineral leasing. 4. The relation of this proposal to the potential gas line corridors under consideration by the Interior Department. These corridors should be given serious consideration in this statement.

14. Iliamna National Resource Range.

The long term impacts of dedicating this area to multiple use management are not explored in the statement. Joint administration with BLM is an unacceptable management method for the critical salmon and bear resources present here. In addition, the statement does not discuss: 1. Conflicts between oil development and hard rock mining and the wildlife resources. 2. The long term impacts and relationships between the proposal and the native people who use this area heavily. 3. The alternative of adding the Wood-Tikchik area to the proposal.

15. Koyukuk National Wildlife Refuge.

The statement fails to discuss: 1. The giveaway of half of the proposal to the BLM and Forest Service. 2. The impacts of the "potential for mining" on the wildlife. 3. The alternatives of adding critical areas to the two units of the refuge and establishing additional units.

16. Noatak National Arctic Range.

This proposal is also a giveaway to the BLM and its commodity exploitation advocates. The area should be established as either a national park or national wildlife refuge, alternatives not adequately discussed in the statement. The statement does not properly explain BLM's role in the proposal and the impacts of its involvement on the resources. Long term impacts of not recommending permanent protection for the area are ignored, along with alternatives for providing permanent protection for the Arctic caribou herd's calving area.

17. Selawik National Wildlife Refuge.

The statement does not adequately discuss: 1. The severe impacts of allowing mining in the area. 2. The alternatives of automatically including additional critical habitat areas if the natives do not select them. 3. Impacts on and the relationship with the local natives.

18. Togiak National Wildlife Refuge.

The statement does not adequately discuss or analyze: 1. The additions of substantial lands to the north and the east, regarding their impacts upon the proposal and the ecosystem as a whole. 2. The impacts of leaving the area susceptible to mining. The statement lacks sufficiently detailed explanation of the ecosystem to properly evaluate either the impacts of the proposal or its potential for long term wildlife protection.

19. Yukon Delta National Wildlife Refuge.

Imaginative serious alternatives were not discussed in the statement: 1. The inclusion of all non-selected native withdrawn lands and the potential for cooperative agreement with the native corporations to protect wildlife values on lands they will actually own. 2. The critical impacts of oil or mineral development within the refuge. 3. The overall relationship between and impacts of this proposal on the natives, and vice versa. [The relationship between waterfowl and the land ownership pattern in this area is extremely critical. The statement in no way adequately depicts the present situation or the area's needs in relation to both native people and wildlife.]

20. Yukon Flats National Wildlife Refuge and Porcupine National Forest.

This Yukon Flats/Porcupine proposal is second only to the Wrangells proposal as a demonstration of poor decision-making lacking proper consideration of the ecosystem planning concept. Here again, the Interior Department has divided discussion of one magnificent ecosystem into two separate environmental statements to avoid a true analysis of the actual impact of the Administration proposals. The impacts of the mining, logging and other resource exploitation encouraged by the Forest Service in North America's most important waterfowl area are not seriously discussed. Failing to discuss the complete ecosystem—which transcends political decisions—the environmental statements are seriously inadequate analyses of both impacts and alternatives. *All of the Yukon Flats area should be a National Wildlife Refuge System unit.*

21. Chugach National Forest.

The environmental impact statement contains little demonstration of need for this addition to the Chugach National Forest. The impacts of multiple use management and of adding the area to the forest by public land order are not adequately discussed. No indication of how the lands would be used—or the impacts of such uses is stated. An alternative of adding the lands by means of legislation, and legislatively establishing the entire Chugach, is not discussed.

22. Yukon-Kuskokwim National Forest.

The statement does not discuss or consider: 1. The impacts on wildlife, especially those populations that move between the proposed forest and Mount McKinley National Park. 2. The alternatives of proposing strong wildlife protection provisions. 3. The overall and long range impacts of the forest on McKinley Park. 4. The impacts of resource extraction within the Nowitna Scenic River watershed. Since only 14 percent of the proposed forest contains potential commercial forest lands, the Forest Service has not adequately demonstrated any real need to establish a national forest here.

23. Beaver Creek and Birch Creek.

Serious alternatives to both proposals—not considered—should be thoroughly analyzed, alternatives that would protect the rivers' entire watersheds. For example, since they flow into the Yukon Flats area, adding them to the Yukon Flats National Wildlife Refuge should be considered. The impacts of BLM multiple use management—including mining—within the watersheds of both proposals are not adequately discussed.

24. Fortymile.

This is basically a good proposal, but alternatives not analyzed include: 1. Designating more of the river system as wild and scenic. 2. Considering the river system—with its superb scenic and recreational resources—for addition to and management as part of the National Park System, rather than within the BLM. In addition, the impacts of allowing access for mining and the impacts of that mining within the river's watershed should be thoroughly discussed.

25. Unalakleet.

Alternatives should be considered that would: 1. Protect the entire river through cooperative agreement with the natives, who may gain ownership of the headwaters. 2. Automatically include the entire river in the system, if it is not selected by the natives. 3. Protect the entire Unalakleet watershed.

Sincerely yours,

Billy C. Wallace

Billy C. Wallace, PE

RESPONSE TO COMMENTS BY
BILLY C. WALLACE

364. As Administrative Policies for Natural Areas of the National Park System states:

> National parks and national monuments, generally, differ in these significant respects:
>
> Parks are relatively spacious--monuments may be any size.
>
> Parks, generally, possess two or more unique scenic or scientific values of superlative quality--monuments need only one attribute of scientific or prehistoric significance.

It was determined that the proposal area would appropriately be a monument within the National Park System.

Please note, however, that all natural areas--whether national parks or national monuments--receive the same protection and are subject to the same administrative and management policies.

365. Important lands relating to this proposal, presently under withdrawal for Native selection, are the proposed areas of ecological concern to the east and west of the proposed monument. Consideration for the inclusion of these lands within the monument may be found in Chapter VIII, sections C-1 and C-2.

This letter represents 119 other letters received, which contained comments identical in content, but which are not printed.

ALASKA'S FEDERAL LANDS

To: Mr Theodore R. Swem
Chairman, Alaska Planning Group
Department of the Interior
Washington, D.C. 20240

By:

David Williamson
314 West Barrett
Seattle Washington 98119

ZDCC

SUMMARY OF PLAN

1. Proposal to State of all unretained Federal lands allowing for Native selectio
2. Retained Federal lands divided into "Four Systems" plus Defense lands and Other (miscellaneous) Federal Lands. Lands that are retained for a set purpose.
3. Assignment of Federal land unit to appropriate agency with basis mission and power to best develope and care for assets of given units on an indefinite time period.
4. Division of all lands with in retained Federal land status into two functional classifications:

   Natural Areas - Unit to be managed by Federal agency to protect natural features, biota and other miscellaneous while prohibiting timber cutting, mining and other forms of commercial resource developement.

   Resource Developement Areas- Unit to be managed not only for any public recreational use if allowed, but also for limited resource developement as the agency in charge will allow. Timber and mineral resource development are allowed.
5. Granting to State the power to dispose of any lands it gets from the Federal government as it see fit while encouraging cooperation on any necessary regional planning that involves any Federal Unit and adjacent State lands in matters of homesteading, wild life movements and habitats, and public recreation.
6. Establishment of expanded Lake Clark NP, Kenai Fiords NM, Mt McKinley NP, Gates of the Arctic NP, and Katmai NP as major recreational-wilderness type Parks of NPS, Aniakchak Crater NM as an isolated natural area of NPS. Cape Krusenstern is a natural archeological area of NPS. Remainder of NP System in Alaska set as limited resource developement area of NPS. Native subsistence needs allowed as well as now if they can't be met elsewhere and for as long as the need ethic exists or can be kept at acceptable lev
7. Expansion of National Wildlife Refuges into areas of critical wildlife habitat throughout Alaska as embodied in proposed new Refuges. Only Arctic NWR will be a natural area Remainder of refuges managed for wildlife along with secondary natural resource developement in lieu of wild life habitat improvement ~~and mining~~. No Talk NWR will have 20 year moratorium but full mineral surveys will continue with staking of claims after moratorium along with any roads determined after the tis study and Congress Acts.
8 ..... National Forest System to incorporate critical timber land areas as new national forests ..... the addition of isolated BLM lands adjacent to existing ..... in Tongass NF to round out USFS watershed protection and lower all Fed land management costs. Most high country in Wrangell-Chugach region given to NPS since it is best to give NPS high country to manage and USFS watershed timberland to police
9 Federal and State Wild Rivers Systems plus Cooperative Management Zones (Federa State, and Native) at Mt McKinley, Gates of the Arctic, and Illiamna Lake basin,

NATURAL AREAS	Acres
National Park System	23,206,000
1) Aniakchak Crater NM	486,000
* 2) Katmai NP	4,720,000
* 3) Lake Clark NP	3,850,000
* 4) Kenai Fiords NM	550,000
* 5) Mt. McKinley NP	5,120,000
* 6) Gates of the Arctic NP	8,130,000
7) Cape Krusenstern NM	350,000
National Forest System	2,394,000
1) South Tongass NF	
a) Granite Fiords Wilderness	590,000
b) King Salmon Capes Islands Wilderness	120,000
2) North Tongass NF	
a) Tracy Arm	980,000
3) Chugach NF	
a) Nellie Juan Wilderness	704,000
National Wildlife Refuge System	12,920,000
1) Arctic NWR	12,920,000
TOTAL	38,520,000

* First priority establishment recommended for these new National Parks
* First priority establishment for additions to existing National Parks
(+) First priority establishment National Forest (new)
(-) First priority establishment National Wildlife Refuge

NL [illegible]	Acres
National Park System	19,613,000
1) Glacier Bay NM (or NP)	2,846,000
2) Charley National River Park	2,230,000
3) Wrangell-St. Elias NP	12,587,000
* 4) Kobuk Valley NM	1,950,000
National Forest System*[1]	36,464,840
(+) 1) North Tongass NF	16,720,000
2) South Tongass NF	5,150,000
(+) 3) Chugach NF	4,900,000
(+) 4) Yukon-Kuskokwim NF	7,271,000
5) Wrangell Mountain NF	1,923,840
(+) 6) Porcupine NF	5,500,000
National Wildlife Refuge System	36,374,019
1) Aleutian Islands NWR	1,500,000
(-) 2) Barren Islands ~~NWR~~	10,000
3) Bering Sea NWR	4,860
(-) 4) Kenai NWR	1,650,000
5) Chukchi Sea NWR	24,815
6) Chukchi-Imuruk NWR	1,408,320
(-) 7) Noatak NWR	7,250,000
(-) 8) Selawik NWR	1,420,000
(-) 9) Togiak NWR	2,650,000
10) Koyukuk NWR	5,350,000
(-) 11) Yukon Delta NWR	6,550,000
(-) 12) Yukon Flats NWR	3,500,000
13) Hazy Islands NWR	42
14) St. Lazaria NWR	62
15) Forrester Island NWR	2,800
(-) 16) Shumagin Islands NWR	62,800
17) Kodiak NWR	1,790,000
18) Izembna NRR	2,200,320
National Wild and Scenic Rivers System*[2]	725,000
1) Forty Mile River	275,000
2) other Wild and Scenic Rivers	450,000

* 1 2 Net NA acres following State, Native and private exclusions. Includes Wilderness Areas.

28cc

David Williamson
314 West Barrett
Seattle Washington 98119
July , 1974

FEDERAL LANDS IN ALASKA

Gentlemen:

The recent Alaska study proposals underscore the need for state wide land use and resource management planning, while satisfying the following important items to a major degree!

A) State Land Selections ---------- 103,000,000 acres
B) State Tidelands ---------- 45,000,000 acres
C) Statehood Grants ---------- 800,000 acres
D) Alaska Native Claims ---------- 40,000,000 acres

The specific locations of these major claims on Alaska's 365,481,000 acres of land and water along with individual private and native land applications will have great bearing on Alaska's future economic and political development as well as on future land use conflicts with land uses presently contemplated for the scattered tracts being studied for inclusion into the national park system, the national forest system, the national wild rivers system, and the national wildlife refuge system. Since many of the State and private claims being asked for occur on the very lands being proposed for reservation by the Federal agencies involved in the above mentioned systems, there will be no way of coming up with a plan that will avoid "stepping on someones toes. Some form of defining functions and relegating them to various State Federal and other miscellaneous agencies will have to done here. Any Federal land that is not retained under Federal ownership under the "four reserve system" or under present day withdrawls as national parks, national forests, wildlife refuges, Department of Defense lands, and Bureau of Land Management reserved lands; should be granted to the State for disposition. Settlement areas in the future will have to be identified and set up even before the expanding road system reaches them.

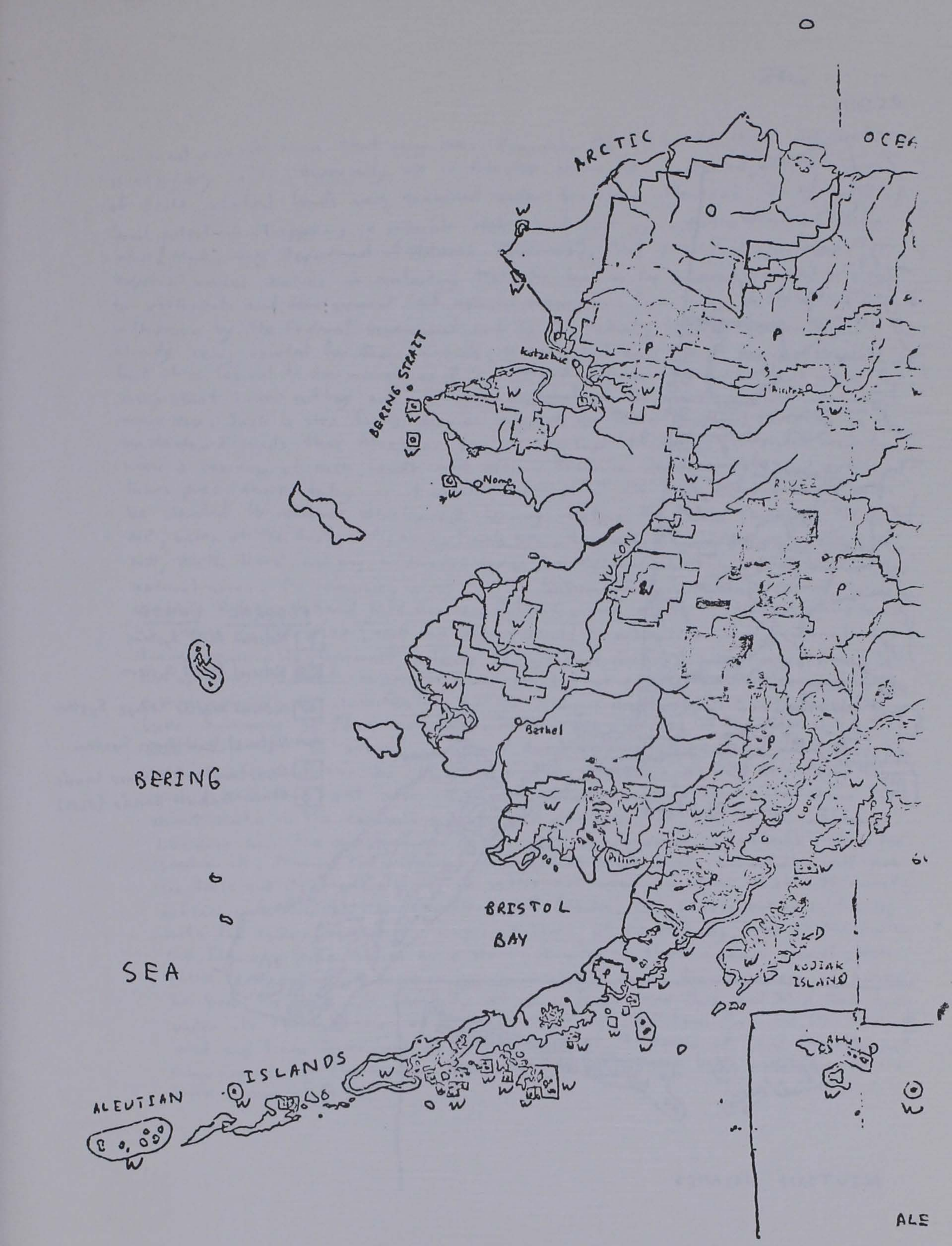
In terms of management, each Federal agency should exercise a greater degree of flexibility and relaxation of stringent regulations that characterize their role in the other states of the Union. On one

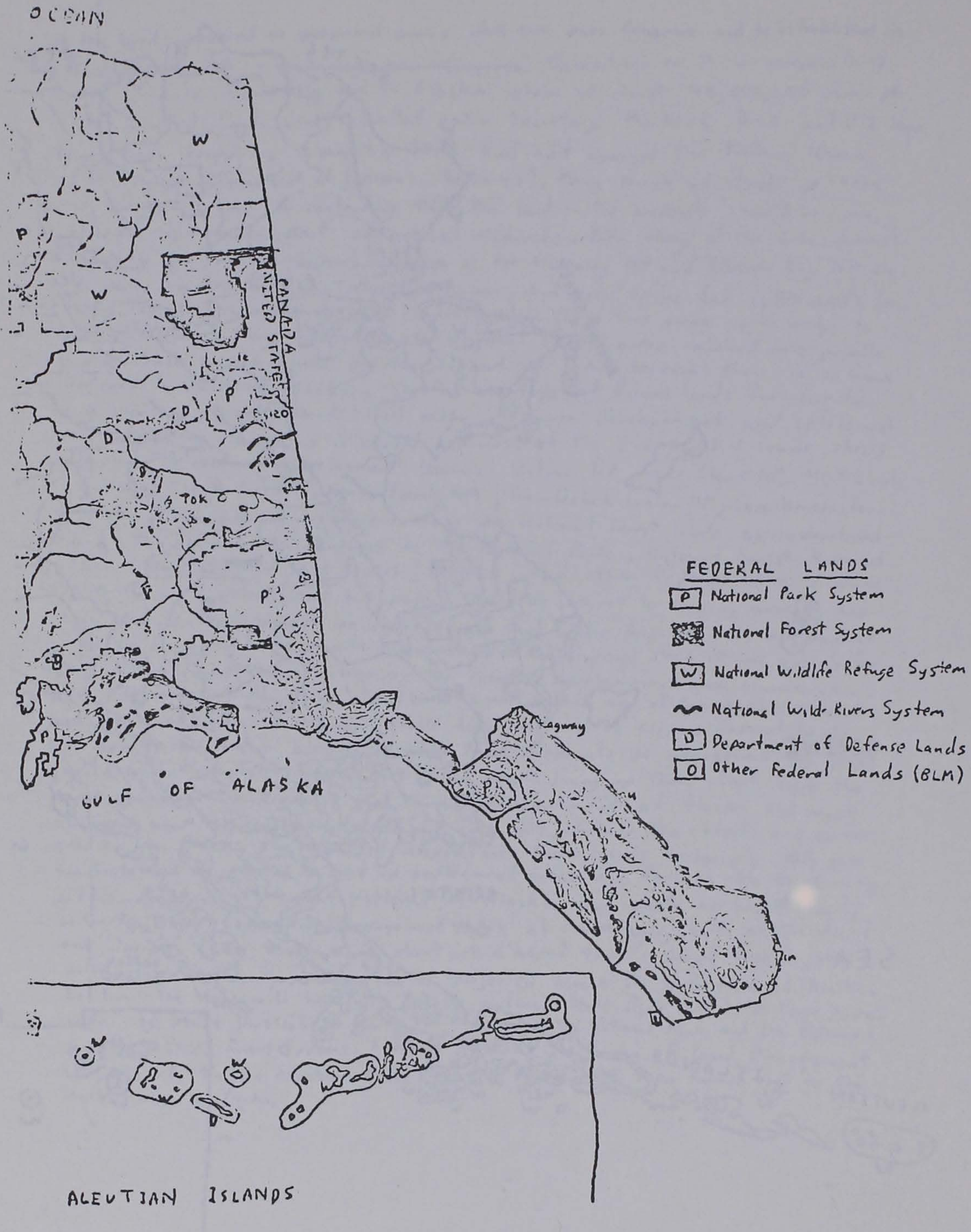
hand most of the areas proposed should be open to certain activities as hunting (such as in Lake Clark NP, Wrangell - St. Elias NP, Kobuk Valley NM, Arctic NWR, Illiamna NRR, and Yukon Flats NWR), timber cutting (as specified to such cases as Kenai NWR, Illiamna NRR, Yukon Flats NWR and Koyukuk NWR) and mine (within Wrangell - St Elias NP, Kenai NWR, Togiak NWR, Chukchi - Imuruk NWR, Chuga NF, Tongass NF [North and South Tongass NF], Yukon - kuskokwim NF, Wrangell Mountain NF, Ne NWR, Illiamna NRR, and remaining Bureau of Land Management [BLM] lands). This has to be done to sustain the local economy adjacent to the area considered, if not indeed the economy of the State of Alaska. Yet some national parks and wildlife refuges will need to be managed in such a way as to preserve the land, biota, and scenic fea for the enjoyment of future generations. The National Parks in this category include Ka Lake Clark, Kenai Fiards, Gates of the Arctic, Mount McKinley, Glacier Bay*, and Ancakchalk Crater. These parks are given enlarged boundaries to best protect their at from future offending land developments that will claim adjacent areas of the State, Within their borders money should be funded to acquire any private or native inholds as well as any state lands and to compensate the owners fairly by land or/and money. This is to be do as soon as possible (maybe even within the enabling legislation for establishing the parks. order to present them to all people as a cleam slate natural areas (These parks sho have the highest priority in securing their existance as the dominant use areas [since we those areas in the National Park and National Wildlife Refuge Systems]. The National Wildlife Refuges in the natural area class include Arctic, Aleutian Islands, Izembek, Fire Island, Barren Islands, Chukchi Sea, St Lazaria, Hazy Islands and Forrester Isl. The reason for maintaining these areas in their natural condition is for the sake of the wildlife more than for the people that are permitted to visit them.

With in Alaska's interior are rich pockets of white spruce - papa birch type forest lands, that can support a thriving forest industry in adjacent cities and towns. The largest of these pockets are in the upper kaskokwim, the Yukon - Now watershed, the eastern Yukon Flats centering around the Porcupne River, and the upper Tanana headwaters north of the Wrangell - St Elias National Park. The national forest proposed encompass these areas and more. Besides forest lands supporting a continous flow of wood; there are marshes for broods of waterfowl, wildlife habitats support most of the big game species present in the State, upland meadows where domestic livestock graze with the wildlife, and high glacier clad peaks where miners continue the search for minerals plus the inevitable day when non-consumtive users (such as recr ionists) gradually discover these areas. Obviously a variety of uses will have to be allowed in accordance with the US Forest Service's multiple use policy.

It is the opinion of this person that each agency should be given lan compatible with its basic mission and that all the retained Federal lands in Alaska should be assigned to the Federal agency that is delegated as the best able to manage the land resources of given areas, Here is where professional spe [illegible] expertise. Also, it can safely be assumed that only a few [illegible]

of the lands covered in proposed areas will ever pass Congress and be established in any final proposal for ~~but may pass Congress~~. Opposition to these proposals is [illegible] especially up in Alaska where at least 40,000,000 acres of State selected lands were cancelled under Secretary Morton's D-2 and D-1 land withdrawals triggering a possible State land suit against the Federal Govern. by Alaskan State Department of Natural Resources). Many private individuals up there express similar dislike in contending that the land in the proposals should be open settlement and developement of natural resources. Even many of the areas presently withdrawn by the Federal Government such as Mt McKinley NP and Glacier Bay NM are mostly known coveted for their minerals, timber, and open space for settlements. In fact it is logical to use mining as it is practiced in these two areas as a wedge to bring about timber cutting and ultimate disposal of the areas involved into private ownership. Such a step finds popular support up there because there is so much undeveloped lands that Alaskans see no shortage of future lands for recreation and a shortage of such lands will occur. Resource developement and settlement does presidence today as it should and most of the D-2 and D-1 lands should be devoted to resource development leaving Katmai NP, Lake Clark NP, Mt McKinley NP, Gates of the Arctic NP, Kenai Fiords NM, Aniakchak Crater NM, Cape Krusenstern NM, Arctic NWR, and any wilderness areas on National Forest lands as undeveloped national areas. The remaining areas in the National Park, National Forest, National Wildlife Refuge, National Wild Rivers, Defense, and other Federal retained lands as shown on the map (next two pages) should be subject to varying mineral, and resource developement policies (except that Glacier Bay NM may or may not end up being disposed into private ownership if not disposal then it can qualify for either national area classification or for resource developement area classification. (See Summary of Plan in back). Settlement within any of the retained Federal land should not be allowed nor should direct disposal of surplus Federal lands into private ownership be allowed after these proposals go into effect. The State should have that right after all it is the people living up there that have the direct stake in the economic growth and developement of Alaska and must likewise bear the consequences of any such act, whether the effects end up for good or ill. Placing the right of disposal into State hands exclusively will give the State and its people to set up settlement areas and thus be able to directly influence future settlement patterns of Alaska's now remote outback. Finally with the three Cooperative Management Zones at Mt McKinley, Gates of the Arctic and Iliamna Lake basicly as a start, it is hoped that increased Federal, State and inter-agency cooperation can be projected across the whole face of Alaska. In turn the State will hopefully set up a large State Park and Wild River system under its State Division of Parks to complement the National Park and the National Wild and Scenic Rivers Systems. Already most of the Bureau of Land Management campgrounds on the existing State highway system have been turned over to the State Division of Parks.


ARCTIC
OCEA
Kotzebue
BERING STRAIT
Nome
YUKON
RIVER
Bethel
Aliuna
BRISTOL
BAY
KODIAK
ISLAND
BERING
SEA
ALEUTIAN
ISLANDS
ALE


OCEAN
W
W
P
W
CANADA
UNITED STATES
P
D
D
D
TOK
P
P
P
Yukon
Alaska
GULF OF ALASKA
ALEUTIAN ISLANDS
FEDERAL LANDS
P National Park System
National Forest System
W National Wildlife Refuge System
National Wild Rivers System
D Department of Defense Lands
O Other Federal Lands (BLM)

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original proposal form that may pass Congress. Opposition to these proposals is extremely acute, especially up in Alaska where at least 40,000,000 acres of State selected lands were cancelled under Secretary Morton's D-2 and D-1 land selections triggering a possible State land suit against the Federal Government (Alaska State Department of Natural Resources). Many private individuals up there express similar dislike in contending that the land in the proposals should be open to settlement and developement of natural resources. Even many of the areas proposed withdrawn by the Federal Government such as Mt McKinley NP and Glacier Bay NM already being coveted for their minerals, timber, and open space for settlements. In fact it is logical to use mining as it is practiced in these two areas as a wedge to bring about timber cutting and ultimate disposal of the areas involved into private ownership. Such a step finds popular support up there because there is so much undeveloped lands that Alaskans see no shortage of future lands for recreation when a shortage of such lands will occur. Resource developement and settlement takes presidence today as it should and most of the D-2 and D-1 lands should be devoted to resource development leaving Katmai NP, Lake Clark NP, Mt McKinley NP, Gates of the Arctic NP, Kenai Fiords NM, Aniakchak Crater NM, Cape Krusenstern NM, Arctic NWR, and any wilderness areas on National Forest lands as undeveloped natural areas. The remaining areas in the National Park, National Forest, National Wildlife Refuge, National Wild Rivers, Defense, and other Federal retained lands as shown on the map (next two pages) should be subject to varying mineral and timber resource developement policies (except that Glacier Bay NM may or may not end up being disposed into private ownership; if not disposed then it can qualify for either natural area classification or for resource developement area classification. (see Summary of Plan in back). Settlement within any of the retained Federal land should not be allowed nor should direct disposal of surplus Federal lands into private ownership be allowed after these proposals go into effect. The State should have that right after all it is the people living up there that have the direct stake in the economic growth and developement of Alaska and must likewise bear the consequences of any such act, whether the effects end up for good or ill. Placing the right of disposal into State hands exclusively will give the State and its people to set up settlement areas and thus be able to directly influence future settlement patterns of Alaska's now remote outback. Finally with the three Cooperative Management Zones at Mt McKinley, Gates of the Arctic and Illiamna Lake basins as a start, it is hoped that increased Federal, State Native inter-agency cooperation can be projected across the whole face of Alaska. In time the State will hopefully set up a large State Park and Wild River system under its State Division of Parks to complement the National Park and the National wild and Scenic Rivers Systems. Already most of the Bureau of Land Management campgrounds on the existing State highway system have been turned over to the State Division of Parks.

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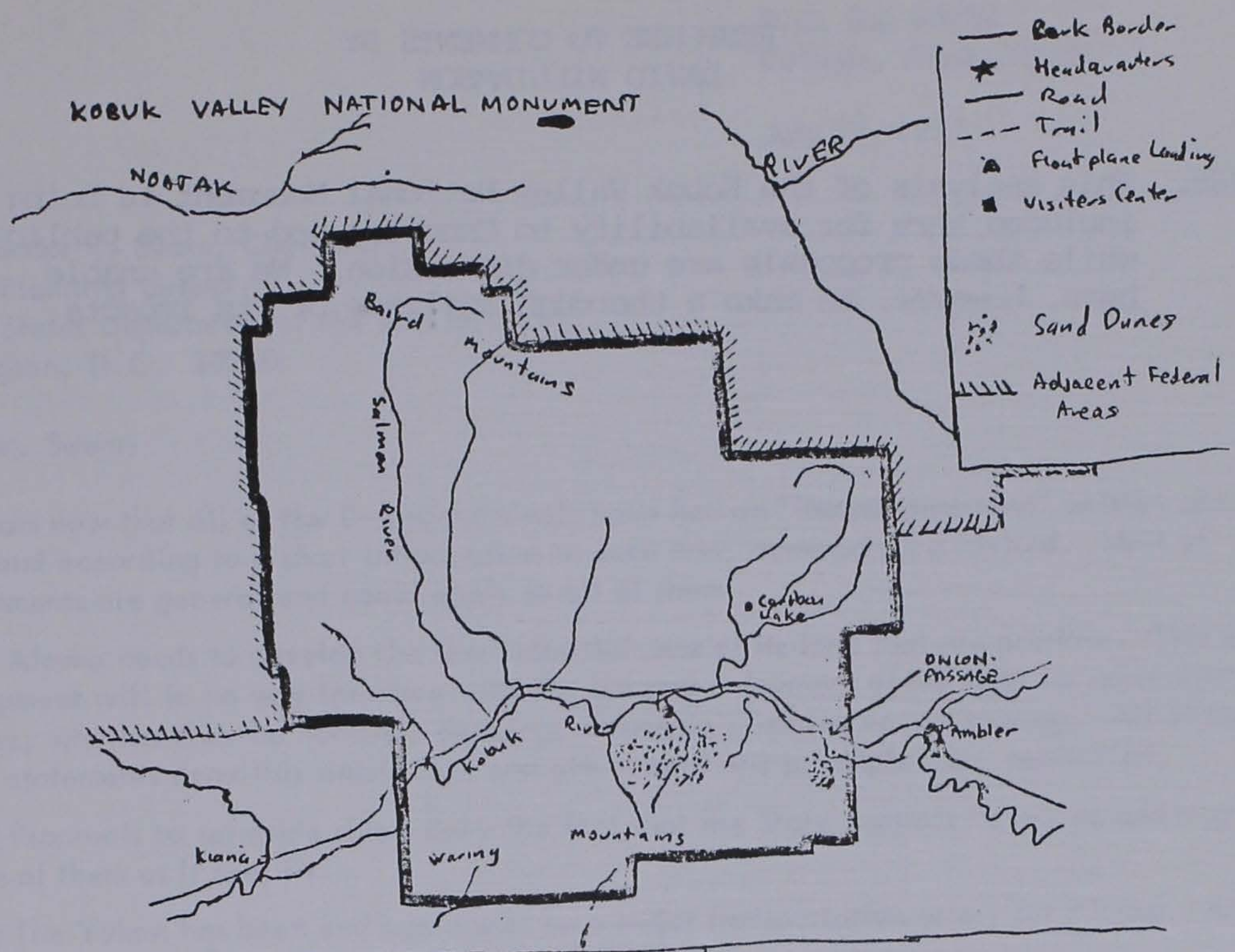
366

A. NATIONAL PARK SYSTEM

Alaska is a vast land in tems of acreage and natural scenery. In it more than 365 million acres are temprate rain forests, frigid Arctic tundra, glacie mountain peaks, plains, warm hot springs, steaming volcanoes, rugged fiords, smooth beaches, roaring rivers, deep valleys, barren sand dunes, and fertile low lands. Sam of these different landscapes are encompassed in the National Park proposals presen here. Such features depicting the natural face of Alaska on the surface are wonderful additions to the National Park System of the United States. However in reality it would be a miracle if more than three of the major proposals for new National Parks will ever pass into law in any form by the Act of Congress. Thus this person has to be selective in his preferences by going for proposals that lie close to the States main population centers of the Anchorage - Fairbanks region where many of the local and out-of-State recreational users will come from and merit their consideration by great natural scenery that is preserved at fairly low loss to other types of resource uses.

A minimum objective National Park System in Alaska should encompass Lake Clark NP (3.85 million acres), Kenai Fiords NM (0.55 million acres), Katmai NP (4.72 million acres), Mt. McKinley NP (5.12 million acres), Gates of the Arctic NP (8.13 million acres), Cape Krusenstern NM (0.35 million acres), and hopefully soon a Glacier Bay NP (2.85 million acres). An Aniakchak Crater NM of 0.456 million acres would also pose few conflicts as to resource use patterns now in the area but it is inaccessible and far distant by any future road or air connection from Anchorage which presumably would be the starting point for most of its potential visiters; besides, Katmai NP, Lake Clark NP, Kenai Fiords NM, and Mt. McKinley NP will draw the most visiters. It would therefore be wise to give these par enlarged boundaries that enclose the "scenic province" otherwise such acreage will be fought for later when the Alaska Federal Task Force studies prove to many park advocates to be "inadequate." These Parks plus the Gates of the Arctic NP, which protects a cross-section of northern Alaska's tundra and the Brooks Range near Bettles, comprise the core of the Alaska National Park proposals. They should be managed as natural areas free from most of man's destructive influences. Conflicts with lumbering and mining interests are to be expected in the case of the Kobuk Valley NM (1.95 million acres), Wrangell-St. Elias NP (12.57 million acres), and the Charley National River Park (2.23 million acres) among the new mining proposals (as well as in all the other Park units mentioned before) will make establishment difficult for the three Park units in this paragraph even if such activities were to be allowed in them. Such concessions will probably be necessary to help establish them. Alaska should know that tourism will play a very important role in sparing development of their resources.

Katmai NP, Kenai Fiords NM, Lake Clark NP, [illegible]



Total Gross Acres: 1,950,000

The Kobuk Valley National Monument contains a vast north-south cross-section of the Kobuk River Valley wedged between the Baird Mountains on the north and the Waring Mountains on the south. The sparse forest of low white and black spruce - paper birch association marks the northern limit of the northern forest zone in the bottomlands of the Kobuk River Valley. Arctic tundra both wet and dry type predominates. The most outstanding features are Onion Passage and the sand dunes south of the Kobuk River. Visitor demand may force spur roads to within easy viewing of both features from the state scenic highway along the Kobuk River. The Salmon River should be a Wild River with its entire watershed included for protection from mining.

The Park unit has all the unique qualities to make it a natural area of the System. However mineral deposits in the Baird Mountains have drawn the interests of miners who oppose establishing any such reservation. Whether mining end up being legalized or not is a hard question to answer

RESPONSE TO COMMENTS BY
DAVID WILLIAMSON

366. This analysis of the Kobuk Valley National Monument is being included here for availability to Congress and to the public while these proposals are under discussion. We are unable here, however, to make a thorough analysis of its impacts.

P.O. Box 80989
College, Alaska 99701

July 24, 1974

Mr. Theodor R. Swem, Chairman
Alaska Planning Group
United States Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

It appears now that all of the D-2 withdrawals have had an "impact statement" written about them, and according to a short introduction in each one, comments are invited. Most of my comments are general and could apply to all of them.

(1) Alaska needs to develop the few industrial uses of its land that are possible. This minimal development will in no way interfere with the use and enjoyment of the land for recreational purposes, whether they be hunting, camping, mountain climbing or just touring. All of the impact statements deny this simple fact and aim toward one principle use: recreation. 1367

(2) Proposals to set aside rivers deny the fact that the State controls its waters and may dispose of them as it sees fit. 1368

(3) The Yukon has been and again will be a major transportation artery for Alaska. Anything that would limit its usefulness is to be discouraged.

(4) It is not true that scattered centers of mining are going to interfere with recreational uses of the area nor destroy natural beauty. The number of people that the area can support is still very small. The United States still has multiple use as its avowed policy, and the people of Alaska resent the drive by the administrative branches of government to lock up Alaska for a single "use", which is really non-use. A look at the large hydro-electric installations in the States will show that once built they have little affect on the immediate surroundings, since the product, either electrical power or water, is used elsewhere. Mining, trapping and recreational uses are perfectly compatible, and should all be encouraged.

The roads of the Interior have not become "strip developments". From Mile 45 to Central there are only two roadhouses on the Steese Highway (much appreciated). There is only one home between the Alaska Highway and Chicken on the Taylor highway, and the Cafe on the South Fork of the Fortymile has been sold to the Highway Department. From there to Eagle there is only one stop.

(5) In several of the statements the observation is made that in case of "national need" mining would be allowed. This shows a lack of understanding of the way in which mineral deposits are found and developed. The only way in which to have minerals in a national need, is to mining them when the need arises.

On June 21, 1974, representatives of B.L.M., B.O.R. and F.W.S. held an informal session at Central to "answer questions" concerning the Birch Creek and Upper Yukon proposals. The 60 people assembled did not need answers; the answers are spelled out, and they add up to taking the area away from the people. They insisted on turning the proceedings into a hearing, and in fact said some harsh things, which we all regret. My greatest regret, however, is that such things must be said. When finally a vote was taken, it showed that the 60 people did not want any of the proposals implemented. They wanted no parks, wild rivers, etc. They wanted access to the land, they wanted to use the land. Why can't the people who are pushing these schemes see this and acknowledge this, so that harsh statements need not be made?

I have the following specific comments, but do not mean to imply that these are the only ones that might be made.

Yukon-Charley

Page 115 - No permanent settlements. There are trappers on the Charley and two men are always in residence at Coal Creek to protect the property. There is an operating dredge on Coal Creek and Woodchopper Creek will soon be operating.

Page 21 - Development at Coal Creek and Woodchopper. This is private property used in mining, and as long as the development does not interfere with the mining, the development would probably be welcome. After seventy-five years of occupancy, however, it does not appear that any such development will be economically feasible. The Slavin Roadhouse will soon be used as a bunkhouse.

Page 17 - It is not at all clear that the proposed ferry system would benefit Alaskan residents of the area. Hun Navigation Company of Ft. Yukon now provides good summer service for freight. Perhaps they could institute passenger service. Also it would benefit the residents more to upgrade the present tractor trails, e.g. Circle Hot Springs to Birch Creek to Woodchopper Creek, to Coal Creek, then to establish new trails.

Page 19. The Woodchopper - Coal Creek area will not economically support the activities listed.

Page iii - Has the Alaska Miners Association been asked to comment?

Page 195 - Out of 328 pages, about two are devoted to mining. Mining and trapping are the only activities that could possibly provide any money for the residents, with mining far ahead of trapping. The discussion is totally inadequate and amateurish. The last half of page 196 contains a ridiculous and tortured argument which says in effect: "we are going to make mining and exploration so expensive by artifically imposed restrictions that there won't be any mining, hence, there will be no impact on mining". This type of reasoning is an insult to the public who are after all paying for this statement, and denies that there is any reason for producing gold or other minerals. Considering what is happening to our money we had better not put obstructions in the path of gold mining. Another point completely overlooked

July 24, 1974

is that gold mining has been in a severe depression for twenty-five years. If this had not been so, the distribution of population and mining activities would be far different than as described in this publication. However, gold mining is emerging from this depression, the price has quadrupled and I see no evidence that the authors even know of this situation, or that they have tried to gauge the effects or "impact" of these new developments.

Page 124 - Under "Economic Activities and Resource Uses" mining is not even mentioned.

Page 145 - Hun Navigation Company of Ft. Yukon has barge service on this stretch of the Yukon.

Page 167 - As a student of the past 50 years' history I do not believe that the prophecy of intensive industrialization is justified.

I consider that the impact statements is an attempt to justify taking land away from the people. I have not seen any of the past results that are stated in the report, and disagree with the projections for the future. Neither I, nor anyone who uses the area that I have talked to, wants any of these proposals to be carried out, and I urge you to take action to keep them from being so carried out.

Sincerely,

Ernest N. Wolff

Frnest N. Wolff

Copies sent to:

Mr. Curtis J. Berklund, Dir., B.L.M.
Honorable Ted Stevens, Senator from Alaska
Honorable Mike Gravel, Senator from Alaska
Honorable Don Young, Congressman
Honorable William A. Egan, Governor of Alaska
Honorable Rogers C. B. Morton, Secretary of the Interior
Mr. Charles F. Herbert, Commissioner of Natural Resources
Mr. Richard H. LeDosquet, District Mgr. of B.L.M.
Mr. Curtis McVee, B.L.M.
Mr. Robert J. McGrane, Pres. of Alaska Miners Ass'n.

RESPONSE TO COMMENTS BY
ERNEST N. WOLFF

367. Recreation is one of the many uses anticipated for the Kobuk Valley National Monument. Generally speaking, education is a primary purpose for NPS areas. Specific purposes for the proposal may be found in Chapter I, Legislative Proposal. They include ecological, historic, and cultural preservation and perpetration as well as scientific research.

368. Among the proposal contained within the master plan, found in Chapter I, is number 6: Administrative agreements with the State to manage and protect the submerged lands within the State.

3084 6th Street
Boulder, Colorado 80302
18 June 1974

Theodor R. Swem,
Chairman, Alaska Planning Group
Room 1345
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Swem:

This is a comment on DES 73-88: Proposed Kobuk Valley National Monument, Alaska.

The following alternative should be considered: Addition of a provision, like the one for the Onion Portage Archeological District, which would automatically add to the monument certain or all of the lands in the area of ecological concern not selected by a native corporation.

369

The discussion of wilderness classification does not explain the conflict between ANCSA and the Wilderness Act of 1964. Since all the lands in the proposal are d-2 lands, there would seem to be no difficulty with an alternative such as the following: classification as wilderness within the act establishing the monument of all class 3 or 4 areas (Natural Environment Areas and Outstanding Natural Areas - map, page 11) with the remainder of the land to be studied to identify other areas suitable for wilderness designation.

The draft statement is slightly misleading as regards Wilderness Classification. Contrary to the statement on page 250, the landing of aircraft and snowmobile use may be allowed, but need not be any more than in the monument without wilderness classification (as explained on page 249). The impacts on timber and mining are the same as for the proposal.

It is not clear how wilderness designation would increase costs to management; this should be discussed and at least one specific wilderness proposal should be discussed as an alternative in addition to the general discussion of Wilderness designation.

370

Sincerely,

Ken Zafren

483

RESPONSE TO COMMENTS BY
KEN ZAFREN

369. Alternatives C-1 and C-2, separately or together, contain inclusion of Native withdrawal land within the monument.

370. Wilderness designation could increase costs to management under some circumstances. The restrictions placed on mechanized vehicles and equipment by the Wilderness Act, for example, could increase the cost of trail maintenance and the maintenance of shelters and camping spots. The cost of archeological expeditions in wilderness areas could also be increased. Wilderness designation is adequately discussed in the section of that title in Chapter VIII. Wilderness designation would not affect the boundaries--the alternatives to which you refer are alternative boundaries. Wilderness designation is not proposed at the present time since additional study is required; a wilderness study will take place three years after enactment of this proposal.

APPENDIX A: CHECKLIST OF BIRDS

Information on the relative abundance, status and primary wintering areas of individual species is listed. Abbreviations used to indicate relative abundance and status are:

Relative abundance

a	abundant
c	common
o	occasional
u	uncommon or rare

Status

n	nesting migrants
m	migrant non-nesting
r	resident throughout the year
v	vagrant or stray

Relative abundance is considered relative to abundance of the species elsewhere. Thus, greater scaup, for example, is listed as "abundant" inasmuch as it is as numerous per unit of area in the Kobuk as in any other portion of its preferred habitat or range. Mallard, on the other hand, is listed as "common" because it is present in relatively low numbers compared densities in its major breeding range. Wintering area data generally follows the description of Gabrielson and Lincoln (1959).

An asterisk (*) indicates species that are endangered.

The checklist was compiled from information in Gabrielson and Lincoln (1959), Bailey (1949), Grinnel (1909), Hudson (1957), Kessel (1968), Divoky (1972) and unpublished observations by Bureau of Sport Fisheries and Wildlife personnel.

Abundance & Status

Species			Primary Wintering Area
Common loon	o	n	S. Alaska & British Columbia
Yellow-billed loon	c	n	SE Alaska & British Columbia
Arctic loon	c	n	SE Alaska & British Columbia
Red-throated loon	c	n	SC &SW Alaska
Red-necked grebe	c	n	Aleutians to British Columbia
Horned grebe	c	n	Coastal Alaska to California
Whistling swan	c	n	Utah, Nevada, & California
Taverner's Can. goose	c	n	Washington, Oregon, & California
White-fronted goose	c	n	Texas & north-central Mexico
Snow goose	o	m	Central California
Mallard	c	n	Pacific Coast from Alaska to Oregon
Pintail	a	n	Pacific Flyway from Canada to Mexico
American widgeon	a	n	Pacific Flyway from Canada to Mexico
Green-winged teal	a	n	Pacific Flyway from Canada to Mexico
Shoveler	c	n	Pacific Coast States
Canvasback	o	n	California
Greater scaup	a	n	Pacific Coast south to California, Gulf Coast, Atlantic Coast to Virginia
Lesser scaup	o	n	Gulf Coast States & as far north as Iowa
Common goldeneye	c	n	Alaska south to California
Bufflehead	c	n	British Columbia south to California
Oldsquaw	a	n	Bering Sea, Siberia, northern Japan

Abundance & Status

Species			Primary Wintering Area
Harlequin duck	c	n	Aleutian Islands
White-winged scoter	o	n	Kodiak, southeastern Alaska
Surf scoter	u	n	Southeastern Alaska
Common scoter	u	n	Aleutian Is. to southeast Alaska
Red-breasted merganser	c	n	Aleutian Is. to southeast Alaska
Goshawk	c	n	Central Alaska to British Columbia
Sharp-shinned-hawk	o	n	Montana through Mid-west States
Rough-legged hawk	o	n	Japan & China southwest to Black Sea
Golden eagle	o	n	Pacific coast States to British Columbia
Bald eagle	c	n	Coastal Alaska & British Columbia
Marsh hawk	c	n	Southern British Columbia through Mexico
Osprey	c	n	California to central South America
Gryfalcon	c	n	Siberia, Kurile Is., & Japan
*Peregrine falcon	u	n	Across Asia to Siam, SE Alaska to Mexico
Pigeon hawk	o	v	From California to Texas & Mexico
Spruce grouse	c	r	Resident
Willow ptarmigan	a	r	Resident
Rock ptarmigan	c	r	Resident
Sandhill crane	c	n	West Texas, New Mexico, northern Mexico
Semipalmated plover	c	n	Pacific Coast from California to Chile

Abundance & Status

Species			Primary Wintering Area
American golden plover	c	n	From eastern India, to Malaya, New Zealand
Black-bellied plover	c	n	British Columbia to Brazil
Surfbird	o	m	SE Alaska to tip of South America
Ruddy turnstone	u	n	California south to Chile, South Pacific Islands to New Zealand
Common snipe	c	n	Western U.S. to Central America
Whimbrel	c	n	Pacific Coast from California to Chile
Upland plover	u	n	Pampas of South America
Spotted sandpiper	o	n	South America
Lesser yellowlegs	c	n	Texas south to Central & South America
Pectoral sandpiper	o	n	South America
Baird's sandpiper	c	n	Mountainous South America
Hundsonian godwit	u	v	Southern South America
Mew gull	c	n	SE Alaska to California
Bonaparte's gull	o	n	Washington to Baja California
Arctic tern	c	n	Central Chile south to Antarctica
Horned owl	c	n	Alaska
Snowy owl	o	m	Alaska
Hawk owl	o	n	Alaska
Short-eared owl	c	n	Western U.S.
Boreal owl	u	r	Resident

Abundance & Status

Species			Primary Wintering Area
Yellow-shafted flicker	o	n	SE States
Downy woodpecker	o	v	Alaska
Northern three-toed woodpecker	o	r	Resident
Tree swallow	o	n	SW U.S., Mexico & Caribbean
Bank swallow	a	n	Central South America
Barn swallow	c	n	Central South America
Gray jay	c	r	Resident
Common raven	c	r	Resident
Black-capped chickadee	c	r	Resident
Gray-headed chickadee	c	r	Resident
Boreal chickadee	a	r	Resident
Dipper	o	r	Resident
Robin	c	n	Southern States to Vera Cruz
Varied thrust	a	n	Western States
Gray-cheeked thrust	a	n	Central America to northern half of S. America
Arctic warbler	o	n	Philippines, Indo-China, East Indies
Ruby-crowned kinglet	o	n	British Columbia to California
Water pipit	o	n	Oregon to W. Mexico
Bohemian waxwing	o	v	Alaska, western Canada
Northern shrike	c	n	Alaska south to western U.S.
Orange-crowned warbler	o	n	California to Guatemala

Abundance & Status

Species			Primary Wintering Area
Yellow warbler	c	n	Baja California to Panama
Myrtle warbler	c	n	Oregon south to Panama & east to Mississippi
Blackpoll warbler	c	n	Northern South America
Northern waterthrush	c	n	Baja California, Mexico to northern South America
Wilson's warbler	c	n	Mexico to Panama
Rusty blackbird	c	n	South of Ohio to Gulf Coast States
Pine grosbeck	c	n	Alaska south to upper Mid-West
Hoary redpoll	c	r	Alaska & resident
Common redpoll	c	r	Alaska & resident
White-winged crossbill	c	r	Alaska & resident
Slate-colored junco	c	n	Upper Mid-West, New England to Gulf Coast
Tree sparrow	c	n	SW States
White-crowned sparrow	c	n	British Columbia, western U.S. & Mexico
Golden-crowned sparrow	o	n	British Columbia to California
Fox sparrow	c	n	Gulf Coast States to Florida
Lincoln's sparrow	u	n	SW States to Mexico
Lapland longspur	a	m	Northern U.S.
Snow bunting	c	m	Alaska to northern U.S., resident

APPENDIX B: LIST OF MAMMALS*

Order INSECTIVORA

Family Coricidae, shrews

Sorex cinereus Masked or common shrew
Sorex tundrensis Tundra shrew

Order LAGOMORPHA

Family Leporidae, hares and rabbits

Lepus othus Tundra or Arctic hare
Lepus americanus Snowshoe or varying hare

Order RODENTIA

Family Sciuridae, squirrels

Citellus parryi Arctic ground squirrel
Tamiasciurus hudsonicus Red squirrel

Family Castoridae, beavers

Castor canadensis Beaver

Family Cricetidae, native rats and mice

Dicrostonyx groenlandicus Green and collared lemming
Lemmus trimucronatus Brown lemming
Clethrionomys rutilus Tundra red-backed vole
Microtus pennsylvanicus Meadow Vole
Microtus oeconomus Tundra Vole
Microtus miurus Alaska Vole
Ondatra zibethicus Muskrat

Order CARNIVORA

Family Canidae, dogs

Canis latrans Coyote
Canis lupus Gray wolf
Alopex lagopus Arctic fox
Vulpes fulva Red fox

* From: Manville and Young 1965; Leatherwood, et al. 1972; State of Alaska, ADF&G 1973.

Family Ursidae, bears

Ursus americanus Black bear
Ursus arctos Grizzly bear

Family Mustelidae, weasels and allies

Martes americana Marten
Mustela erminae Short-tailed weasel
Mustela rixosa Least weasel
Mustela vison Mink
Gulo gulo Wolverine
Lutra canadensis River otter

Family Felidae, cats

Lynx canadensis Lynx

Order ARTIODACTYLA

Family Bovidae, bovids

Ovis dalli dalli Dall sheep

Family Cervidae, deer

Alces alces Moose
Rangifer arcticus Barren ground caribou
Rangifer tarandus Reindeer

APPENDIX C:

CHECKLIST OF THE FRESH-WATER AND ANADROMOUS FISHES OF THE KOBUK DRAINAGE
(McPhail and Lindsey 1970)

Common Name	Species Scientific Name
Arctic lamprey	Lampetra Japonica
Sheefish (inconnu)	Stenodus Leucichthys
Humpback whitefish	Coregonus nelsoni
Broad whitefish	C. nasus
Least cisco	C. sardinella
Bering cisco	C. laurettae
Round whitefish	Prosopium cylindraceum
Arctic grayling	Thymallus arcticus
Lake trout	Salvelinus namaycush
Arctic char	S. alpinus
Red salmon	Oncorhynchos nerka
Silver salmon	O. kisutch
King salmon	O. tshawytscha
Chum salmon	O. keta
Pink salmon	O. gorbuscha
Pond smelt	Hypomesus olidus
Northern pike	Esox lucius
Blackfish	Dallia pectoralis
Longnose sucker	Catostomus catostomus
Burbot	Lota lota
Ninespine stickleback	Pungitius pungitius
Deepwater sculpin	Myoxocephalus quadricornis
Coastrange sculpin	Cottus aleuticus
Slimy sculpin	C. cognatus

APPENDIX D: CHECKLIST OF VASCULAR PLANTS

The following list of plant species was adapted from the distributional maps presented by Hulten (1968) and may not be entirely accurate.

SCIENTIFIC NAME	COMMON NAME
Alpinum	Alpine Club Moss
Equisetum variegatum	N. Scouring-rush
E. fluviatile	Swamp Horsetail
E. silvaticum	Wood Horsetail
E. arvense	Common Horsetail
Botrychium lunaria	Moonwort
Cystopteris fragilis	Fragile Fern
Picea mariana	Black Spruce
P. glauca	White Spruce
Dryopteris fragrans	Fragrant Shield Fern
Sparganium angustifolium	Narrow-lvd Bur-reed
S. hyperboreum	Northern Bur-reed
Potamogeton alpinus	Northern Pondweed
P. gramineus	Various-lvd Pondweed
P. perfoliatus	Clasping-lvd Pondweed
P. pectinatus	Fennel-lvd Pondweed
P. filiformis	Filiform Pondweed
P. vaginatus	Sheathed Pondweed
Zannichellia palustris	Horned Pondweed
Triglochin maritimum	Seaside Arrow-grass

T. palustris	Marsh Arrow-grass
Hierochloe alpina	Alpine Holy-grass
H. odorata	Holy-grass
H. pauciflora	Arctic Holy-grass
Arctagrostis latifolia	Arctagrastis
Calamagrostis canadensis	Bluejoint
C. neglecta	Narrow Reed-grass
Deschampsia caepitosa	Tufted Hair-grass
Trisetum spicatum	Downy Oat-grass
Poa alpigena	Bluegrass
Colpodium Wrightii	Colpodium
Arctophila fulva	Pendent Grass
Puccinellia phryganodes	Creeping Alkali-grass
P. borealis	Northern Alkali-grass
Festuca brachyphylla	Alpine Fescue
F. rubra	Red Fescue
Bromus Pumpellianus	Arctic Brome-grass
Agropyron macrourum	Wheatgrass
A. violaceum	Wheatgrass
A. subsecundum	Bearded Wheatgrass
A. boreale	Wheatgrass
Elymus arenarius	Beach Ryegrass
Eriphorum brachyantherum	Closed-sheathed Cotton-grass
E. vaginatum	Sheathed Cotton-grass
Trichophorum caespitosum	Cotton-grass

Eleocharis acicularis	Needle Spike-rush
Kobresia myosuroides	Bellard Kobresia
Carex capitata	Capitate Sedge
C. scirpoidea	N. Single-spike Sedge
C. maritima	Curved Sedge
C. chorodorrhiza	Creeping Sedge
C. Lachenalii	Arctic Hares-foot Sedge
C. glareosa	Weak Clustered Sedge
C. Mackenziei	Norway Sedge
C. tenuiflora	Sparse-flowered Sedge
C. Bigelowii	Bigelow Sedge
C. lugens	Sedge
C. aquatilis	Water Sedge
C. Ramenskii	Ramenski Sedge
C. Lyngbyaei	Lyngbye Sedge
C. holostoma	Sedge
C. Gmelini	Gmelin Sedge
C. nesophila	Bering Sea Sedge
C. rariflora	Loose-flowered Alpine Sedge
C. vaginata	Sheathed Sedge
C. atrofusca	Dark-brown Sedge
C. capillaris	Hair-like Sedge
C. rostrata	Beaked Sedge
C. saxatilis	Sedge
C. rotundata	Round-fruited Sedge
C. membranacea	Fragile Sedge
Juncus castaneus	Chestnut Rush

Luzula wahlenbergii	Wahlenberg Wood Rush
L. parviflora	Small-flwd Wood-Rush
L. arcuata	Alpine Wood Rush
L. tundricola	Wood Rush
L. confusa	N. Wood-Rush
Tofieldia coccinea	N. Asphodel
T. pusilla	Scotch Asphodel
Zygadenus elegans	White Camass
Allium schoenoprasum	Wild Chive
Tris setosa	Wild Flag
Amerorchis rotundifolia	Orchis
Coeloglossum viride	Frog Orchis
Platanthera obtusata	Sm. Northern Bog Orchis
Corallorrhiza trifida	Early Coral Root
Salix reticulata	Netted Willow
S. phlebophylla	Willow
S. arctica	Arctic Willow
S. fuscenscens	Willow
S. ovalifolia	Willow
S. arctolitoralis	Willow
S. glauca	Willow
S. niphoclada	Willow
S. lanata	Willow
S. alaxensis	Alaska Willow
S. pulchra	Willow
Betula nana	Dwarf Birch
Alnus crispa	Mountain Alder

Koenigia islandica	Koenigia
Rumex acetosa	Green Sorrel
R. arcticus	Arctic Dock
Polygonum vivparum	Alpine Bistort
P. bistorta	Bistort
P. alaskanum	Wild Rhubarb
P. caurianum	Alaska Knotweed
Atriplex Gmelini	Gmelin Saltweed
Claytonia tuberosa	Tubereous Spring Beauty
Stellaria humifusa	Low Chickweed
S. crassifolia	Fleshy Starwort
S. longipes	Long-stalked Starwort
S. laeta	Shining Starwort
Cerastium Beeringianum	Beering Chickweed
Sagina intermedia	Snow Pearlwort
Minuartia macrocarpa	Large-podded Sandwort
Honckenya peploides	Seabeach Sandwort
Moehringia lateriflora	Grove Sandwort
Wilhelmsia physodes	Sandwort
Melandrium apetalum	Nodding Lychnis
M. macrospermum	Large-seeded Lychnis
M. affine	Lychnis
Dianthus repens	Carnation
Nuphar polysepalum	Yellow Pond Lily
Caltha palustris	Marsh Marigold
Aconitum delphinifolium	Delphinium-lvd Aconite
Anemone Richardsonii	Yellow Anemone

A. parviflora	N. Anemone
A. narcissiflora	Narcissus-flwd Anemone
Ranunculus Gmelini	Buttercup
R. hyperboreus	Arctic Buttercup
R. pallasii	Pallas Buttercup
R. lapponicus	Lapland Buttercup
R. reptans	Creeping Spearwort
R. cymbalaria	Seaside Crowfoot
R. nivalis	Snow Buttercup
R. pedatifidus	N. Buttercup
Thalictrum alpinum	Arctic Meadow-rue
Papaver lapponicum	Poppy
Eutrema Edwardsii	Eutrema
Rorippa islandica	Watercress
R. hispida	Watercress
Cardamine pratensis	Cuckoo Flower
Draba hirta	Draba
Draba borealis	Draba
Descurainia sophioides	N. Tansy Mustard
Erysimum Pallasi	Pallas Wallflower
E. cheiranthoides	Wormseed Mustard
Parrya nudicaulis	Rock-cress
Sedum rosea	Roseroot
Saxifraga eschscholtzii	Chushion Saxifrage
S. hirculus	Bog Saxifrage
S. bronchialis	Spotted Saxifrage

S. tricuspidata	Prickly Saxifrage
S. punctata	Cordate-Leaved Saxifrage
S. cernua	Bulbet Saxifrage
S. exilis	Saxifrage
S. bracteata	Bracted Saxifrage
S. rivularis	Brook Saxifrage
S. hieracifolia	Stiff-Stemmed Saxifrage
S. caespitosa	Tufted Saxifrage
Chrysosplenium tetrandrum	N. Water Carpet
C. wrightii	Bering Sea Water Carpet
Parnassia palustris	Bog Star
P. kotzebuei	Grass-of-Parnassus
Ribes triste	N. Red Currant
Rubus chamaemorus	Cloudberry
R. arcticus	Nagoon Berry
Potentilla palustris	Marsh Fivefinger
P. fruticosa	Shrubby Cinquefoil
P. biflora	Two-flowered Cinquefoil
P. villosa	Villosa Cinquefoil
P. Uniflora	One-flowered Cinquefoil
P. hyparctica	Cinquefoil
P. virgulata	Cinquefoil
P. egedii	Pacific Silverweed
Rosa acicularis	Prickly Rose
Lupinus arcticus	Arctic Lupine
Astragalus umbellatus	Hairy Arctic Milk Vetch

A. aboriginum	Indian Milk Vetch
A. alpinus	Alpine Milk Vetch
A. polaris	Polar Milk Vetch
Oxytropis maydelliana	Maydell Oxytrope
O. campestris	N. Yellow Oxytrope
Hedysarum alpinum	American Hedysarum
Lathyrus maritimus	Beach Pea
L. palustris	Vetchling
Callitriche hermaphroditica	Water Starwort
C. anceps	Water Starwort
Viola biflora	Two-flowered Violet
V. epipsila	Marsh Violet
Epilobium angustifolium	Fireweed
E. latifolium	River Beauty
E. palustre	Swamp Willow-herb
E. davuricum	Davurian Willow-herb
Myriophyllum spicatum	Spiked Water-Milfoil
Hippuris tetraphylla	Four-leaved Mare's tail
Bupleurum triradiatum	Thoroughwax
Cicuta mackenzieana	Mackenzie Water Hemlock
Ligusticum scoticum	Beach Lovage
Conioselinum chinense	Hemlock Parsley
Angelica lucida	Sea Coast Angelica
Cornus suecica	Swedish Dwarf Cornel
Pyrola asarifolia	Liver-leaf Wintergreen
P. grandiflora	Lrg-flwd Wintergreen
P. secunda	One-sided Wintergreen

Empetrum nigrum	Crowberry
Ledum palustre	Labrador Tea
Rhododendron lapponicum	Lapland Rosebay
Loiseleuria procumbens	Alpine Azalea
Andromeda polifolia	Bog Rosemary
Chamaedaphne calyculata	Cassandra
Arctostaphylos alpina	Alpine Bearberry
A. rubra	Alpine Bearberry
Vaccinium vitis-idaea	Lingen Berry
V. uliginosum	Alpine Blueberry
Oxycoccus microcarpus	Swamp Cranberry
Primula tschutschorum	Chukch Primrose
P. sibirica	Siberian Primrose
P. cunefolia	Wedge-leaved Primrose
P. egaliksensis	Greenland Primrose
P. borealis	Northern Primrose
Androsace chamaejasme	Rock Jasmine
A. septentrionalis	Rock Jasmine
Dodecatheon frigidum	Shooting Star
Trientalis europaea	Star Flower
Ameria maritima	Thrift
Gentiana algida	Gentian
G. dentosa	Gentian
G. prostrata	Moss Gentian
G. propinqua	Four-parted Gentian
Lomatogonium rotatum	Star Gentian

Menyanthes trifoliata	Buckbean
Polemonium acutiflorum	Jacob's Ladder
P. pulcherrimum	Beautiful Jacob's Ladder
Mertensia maritima	Oysterleaf
M. paniculata	Tall lungwort
Lagotis glauca	Lagotis
Castilleja caudata	Paintbrush
C. elegans	Paintbrush
Pedicularis verticillata	Whorled Louse-wort
P. labradorica	Labrador Louse-wort
P. parviflora	Louse-wort
P. langsdorffii	Louse-wort
P. sudetica	Sudetan Louse-wort
P. capitata	Capitate Louse-wort
P. Kanei	Louse-wort
Borschniakia rossica	Porque
Pinquicula vulgaris	Common Butterwort
P. villosa	Hairy Butterwort
Utricularia vulgaris	Common Bladderwort
Galium boreale	Northern Bedstraw
G. Brandegei	Brandegee Bedstraw
Linnaea borealis	Twin-flower
Adoxa moschatellina	Moschatel
Valeriana capitata	Capitate Valerian
Campanula lasiocarpa	Mt. Harebell
C. uniflora	Arctic Harebell

Solidago multiradiata	N. Golden Rod
Aster sibiricus	Siberian Aster
Erigeron numilis	Fleabane
E. eriocephalus	Fleabane
Matricaria matricarioides	Pineapple Weed
Tripleurospermum phaeocephalum	Wild Comomile
Chrysanthemum bipinnatum	Tansy
C. arcticum	Arctic Daisy
A. senjavinensis	Wormwood
A. tilesii	Tilesius's Wormwood
A. arctica	Arctic Wormwood
Petasites	Arctic Sweet Coltsfoot
P. Hyperboreus frigidus	Coltsfoot
Arnica lessingii	Arnica
A. frigida	Arnica
Senecio congestus	Marsh Fleabane
S. atropurpureus	Arctic Senecia
S. pseudo-arnica	Senecio
S. Lugens	Black-tipped Groundsel
Saussurea angustifolia	Sausarrea

APPENDIX E: BUREAU OF OUTDOOR RECREATION STATEMENT - SALMON RIVER

The Salmon River possesses high quality scenic, wildlife, and primitive recreational values along its entire length. The river's exceptional combination of primitive setting, magnificent scenery and undisturbed flora and fauna provide a great potential for recreational uses such as hunting, fishing, boating, and nature study. Fish and wildlife values are high with a large run of chum salmon and a significant caribou population during certain times of the year being prime attractants.

The river's scenery and pristine water conditions make it exceptionally attractive for floatboating (canoeing, kayaking, rafting) and wilderness camping.

The Bureau of Outdoor Recreation believes that the management concepts presented in this report recommending the establishment of the Kobuk Valley National Monument are compatible with the intent of preserving selected river areas in a free-flowing condition for the benefit and enjoyment of present and future generations as prescribed by the Wild and Scenic Rivers Act.

Within the study area the Salmon River has been identified by the Bureau of Outdoor Recreation as having high potential for inclusion in the National Wild and Scenic Rivers System as one of 40 such rivers in Alaska. Based upon available information it is the conclusion of the Bureau of Outdoor Recreation that the Salmon River meets the criteria established by the Congress for inclusion in the National Wild and Scenic Rivers System in that:

The river is in a free-flowing natural condition.

The river and its immediate environment possesses outstandingly remarkable values.

Water quality is excellent.

There is sufficient volume of water during normal years to permit, during the recreation season, full enjoyment of river-related outdoor recreation activities.

The river and its immediate environment are capable of being managed to protect and interpret special values and protect the user.

The river is of sufficient length to provide a meaningful experience to the river user.

After careful consideration of the resource values involved and the Guidelines of Evaluating Wild, Scenic and Recreational River Areas, adopted by the Departments of Agriculture and the Interior in February 1970, it is the conclusion of the Bureau of Outdoor Recreation that the Salmon River qualifies as a wild river.

APPENDIX F: RESOURCES HARVESTED IN THE NORTHWEST ALASKA NATIVE ASSOCIATION REGION

ESTIMATED WEIGHTS OF SUBSISTENCE HARVESTS
(in pounds)

The following inventory data estimates were obtained in 1972 from a survey of individual households in each village of NANA representatives. Compilation was provided by the Joint Federal-State Land Use Planning Commission.

The estimates are on annual average of the resources harvested over a period of years.

Resource Harvested	Kotzebue	Noorvik	Kiana	Ambler	Kobuk	Shungnak	Total[1] NANA Region
Mammals	939,368	282,551	176,540	411,313	33,620	135,499	2,892,975
Fish	164,480	377,455	236,033	121,600	59,002	190,820	1,914,729
Wildfowl	2,463	1,947	1,219	3,885	9,550	12,690	47,017
Berries	14,865	17,054	10,600	14,630	5,553	11,543	98,791
Greens/Roots Vegetables	1,917	7,205	4,340	8,435	2,103	3,324	33,393
Totals	1,123,093	686,212	428,732	559,863	109,828	353,786	4,986,905
Native Enumeration July 1973	1,587	426	280	170	60	154	3,725
Per Capita Harvest Weight (lbs.)	708	1,611	1,531	3,293	1,830	2,298	1,339

For mammals, wildfowl and fish, weights are estimates of dressed weights for each resource. For berries, greens/roots/vegetables gross weights are given.

[1]Total includes harvests for villages of Deering, Buckland, Kivalina, Selawik, and Noatak.

ESTIMATED RESOURCES HARVESTED IN THE NORTHWEST ALASKA NATIVE ASSOCIATION REGION

The following inventory data estimates were obtained in 1972 from a survey of individual households in each village by NANA representatives. Compilation was provided by The Joint Federal-State Land Use Planning Commission.

The estimates are an annual average of the resources harvested over a period of years.

RESOURCES HARVESTED	KOTZEBUE	NOORVIK	KIANA	AMBLER	KOBUK	SHUNGNAK	TOTAL[1] NANA REGION	
	Number	Number	Number	Number	Number	Number	Number	Pounds
Black Bear		22	14	20	5	27	106	15,900
Brown & Grizzly		16	10	10		21	80	18,000
Polar Bear							1	450
Beaver		35	22	400		17	1,084	16,260
Caribou	5,000	1,381	863	2,500	180	525	14,219	2,132,850
Coyote							--	--
Deer (Reindeer)**		(75)	(47)				(608)	(76,000)
Fox (Arctic)	18						42	*
Fox (Red)	50	33	20	40	15	42	349	*
Goat							--	--
Hare (Arc. & Snow)	350	1,272	795	500	200	1,122	5,079	15,237
Land Otter	1	27	17	30		30	215	*
Lynx		28	18	10		20	95	*
Marmot		4	3	10		8	53	636
Marten				15	1	2	18	*
Mink	3	82	51	20		60	331	*
Moose	60	47	29	30	7	59	317	221,900
Muskrat	350	4,446	2,779	50	100	979	11,988	23,976
Porcupine	10	45	28	30	17	37	204	2,040
Sheep (Dall)	13	1	1	20***		6	42	4,200
Squirrel (tree)		6	4	6		14	30	15
Squirrel (ground)	18	47	29	40		22	191	191
Weasel	3	32	20	10	3	10	105	*
Wolverine	12	26	16	20	8	32	256	*
Wolf	29	23	14	30	10	40	201	*
Seal (Bearded)	260	13	8				533	213,200
Seal (Hair)	90	79	49				909	72,720
Sea Lion							---	--
Walrus	3						9	9,000
Whale (Beluga)	50	17	11				244	146,400
Whale (Bowhead)**	(2,144)	(400)					--	(2,744)
Total pounds useable weight	939,368	282,551	176,540	411,318	33,630	135,499		2,892,975

*Fur bearers: Not used for human consumption.

**Reindeer, bowhead whale: Generally purchased, some barter/trade.
***ADF&G biologists consider this harvest figure far too high.
[1]Total includes harvests for villages of Deering, Buckland, Kivalina, Selawik, and Noatak.

ESTIMATED RESOURCES HARVESTED IN THE NORTHWEST ALASKA NATIVE ASSOCIATION REGION

The following inventory data estimates were obtained in 1972 from a survey of individual households in each village by NANA representatvies. Compilation was provided by The Joint Federal-State Land Use Planning Commission.

The estimates are an annual average of the resources harvested over a period of years.

RESOURCES HARVESTED	KOTZEBUE	NOORVIK	KIANA	AMBLER	KOBUK	SHUNGNAK	TOTAL[1] NANA REGION
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Arctic Cod							1,200
Blackfish		640	400	200		725	1,965
Burbot							--
Char/Pike	337	28,415	17,759	29,000	1,000	1,500	143,312
Flounder	30						38
Grayling	250	975	609	300	100	300	4,544
Halibut							--
Herring	2,500						2,550
King Cod							50
Needlefish							--
Coho/silver							1,500
Chum/Dog	1,146	90,475	56,547	2,000	1,399	2,125	209,090
Humpey/Pink	50	5,650	3,544	200	50	175	10,069
Ling/Chinook	100	370	231				701
Sockeye/Red							--
Shark (Mud)	265	10,097	6,311	4,000			22,253
Sheefish	138,300	75,085	46,928	30,500	9,200	62,000	447,092
Sucker		1,668	1,043	1,000	300	1,200	5,211
Smelt	840	17,655	11,034		783	2,000	39,375
Tomcod	8,000						8,200
Trout	10,000	18,001	11,250	500	370	250	209,921
Whitefish (shortnose)	2,647	61,400	38,500	25,800	20,000	62,125	322,672
Whitefish (longnose)		59,794	37,371	25,100	20,000	50,220	276,155
Whitefish (small)		7,210	4,506	3,000	5,800	8,200	208,816
Clam/crab/shrimp	15						15
Total pounds useable weight	164,480	377,455	236,033	121,600	59,002	190,820	1,914,729
	Number	Number	Number	Number	Number	Number	Number Pounds
Auk/Murre/Puffin							200 220
Crane	2			5		16	37 555
Ducks	554	637	400	1,000	2,500	6,225	17,716 17,716
Geese				500	1,000	1,200	3,650 14,600
Swan							-- --
Ptarmigan	1,819	1,023	639	700	3,000	1,125	11,726 11,726
Spruce hen/Grouse	12	77	48	50	50	60	362 362
White (Snowy) Owl	8	35	22	10		40	223 1,338
Harvest Eggs							(3,000) 500
Totals - Pounds	2,463	1,947	1,219	3,885	9,550	12,690	47,017

[1]Total includes harvests for villages of Deering, Buckland, Kivalina, Selawik, and Noatak.

ESTIMATED RESOURCES HARVESTED IN THE NORTHWEST ALASKA NATIVE ASSOCIATION REGION

The following inventory data estimates were obtained in 1972 from a survey of individual households in each village by NANA representatives. Compilation was provided by The Joint Federal-State Land Use Planning Commission.

The estimates are an annual average of the resources harvested over a period of years.

RESOURCES HARVESTED	KOTZEBUE	NOORVIK	KIANA	AMBLER	KOBUK	SHUNGNAK	TOTAL[1] NANA REGION
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
BERRIES							
Blueberries	3,262	6,763	4,200	4,500	2,000	5,662	37,650
Blackberries	7,175	2,445	1,530	3,100	600	2,555	19,452
Cranberries	1,571	2,920	1,825	7,000	2,579	2,756	19,768
Crowberries		12					112
Currants		190	120				310
Gooseberries		50					50
Salmonberries	2,857	4,506	2,820	30	374	450	20,765
Strawberries		168	105			120	684
Totals - Berries	14,865	17,054	10,600	14,630	5,553	11,543	98,791
GREENS/ROOTS							
Firewood	18	103	70			90	306
Grass Roots	19	485	300			300	1,164
Rose Hips	5	63					96
Sourdock	1,625	2,725	1,700	50		68	7,818
Tundra/Alaska Tea		20		10		32	95
Willow Leaves	99	220	140	100		5	765
Wild Roots	25	100	60	50			235
Sudikroak	18			25			72
Tinnik		370	230	100		500	1,270
Tree Gum		17				6	38
Totals - Green/Roots	1,809	4,103	2,500	335		1,001	11,859
VEGETABLES (Wild)							
Celery	1	162	100				631
Eskimo Potato (Musse)	88	1,405	880	1,500	1,100	1,200	6,768
Mushroom						1	61
Onions	6	115	70	600	3	12	821
Rhubarb	13	1,420	890	6,000	1,000	1,110	12,473
Spinach							780
Totals - Vegetables	108	3,102	1,940	8,100	2,103	2,323	21,534
Totals: Berry/Green/ Vegetable	16,782	24,259	15,040	23,065	7,656	14,867	132,184

[1]Total includes harvests for villages of Deering, Buckland, Kivalina, Selawik, and Noatak.

APPENDIX G: A CONJECTURAL HISTORY OF THE BERING LAND BRIDGE AND A SUMMARY OF CULTURAL TRADITIONS IN ALASKA SINCE THE END OF THE PLEISTOCENE

1. The Bering Land Bridge: The findings of geology, archeology, anthropology, paleontology, paleobotany, and other disciplines have for many years coalesced to support the assertion that the Native populations of the Western Hemisphere--the Indians, Eskimos, and Aleuts--decended from peoples who entered America from Asia over an adjoining expanse of land where the Bering Sea now flows. This now-submerged land area is usually termed the Bering Land Bridge, and is sometimes called Beringia.

Any discussion of the postulated history of the Bering Land Bridge and its human population must be prefaced by a few cautionary considerations. First, there have not yet been archeological finds in Alaska that undeniably prove the presence of man in the area before 8,000 to 10,000 years ago. Much earlier finds have been located farther south in North America. The essentially Mongoloid genetic heritage of the American peoples, however, is undeniable. Further, the earliest known peoples in Alaska must have had antecedents, and the similarity of their artifacts to those found in Asia point to a commonality of origin. Enough data have been collected in America and Asia to permit a plausible reconstruction of the approach of man to the New World.

Second, there probably were no actual "migrations" into America. Because of the extent of the land bridge--over 900 miles from north to south at

the widest point--the area was more likely inhabited by shifting populations of migratory hunters who did not envision a passage between two land masses that were not then distinct. The interior landscape of the land bridge was primarily a low rolling plain with little relief. The climate was very dry and consisted of "steppe-tundra," with few bogs and swamps, although thaw ponds would be present (Information presented at the All Union Symposium on the Bering Land Bridge, May 10-15, 1973, Khabarovsk, U.S.S.R.).

The essentially treeless, frozen expanse of land in the bridge was but a continuation of the environment on either end, and that environment with its large Ice Age herbivores permitted but a logical extension of the cultures of the far north, the peoples of which pursued game in small family bands. Movements of peoples would have been influenced by the necessities of the hunt, and the total population would never have been heavy. When the ice retreated with the end of the Ice Age and the resultant rise in sea level separated the continents, a remnant population existed in America to form the necleus of a future aboriginal population. The permanent presence of man in the Americas, then, was not the result of conscious movement, but rather of the accident that the rise of the seas separated peoples in Alaska from their fellows in Siberia.

Third, our evidence of man's presence at very early dates and of his movements in the Old World and the New relate to the diffusion of technological traits--artifacts--rather than to positive observations

of the movements of peoples themselves. Similarly, as we observe the cultural development of arctic man, we must recognize that peoples and their cultures may not always coincide: the same culture may be exhibited by genetically distinct populations; the same genetic group may exhibit different cultural identities in different places; and changes in cultures may result, singly or in combination, from local innovation, the infusion of new ideas, the infusion of new peoples bearing new ideas, or the wholesale replacement of peoples and cultures.

Fourth, the present Native populations of the Americas do not descent from simply one "migration," but rather represent the descendents, intermingled to varying degrees, of peoples who appeared on the continent at various times over thousands of years. As each new group became established it proceeded to develop its own "American" culture, influenced by the cultures of its neighbors, new cultural elements coming from Asia, and its own cultural heritage--and in turn influencing others on the continent, or passing "American" cultural developments back even to Siberia.

Further, a relatively wide variety of physical types characterized American peoples, representing genetic developments since the establishment of early populations in the western hemisphere. Essentially, the early advent of Asian man into America paralleled the progressive rise of "Mongoloid" physical types in Asia, so that later entrants into the American population were probably progressively more Mongoloid. The earliest residents of America were likely pre-Mongoloid, rather long-headed peoples, who were followed through the millennia by progressively

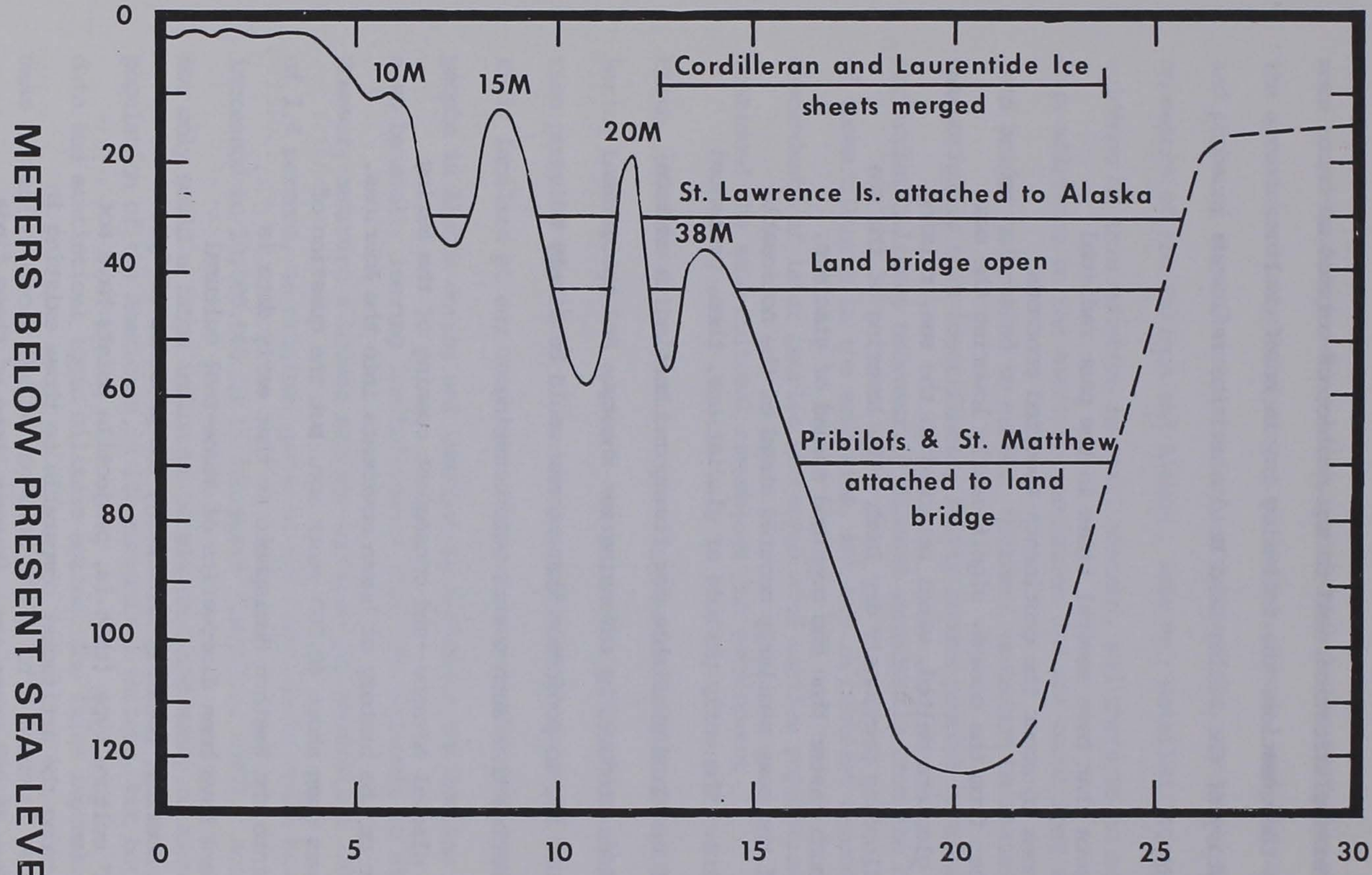
more round-headed pre-Mongoloids, proto-Mongoloids (such as, perhaps, the ancesters of the Athapascans of Alaska, Canada, and the Southwest), and probably the latest entrants to the New World, the early Mongoloid ancestors of the Eskimos and Aleuts. However, detailed, positive evidence on this question is still sketchy, and there is no assurance that additions to the American population did not occur long after the land bridge had ceased to exist. Further, it cannot be stated categorically that identifiable, fairly recent peoples manifesting particular cultures necessarily descend genetically from the bearers of those cultures in the same area, but may in contrast represent the descendents of later peoples who supplanted earlier populations but continued the same cultural assemblage and development.

Fifth, in view of the postulated environment and human presence on the Bering Land Bridge and adjacent areas in Asia and America, the population probably consisted of a relatively few small bands of hunters and their families at any one time. This would mean that the numbers of people in Alaska during and immediately following the Ice Age would also be small, leaving limited traces that are difficult to discover. However, assuming a modest average increase per generation (20 years) of 1.4 percent, an original group of 400 individuals could have increased to 10,000,000 in 15,000 years (Laughlin, 1967). Accordingly, not only would a large influx of people be unnecessary to assure the population of the Americans in its recognized variety, but both established data and statistical logic militate against the false impression of a mass migration across the Bering Land Bridge of a horde of people bent on discovering a new continent.

At the risk of oversimplification, and to the neglect of volumes of data that bear on the question, the following is, in brief outline, a conjectural history of the Bering Land Bridge and its influence in American prehistory.

The great ice sheets that have several times in the past radiated from the polar zones to scour the continents absorbed enormous quantities of water from the oceans, significantly lowering the sea level. When the glaciers melted, water returned to the sea, raising their level and flooding previously dry land. The lowering of the sea level proceeded much faster than the overland spread of glaciers, while the rise of the seas similarly occured ahead of the noticeable retreat of glaciers. The early periods of glaciations, then, presented broad expanses of new land available for living and hunting in advance of the constrictions produced by advancing ice sheets. And the great processes of nature are so ponderous that no man would be likely to notice in his lifetime that such events were occuring.

Three periods of glacial advance--and consequent opening of the Bering Land Bridge--bear on the history of human movements into the Americas. The land bridge was open about 40,000 years ago, but the question of human intrusion into the Western Hemisphere at that early date is problematic. There have been discoveries of stone-tool cultural remains in North America, possibly indicating the presence of "pre-projectile point" culture type (that is, projectile points have not been discovered among the artifacts) comparable to those existing in the Old World after 40,000 years ago. However, none of these finds



Speculative reconstruction of the history of sea level during the last 30,000 years in the Bering Sea area (Hopkins, 1967) (p. 464)

has been indisputably dated, nor have they been adequately correlated with the dating of human advance across Asia. Consequently, it must remain for future investigators to positively determine whether men may have entered America during the first of the glacial advances discussed here.

More advanced material cultures probably appeared in Alaska during the next glacial advance. During an approximately 5,000 year period from about 28,000 to about 23,000 years ago, the Bering Land Bridge was again open. Hunting peoples were adapted to the cold north, making stone artifacts of a type, termed Mousteroid, related to those in norther Europe, existed in eastern Asia and probably pushed into the Land Bridge to live and to hunt the Ice Age mammals that supported their existence. At least during the later portion of the period, projectile points were part of their artifactual assemblage. It is highly likely that these people expanded into what is now known as Alaska. Further, some of them probably intruded farther south and east into the continent before converging glaciers may have closed the route from Alaska.

While it is unlikely that the resurgent sea could have totally isolated Alaska from the influences of Asia, any population in the interior of North America may have continued its cultural development free of other influences. The Llano culture complexes of North America probably represent the presence of this population, whose technologies later may have returned to influence developments in the north after the end of glaciation.

By about 15,000 years ago, a somewhat more complex culture--called Aurignacoid after its European origins--was present on the Siberian plains. For a comparatively brief period--1,000 to at most 3,000 years-beginning in the period 15,000 to 13,000 years ago, the land bridge was open again, and man again availed himself of the opportunities provided by new hunting grounds. The population of Alaska probably increased somewhat as a result of influx, and certainly the blend of old and new culture types furthered cultural development. Asaitic man was gradually becoming more Mongoloid, and it is likely that the populations of the Bering area varied in both physical type and culture. Inland, the hunting peoples who pursued the game probably shared the general ancestry of their pre-Mongoloid predecessors in the land bridge. However, it is possible that the coasts of the land bridge also were occupied by more nearly Mongoloid, marine-oriented peoples who may have been ancestors--cultural, if not genetic--of the Eskimos and Aleuts. As the ice began to melt and the land bridge ebbed before the sea, the ancestral Indians of the interior were benefited by the arrival of new artifacts and techniques that added to the diversity of cultures and life-ways that already characterized the Indians of the Americas. The sea-oriented peoples, sharing in the cultural interchange, probably continued to hug the retreating coastline, and as their population expanded and migrated, spread through the millennia across the Arctic to Greenland. The arctic tree line may have been the demarcation between "Indian" and "Eskimo" as long ago as the final closing of the Bering Land Bridge, some 11,000 years ago. The result, millennia later, of the cultural development

bifurcated at this period was, on one hand, the variety of peoples and cultures throughout the Americas comprehended by the term "Indian," and on the other, the rich and unique Eskimo culture evidenced from Siberia to Greenland.

The closing of the Bering Land Bridge did not serve to totally isolate Asia from America, although the separation was enough that the Native cultures developing in America thereafter can be regarded as truly American. Nonetheless, the peoples living on either side of the gap continued for millennia to influence and be influenced by each other. And despite the possible presence of sea-oriented cultures at the end of the period of glaciation, the possibility cannot be discounted that the true ancestors of the Eskimos migrated to America by sea as recently as 5,000 or less years ago.

(References for this section: Hopkins, 1967; Muller-Beck, 1967; Laughlin, 1967; Willey, 1966; Giddings, 1967; Bandi, 1969).

2. Summary of Cultural Developments in Alaska since the End of the Ice Age: By 11,000 years ago, the tree line that marks the boundary between the Arctic and the subarctic may have become the line separating two main cultural types: the arctic cultures that would eventually be recognized as characteristic of the Eskimos, and the Indian cultures of the subarctic. There was certainly cultural interaction across the tree line as well as across the Bering Straits. Until about 3,000 years ago the lines of development of the sea-oriented Arctic way of life can be traced as the ancestral line of historic Eskimo culture,

but unfortunately skeletal evidence is lacking that would positively identify the peoples of the arctic coast as the genetic antecedents of the Eskimos. Similarly, while the basic lines of the development of subarctic cultures can be traced, it is likely that the movements of peoples prevent assured judgements that today's subarctic Indians are the actual descendents of the area's residents of many millennia ago.

The earliest identified archeological complex in the far north is called British Mountain. It is represented in discoveries in northwestern Alaska and on the Arctic coast of Yukon Territory of crude stone choppers, scrapers, and unifacial projectile points. Despite the lack of firm dating, the complex is probably very old, and may in some elements predate similar artifactual types found in the North American high plains and Pacific coast regions.

> If so, they could well mark the southward migrations of some of the first hunters to enter the New World by way of a Bering Strait land bridge in Pleistocene times and, as such, could be the first technical traces of the North American Big-Game Hunting and Old Cordilleran traditions (Willey, 1966). The possibility remains that these finds could represent an Arctic backwash of artifactual types from the south.

The Plano point horizon, derived from areas in the northern Great Plains and the Great Lakes between about 9,000 and 5,000 years ago, is marked in the Arctic and subarctic. The projectile points that characterize this complex are lanceolate and frequently parallel-flaked. The presence of these points may represent a northern movement of buffalo hunting peoples after the end of glaciation.

Perhaps overlapping the Plano point horizon in time is the Northwest Microblade Tradition. This primarily western culture was prominent in the subarctic interior of Alaska, but may be found in some Arctic coastal areas. It is peculiarly characterized by microblades and certain types of burins--traits that almost certainly came from Siberia. "Possibly it was associated with migrations from Asia... and it may be that the ancestors of the later Athapascan Indians of the western subarctic entered the New World at this time" (Willey, 1967). The cultural trandition represented actually a blend of American and Asiatic elements. It probably began around 8,000 years ago, and by 6,000 to 5,000 years ago had died out in many areas, persisting in the forests of the western subarctic as late as 4,000 to 3,000 years ago.

Around 6,000 to 5,000 years ago, the Arctic Small-Tool Tradition developed in the western Arctic; it is best represented along the Bering Sea coast by the Denbigh culture. Building on elements definitely deriving from Siberia, the tradition is primarily expressed in a core and bladelet industry evidencing excellent craftmanship. The tiny points, side-blades, and burins were much smaller and more finely made than those that characterized the Northwest Microblade Tradition, and can be found from Alaska to Greenland. The environment of the tradition was definitely the arctic coastal tundra, and the tools indicate that the people who made them were both sea mammal and land game hunters. "Its geographical distribution, its apparent ecological adaptation, and its chipped-stone technology all suggest that the Arctic Small-Tool Tradition was the American Arctic base culture for the subsequent

development of the Eskimo culture tradition. It may be that its bearers, who in many places were the first people ever to explore the far northern Canadian Arctic and Greenland, were of Eskimo physical type, although this thesis cannot yet be proved" (Willey, 1967).

The Eskimo cultural tradition is clearly defined after 3,000 years ago, and can be broken into four subgroups: Pacific-Aleut, a somewhat divergent manifestation, derived from the Arctic Small-Tool Tradition and adapted to the rather milder climate of the Aleutians and the Pacific Coast of Alaska, with some Asiatic influences; the Choris-Norton-Near Ipiutak, clearly developed from the Arctic Small-Tool Tradition, centered at Norton Sound and southward, and somewhat less well adapted to sea mammal hunting than the Northern Maritime; Northern Maritime, the most viable of the Eskimo subtraditions, originating on both the Asiatic and Alaskan sides of Bering Strait and on St. Lawrence Island, rising in its Okvik and Old Bering Sea phases, and spreading northward and westward across the Arctic in the Birnirk and Thule phases, and representing the classic sea mammal and whale hunting Eskimo culture that persisted into modern times; Dorese subtradition, the eastern branch of Eskimo culture, representing in the Hudson Bay to Greenland-Newfoundland area a blend of the Arctic Small-Tool Tradition with newer elements from the west, and superseded after about 900 years ago by the Thule phase of the Northern Maritime subtradition.

The cultural history of the subarctic falls into two primary traditions, Eastern and Western. Alaska's subarctic falls into the latter. It is termed the Denetasiro Tradition, and seems to have developed consistently from the earlier Northwest Microblade Tradition to the present day. However, extensive archeological data on the prehistory of the Denetasiro Tradition are lacking, but the culture is more fully studied through Athapascan ethnography. (References for this section: Willey, 1966; Giddings, 1967; Bandi, 1969.)

APPENDIX H: POPULATION AND EMPLOYMENT ESTIMATES BY THE ALASKA DEPARTMENT OF LABOR, AND BY THE HUMAN RESOURCES PLANNING INSTITUTE

1. ESTIMATED POPULATION AND EMPLOYMENT by the ALASKA DEPARTMENT OF LABOR NORTHWEST 1/

	1961	1970	1972	1973	1974	1975	1980
(All work force and employment data = 12 month average, in thousands of persons, for calendar year.)							
Total Population (July 1)	12.7	13.3 2/	13.4	12.9	14.6	16.4	16.5
Total Civilian Work Force	2.8	4.5	4.7	4.8	6.8	8.4	8.8
Rate of Participation 3/	22.0%	33.8%	35.1%	37.2%	46.6%	51.2%	53.3%
Total Unemployment	0.6	0.6	0.7	0.6	0.7	0.7	0.9
Percent of Civilian W.F.	21.4%	13.3%	14.9%	12.5%	10.3%	8.3%	10.2%
Total Civilian Employment 4/	2.2	3.9	4.0	4.2	6.1	7.7	7.9
Self-Employed, Agriculture, Family Worker, Etc.	0.4	0.2	0.4	0.3	0.3	0.3	0.3
Government (Civilian)	0.6	1.1	1.6	2.1	2.3	2.4	2.9
Federal	0.5	0.6	0.7	0.7	0.7	0.7	0.7
State & Local	0.1	0.5	0.9	1.4	1.6	1.7	2.2
Mining	0.1	0.9	0.4	0.3	0.6	1.0	2.0
Contract Construction	0.1	0.5	0.3	0.2	1.4	2.3	0.6
Manufacturing	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Distributive	1.0	1.1	1.2	1.3	1.5	1.7	2.1
Trans., Comm., Public Util.	0.5	0.4	0.4	0.5	0.6	0.6	0.8

Trade	0.4	0.3	0.3	0.3	0.3	0.4	0.4
Finance, Ins., Real Estate	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Services & Miscellaneous	0.1	0.4	0.5	0.5	0.6	0.7	0.8

1/ Sum of five major geographical areas may not in all cases equal statewide totals due to rounding (includes Nome, Kobuk and Barrow labor market areas).
2/ Final 1970 Census Estimate adjusted to July 1, 1970.
3/ Rate of participation = Total Civilian Work Force divided by Total Population.
4/ The Total Civilian Employment may not equal the sum of individual industry employment figures due to rounding.

2. ESTIMATED POPULATION AND EMPLOYMENT BY THE HUMAN RESOURCES PLANNING INSTITUTE NORTHWEST REGION
Annual Average

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Federal Government	700	850	900	900	900	900	900	900	900	900	900
State & Local Govt	950	1,100	1,400	1,600	1,700	1,800	1,900	1,950	2,000	2,050	2,200
Construction (Total)	250	500	700	800	500	700	650	450	450	500	500
Manufacturing	100	100	100	100	50	100	100	100	100	100	100
Mining	300	550	750	850	850	800	750	750	700	700	700
Comm., Utilities	100	100	100	100	100	100	100	100	100	100	100
Retail Trade	300	350	450	500	550	550	550	600	600	600	650
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0
Fin., Insur., Real Est.	50	50	50	50	50	50	50	50	50	50	100
Transportation	300	400	550	600	600	600	600	600	600	650	650
Service	450	550	700	800	850	900	950	950	950	1,000	1,050
Non-Categorized	250	250	250	250	250	250	300	300	300	300	300
Total Workers	3,800	4,800	5,900	6,600	6,400	6,700	6,900	6,700	6,800	7,000	7,300
Labor Force and Pop. Data											
Unemployment	400	450	600	750	850	850	900	900	900	900	950
Civilian Labor Force	4,200	5,200	6,500	7,300	7,200	7,600	7,800	7,600	7,700	7,900	8,200
Civilian Dependents	4,400	5,400	6,600	7,400	7,400	7,600	7,800	7,600	7,700	7,900	8,200

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Civilian Population	8,600	10,600	13,100	14,800	14,600	15,200	15,600	15,300	15,400	15,800	16,400
Military Employment	400	400	400	400	400	400	400	400	400	400	400
Military Dependents	400	400	400	400	400	400	400	400	400	400	400
Military Population	800	800	800	800	800	800	800	800	800	800	800
Total Population	9,400	11,500	14,000	15,600	15,400	16,000	16,400	16,100	16,200	16,700	17,200

Source: Human Resources Planning Institute. A Forecast of Industry and Occupational Employment in the State of Alaska. Vol. I. Summary of Findings. Prepared for Man in the Arctic Program, Institute of Social, Economic and Government Research. April 1974.

APPENDIX I: NATIONAL PARK SYSTEM PLAN STATEMENT

proposed
Kobuk Valley National Monument
Alaska

December 18, 1973

The proposed Kobuk Valley National Monument will add significantly to certain themes presently unrepresented in the Interior and Western Alaska and Brooks Range Natural Regions as defined in Part Two of the National Park System Plan - Natural History (1972). Themes are listed below. Significant additions are starred (*).

Themes	Present status within The National Park System a/	With inclusion of Kobuk Valley N.M.
Interior & Western Alaska Land Forms of the Present		
Plains, plateaus, mesas	2, no representation	* Significant addition
Mountain systems	1, no representation	* Significant addition
Eolian land forms	not listed	* Significant addition
Works of glaciers	1, no representation	Minor addition
Sea shores, lake shores, islands	1, no representation	Not present
Geologic history		
Land ecosystems		
Tundra	2, no representation	* Significant addition
Boreal forest	2, no representation	* Significant addition
Aquatic ecosystems		
Marine environments	2, no representation	Not present
Estuaries	2, no representation	Not present
Lakes and ponds	1, no representation	Important addition
Streams	1, no representation	* Significant addition

a/ 1-Significant but not prime: 2-Prime significance (Part Two of the National Park System Plan, NPS, 1972)

Theme	Present status within The National Park System a/	With inclusion of Kobuk Valley N.M.
BROOKS RANGE		
Land forms of the Present		
Mountain systems	2, no representation	Important addition
River systems & lakes	1, no representation	* Significant addition
Works of glaciers	2, no representation	Important addition
Geologic history	1, no representation	Important addition
Land ecosystems		
Tundra	2, no representation	* Significant addition
Boreal forest	1, no representation	* Significant addition
Aquatic ecosystems		
Lakes and ponds	1, no representation	Minor addition
Streams	1, no representation	* Significant addition

Interior and Western Alaska

Plains, plateaus, mesas. Within the proposed area lies the broad glaciated flood plain of the Kobuk River and its tributaries. Glacial till and outwash deposits from Brooks Range glaciers floors much of the older floodplain. The modern Kobuk River floodplain is 1-8 miles wide within the area. Part of a 300 square mile dune field with 25 square miles containing active sand dunes up to 100 feet high lies south of the Kobuk River. Lowlands range from 50 to about 300 feet above sea level. The area lies from 25 to 90 miles north of the Arctic Circle.

Mountain systems. The Waring Mountains form the southern boundary separating the Kobuk and Selawik Valleys. These mountains have rolling sumits about 1,200 feet high; slopes are gentle. The mountains are an east-west trending faulted syncline composed of 13,500-17,500 feet of Cretaceous sediments.

River systems and lakes. The Kobuk River flows westward through the south half of the proposed monument parallel to the south front of the Brooks Range. The river is slow flowing (3-5 mph current) 1,000-1,500 feet wide. Except when in flood, the river is clear and lined with clean sand beaches and islands.

Oxbow lakes in all stages of formation occur in the two wide areas of the modern Kobuk River floodplain. Hundreds of thaw lakes dot the clder terraces and glacial drift deposits.

Large and small tributary streams drain both the Brooks Range and Waring Mountains. Three streams have been markedly affected by the active dune field. One stream has maintained its course through the Great Kobuk Sand Dunes. Several large springs emerge from beneath active sand dunes. Beaded streams, common to permafrost terrain, are present.

Eolian landforms

Though not listed as regionally significant in the National Park System plan, field studies have determined that the Great Kobuk Sand Dunes, the largest active dune field in arctic North America, are of national significance. Active sand dunes, 100 feet high, cover 25 square miles of a larger area of stabilized sand dunes. Pioneer plants form a successional sequence along dune margins and inter-dune depressions. Several grasses grow on active sand dunes. One grass, Elymus arenarius, common to coastal sand beaches, grows

on the dunes - 100 miles inland from its usual habitat.

A wide variety of dune forms are present. The transition from U-shaped dunes, through transverse ridges, to barchan dunes, with downwind spurs progresses systematically from east to west as vegetative cover decreases and the amount of bare sand increases. An unusual patterned ground formation, of rectangular rather than polygonal outline, is attributed to the presence of permafrost at shallow depths beneath the dune field.

Geologic history. The Kobuk River valley was the site of a Cretaceous sedimentary basin. A thick section of Cretaceous rocks are exposed throughout the Waring Mountains.

Glacial drift, water and wind-deposited sands cover large areas of valley bottomlands. Cliffs 100-150 feet high along the Kobuk River locally contain plant fossils and pollens.

Sand dune forms and dune dynamics are clearly displayed within a small area.

Land ecosystems

Tundra. Several tundra types occur within the proposed monument. Dry alpine tundra covers upper slopes and summit ridges of the Waring Mountains. Wet tundra mantles higher portions of the valley bottomlands. The Arctic caribou herd uses the Kobuk valley heavily both as summer and winter ranges.

Boreal forest. Large areas of virgin forest and woodland of great compositional diversity occur in valleys and on lower mountain slopes. Black and white spruce and willow occupy wet floodplains and meander belts of the Kobuk River. White spruce, aspen, and paper birch grow on drier soils. Pure and mixed stands occur. Aspen and birch are locally more abundant than in more typical boreal forest stands elsewhere as a result of a complex history of frequent lightning fires. Lichens form a dominant and widespread understory cover.

Lakes and ponds. Numerous thaw lakes and ponds, most less than 1 mile in diameter, are important waterfowl nesting and breeding areas.

Streams. All streams tributary to the Kobuk River are clearwater streams. Those, with gravel bottoms such as the Salmon River, are important salmon spawning streams. Grayling, burbot, sheefish, etc., are an important resource of the Kobuk River.

BROOKS RANGE

Landforms of the present

Mountain systems. The proposed area extends to the crest of the Baird Mountains, southwestern most of the many mountain groups which comprise the Brooks Range. Elevations range from 4,760 feet to less than 100 feet on the Kobuk River. The Baird Mountains are less rugged than the neighboring Schwatka Mountains but have steep walled cirques and knife ridges which are accessible via numerous canyons which cut the south slopes. Several low passes lie on the divide between the Kobuk and Noatak Valleys.

River systems and lakes. An intricate system of clearwater rivers and streams are tributary to the Kobuk River. Widely scattered, small cirque lakes lie near the divide crest. The largest is about 1/2 mile long.

Works of glaciers. Five periods of glaciation have been recognized in the southwestern Brooks Range. Land forms and deposits of three glaciations occur within the proposed Monument. Cirques, aretes, U-shaped valleys and morainal deposits are widespread in the Baird Mountains. No glaciers exist today.

Geologic history. Rocks of Paleozoic, Jurassic, and Cretaceous age are exposed in the Baird Mountains. The geology of the wild interior of the Bairds has not been mapped.

Land ecosystems.

Tundra. Expanses of dry tundra cover lower and middle slopes of the Baird Mountains. Wet tundra unforested lowlands.

Boreal Forest. The foothills of the Brooks Range constitute the northern border of the boreal forest biome. Approximately 100 miles of the sharp boundary lies within the proposed monument. Primary components are white and black spruce. Hardwoods are more abundant in the Kobuk Valley.

Streams. See Interior and western Alaska section above.

Historical themes are also present in the proposed Kobuk Valley National Monument. "Themes", "sub-themes", and "major facets" are those listed and described in Part One of the National Park System Plan - History (1972).

Theme 1. The Original Inhabitants - prehistory and history of the peoples who originally inhabited the areas comprising the present United States.

Subtheme 1a. The Earliest Americans - prehistoric inhabitants of the United States. The period begins with the entry of man into the area and covers the social, economic, and cultural activities of the peoples involved.

Major facet 1a2. Early Peoples of Alaska.

Early Peoples of Alaska.

Onion Portage, recognized as one of the most important archeological sites in arctic North America, lies within the proposed Monument. A

vertical sequence of 8 principal cultural levels comprising more than 30 horizons containing artifacts span a time period from the present to 12,000 years B.P.

Excavations cover an area of 2 acres and reached a depth of 20 feet. The oldest cultural level bears similarity to lower and upper Paleolithic cultures of central Siberia. A second site, Ahteut, is a group of house pits dated about 1100-1300 A. D..

Subtheme 1f. Aboriginal Technology. Certain aspects of native life including techniques of hunting and fishing, etc.

Major facet 1f1. Hunting and Fishing techniques.

Hunting and fishing techniques.

Though there are no permanent residents within the area, Eskimos from nearby villages use the land for subsistence hunting, fishing, and gathering as their ancestors did for the past 12,000 years.

For thousands of years caribou and other animals have been hunted by Eskimos of the region. The Kobuk River has been an important fish source. Subsistence hunting, fishing, berry picking, and birch bark gathering has continued to the present and the perpetuation of these activities is proposed.

The proposed Kobuk Valley National Monument with its water, sand, tundra and forest communities, its archeological and cultural values, and its

diverse scenic setting, meets 7 of the 10 criteria for national significance as defined in NPS Criteria for Parklands (p. 10-11):

Criteria for Natural Areas - National Significance

A. National significance is ascribed to areas which possess exceptional value or quality in illustrating or interpreting the natural heritage of our Nation, such as:

1. Outstanding geological formations or features significantly illustrating geologic processes.

Great Kobuk Sand Dunes

3. An ecological community significantly illustrating characteristics of a physiographic province or biome.

Tundra communities

Boreal forest at its northern limits

4. A biota of relative stability maintaining itself under prevailing natural conditions, such as a climatic climax community.

Tundra communities

Boreal forest

5. An ecological community signifcantly illustrating the process of succession and restoration of natural condition following disruptive change.

Plant succession of Great Kobuk Sand Dunes,

Boreal forest successions following natural fires

8. A seasonal haven for concentrations of native animals, or a vantage point for observing concentrated populations, such as constricted migration route.

Heavily used caribou migration routes

9. A site containing significant evidence illustrating important scientific discoveries.

Onion Portage archeological site.

10. Examples of the scenic granduer of our natural heritage.

The central Kobuk Valley, Brooks Range, Waring Mountains, and dunes, rivers, forests, tundra, and wildlife in a pristine state.

B. To possess national significance, the area must reflect integrity, i.e., it must present a true, accurate, essentially unspoiled natural example.

Lands of the proposed Kobuk Valley National Monument are true, natural examples of the resources described above.

APPENDIX J: FISH AND WILDLIFE MANAGEMENT POLICY

The National Park Service policy on fish and wildlife management is set forth in Administrative Policies for Natural Areas of the National Park System (U.S. Department of the Interior, National Park Service, 1970). The policy is based on precedent set in the Yellowstone National Park legislation of 1872 and similar subsequent national park legislative actions, Article III of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere Between the United States of America and Other American Republics, and recommendations of the Advisory Board on Wildlife Management in the National Parks. The full texts of the latter two documents are included as appendixes in Administrative Policies for Natural Areas of the National Park System.

The following policy statement issued by the Secretary of the Interior on May 2, 1968, is quoted from the administrative policies (emphasis added):

"A. In all areas administered by the Secretary of the Interior through the National Park Service, the Bureau of Sport Fisheries and Wildlife, the Bureau of Land Management, and the Bureau of

Reclamation, except the National Parks, the National Monuments, and historic areas of the National Park System, the Secretary shall-

"1. Provide that public hunting of resident wildlife and fishing shall be permitted within statutory limitations in a manner that is compatible with and not in conflict with, the primary objectives as declared by the Congress for which such areas are reserved or acquired;

"2. Provide that public hunting, fishing, and possession of fish and resident wildlife shall be in accordance with applicable State laws and regulations, unless the Secretary finds, after consultation with appropriate State fish and game departments, that he must close such areas to such hunting and fishing or restrict public access thereto for such purposes;

"3. Provide that a State license or permit, as provided by State law, shall be required for the public hunting, fishing, and possession of fish and resident wildlife on such areas;

"4. Provide for consultation with the appropriate State fish and game department in the development of cooperative management plans for limiting over-abundant or harmful populations of fish and resident wildlife thereon, including the disposition of the carcasses thereof, and, except in emergency situations, secure the State's concurrence in such plans; and

"5. Privide for consultation with the appropriate State fish and game department in carrying out research programs involving the taking of fish and resident wildlife, including the disposition of the carcasses thereof, and secure the State's concurrence in such programs.

"B. In the case of the National Parks, National Monuments, and historic areas of the National Park System, the Secretary shall--

"1. Provide, where public fishing is permitted, that such fishing shall be carried out in accordance with applicable State laws and regulations, unless exclusive legislative jurisdiction* has been ceded for such area, and a State license or permit shall be required for such fishing, unless otherwise provided by law;

"2. Prohibit public hunting and

"3. Provide for consultation with the appropriate State fish and game departments in carrying out programs of control of over-abundant or otherwise harmful populations of fish and resident wildlife or research programs involving the taking of such fish and resident wildlife, including the disposition of carcasses therefrom.

"In any case where there is a disagreement, such disagreement shall be referred to the Secretary of the Interior who shall provide for a thorough discussion of the problems with representatives of the State fish and game departments and the National Park Service for the purpose of resolving the disagreement.

"*The term "exclusive legislative jurisdiction" is applicable to situations wherein the Federal Government has received, by whatever method, all the authority of the State, with no reservation made to the State except the right to serve process resulting from activities which occurred off the land involved. This term is applied notwithstanding that the State may exercise certain authority over the land, as may other States over land similarly situated,

in consonance with the several Federal statutues. The term is also sometimes referred to as "partial jurisdiction."

Normally, exception to the policy must be approved by Congress.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

DEC 17 1973

Dear Mr. Speaker:

Transmitted herewith is a bill, "To provide for the addition of certain lands in the State of Alaska to the National Park, National Wildlife Refuge, National Forest, and the Wild and Scenic Rivers Systems, and for other purposes."

We recommend that this bill be referred to the appropriate Committee and that it be enacted.

On December 18, 1971, President Nixon signed into law the historic Alaska Native Claims Settlement Act (ANCSA) (PL 92-203). This legislation extinguished all aboriginal claims to land in Alaska and in return provided the Natives with a land settlement of 40 million acres and a monetary settlement of nearly a billion dollars.

In addition, section 17(d)(1) of the Act authorized the Secretary of the Interior (hereinafter referred to as the "Secretary") to withdraw such public domain lands as he thought advisable to ensure that the public interest in them is properly protected.

Section 17(d)(2) of the Act authorized the Secretary to withdraw up to 80 million acres of land to be studied for possible addition to the National Park, Forest, Wildlife Refuge, and Wild and Scenic Rivers Systems. Section 17(d)(2) also required all legislative proposals coming from such studies to be submitted to the Congress within two years, by December 18, 1973, and provided that Congress would have five years to act following receipt of the legislation. During this period lands in those proposals withdrawn under 17(d)(2) would not be subject to appropriation under the public land laws. The bill transmitted with this letter constitutes the legislative proposals pursuant to that authority.

The process of developing the proposals began in January of 1972 with the Bureau of Sport Fisheries and Wildlife and the National Park Service concentrating on the identification of their "areas of interest" in Alaska without regard to management jurisdiction.

During February 1972 these two agencies screened the "areas of interest" to identify the specific areas that warranted detailed on-the-ground study for possible addition to the National Wildlife Refuge and Park Systems. These particular areas were then reviewed within the Department to determine the lands to be withdrawn in March of 1972 under the 17(d)(1) and 17(d) (2) provisions of the Act. The March withdrawal also recognized certain river areas that warranted study for possible addition to the Wild and Scenic Rivers System. In addition, additional acreage from which the Natives were to select some of the land to which they were entitled was withdrawn.

During the summer of 1972 the National Park Service, Bureau of Outdoor Recreation, Bureau of Sport Fisheries and Wildlife and Forest Service conducted detailed studies of the withdrawn lands.

In August of 1972, the Joint Federal-State Land Use Planning Commission, a commission created by the ANCSA to advise the Federal and State governments, provided its recommendations for the final 17(d)(2) withdrawals to be made in September. On September 17 the final 17(d)(2) withdrawals of 79.3 million acres were made. The withdrawals reflected negotiations with certain of the Native Regional Corporations. Subsequent adjustments have also been made in native deficiency withdrawals, after consultation with the Natives.

During the remainder of 1972 and early 1973 the agencies refined their studies on the D-2 and the related D-1 lands.

During May and June of 1973 the Joint Federal-State Land Use Planning Commission held over 30 hearings in Alaska and four hearings in the Lower 48 States to obtain comments from the public concerning use potentials for the 17(d)(2) lands. The testimony from these hearings, as well as specific recommendations submitted by the Commission regarding 17(d)(2) withdrawals, were all considered in developing final recommendations.

The decisions on additions to the National Park, Refuge, Forest and Wild and Scenic Rivers Systems have not been easy to make. Alaska is a vast land with a great variety of resource values, many of which are of national and international importance. It contains great mineral, oil, and forest resources, a wide variety of ecosystems, outstanding archeological artifacts, and some of the most magnificent scenery in the world. It is the only place in the United States where Native people are living on the land on a subsistence basis.

In the proposed legislation, we have taken into account the special characteristics of Alaska and we have used several new approaches which we believe are particularly suited to Alaska. For example, we are proposing joint management of resources by two or more federal bureaus in several instances, because the resources of the areas seem to require this joint approach. The Chukchi-Imuruk National Reserve and the two southern units of the Harding Ice Field-Kenai Fjords National Monument, which have both park-quality resources and high fish and wildlife values, will be administered jointly by the National Park Service and Bureau of Sport Fisheries and Wildlife. Iliamna National Resource Range will be administered as a unit of the National Wildlife Refuge System and will also be administered to permit multiple-use activities compatible with the Bristol Bay fishery resource. The Noatak National Arctic Range will be jointly managed by the Bureau of Sport Fisheries and Wildlife and the Bureau of Land Management to provide for protection of the natural features of the area and for scientific research.

We intend to negotiate cooperative agreements where possible with the owners of adjacent lands including federal agencies, state and local governments, and private persons, including native corporations, as well as foreign nations, provided the Secretary of State concurs. The agreements would have as their purpose assuring that these adjacent areas will be managed, insofar as possible, in a manner consistent with preservation of the park system and refuge system units. The maps referred to in the proposed legislation show certain areas adjacent to park and refuge units designated as "areas of ecological concern"; we will make particular efforts to conclude cooperative agreements with respect to these areas. Government agencies licensing, funding, or carrying out undertakings on adjacent lands, unless they are parties to a cooperative agreement, would be required by our proposal to offer the Secretary a reasonable opportunity to comment on their undertakings.

We have also provided for subsistence use of fish, wildlife and plant resources in recognititon of the established subsistence hunting practices in Alaska, on both national park and refuge system areas. The need for a subsistence use provision is unique to Alaska, where members of the Native population are living on a subsistence basis.

We recognize in submitting these proposals to the Congress that further information is needed before decisions can be reached on some issues. As Alaska continues to develop, there will be a need for rights of way and corridors to adequately accomodate transportation and utility requirements. However, the information on these needs is not fully developed at this time and therefore decisions cannot be made before the December 18, 1973 deadline for submitting 17(d)(2) legislative proposals to Congress. We plan to work with the Congress and the State of Alaska in determining what these needs are and how they can be met. We plan to keep our proposals and their resources under continuing study to determine if any subsequent changes in boundaries or uses are necessary. If such changes are determined to be necessary, they will be referred to the Congress for appropriate action.

The following pages deal with specific proposals in detail. The legislation has been divided into four titles: 1) National Park System, 2) National Wildlife Refuge System, 3) National Forest System, and 4) Wild and Scenic Rivers System additions which are not located in any of the above three systems. Wild and Scenic Rivers System proposals are also found in the first three titles, in cases in which the river runs through a national park, refuge, or forest system area.

We are proposing to add acreage to two existing national park system areas, and to create nine new park areas, as follows:

1.	Mt. McKinley National Park (additions)	3.18 million acres
2.	Katmai National Park (additions)	1.87
3.	Aniakchak Caldera National Monument	.44
4.	Harding Ice Field-Kenai Fjords National Monument	.30
5.	Cape Krusenstern National Monument	.35
6.	Kobuk Valley National Monument	1.85
7.	Lake Clark National Park	2.61
8.	Wrangell-St. Elias National Park	8.64
9.	Gates of the Arctic National Park	8.36
10.	Yukon-Charley National Rivers	1.97
11.	Chukchi-Imuruk National Reserve	2.69
		32.26 subtotal

We are proposing nine new additions to the National Wildlife Refuge System:

1.	Alaska Coastal National Wildlife Refuges	.07 million acres
2.	Arctic National Wildlife Refuge	3.76
3.	Iliamna National Resource Range	2.85
4.	Koyukuk National Wildlife Refuge	4.43
5.	Noatak National Arctic Range	7.59
6.	Selawik National Wildlife Refuge	1.40
7.	Togiak National Wildlife Refuge	2.74
8.	Yukon Delta National Wildlife Refuge	5.16
9.	Yukon Flats National Refuge	3.59
		31.59 subtotal

We are proposing establishment of three new national forest system areas, and additions to a fourth existing area:

1.	Porcupine National Forest	5.50 million acres
2.	Wrangell Mountains National Forest	5.50
3.	Yukon-Kuskokwim National Forest	7.30
4.	Chugach National Forest (additions)	.50
		18.80 subtotal

We are proposing six additions to the National Wild and Scenic Rivers System which are located entirely within park system areas, five located entirely within refuge system areas, one which flows through both a park and a refuge system area and four located entirely within forest system areas. In addition, we are proposing four components not located on park, refuge or forest system lands:

1.	Beaver Creek	.20 million acres
2.	Birch Creek	.20
3.	Fortymile	.32
4.	Unalakleet	.10
		.82

The total acreage added is 83.47 million acres.

National Park System

Administration

Title I of the proposed legislation would add additional acreage to two existing parks and monuments and create nine new units of the National Park System. Administration of these areas will be under the authority of Act of August 25, 1916 (39 Stat. 535 et seq.) as amended and supplemented (16 U.S.C. 1, et seq.). Chukchi-Imuruk National Reserve and the two southern units of the Harding Ice Field-Kenai Fjords National Monument will be managed jointly by the National Park Service and the Bureau of Sport Fisheries and Wildlife pursuant to a cooperative agreement. The other areas will be managed entirely by the National Park Service. Lands within the boundaries of the added and new areas may be acquired by purchase, donation, or exchange; except that lands owned by the State or political subdivisions of the State may be acquired only by donation or exchange, and property owned by a native village or corporation may be acquired only with the concurrence of the owner. Minor boundary changes may be made, after notice requirements are met, including notice to the Interior and Insular Affairs Committees. Administrative sites located outside the park system area boundaries may be added to the areas and included within the boundaries after notice requirements are met, but the sites may not exceed 80 acres for any one park system area.

Mining and Mineral Leasing

The federal lands within the boundaries of the areas added to existing units or established by the title are withdrawn, subject to valid existing rights, from location, entry and patent under the public lands laws, including from all forms of appropriation under the United States mining laws, and from operation of the mineral leasing laws. This withdrawal also applies to areas presently within Mount McKinley National Park. Since lands within the existing Katmai National Monument are already withdrawn, no reference is made to them in the legislation. A one year limit is established during which all mining claims must be recorded; an application for patent must be made within three years of recordation, or the claim will be presumed invalid.

An exception to these withdrawals is made to allow mineral leasing in the Yukon River watershed of the Yukon-Charley National River, other than the Charley River; these lands are not withdrawn from operation of the mineral leasing laws and are specifically made subject to the Mineral Leasing Act of 1920, except that provision is made for administrative cancelling of leases and permits for violations of the terms of leases and permits or regulations. These lands are withdrawn from appropriation under the mining laws by subsection 106(a), but minerals of the types subject to the mining laws may be removed under a permit system provided for in subsection 106(b).

Sport Hunting

Sport hunting will be permitted in specified townships of Aniakchak Caldera National Monument and in Lake Clark National Park, Wrangell-St. Elias National Park, the Gates of the Arctic National Park, Chukchi-Imuruk National Reserve, and Yukon-Charley National Rivers, in accordance with regulations prescribed by the Secretary. Sport hunting may not take place, however, if prohibited by state or federal law. The Secretary may establish limits on numbers and types of species taken and manner of taking, and may prohibit taking; he may also designate zones where, and periods when, no sport hunting will be permitted for reasons of public safety, administration, fish and wildlife management, or public use or enjoyment. Regulations except in emergencies, are to be put into effect only after consultation with the appropriate fish and game agency of the State of Alaska.

The proposal requires a report to the Congress at specified intervals on the effect of all hunting, fishing and trapping, including subsistence uses, on the flora and fauna of the areas added to existing units or established by the title.

Subsistence Uses

Except as otherwise prohibited by state or federal law, subsistence uses of fish, wildlife and plant resources will continue within the areas added to existing park system units or established as new units, to the extent that such uses were in effect on the date of enactment of ANCSA, unless the Secretary finds that such uses would materially and negatively affect the fish, wildlife or plant resources of such areas. The Secretary may prescribe conditions under which subsistence uses shall be conducted, and may prohibit takings altogether. Regulations on subsistence uses are to be promulgated after consultation with the appropriate fish and game agency of the state.

Cooperative Agreements

The Secretary is specifically authorized to enter into cooperative agreements with federal agency heads and owners of land within, adjacent to, or related to the park system areas added to existing units or established by the title. The agreements may be made, for example, with federal agencies, state or local governments, native corporations, villages

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Cooperative Agreements

The Secretary is specifically authorized to enter into cooperative agreements with federal agency heads and owners of land within, adjacent to, or related to the park system areas added to existing units or established by the title. The agreements may be made, for example, with federal agencies, state or local governments, native corporations, villages

or groups, and foreign governments, with the concurrence of the Secretary of State. The agreements would be drafted to ensure management of the areas subject to the agreement in a manner consistent with preservation of the park system areas. They could also provide for access by the park visitors to and across the lands. A provision similar to section 106 of the Historic Preservation Act of 1966 is included in the legislation, requiring agencies licensing, funding or carrying out projects or other undertakings in the areas within, related to or adjacent to park system areas to give the Secretary opportunity to comment on such undertakings; federal agencies which are parties to cooperative agreements with respect to the particular park system area are exempted from this requirement since such reporting requirements could be included in the agreement.

Wilderness Review

With respect to the areas added to existing units or established by the title, the Secretary has 3 years from the date of enactment to report his recommendations for wilderness designation, in accordance with subsections 3(c) and 3(d) of the Wilderness Act. The wilderness recommendation for the existing Mount McKinley National Park must also be made within 3 years, from date of enactment.

Wild and Scenic Rivers System Components

Seven river components — Alatna, Aniakchak, Charley, Killik, Noatak, Salmon and Tinayguk — are added to the wild and scenic rivers system by title I. Studies of these rivers have been completed which are the equivalent of the studies carried out on rivers designated under section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1276(a)). We are therefore recommending addition of these rivers directly to the system, rather than inclusion on the 5(a) study list. All seven rivers are classified as wild rivers and are to be administered as wild rivers pursuant to the Wild and Scenic Rivers Act. The rivers are exempted from the requirements of 3(b) of establishing detailed boundaries, preparing development plans, and classifying as wild, scenic or recreational rivers. They are also exempted from the duplicative and potentially conflicting acquisition provisions of section 6 of the Act and fish and wildlife provisions of section 13(a) of the Act.

Specific Areas

Descriptions of specific areas and specific legislative provisions applying to these areas follow:

1. Mount McKinley National Park Additions. Mount McKinley National Park was established in 1917. This proposal will add approximately 3.18 million acres to the present park, which now includes about 2 million acres. About half of the additions are to the north of the existing park, and constitute critical wolf, sheep, moose and caribou range necessary to ensure the continued viability of the ecosystem of the Mount McKinley area. The area also has important waterfowl values. The remaining half of the added acreage is to the south of the park. It includes part of the Mount McKinley mountain massif not now within the park, spectacular glacial systems, and the intricately dissected, awesomely beautiful Cathedral Spires. Lowland areas in the southern portion will provide ecologic diversity for the park and opportunity for recreational use and access. The added areas will be managed as natural areas with the primary objectives of preserving the large mammal ecosystem and the scenic beauty of the area; development will be minimal, with emphasis on the recreation potential of the area in its natural condition. Headquarters will be relocated from its present site north of the Alaska Range to the south side of the range. A cooperative planning and management zone, adjacent to the south and east boundaries of the expanded park, has been designated on the maps referred to in the legislation. This area encompasses the threshold lands to Mount McKinley. Within 3 years from the date of enactment of the title, the Secretary will be required to submit a report to the Congress on whether land-use controls needed for proper protection of the park have been instituted by the State and local governments with respect to this zone. Comments of the Governor and the Joint Federal-State Land Use Planning Commission will be solicited and submitted to Congress as well.

2. Katmai National Park. Katmai National Monument was established in 1918 by Presidential Proclamation, and subsequently enlarged to about 2.8 million acres. The legislation would add 1.37 million acres to the monument and redesignate it as a national park. The national monument, which is located on the upper Alaska Peninsula, was originally established to preserve a scenic region containing an area devasted in 1912 by volcanic eruption and ash deposition.

The proposed expanded park will include the headwaters of all watersheds draining through the present monument. Inclusion of the headwaters will help assure preservation of the sockeye(red) salmon spawning and nursery waters in these headwaters. The park would also include a protected area sufficiently large to include an unhunted, self-perpetuating population of the giant Alaskan brown bear. The southern portion of the park will include a representative portion of the Bristol Bay lowland tundra, the only representative of this landform type in the national park system. Katmai will continue to be managed as a natural category area with the primary objective of insuring maximum retention of land and wildlife in as near as possible to their natural state. Hunting, trapping, and commercial fishing will not be allowed.

3. Aniakchak Caldera National Monument. The proposed Aniakchak Caldera National Monument, which will include approximately 440,000 acres, lies on the Alaska Peninsula approximately 350 air miles south of Anchorage. The 30-square mile Aniakchak Caldera is one of the world's greatest dry volcanic caldera (craters), and contains many examples of volcanic activity, including lava flows, cinder cones, a lava plug, warm springs, explosion pits, and layers of volcanic and sedimentary rocks exposed by volcanic action. A rift running through the caldera has created portals in the caldera wall; the eastern portal is a spectacular 2,000-foot gash through which the Aniakchak River flows. Also included in the national monument are ash fields surrounding the caldera, tundra-covered lowlands, and portions of the Aleutian Mountain Range, and the Aniakchak River. The Aniakchak River is proposed by the legislation for designation as a component of the wild and scenic rivers system and classification as a wild river, pursuant to the Wild and Scenic Rivers Act.

The rivers and streams within the monument support abundant salmon, trout and many other fish. Brown bear and moose are found almost throughout the area. The coastal portion of the monument, including cliffs and off-shore islands, harbor sea lions, sea otters, seals, and sea birds.

4. Harding Ice Field-Kenai Fjords National Monument. The proposed Harding Ice Field-Kenai Fjords National Monument, consisting of about 300,000 acres, encompasses two major elements of the Alaska scene: a 700-square mile icecap, with outflowing glaciers, and a series of coastal fjords with abundant bird and marine life. It is located south of Anchorage, on the Kenai Peninsula, about 2 1/2 hours by car. The monument consists of three units and provision is made for including

a central area between the three units in the monument, as well, if all or part of this area is not selected by native corporations pursuant to the Alaska Native Claims Settlement Act. The two southern units of the monument will be administered jointly by the National Park Service and the Bureau of Sport Fisheries and Wildlife, pursuant to a cooperative agreement.

The high point of Harding Ice Field is 5,270 feet. Numerous glaciers flow outward from the icefield, some reaching the sea, others ending in large lakes, or on bare ground. Cirques, horns, morains, nunataks, and other glacial features can be seen. Of the 4 major icefields in the United States, Harding has the most expansive central area which is not broken by mountains and crevasses. The icecap-like appearance is awesome, providing the visitor a unique experience.

Glaciers from the icefield have cut deep fjords into the mountainous coast. Dense, rain forest-type vegetation cloaks the cliffs and mountains. Marine mammals and sea birds abound on these cliffs and in the fjords.

5. Cape Krusenstern National Monument. The proposed Cape Krusenstern National Monument, situated north of the Arctic Circle in northwestern Alaska, will protect an internationally significant series of archeological sites. The area proposed for the national monument, comprising approximately 350,000 acres, includes a level coastal plain dotted with sizable lagoons, which on the east meets an ancient sea cliff and low rolling hills. The area illustrates, in a horizontal stratigraphy of beach ridges that is unique in size and scope, every known cultural period in arctic Alaska; this succession of 114 gravel beaches extends from 1 1/2 to 3 miles inland. The area, which was ice-free in the late Pleistocene, may reveal information on the peopling of the Americas across the thousand-mile wide Bering Land Bridge. The land bridge is now partially under water.

The national monument, in addition to its archeological significance, will provide a representative segment of arctic coastal tundra, a type of ecosystem not now represented in the National Park System. The long term stability of the coast also makes the area significant for studies of sea level and coastal currents.

Management of the area will be to preserve evidence of prehistoric man and his environment for study by scientists and for other visitors. Developments will be minimal to preserve the overall scene and prevent damage to the fragile ecosystems.

6. Kobuk Valley National Monument. The proposed Kobuk Valley National Monument, comprising about 1,850,000 acres, is located above the Arctic Circle in the central Kobuk Valley in northwestern Alaska. It is bounded on the north by the crest of the Baird Mountains and on the south by the Waring Mountains. It includes the Kobuk River, with its myraid meander sloughs and oxbow lakes, the Great Kobuk Sand Dunes, covering more than 20 square miles that are the relics of a prehistoric dune area covering over 300 square miles, and the Salmon River. The Salmon River is proposed for inclusion in the wild and scenic rivers system, and classification as a wild river. The monument is representative of both the Western Interior Alaska and Brooks Range physiographic province, and includes the northwestern limits of boreal forest. The northern portion of the winter range of the Arctic caribou herd and several important migration routes lie within the proposal. Moose, black and grizzly bear, and wolves are indigenous.

Provision is made in the legislation for inclusion of those parts of the Onion Portage area that are not selected by native corporations pursuant to ANCSA as part of the monument; Onion Portage is one of the most important archeological sites in arctic North America, with over 30 cultural horizons.

The portion of the Kobuk Valley included in the monument has an appeal as a "friendly" place, which is rare for the arctic. Boating is safe and easy, and there is excellent hiking on the dunes and in the Waring Mountains. The Baird Mountains offer excellent mountaineering opportunities.

7. Lake Clark National Park. The proposed Lake Clark National Park, of approximately 2,610,000 acres, is located north of the existing Katmai National Monument on the Cook Inlet. It straddles the Alaska and Aleutian Mountain ranges, and includes a series of glacier-created lakes on the west. The National Park Service has been studying the area for possible addition to the park system since the late 1950's.

In the areas proposed for a national park, numerous valleys weave through a jumble of mountains. There is a maze of natural hiking routes, which permit surprisingly easy entrance to a spectacular mountain environment. The park encompasses still-smoking volcanoes, spectacular spires, and glaciers.

The park includes a portion of the Cook Inlet coastline, which ranges from gentle alluvial shapes in the north to deeply incised, spruce-covered coastal hills in the south.

Waterfowl, seabirds, trout, bear, moose, sheep and marine mammals can be found in the park. Plant communities range from coastal spruce and marsh to alpine meadows and lichen growth at high elevations.

We have had discussions with the Cook Inlet Regional Corporation regarding the possibility of exchanging at some future date land in the Kenai National Moose Range for land which they are entitled to select near the proposed Lake Clark National Park. Presently, the Bureau of Sport Fisheries and Wildlife and the Federal-State Commission are conducting studies of the Range to determine whether some of the land is no longer needed for the purposes of the Range.

Developments in the park will be located to maintain the ecological and scenic integrity of the area. The area will be managed as a natural area with the objective of preserving its scenic beauty, wilderness attributes, areas of scientific interest and plant and animal life.

8. Wrangell-St. Elias National Park. The proposed Wrangell-St. Elias National Park, including approximately 8,640,000 acres, is located in south-central Alaska, and stretches 160 miles north from the Gulf of Alaska. Much of the Wrangell-St. Elias and Chugach mountain ranges will be included in the park, including 18,000-foot Mount St. Elias 16,000-foot Mount Blackburn and the largest glacier system in the United States, including Malaspina and Bering glaciers and Bagley Ice Field. The park includes spectacular ice-sculptured valleys, rolling interior foothills, and a small sample of coastal plain. Abundant land and sea mammal and fish species include moose; wolf; wolverine; black, glacier and brown-grizzly bear; caribou; Dall sheep; sea lions; otters; seals; killerwhales; salmon; trout; and grayling. A number of historic sites from the early mining era in Alaska are located in the river valleys within and in the vicinity of the park.

The proposed legislation provides that the Secretary of Agriculture and the Secretary of the Interior shall consult in the development of management plans for the Wrangell Mountains National Forest and the adjoining Wrangell-St. Elias National Park to achieve the fullest possible coordination and cooperation.

The park would be managed to ensure maximum retention of the landscapes and lifeforms in a natural state.

9. Gates of the Arctic National Park. The proposed Gates of the Arctic National Park, comprising approximately 8,360,000 acres, is located in the central Brooks Range, 200 air miles northwest of Fairbanks, and a similar distance southeast of Barrow on the Arctic Ocean coast. The park will protect Alaska's most complete and varied array of arctic scenic and biologic resources. The area's scenic values derive from the gaunt grandeur of the tundra environment and the vast open valleys and sweeps of mountains.

Mount Igikpak, a spectacular turreted peak which is the highest in the central and western Brooks Range, (8,510 feet) is included in the western portion of the park, as are the Arrigetch Peaks, among America's most precipitous mountains, and Walker Lake, an exceptional geological and ecological area. Several other large lakes on the southern flank of the range are in the proposed park, as are two on the Arctic Slope. The eastern part of the park includes the striking mountain and valley formation called the Gates of the Arctic and other mountains and wilderness made famous in the writings of Bob Marshall. We are proposing four rivers within the park for inclusion in the wild and scenic rivers system, and classification as wild rivers -- the Alatna, the Killik, the Noatak, and the Tinayguk.

Wildlife includes migrants from the huge arctic caribou herd as well as grizzly bear, Dall sheep, moose, wolves, raptors, and arctic char, lake trout, northern pike and grayling.

Limited recreation development in keeping with the primitive character of the area appears to be appropriate for the central portion of the park. No developments except for those necessary for management purposes are planned for the eastern and western portions.

10. Yukon-Charley National Rivers. The proposed Yukon-Charley National Rivers, which comprises approximately 1,970,000 acres, is located in east-central Alaska, its eastern boundary the United States-Canadian border. It includes a part of the Yukon River, and the Charley River drainage in its entirety. The Charley River empties into the Yukon between the towns of Eagle and Circle, and this confluence is within the national rivers. The Yukon River area is rich in history. The town of Eagle, which is near the park boundary, has well-preserved buildings dating back to the gold-rush era, and there are a number of remains of buildings along the banks of the Yukon within the national rivers. There are also wildlife resources, including the highest known concentration of nesting peregrine falcons. Geologic features include an uninterrupted visible cross-section of rock strata dating from Upper Cambrian times (500 million years ago) to the present.

The Charley River basin is significant because of its undisturbed nature and its fine cross-section of interior Alaska flora and fauna. There is high potential for recreational boating on the Charley and for camping and hiking through the Charley River basin. The Charley River is recommended by the legislation for inclusion in the wild and scenic rivers system, and for classification as a wild river.

The proposed Yukon-Charley National Rivers will be managed as a recreation category area. Management will provide for protection of and use of recreational, historic and natural values. Along the Yukon River, mineral leasing under 1920 Mineral Leasing Act will be permitted, subject to certain special provisions and minerals normally subject to the mining laws may be removed pursuant to a permit system in the legislation.

11. Chukchi-Imuruk National Reserve. The proposed Chukchi-Imuruk National Reserve, comprising approximately 2,690,000 acres, is located on the Seward Peninsula in northwestern Alaska. The area is a relict of the much larger area which constituted the Bering Land Bridge. It is a superb representation of a great diversity of tundra communities. Wildlife values of the area are internationally significant; the wildlife are found in the wetlands, cliffs and estuaries, and offshore areas of the proposal. The area is also of interest because of the volcanic processes represented. Lava flows cover large areas in the southern part of the proposal. Ash explosion, unknown elsewhere in the arctic, have left deep crater lakes in the northern portion and buried, in near total preservation, a prehistoric ecosystem. The area will be managed jointly by the National Park Service and the Bureau of Sport Fisheries and Wildlife, pursuant to a joint management plan.

National Wildlife Refuge System

The proposed additions to the National Wildlife Refuge System are the results of investigations by the Bureau of Sport Fisheries and Wildlife. Enactment of these proposals would result in adding approximately 32 million acres to the National Wildlife Refuge System, presently estimated at 31 million acres. The areas would be administered as integral units of the National Wildlife Refuge System pursuant to the National Wildlife Refuge Administration Act of 1966 as amended (80 Stat. 927; 16 U.S.C. 668dd-ee), and would afford protection and preservation of nationally and internationally significant fish and wildlife populations and their habitats. Special emphasis is provided in these proposals to critical habitat areas of migratory birds, seabirds, endangered species, anadromous fish and marine mammals.

Within the framework of Federal and State laws, subsistence would be a recognized use of the fish, wildlife and plant resources in the refuges and the ranges. Refuge designation of proposed lands would not change laws applicable to existing subsistence, and authorized uses would continued until it is demonstrated that they are no longer necessary for human survival. Hunting, fishing and trapping will be allowed on the areas subject to applicable Federal and State laws. The Secretary of the Interior would be authorized, however, to regulate subsistence uses for such reasons as public safety and to prevent depletion of the resources and thereby insure sustained benefits for all Americans. Subject to valid existing rights, no use of the refuges and the ranges under United States mining and mineral leasing laws will be allowed without the express approval of the Secretary.

All areas, except the proposed "Noatak National Arctic Range, would be studied for possible inclusion in the National Wilderness Preservation System in accordance with subsection 3(c) and 3(d) of the Wilderness Act. A report would be made to the President and Congress within three years after establishment concerning their suitability or nonsuitability for classification as wilderness. Certain rivers within the proposed refuges and ranges which have been studied and found to be suitable would be designated for protection under the provisions of the Wild and Scenic Rivers Act (82 Stat. 906; 16 U.S.C. 1271-1287).

Special efforts will be made to coordinate management of fish and wildlife resources on the refuges and ranges with that of native and State-owned lands and other Federal lands within, adjacent to and related to the refuges and the ranges.

Alaska Coastal National Wildlife Refuges

This proposal to add approximately 65,000 acres to the National Wildlife Refuge System includes several hundred rock islands, spires and cliffs located along, 1,500 miles of Alaskan coast. Two of the proposed refuges will be additions to existing refuges--the Bering Sea National Wildlife Refuge and the Kodiak National Wildlife Refuge—and the rest will go into three new refuges--Chukchi Sea, Shumagin Islands, and Barren Islands National Wildlife Refuges.

It is estimated that the nesting sites of four to six million seabirds are included within the land areas of this proposal. In addition to seabird nesting, all the units are important to one or more species of marine mammals including sea lions, walrus, sea otters and polar bears.

Commercial fisheries are of prime economic importance in the area below the Alaska Peninsula. Convention agreements permit international fishing zones to located adjacent to the Shumagin Islands, Kodiak and Barren Islands units. Zones permitting loading and unloading of fish, fuel, and supplies are also located adjacent to the Shumagin Islands and Barren Islands units.

Arctic National Wildlife Refuge

Located in the northeast corner of Alaska, extending along the Canadian border from the Yukon basin to the Arctic Ocean, this proposal would establish a 3.76 million acre Arctic National Wildlife Refuge, and the existing 8.9 million acre Arctic National Wildlife Range withdrawn in 1960 by Public Land Order No. 2214 would be added to the refuge.

The magnitude and diversity of habitats account for the variety of fish and wildlife resources within the area. Nearly 130 species of migratory birds use these habitats. Also, 44 species of mammals depend upon the land base for their existence. Thirty-one species of waterfowl frequent tundra wetlands and adjacent coastal waters.

The area is a major migratory route for a variety of shorebirds and waterfowl. Birds from all four continental flyways follow inland routes and the Arctic coastal route to winter ranges around the world. Thousands of snow geese forage inland on the tundra in late summer and early fall during their annual migration. Of special interest are the endangered peregrine falcon, and possibly the Eskimo curlew which many fear is extinct.

The calving grounds of the Porcupine caribou herd (as many as 150,000 animals) are entirely within the existing Arctic National Wildlife Range and are of international importance.

Sixteen species of fish occur within the proposal including arctic grayling, anadromous and landlocked populations of arctic char, lake trout, chum salmon, northern pike, burbot and whitefish. Though no commercial fisheries exist, all species are important for subsistence use.

Iliamna National Resource Range

The proposed Iliamna National Resource Range includes approximately 2.85 million acres of land and water located on the northern end of the Alaska Peninsula between Cook Inlet and Bristol Bay.

The terrain is diversified and includes heavily glaciated mountains, alpine-like meadows, coastal bays, and numerous ponds and lakes. Lake Iliamna, in the heart of the region, is the seventh largest freshwater lake in the United States.

The Kvichak River system contains the greatest red salmon spawning grounds in the world and sustains a world-renowned freshwater trophy sport fishery. Kvichak River, which flows from Lake Iliamna to Bristol Bay has a watershed of 8,000 square miles, is 68 miles long, and has an estimated flow of 18,000 cubic feet per second. During the period 1960 through 1969, the Kvichak drainage contributed 55 percent of the red (sockeye) salmon caught in Bristol Bay, 33 percent of entire U.S. catch, and 16 percent of the world catch. The whole sale value of this commercial sockeye salmon fishery has averaged more than $12,000,000 per year over the past ten years. In addition to the red salmon, pink, chum, king, and coho are also found within the proposal boundaries. The area supports a trophy sport fishery for grayling, arctic char, Dolly Varden, lake trout, rainbow trout, and pike, The fishery is the main economic resource of the area,

supporting extensive subsistence fishing, 4,000 licensed commercial fishermen, 4,000 to 6,000 support workers for the fishermen, 23 canning lines, several salteries and freezing facilities, and an array of small businesses supported by the sport fishery--guiding operations, lodges and transportation services.

More than 100 species of birds inhabit the area. Predatory birds include the bald eagle, peregrine falcon, osprey, and gyrfalcon, and Bristol Bay is the staging area for the entire world population of emperor geese and Pacific black brant.

The area would be added to the National Wildlife Refuge System and managed jointly by the Bureau of Sport Fisheries and Wildlife and the Bureau of Land Management of this Department pursuant to a cooperative management plan which will permit only such multiple use activities as are compatible with the protection and management of the nationally and internationally significant fish and wildlife resources of the range.

Koyukuk National Wildlife Refuge

Two units of land in the Koyukuk-Innoko area of Alaska are recommended to be set aside as the Koyukuk National Wildlife Refuge.

The area produces an annual fall flight averaging over 80,000 ducks and geese, and is an important staging area for other migratory birds. One hundred and forty bird species are common in the area. In addition, the many lakes and streams make the area prime habitats for furbearing animals, as well as moose, and salmon.

The Beaver Mountains caribou herd, made up of 3,000 animals, winters in the Innoko Unit. Black bear, grizzly bear, and moose inhabitat both units. Forty percent of the entire Alaskan beaver catch is harvested in the Koyukuk-Innoko region, with approximately 80 percent of this catch from the Innoko Unit.

Noatak National Arctic Range

The Noatak National Arctic Range is proposed for addition to the National Wildlife Refuge System in northwestern Alaska for the protection of two major actic valley ecosystems, now virtually unaffected by civilization.

Two river basins are proposed for inclusion in the Range, the Noatak and the Squirrel. The Noatak River rises in the central Brooks Range and flows westward for 450 miles to the sea at Kotzebue Sound. The Squirrel, 57 miles long and draining the Baird Mountains adjacent to the Noatak on the South, is the largest tributary of the Kobuk River.

Wildlife in the proposed range include the more than 200,000 migrants from the Arctic caribou herd (Alaska's largest), the barren-ground grizzly bear, Dall sheep, moose, wolves, wolverines, and migratory birds, including waterfowl, raptors, and several Asian species. The Noatak supports the most northerly major chum salmon run in Alaska and is noted also for arctic char.

The area will be added to the National Wildlife Refuge System and managed jointly pursuant to a cooperative management plan by the two Bureaus. In addition, the National Park Service will perform certain advisory functions. The management plan will provide for the protection of the natural features of the area, for scientific research, enhancement of aboriginal cultural uses and primitive types of low density outdoor recreation. Our proposal calls for a report to Congress on future administration and management of the area within twenty years of its establishment.

Selawik National Wildlife Refuge

Approximately 1.4 million acres in the Selawik Lake area of Alaska is recommended for designation as the Selawik National Wildlife Refuge. The Chamisso National Wildlife Refuge, established in 1940 by Proclamation no. 2416 will be redisignated as part of the Selawik National Wildlife Refuge and added to the refuge.

The proposal, located on the Arctic Circle, is 200 miles west-north west of Fairbanks. The Selawik River is the main water course within the proposal. The many forms of wildlife, especially migratory waterfowl of international significance are perhaps the region's greatest natural resource. The proposed refuge produces about a third of the waterfowl within the region; a majority of the remainder, including all the black brant, cackling Canada geese, emperor geese and eiders, are produced in the adjacent areas. The Eskimo curlew, thought to be extinct or nearly so, was formerly an abundant nester in this region and may yet be found in the area.

Mammals include black and grizzly bear, wolves, wolverine, moose, and arctic fox; more than 50 species are represented. A large part of the 240,000 caribou of the Arctic herd winters along the Selawik drainage. Marine mammals, including whales, seals, and walruses, are found in the coastal waters adjacent to the refuge.

Fish species present in the area include whitefish, cisco, grayling, Dolly Verden, and lake trout. Anadromous species include silver, chum, king, and pink salmon.

Togiak National Wildlife Refuge

A 2.74 million acre area of coastal mountains between Bristol Bay and Kuskokwim Bay in southwestern Alaska is proposed for designation as the Togiak National Wildlife Refuge. The area is 400 miles west of Anchorage and is adjacent to the precipitous rock cliffs of Cape Newenham National Wildlife Refuge, one of the most important nesting areas for seabirds in Alaska. This 247,700 acre refuge will be added to the Togiak National Wildlife Refuge.

The area is the crossroads for waterfowl and shorebirds coming from wintering areas through the Pacific Ocean. Birds from the Asiatic route, mid-Pacific route, and the North American Pacific Flyway funnel through the area. The coastal zone is the breeding ground for all types of migrating waterbirds.

The proposed refuge has one of the most diverse mammalian faunas of any area in the State with 32 species of land mammals. In addition, walrus, sea lions, and 4 species of seals occur in the adjacent coastal waters and occasionally haul out on the shores of the proposed refuge.

The many rivers and lakes in the proposed refuge contain abundant stocks of anadromous and resident fishes. Anadromous fish of interest include whitefish, steelhead, and king, sockeye, coho, pink, and chum salmon. Resident species include rainbow, Dolly Verden, and lake trout, arctic grayling, and arctic char.

Yukon Delta National Wildlife Refuge

The alluvial deposits of the Yukon and Kuskokwim Rivers have, through the centuries, formed a vast river delta stretching 250 miles north to south and 200 miles east to west. This flat and nearly treeless delta contain typical arctic tundra in which have formed thousands of ponds and lakes varying in size from less than an acre to many thousands of acres. Approximately 5.16 million acres of the Yukon-Kuskokwim River Delta area of Alaska, including the 2.8 million acre Clarence Rhode National Wildlife Refuge, are recommended for designation as a National Wildlife Refuge.

The Delta produces about 80 percent of the swans and nearly all of the white-fronted geese utilizing the Pacific Flyway; also more than half of the continental population of black brant, 80 percent of the emperor geese, and nearly all of the cackling geese are produced in this area. No other area of similar size is known to be as critical to so many species.

Most of the mammals common in Alaska, except the high mountain species, are represented. Forty-three species have been noted, though populations are not great. Marine species historically have been a major element in the subsistence economy of residents in the coastal villages.

The large fishery resource of the Delta is the primary factor which permitted development of the large aboriginal population in the region; subsistence and commercial fisheries are major elements in the present economy of the area. The 1972 commercial catch totalled 6.5 million pounds of king, chum, sockeye, pink and, silver salmon and migrating smelt.

Yukon Flats National Wildlife Refuge

Approximately 3.59 million acres of the Yukon River Valley in east central Alaska, are recommended for designation as a National Wildlife Refuge. The unit, a level flood plain basin bisected by the Yukon River and ringed with highlands, occupies the western half of the largest of Alaska's interior valleys.

Water is the dominant natural feature of the Yukon Flats region which contains more than 25,000 miles of streams and approximately 40,000 small lakes and ponds eccompassing over 800,000 acres. One hundred and thirty species of birds have been identified on the Yukon Flats. Twenty species of the waterfowl nest on the proposed refuge and contribute about 720 thousand birds each year to Canada, the United States, and Mexico. The density of nesting ducks is estimated at 99 per square mile, greater than any other large area in Alaska.

Fish resources include both anadromous and resident species. Little commercial use is made of the fishery resource as far upstream as the Yukon Flats. The fish habitat of the area is essential to anadromous species harvested commercially in the lower reaches of the river and to the Bering Sea salmon fishery.

National Forest System

Title III of this proposal would designate three new National Forest units -- the Porcupine (5.5 million acres), the Yukon-Kuskokwim (7.3 million acres), and the Wrangell Mountains (5.5 million acres). In addition, the draft legislation would provide for addition of 500,000 acres of the existing Chugach National Forest to consolidate the Forest boundaries.

The proposed legislation would also designate, within the above units, all or portions of the Bremner, Porcupine, Nowitna and Sheenjek Rivers as components of the National Wild and Scenic Rivers System.

The areas recommended for inclusion in the National Forest System are those withdrawn areas which have (1) nationally significant values that should be retained in public ownership to assure permanency of protection and continuity of management and (2) the resources offer a balance of uses that would be better managed under multiple use principles than under a dominant or more limited combination of uses. In addition, it was deemed necessary that the areas be in manageable units such as those delineated by drainages, ecological relationships, or existing or proposed transportation systems.

The 1960 Multiple Use-Sustained Yield Act is the basic mandate for administration and management of the National Forests. The Act directs that the National Forests are established and are to be administered for outdoor recreation, range, timber, watershed and wildlife and fish purposes.

The establishment and maintenance of areas of wilderness are consistent with the purposes of the Multiple Use-Sustained Yield Act. The Forest Service intends to consider wilderness along with other resources in its multiple use planning process. It expects to propose and identify wilderness study areas within three years after the establishment of the proposed National Forests.

In accordance with the general mining laws, exploration and development of "locatable" minerals would be permitted. These laws allow individuals to prospect, locate, mine and remove minerals and to obtain patents to valid claims. These authorized activities are subject to National Forest rules and regulations containing appropriate environmental safeguards.

Chugach National Forest

Two isolated areas, formerly in public domain but adjacent to the Chugach National Forest are proposed as additions to the National Forest System. These areas were formerly public domain isolated by the Forest Reserve proclamations of the early 1900's because of their lack of commodity resources.

The College Fiord is 161 thousand acres in Prince William Sound. An icy and mountainous hinterland rising from sea level to over 10,000 feet, it is mostly rock and ice with 17 glaciers. Rainfall varies from 150 to 300 inches annually. Scant vegetation consists of a near sea level fringe of sitka spruce, cottonwood and mountain hemlock grading upward through alder thickers to alpine mats and heath.

The Sargent Ice Field or Nellie Juan unit is a 276 thousand acre block on the Kenai Penisula northeast of Seward. Principally ice and mountain tops, glaciers feed the Nellie Juan river which flows through a glacier-carved valley into Prince William Sound at King's Harbor. The area's vegetation is alpine tundra except for scattered riparian growth in the river flood plains and occasional mountain hemlock.

Porcupine National Forest

This 5.5 million acre proposal for the Porcupine National Forest is located in the eastcentral part of the Alaska Interior. A combination of broad river flats and low-lying hills, the area is endowed with many lakes and waterways. North America's fourth longest river, the Yukon, is joined by the Porcupine flowing west from Canada. Out of the Brooks Range to the north, spring the Rapid, Sheenjek and Coleen while the Black and Little Black meander through, draining the southeast portion of the unit. The area is characterized by extreme seasonal variations in climate. The northern half, above the Arctic Circle, experiences the summer's midnight sun and winter's prolonged darkness. Seventy percent forested, many of the area's seven ecosystems result from succession following riverbottom changes and forest fires.

The Porcupine proposal contains the eastern extension of the Yukon Flats, a major waterfowl breeding area. Upland wildlife, big game and important fisheries habitat exist. Sportfishing, hunting and river and lake oriented activities could provide the greatest recreation experiences in this area.

The densely forested area includes 750 million board feet of commercially valuable sawtimber as well as being highly valued for wildlife habitat and watershed protection. Old Indian sites and the rich history of the Hudson's Bay company lend romance to the area. These sites will be protected and archeological studies encouraged.

Wrangell Mountain National Forest

The proposed Wrangell Mountains National Forest, an area of 5.5 million acres, is located in southeastern interior Alaska. With some of the most spectacular mountain country in North America, it includes parts of the Wrangell Mountains, the coastal Chugach Mountains and the eastern tip of the Alaska Range. Rugged peaks rise to 16,000 feet in elevation and large ice fields feed massive glaciers. The Copper River courses south through a portion of the unit and drains most of the central and southern parts. The Chitina and Bremner Rivers are important tributaries. The climate is a typically subarctic continental with long cold winters, short warm summers, and precipitation which is low in the valleys and high in the mountains. Ten ecosystems and related vegetation types are represented. These range from the coastal coniferous forests to the high alpine tundra. Most of the area exhibits effects of glaciation, and permafrost is common. The Wrangells unit is one of the more road accessible areas in Alaska. Light planes are also a major means of access.

Forests cover about 30 percent of the area and are chiefly valued for watershed protection, wildlife habitat, and recreational opportunities. Major stream and river systems stemming from the vast mountain-glacier complex of the Wrangell and Chugach Ranges provide many water-based resource values. Of exceptional importance are habitat for wildlife and fish, water oriented recreation.

Yukon-Kuskokwim National Forest

Spanning the middle Yukon and Kuskokwim River Valleys, this 7.3 million acre area is proposed as the Yukon-Kuskokwim National Forest. Lying across the Kuskokwim Mountains on the north and flanked by the Alaska Range on the south, the area contains extensive forests, shrub thickets, bogs and marshes and other ecosystems of the subarctic. Characterized

by winters of extended subzero temperatures and summers in the mid 70's or above, this area experiences a brief, but productive growth cycle. Summer drought contributes to a pattern of frequent wildfire.

Over three-fourths of this area is forested, and commercial timber stands occur on more than one million acres. Providing up to two billion board feet of timber, this area, combined with surrounding ownerships could support a major forest products industry.

Wild and Scenic Rivers Located Outside of Units of the National Park, Refuge and Forest Systems

Title IV of the enclosed legislation proposes four river segments for addition to the wild and scenic rivers system that are not located within units of the park, refuge and forest systems. These four river segments are on public domain lands and will be administered by the Bureau of Land Management.

The river components are as follows:

1. Beaver Creek -- a 135-mile segment, totalling 200,000 acres, to be classified as a wild river. The river is located 50 miles north of Fairbanks, between Fairbanks and Circle. The river is excellent canoeing water and provides good fishing and hunting opportunities. The limestone peaks of the White Mountains form an almost continuous scenic background. Large mammals abound.

2. Birch Creek -- a 135-mile segment, totalling 200,000 acres, to be classified as a wild river. The river is located approximately 65 miles northeast of Fairbanks, between Fairbanks and Circle. There are numerous sites for camping and the river is an excellent family canoeing stream throughout. Good fishing and hunting opportunities are present. The river flows through a wide valley with moderately steep forested slopes. As Birch Creek flows into the Yukon flats, it becomes a slow, meandering river.

3. Fortymile -- approximately 375 miles, including tributaries, totalling 320,000 acres, to be classified variously as wild, scenic and recreational. The river segment is located in east-central Alaska and runs up to the Canadian border. The river and tributaries vary in the headwaters from small, shallow, swift streams, to meandering muskeg and become large, canyon-bound streams with numerous rapids in the middle and lower portions. Portions show evidence of placer gold mining and early settlements. Recreational gold mining can be tried with some probability of success. Hunting, fishing and canoeing are good. Hiking and camping opportunities abound.

4. Unalakleet -- approximately 60 miles, totalling 104,000 acres, to be classified as a wild river. The river is located south of the Seward Peninsula and empties into Norton Sound; the downstream river segment boundary is approximately 24 miles above the mouth. The Unalakleet Valley is generally four to five miles wide. Bluffs characterize some 20 miles of the Unalakleet before it widens to 500 feet near its mouth. Dense stands of white spruce along the

shore screen the view of adjacent areas. The river is renowned for its sport fishing. King, chum, and pink salmon; grayling; and arctic char are excellent. There is also hunting, primarily for moose, with some caribou and bear, along the river. The Kaltag Trail passes along the south side of the river; it is a link in the historic 1000 mile Iditarod Gold Rush Trail between Nome and Anchorage; the existing trail will be preserved.

The legislation provides that the Secretary shall take action required under section 3(b) -- designating exact boundaries and preparing development plans -- within three years after date of enactment for the Beaver Creek component, within two years for Birch Creek, within one year for Fortymile and within four years for Unalakleet. It also provides that the total acreage figures for specific components specified in the bill will supercede the acreage limitations contained in the Wild and Scenic Rivers Act. All of the acreage of the wild river components is withdrawn, subject to valid existing rights, from all forms of appropriation under the mining laws and from operation of the mineral leasing laws. Existing law limits these withdrawals to 1/4 mile from the bank of the river. Specific provision is made for such access across the Fortymile as the Secretary determines to be necessary to permit development of asbestos deposits in the North Fork drainage.

The Office of Management and Budget has advised that this legislative proposal is in accord with the program of the President.

Sincerely yours,

Rogers C.B. Morton

Secretary of the Interior

Enclosure

93D CONGRESS
2D SESSION

S. 2917

IN THE SENATE OF THE UNITED STATES

JANUARY 30, 1974

Mr. JACKSON (for himself and Mr. FANNIN) (by request) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

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A BILL

To provide for the addition of certain lands in the State of Alaska to the National Park, National Wildlife Refuge, National Forest, and the Wild and Scenic Rivers Systems, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, having reviewed the recommendations of the Secretary of the Interior made pursuant to sections 17(d)(1) and 17(d)(2) of the Alaska Native Claims Settlement Act (85 Stat. 688) for addition of certain lands in Alaska to the National Park, Forest, Wildlife Refuge, and Wild and Scenic Rivers Systems, the Congress designates and estab-

lishes new units and additions to existing units of those systems, subject to the provisions of the following titles.

SEC. 2. This Act may be cited as the "Alaska Conservation Act of 1974".

TITLE I—NATIONAL PARK SYSTEM

PART A—ADDITIONS TO EXISTING AREAS

MOUNT MCKINLEY NATIONAL PARK

SEC. 101. (a) In order to include within Mount McKinley National Park (hereinafter referred to in this section as the "park") certain areas needed to provide a diversity of habitat, insure the preservation of animal ecosystems, and protect and interpret associated scenic resources and glacial features, the boundary of the park is hereby revised to include, subject to valid existing rights, the lands, waters, and interests therein depicted as within the proposed boundary of the park on the map entitled "Mount McKinley National Park", numbered 126–90–001, and dated December 1973, which additional area comprises approximately three million one hundred and eighty thousand acres.

(b) Section 4 of the Act of February 26, 1917 (39 Stat. 938; 16 U.S.C. 350), is repealed. Section 2 of the Act of January 26, 1931 (46 Stat. 1043; 16 U.S.C. 350a), is revised to read as follows: "The Secretary of the Interior shall have authority to prescribe regulations for the surface

use of any valid mining locations made within the boundaries of Mount McKinley National Park.".

(c) Section 6 of the Act of February 26, 1917 (39 Stat. 939), as amended (16 U.S.C. 352), is further amended by changing the period at the end thereof to a comma, and adding the following: "or for subsistence uses in areas added to the park by the Alaska Conservation Act of 1974 pursuant to section 108 of that Act.".

(d) In furtherance of the purposes set forth in subsection (a) of this section, the area adjacent to the south and east boundary of the park generally depicted on the map referred to in subsection (a) as "Cooperative Planning and Management Zone" is hereby designated as a zone within which resource use and development are critical to the proper protection, management, and interpretation of the park. Not later than three years from the date of enactment of this title, the Secretary of the Interior (hereinafter referred to as the "Secretary") shall submit a report to the Congress as to whether land-use controls needed for the proper protection, management, and interpretation of the park have been instituted effectively with respect to the designated zone by the State of Alaska or an appropriate political subdivision thereof. The Secretary shall solicit the views of the Governor of the State of Alaska and of the Joint Federal-State Land Use Planning Commission for Alaska

on his report, and he shall submit any such views to the Congress at the time the report is submitted.

KATMAI NATIONAL PARK

SEC. 102. (a) In order to include therein certain areas needed for the protection of critical animal habitat, including a watershed necessary for the perpetuation of red salmon and a habitat to protect a population of brown bear, and for the interpretation and preservation of outstanding scenic and scientific values associated with such habitats, the boundary of Katmai National Monument, as established by Proclamation Numbered 1487 of September 24, 1918 (40 Stat. 1855), and revised by Proclamation Numbered 1949 of April 24, 1931 (47 Stat. 2453), Proclamation Numbered 2564 of August 4, 1942 (56 Stat. 1972), and Proclamation Numbered 3890 of January 20, 1969 (83 Stat. 926) is hereby revised to include, subject to valid existing rights, the lands, waters, and interests therein depicted as within the proposed boundary of the park on the map entitled "Katmai National Park", numbered 127–90–001, and dated December 1973, which additional area comprises approximately one million eight hundred and seventy thousand acres.

(b) The Katmai National Monument is hereby redesignated as Katmai National Park.

PART B—ESTABLISHMENT OF NEW AREAS

SEC. 103. (a) In order to protect and interpret for the benefit, inspiration, and education of present and future generations the scenic, scientific, biological, archeological, and historical values associated therewith, there are hereby established, subject to valid existing rights—

(1) Aniakchak Caldera National Monument, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national monument on the map entitled "Aniakchak Caldera National Monument", numbered NM–AC–90,001, and dated December 1973, which area comprises approximately four hundred and forty thousand acres;

(2) Harding Ice Field-Kenai Fjords National Monument, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national monument on the map entitled "Harding Ice Field-Kenai Fjords National Monument", numbered NM–HI/KF–90,001 and dated December 1973, which area comprises approximately three hundred thousand acres: *Provided,* That the Secretary may revise the monument boundary to include any lands,

waters, and interests therein depicted on such map as within the area marked "Potential additions" if such lands, waters, and interests therein are not selected by native corporations pursuant to the Alaska Native Claims Settlement Act;

(3) Cape Krusenstern National Monument, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national monument on the map entitled "Cape Krusenstern National Monument", numbered NM–CK–90,001, and dated December 1973, which area comprises approximately three hundred and fifty thousand acres;

(4) Kobuk Valley National Monument, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national monument on the map entitled "Kobuk Valley National Monument", numbered NM–KV–90,001, and dated December 1973, which area comprises approximately one million eight hundred and fifty thousand acres: *Provided,* That, any lands within the Onion Portage Archeological District, as depicted on such map, not selected by a Native corporation pursuant to the Alaska Native Claims Settlement Act shall become part of the national monument;

(5) Lake Clark National Park, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national park on the map entitled "Lake Clark National Park", numbered NP–LC–90,001, and dated December 1973, which area comprises approximately two million six hundred and ten thousand acres;

(6) Wrangell-Saint Elias National Park, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national park on the map entitled "Wrangell-Saint Elias National Park", numbered NP–WSE–90,-001, and dated December 1973, which area comprises approximately eight million six hundred and forty thousand acres;

(7) Gates of the Arctic National Park, the boundaries of which shall include the lands, waters, and interests therein depicted as within the proposed boundaries of the park on the map entitled "Gates of the Arctic National Park", numbered NP–GA–90,001 and dated December 1973, which park comprises approximately eight million three hundred and sixty thousand acres;

(8) Yukon-Charley National Rivers, the boundary of which shall include the lands, waters, and interests

therein depicted as within the proposed boundary of the national rivers on the map entitled "Yukon-Charley National Rivers", numbered NR–YC–90,001, and dated December 1973, which area comprises approximately one million nine hundred and seventy thousand acres.

(9) Chukchi-Imuruk National Reserve, the boundary of which shall include the lands, waters, and interests therein depicted as within the proposed boundary of the national reserve on the map entitled "Chukchi-Imuruk National Reserve", numbered NR–CI–90,001, and dated December 1973, which area comprises approximately two million six hundred and ninety thousand acres.

(b) The boundary maps referred to in part A of this title and this part shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior; the maps entitled "Chukchi-Imuruk National Reserve" and "Harding Ice Field–Kenai Fjords National Monument" shall also be on file at the Bureau of Sport Fisheries and Wildlife, Department of the Interior. In no event shall the boundary of any area added to existing areas or established by part A of this title or this part extend beyond the territorial sea.

PART C—GENERAL ADMINISTRATION PROVISIONS

ADMINISTRATION

SEC. 104. (a) The Secretary shall administer the lands, waters, and interests therein added to existing areas or established by the foregoing sections of this title as areas of the national park system, subject to the applicable provisions of this title and the Act of August 25, 1916 (39 Stat. 535 et seq.), as amended and supplemented (16 U.S.C. 1 et seq.).

(b) The Secretary of Agriculture and the Secretary of the Interior shall consult in the development of management plans for the Wrangell Mountains National Forest and the adjoining Wrangell-Saint Elias National Park to achieve the fullest possible coordination and cooperation. In addition, the Secretary of Agriculture shall, in cooperation with the Secretary of the Interior, select and develop one or more areas along the Alaska Highway between the Canadian border and the village of Northway, Alaska, together with other interested public agencies, for public use, administration, interpretation, and other provision of facilities. Funds appropriated for purposes of this title shall be available for the development and operation of such facilities.

BOUNDARIES, ACQUISITION OF PROPERTY

SEC. 105. Following reasonable notice in writing to the Committees on Interior and Insular Affairs of the Senate and House of Representatives, and after publication of notice in the Federal Register, the Secretary may make minor revisions in the boundaries of the areas added to existing areas or established by parts A and B of this title, including revisions to include within the boundaries such additional lands as are necessary for administrative sites but such administrative sites shall not exceed eighty acres for any one area added to existing areas or established by parts A and B. Within the boundaries of the areas added to existing units or established by parts A and B of this title, or as such boundaries may be revised pursuant to this section, the Secretary is authorized to acquire lands, waters, and interests therein by donation, purchase, or exchange, except that property owned by the State of Alaska or any political subdivision thereof may be acquired only by donation or exchange, and property owned by any Native village or corporation may be acquired only with the concurrence of such owner.

APPLICABILITY OF MINING AND MINERAL LEASING LAWS

SEC. 106. (a) Except as provided in subsection (b) of this section, Federal lands within the boundaries of the areas added to existing units or established by parts A and B

of this title, or as such boundaries may be revised pursuant to section 105 of this part, as well as Federal lands within the boundaries of Mount McKinley National Park as of the date of enactment of this title, are, subject to valid existing rights, hereby withdrawn from location, entry, and patent under the public land laws of the United States, including from all forms of appropriation under the United States mining laws, and from operation of the mineral leasing laws including, in both cases, amendments thereto. Any mining claims located under the mining laws of the United States within the boundaries of those areas withdrawn pursuant to this subsection must be recorded with the Secretary under regulations established by the Secretary within one year after the effective date of such regulations. Any mining claim not so recorded shall be conclusively presumed to be abandoned and shall be void. Such recordation will not render valid any claim which was not valid on the effective date of this title, or which becomes invalid thereafter. Any claim recorded pursuant to the regulations promulgated under this subsection, for which the claimant has not made application for a patent within three years from the date of recordation, shall be presumed to be invalid unless the claimant presents to the Secretary clear evidence of its validity.

(b) Lands outside the Charley River watershed which are within the Yukon-Charley National Rivers, are not with-

drawn from operation of the mineral leasing laws, including amendments thereto, and the Mineral Leasing Act of February 25, 1920, as amended and supplemented (30 U.S.C. 181–263), shall apply to them: *Provided*, That, the Secretary may administratively cancel any lease or prospecting permit for violations of the terms of the lease or permit or of regulations issued pursuant to the Mineral Leasing Act of February 25, 1920, without regard to the requirements of section 31 of such Act (30 U.S.C. 188), after thirty days' notice to the lessee or permittee and failure of the lessee or permittee to correct the condition giving rise to the breach. With respect to mineral deposits located within such lands normally subject to location, entry, and patent under the mining laws and withdrawn pursuant to subsection (a) of this section, the Secretary may issue permits for the exploration and development of said deposits.

SPORT HUNTING

SEC. 107. (a) Subject to subsection (b) of this section, and except as may otherwise be prohibited by Federal or State law, the Secretary shall permit sport hunting on

lands and waters under his jurisdiction within the areas established by paragraphs (a) (1) and (a) (5)-(9) of section 103 of this title in accordance with such regulations as he shall prescribe. Such regulations may include the establishment of limits on the numbers and types of species that may be taken and the manner of taking, or prohibit takings. The Secretary may, however, designate zones where, and establish periods when, no sport hunting shall be permitted in any such area for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment, and except in emergencies, any regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate fish and game agency of the State of Alaska.

(b) With regard to the area referred to in section 103 (a) (1) of this title, the Secretary shall permit sport hunting only in the townships described as follows:

Seward Meridian (Protraction Description)

(All Fractional)

Township 38 south, range 51 west.

Township 39 south, range 51 west.

Township 39 south, range 52 west.

Township 40 south, range 52 west.

Township 40 south, range 53 west.

Township 40 south, range 54 west.

Township 41 south, range 51 west.

Township 41 south, range 52 west.

Township 41 south, range 53 west.

Township 41 south, range 54 west.

(c) Not later than ten years from the date of enactment of this title, and continuing at intervals of not more than five years after the submission of the first such report, the Secretary shall report to the Congress on the effect of all hunting, fishing, and trapping, including subsistence uses, on the flora and fauna within each area added to existing units or established by parts A and B of this title, and shall recommend whether any or all of such uses shall be continued.

SUBSISTENCE USES

SEC. 108. Except as may otherwise be prohibited by Federal or State law, the Secretary shall permit the continuation of such subsistence uses of the fish, wildlife, and plant resources within the areas added to existing units or established by parts A and B of this title to the extent that such uses were in effect on the date of enactment of the Alaska Native Claims Settlement Act. Such uses shall continue unless the Secretary determines that particular uses are materially and negatively affecting the fish, wildlife, or plant resources of such areas: *Provided*, That, for such reasons as public safety, administration, fish and wildlife management, or public use and enjoyment, the Secretary may, by regula-

tion, prescribe conditions under which such subsistence uses shall be conducted including, but not limited to, prohibitions on takings, and the establishment of limits on the number and type of resources taken, and the season when and area within such areas where subsistence activities can be undertaken. Regulations promulgated pursuant to this section shall be put into effect only after consultation with the appropriate fish and game agency of the State of Alaska.

COOPERATIVE AGREEMENTS

SEC. 109. (a) The Secretary is authorized to cooperate and seek agreements with the heads of other Federal agencies and the owners of lands and waters within, adjacent to, or related to each area added to existing units or established by parts A and B of this title, including, without limitation, the State of Alaska or any political subdivision thereof, any Native corporation, village, or group having traditional cultural or resource-based affinities for such areas, and, with the concurrence of the Secretary of State, the governments of foreign nations. Such agreements shall have as their purpose the assurance that resources will be used, managed, and developed in such a manner as to be consistent with the preservation of the environmental quality of such areas. The agreements may also provide for access by visitors to the park system units to and across the lands which are the subject of the agreements.

(b) The head of any Federal agency, other than agencies that are parties to cooperative agreements pursuant to subsection (a) of this section, having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in the lands and waters within, adjacent to, or related to areas added to existing units or etablished by parts A and B of this title, and the head of any Federal department or interdepartmental agency, other than parties to such agreements, having authority to license any undertaking in such lands and waters shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, afford the Secretary a reasonable opportunity to comment with regard to such undertaking.

WILDERNESS REVIEW

SEC. 110. Within three years from the date of enactment of this title, the Secretary shall report to the President, in accordance with subsections 3 (c) and 3 (d) of the Wilderness Act (78 Stat. 892; 16 U.S.C. 1132 (c) and (d)), his recommendations as to the suitability or nonsuitability of any area added to existing units or established by parts A and B of this title for preservation as wilderness; any designation of any such area as wilderness shall be accomplished in accordance with said subsection of the Wilderness Act. Notwithstanding anything to the contrary in the Wilderness Act,

the Secretary shall, with respect to Mount McKinley National Park, report to the President his recommendations as to the suitability of any area within the entire park within three years and from the date of enactment of this title.

PART D—WILD AND SCENIC RIVERS

DESIGNATION

SEC. 111. Section 3(a) of the Wild and Scenic Rivers Act (82 Stat. 907), as amended (16 U.S.C. 1274(a)), is further amended by adding the following new paragraphs:

" . ALATNA, ALASKA. The seventy-five mile portion of the main stem within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior.

" . ANIAKCHAK ALASKA.—The entire river, including its major tributaries, Hidden Creek, Mystery Creek, Albert Johnson Creek, and North Fork Aniakchak River, within the Aniakchak Caldera National Monument; to be administered by the Secretary of the Interior.

" . CHARLEY, ALASKA.—The entire river, including its major tributaries, Copper Creek, Bonanza Creek, Hosford Creek, Derwent Creek, Flat-Orthmer Creek, Crescent Creek, and Moraine Creek, within the Yukon-Charley National Rivers; to be administered by the Secretary of the Interior.

" . KILLIK, ALASKA.—The entire river, including its

major tributary, Easter Creek, within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior.

" . NOATAK, ALASKA.—The sixty-five mile segment within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior.

" . SALMON, ALASKA.—The entire river within the Kobuk Valley National Monument; to be administered by the Secretary of the Interior.

" . TINAYGUK.—The entire river, and the North Fork of the Koyukuk, within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior."

ADMINISTRATIVE PROVISIONS

SEC. 112. (a) The river segments designated in section 111 of this title are hereby classified and designated, and shall be administered, as wild river areas pursuant to the Wild and Scenic Rivers Act.

(b) The provisions of subsection 3 (b) and section 6 of the Wild and Scenic Rivers Act shall not apply to the river segments listed in section 111 of this title. The provisions of sections 107 and 108 of this title shall supersede those of section 13 (a) of the Wild and Scenic Rivers Act, concerning fish and wildlife.

PART E—APPROPRIATION AUTHORIZATION

SEC. 113. There is hereby authorized to be appropriated such sums as may be necessary for the purposes of this title.

TITLE II—NATIONAL WILDLIFE REFUGE SYSTEM

PART A—ESTABLISHMENT OF REFUGES AND RANGES

SEC. 201. There are hereby established, subject to valid existing rights, twelve national wildlife refuges (hereinafter referred to as the "refuges"), one national arctic range and one national resource range (hereinafter referred to as the "ranges").

SEC. 202. (a) The boundary of each refuge and each range shall include the area generally depicted on the applicable map as herein described: *Provided, however,* That in no case shall the boundary of a refuge or range extend beyond the territorial sea. Such maps shall be on file and available for public inspection in the office of the Bureau of Sport Fisheries and Wildlife, Department of the Interior, and, with respect to the ranges, the maps shall also be available for public inspection in the office of the Bureau of Land Management:

(1) As herein established, the (A) Barren Islands National Wildlife Refuge, (B) Chukchi Sea National Wildlife Refuge, (C) Shumagin Islands National Wildlife Refuge, (D) additions to the Kodiak National Wildlife Refuge, and (E) additions to the Bering Sea National Wildlife Refuge shall be comprised of approximately .05 million acres of lands, waters, and interests therein within the area generally

depicted as the "proposed boundary" on the maps entitled "Alaska Coastal National Wildlife Refuges", and dated December 1973. The Kodiak National Wildlife Refuge as designated in Executive Order Numbered 8857 of August 19, 1941, and modified by Public Land Order Numbered 1634 of May 9, 1958, and the additions designated in this subsection are hereby established as the "Kodiak National Wildlife Refuge"; and the Bering Sea National Wildlife Refuge as designated in Proclamation Numbered 2416 of July 15, 1940, amending Executive Order Numbered 1037 of February 27, 1909, and the additions designated in this subsection are hereby established as the "Bering Sea National Wildlife Refuge".

(2) The Arctic National Wildlife Refuge as herein established shall be comprised of approximately 3.76 million acres of lands, waters, and interests therein within the area generally depicted as the "proposed boundary" on the map entitled "Arctic National Wildlife Refuge", and dated December 1973, and the Arctic National Wildlife Range, established by Public Land Order Numbered 2214 of December 6, 1960, issued pursuant to Executive Order Numbered 10355 of May 26, 1952, is hereby redesignated as part of the Arctic National Wildlife Refuge and added to said refuge.

(3) The Iliamna National Resource Range as herein established shall be comprised of approximately 2.85 million

acres of lands, waters, and interests therein within the area generally depicted as the "proposed boundary" on the map entitled "Iliamna National Resource Range", and dated December 1973.

(4) The Koyukuk National Wildlife Refuge as herein established shall be comprised of approximately 4.43 million acres of lands, waters, and interests therein within the area generally depicted as the "Proposed Boundary" on the map entitled "Koyukuk National Wildlife Refuge", and dated December 1973.

(5) The Noatak National Arctic Range as herein established shall be comprised of approximately 7.59 million acres of lands, waters, and interests therein within the area generally depicted as the "Proposed Boundary" on the map entitled "Noatak National Arctic Range", and dated December 1973.

(6) The Selawik National Wildlife Refuge as herein established shall be comprised of approximately 1.4 million acres of lands, waters, and interests therein within the area generally depicted as the "Proposed Boundary" on the map entitled "Selawik National Wildlife Refuge", and dated December 1973, and the Chamisso National Wildife Refuge established by Proclamation Numbered 2416 of July 15, 1940, amending Executive Order Numbered 1658 of Decem-

ber 7, 1912, is hereby redesignated as part of the Selawik National Wildlife Refuge and added to said refuge.

(7) The Togiak National Wildlife Refuge as herein established shall be comprised of approximately 2.74 million acres of lands, waters, and interests therein within the area generally depicted as the "Proposed Boundary" on the map entitled "Togiak National Wildlife Refuge", and dated December 1973, and the Cape Newenham National Wildlife Refuge, established by Public Land Order Numbered 4583 of January 20, 1969, is hereby redesignated as part of the Togiak National Wildlife Refuge and added to said refuge.

(8) The Yukon Delta National Wildlife Refuge as herein established shall be comprised of approximately 5.16 million acres of lands, waters, and interests therein within the area generally depicted as the "Proposed Boundary" on the map entitled "Yukon Delta National Wildlife Refuge", and dated December 1973, and the Clarence Rhode National Wildlife Refuge, established by Public Land Order Numbered 4581 of January 20, 1969, amending Public Land Order Numbered 2253 of January 23, 1961, amending Public Land Order Numbered 2213 of December 8, 1960, issued pursuant to Executive Order Numbered 10355, is hereby redesignated as a unit of the Yukon Delta National Wildlife Refuge to be administered as part of said refuge, and the Hazen Bay National Wildlife Refuge, as established by

Proclamation Numbered 2416 of July 15, 1946, amending Executive Order Numbered 7770 of December 14, 1937, is hereby redesignated as part of the Yukon Delta National Wildlife Refuge and added to said refuge.

(9) The Yukon Flats National Wildlife Refuge as here-in established shall be comprised of approximately 3.59 million acres of lands, waters, and interests therein within the area generally depicted as the "Proposed Boundary" on the map entitled "Yukon Flats National Wildlife Refuge", and dated December 1973.

(b) The Secretary of the Interior (hereinafter referred to as "the Secretary") may make minor revisions in the boundary of each refuge and each range by publication of a revised map or other boundary description in the Federal Register.

PART B—GENERAL ADMINISTRATIVE PROVISIONS

ACQUISITION OF PROPERTY

SEC. 203. Within the boundary of each refuge and each range the Secretary is authorized to acquire by purchase, donation, or exchange, lands, waters, and interests therein, except that lands, waters, and interests therein owned by the State of Alaska or any political subdivision thereof may be acquired only with agreement of the said State or political subdivision and property owned by any Native village or

corporation may be acquired only with the concurrence of such owner.

COOPERATIVE AGREEMENTS

SEC. 204. (a) The Secretary is authorized to cooperate and seek agreements with the heads of other Federal agencies and the owners of lands and waters within, adjacent to or related to each area added to existing units or established by section 202 of this title, including, without limitation, the State of Alaska or any political subdivision thereof, any Native corporation, village, or group having traditional cultural or resource-based affinities for such areas. Such agreements shall have as their purpose the assurance that resources will be used, managed and developed in such a manner as to be consistent with the preservation of the environmental quality of such areas.

(b) The head of any Federal agency, other than agencies that are parties to cooperative agreements pursuant to subsection (a) of this section, having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in the lands and waters within, adjacent to or related to areas added to existing units or established by section 202 of this title, and the head of any Federal department or interdepartmental agency, other than parties to such agreements, having authority to license any undertaking in such lands and waters shall, prior to the approval of the expendi-

ture of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, afford the Secretary a reasonable opportunity to comment with regard to such undertaking. Nothing in subsection (c) of this section shall be construed as superceding or limiting the authorities and responsibilities of the Secretary under the Fish and Wildlife Coordination Act, as amended (60 Stat. 1080; 16 U.S.C. 661–667e).

(c) The Secretary may seek, with the concurrence of the Secretary of State, and enter into bilateral or multilateral agreements with foreign countries in order to provide for the protection, preservation, and enhancement of the fish and wildlife of international significance.

ADMINISTRATION

SEC. 205. (a) (1) The Secretary shall administer the refuges and the ranges pursuant to the provisions of the National Wildlife Refuge Administration Act of 1966, as amended (80 Stat. 927; 16 U.S.C. 668dd–668ee), and the provisions of this title, as part of the National Wildlife Refuge System. The Secretary may also utilize such additional authorities as may be available to him for the management and protection of the resources within, adjacent to or related to the refuges and the ranges, including but not limited to the preservation and enhancement of nationally and internationally significant fish and wildlife species, the

development of fish and wildlife-oriented outdoor recreation opportunities, interpretive education programs and scientific research, the conservation, protection, restoration, and propagation of endangered and threatened species, and the preservation of cultural, historical, and archeological resources.

(2) The Illiamna National Resource Range shall be administered as a unit of the National Wildlife Refuge System pursuant to paragraph (1) of this subsection and in accordance with plans, to be developed by the Secretary, which will permit activities, in accordance with the principles of multiple use and sustained yield, which the Secretary determines will not significantly impair the nationally and internationally significant fish and wildlife resources of the range and Bristol Bay.

(3) The Noatak National Arctic Range shall be administered as a unit of the National Wildlife Refuge System pursuant to paragraph (1) of this subsection and in accordance with plans, to be developed by the Secretary, which will provide for the protection of the natural features of the range, permit appropriate scientific research and other activities which will not significantly impair the environment. For a period of twenty years following the enactment of this title, any developmental activities or uses are, subject to valid existing rights, prohibited on the range. The Secretary shall conduct a review and report to the Congress within twenty

years of the date of enactment of this title his findings and recommendations for the future administration and management of the range.

(b) (1) The lands within the refuges and the Iliamna National Resource Range are, subject to valid existing rights, hereby withdrawn from location, entry, and patent under the public land laws of the United States, including all forms of appropriation under the United States mining laws, but not including the Mineral Leasing Act of February 25, 1920, as amended and supplemented (30 U.S.C. 181–263), except that, with respect to mineral deposits normally subject to location, entry, and patent pursuant to the mining laws, the Secretary may issue permits for the exploration and development of said deposits pursuant to regulations establishing procedures, terms, and conditions under which such activity may be conducted, but with right of occupation and use of only so much of the surface of the land as is immediately and directly necessary to the exploration and development of said deposits. Any mining claims located under the mining laws of the United States within the boundaries of those areas withdrawn pursuant to this subsection, must be recorded with the Secretary under regulations established by the Secretary within one year after the effective date of such regulations. Any mining claim not so recorded shall be conclusively presumed to be abandoned and shall be void. Such

recordation will not render valid any claim which was not valid on the effective date of this title, or which becomes invalid thereafter. Any claim recorded pursuant to the regulations promulgated under this subsection, for which the claimant has not made application for a patent within three years from the date of recordation, shall be presumed to be invalid unless the claimant presents to the Secretary clear evidence of its validity.

(2) The Secretary may administratively cancel any lease or prospecting permit for violations of the terms of the lease or permit or of regulations issued pursuant to the Mineral Leasing Act of February 25, 1920, without regard to the requirements of section 31 of such Act (30 U.S.C. 188), after thirty days' notice to the lessee or permittee and failure of the lessee or permittee to correct the condition giving rise to the breach.

(c) The lands within the Noatak National Arctic Range are, subject to valid existing rights, withdrawn from location, entry, and patent under the public land laws of the United States, including all forms of appropriation under the mining laws of the United States and from the operation of the Mineral Leasing Act of February 25, 1920, as amended and supplemented.

(d) Except as may otherwise be prohibited by Federal or State law, the Secretary shall permit the continuation of

such subsistence uses of the fish, wildlife, and plant resources within the refuges and the ranges to the extent that such uses were in effect on the date of enactment of the Alaska Native Claims Settlement Act. Such uses shall continue unless the Secretary determines that particular uses are materially and negatively affecting the fish, wildlife, or plant resources of the refuges and the ranges: *Provided, That,* for such reasons as public safety, administration, fish and wildlife management, or public use and enjoyment, the Secretary may, by regulation, prescribe conditions under which such subsistence uses shall be conducted including, but not limited to, prohibitions on taking, the establishment of limits on the number and type of resources taken, and the season when and area within the refuges and the ranges where subsistence activities can be undertaken. Regulations promulgated pursuant to this section shall be put into effect only after consultation with the appropriate fish and game agency of the State of Alaska.

WILDERNESS REVIEW

SEC. 206. (a) Within three years from the date of enactment of this title, the Secretary shall report to the President, in accordance with subsections 3(c) and 3(d) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132 (c) and (d)), his recommendations as to the suitability or nonsuitability of any area within the refuges and the Iliamna Na-

tional Resource Range for preservation as wilderness, and any designation of any such areas as wilderness shall be accomplished in accordance with said subsections of the Wilderness Act, except that this section shall not apply to that portion of the Bering Sea National Wildlife Refuge designated as wilderness pursuant to the Act of October 23, 1970 (84 Stat. 1104; 16 U.S.C. 1132 note). Notwithstanding anything to the contrary in the Wilderness Act, the Secretary shall, with respect to any existing refuge added to the refuges herein established by paragraphs (1) (D), (2), and (8) of section 202 (a) of this title, report to the President his recommendations as to the suitability of any area within the entire refuge within three years from the date of enactment of this title.

(b) With regard to the Noatak National Arctic Range such a wilderness report as is required in subsection (a) of this section shall be included in the Secretary's report to the Congress pursuant to section 205 (a) (3) of this title.

PART C—WILD AND SCENIC RIVERS

SEC. 207. (a) Section 3 (a) of the Wild and Scenic Rivers Act (82 Stat. 907) as amended (16 U.S.C. 1274 (a)), is further amended by adding the following new paragraphs.

" . ALAGNAK, ALASKA.—The entire river within the boundary of the Iliamna National Resource Range

from a point approximately eight miles below its source, to a point twenty miles above the mouth, including the Nonvianuk River, to be administered by the Secretary of the Interior;

" . ANDREAFSKY, ALASKA.—From its source, including all headwaters, downstream for two hundred and forty miles, including the East Fork, all within the boundary of the Yukon Delta National Wildlife Refuge, to be administered by the Secretary of the Interior;

" . IVISHAK, ALASKA.—From its source, including all headwaters and an unnamed tributary to Porcupine Lake, downstream to a point near Flood Creek, all within the boundary of Arctic National Wildlife Refuge, to be administered by the Secretary of the Interior;

" . KANEKTOK, ALASKA.—The entire river within the boundary of Togiak National Wildlife Refuge, Kagati Lake to a point sixteen miles above the mouth, to be administered by the Secretary of the Interior;

" . NOATAK, ALASKA.—From the east boundary of the Noatak National Arctic Range to its confluence with the Kelly River, to be administered by the Secretary of the Interior; and

" . WIND, ALASKA.—From its source, including all headwaters and one unnamed tributary in Township T13S, downstream for sixty-five miles, within the

boundaries of the Arctic National Wildlife Refuge, to be administered by the Secretary of the Interior."

(b) The river segments designated in subsection (a) of this section are hereby classified and designated and shall be administered as wild river areas.

(c) Notwithstanding any provisions to the contrary of the Wild and Scenic Rivers Act (82 Stat. 907; 16 U.S.C. 1271) the boundaries of the river segments referred to in subsection (a) of this section may include an area extending up to two miles from the mean high water level on either side of the river segments. Notwithstanding the provisions of section 3(b) of such Act, the Secretary shall establish boundaries for the river segments referred to in subsection (a) of this section within three years after the date of enactment of this title.

(d) The provisions of section 6 of the Wild and Scenic Rivers Act shall not apply to the river segments referred to in subsection (a) of this section.

PART D—REGULATIONS

SEC. 208. (a) The Secretary may issue such rules and regulations as may be necessary to carry out the provisions of this title.

(b) Any regulations heretofore prescribed by the Secretary for any existing refuge added to the refuges herein established as referred to in paragraphs (1), (2), (6),

(7), and (8) of section 202(a) of this title shall remain in effect until republished in total or in part by the Secretary.

PART E—APPROPRIATION AUTHORIZATION

SEC. 209. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this title.

TITLE III—NATIONAL FOREST SYSTEM

NEW ALASKA NATIONAL FORESTS

SEC. 301. For the purpose of providing for the protection, conservation, and management of the multiple resource values of certain public lands in the State of Alaska as part of the National Forest System, the areas described in subsections (a) through (c) of this section, as generally depicted on maps appropriately referenced, dated December 1973, and on file and available for public inspection in the Office of the Chief, Forest Service, Department of Agriculture, are hereby established as the Wrangell Mountains, Porcupine, and Yukon-Kuskokwim National Forests, respectively. The Wrangell Mountains, Porcupine, and Yukon-Kuskokwim National Forests shall, subject to valid existing rights, be administered by the Secretary of Agriculture in accordance with the laws, rules, and regulations applicable to the national forests.

(a) The Porcupine National Forest shall include the area generally depicted on a map entitled, "Proposed Porcu-

pine National Forest", comprising approximately 5.5 million acres.

(b) The Wrangell Mountains National Forest shall include the area generally depicted on a map entitled, "Proposed Wrangell Mountains National Forest", comprising approximately 5.5 million acres.

(c) The Yukon-Kuskokwim National Forest shall include the area generally depicted on a map entitled, "Proposed Yukon-Kuskokwim National Forest", comprising approximately 7.3 million acres.

ADDITION TO CHUGACH NATIONAL FOREST

SEC. 302. Within sixty days following enactment of this title, the Secretary of the Interior shall, by public land order, provide for addition to the Chugach National Forest of the area comprising approximately five hundred thousand acres generally depicted on a map entitled "Proposed Chugach National Forest Addition" which is on file and available for public inspection in the Office of the Chief, Forest Service, Department of Agriculture. Subject to valid existing rights, the Chugach National Forest Addition shall be administered as a part of the Chugach National Forest in accordance with the laws, rules, and regulations applicable to national forests.

WILD AND SCENIC RIVERS WITHIN ALASKA NATIONAL FORESTS

SEC. 303. (a) Section 3(a) of the Wild and Scenic

Rivers Act (82 Stat. 907, 16 U.S.C. 1274 (a)), as amended is further amended by adding the following new paragraphs:

" . BREMNER, ALASKA.—The entire river, from its origin to its confluence with the Copper River, to be administered by the Secretary of Agriculture.

" . NOWITNA, ALASKA.—The segment from the point where the river crosses the west boundary of section 6, township 17 south, range 22 east, Fairbanks principal merdidian, downstream to its confluence with the Yukon River, to be administered by the Secretary of Agriculture.

" . PORCUPINE, ALASKA.—The segment from the Canadian border downstream to the point where the river crosses the north boundary of section 2, township 23 north, range 18 east, Fairbanks principal meridian, to be administered by the Secretary of Agriculture.

" . SHEENJEK, ALASKA.—The segment from the point where the river crosses the north boundary of section 1, township 32 north, range 16 east, Fairbanks principal meridian, downstream to its confluence with the Porcupine River, to be administered by the Secretary of Agriculture."

(b) The Bremner and Sheenjek River segments designated in subsection (a) of this section are hereby classified and designated and shall be administered as wild river areas. The Porcupine and Nowitna River segments designated in

subsection (a) of this section are hereby classified and designated and shall be administered as scenic river areas.

(c) Notwithstanding the provisions of subsection 3 (b) of the Wild and Scenic Rivers Act (82 Stat. 907, 16 U.S.C. 1274 (b)), the Secretary of Agriculture shall establish boundaries for the Wild and Scenic Rivers referred to in section 303 of this title within three years after the date of enactment of this title.

SEC. 304. The Secretary of Agriculture shall, as soon as practicable after the date of enactment of this title, publish in the Federal Register a detailed description and map showing the boundaries of the Wrangell Mountains, Porcupine, and Yukon-Kuskokwim National Forests, and the addition to the Chugach National Forest.

SEC. 305. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this title.

TITLE IV—ADDITIONS TO NATIONAL WILD AND SCENIC RIVERS SYSTEM LOCATED OUTSIDE NATIONAL PARKS, NATIONAL WILDLIFE REFUGES, AND NATIONAL FORESTS

DESIGNATION

SEC. 401. Section 3 (a) of the Wild and Scenic Rivers Act (82 Stat. 907), as amended (16 U.S.C. 1274 (a)), is further amended by adding the following new paragraphs:

" . BEAVER CREEK, ALASKA.—The segment of the main stem from the vicinity of the confluence of Bear and Champion Creeks downstream one hundred and thirty-five miles to a point approximately fifteen miles downstream from the mouth of Victoria Creek, the segment not to exceed two hundred thousand acres; to be administered by the Secretary of the Interior.

" . BIRCH CREEK, ALASKA.—The segment of the main stem from the vicinity of the confluence of North Fork downstream one hundred and thirty-five miles to the vicinity of Jumpoff Creek, the segment not to exceed two hundred thousand acres; to be administered by the Secretary of the Interior.

" . FORTYMILE, ALASKA.—The main stem within the State of Alaska; O'Brien Creek; South Fork; Napoleon Creek; Franklin Creek; Uhler Creek, Walker Fork downstream from the confluence of Liberty Creek; Wade Creek; Mosquito Fork downstream from the vicinity of Kechumstuk; West Fork Dennison Fork downstream from the confluence of Logging Cabin Creek; Dennison Fork downstream from the confluence of West Fork Dennison Fork; Logging Cabin Creek; North Fork; Hutchinson Creek; Champion Creek; the Middle Fork downstream from the confluence of Joseph Creek; and Joseph Creek, the segments not to

exceed three hundred and twenty thousand acres; to be administered by the Secretary of the Interior.

" . UNALAKLEET, ALASKA.—The segment of the main stem beginning at 159 degrees 21 minutes 06.156 seconds west longitude approximately six miles from the headwaters extending downstream sixty miles to 160 degrees 19 minutes 15.031 seconds west longitude in the vicinity of confluence of the Chiroskey River, the segment not to exceed one hundred and four thousand acres; to be administered by the Secretary of the Interior."

ADMINISTRATIVE PROVISIONS

SEC. 402. (a) The Beaver Creek, Birch Creek, and Unalakleet components, as well as Mosquito Fork downstream from the vicinity of Kechumstuk to Ingle Creek, North Fork, Champion Creek, Middle Fork downstream from the confluence of Joseph Creek, and Joseph Creek units of the Fortymile component, designated in section 401 of this title, are hereby classified and designated and shall be administered as wild river areas pursuant to the Wild and Scenic Rivers Act. The Wade Creek unit of the Fortymile component is classified and designated and shall be administered as a recreational river area, pursuant to such Act. The remaining units of the Fortymile component are classified and designated and shall be administered as scenic river areas, pursuant to such Act. The classification as wild river

areas of certain segments of the Fortymile by this subsection shall not preclude such access across those river segments as the Secretary of the Interior determines to be necessary to permit commercial development of asbestos deposits in the North Fork drainage.

(b) The Secretary of the Interior shall take such action as is provided for under section 3 (b) of the Wild and Scenic Rivers Act to establish detailed boundaries and formulate detailed development and management plans within three years after the date of enactment of this title with respect to the Beaver Creek component, within two years with respect to the Birch Creek component, within one year with respect to the Fortymile component, and within four years with respect to the Unalakleet component.

(c) The provisions of section 401 of this title specifying maximum permissible acreages for individual components shall supersede any provisions to the contrary of the Wild and Scenic Rivers Act.

(d) Notwithstanding the provisions of section 9 (a) (iii) of the Wild and Scenic Rivers Act, the minerals in all Federal lands included in any component or part of a component designated by this section as a wild river area are hereby withdrawn, subject to valid existing rights, from all forms of appropriation under the mining laws and from operation of

the mineral leasing laws including, in both cases, amendments thereto.

APPROPRIATION AUTHORIZATION

SEC. 403. There is hereby authorized to be appropriated such sums as may be necessary for the purposes of this title.

93D CONGRESS
2D SESSION

S. 2917

A BILL

To provide for the addition of certain lands in the State of Alaska to the National Park, National Wildlife Refuge, National Forest, and the Wild and Scenic Rivers Systems, and for other purposes.

By Mr. JACKSON and Mr. FANNIN

JANUARY 30, 1974
Read twice and referred to the Committee on Interior and Insular Affairs

INT: 4737-74

REFERENCES

Alaska Department of Economic Development. Alaska Industrial Directory of Employers, 1972-1973, (1972).

Alaska Department of Education, Alaska Educational Directory, 1972-1973, (1972).

Alaska Department of Fish and Game, Division of Commercial Fisheries,

1973 Alaska's Wildlife and Habitat, Commercial Catch Data, 1954-1970, Kotzebue District.

1972 Annual Management Report, 1972, Arctic-Yukon-Kuskokwim Region.

Alaska Department of Health and Welfare, Division of Public Welfare, Public Assistance Statistics, 1967-1972, Unpublished reports and data on file, Juneau, Alaska.

Alaska Department of Labor, Employment Security Division, Statistical Quarterly, 1971, (1971).

Alaska Department of Labor, Research and Analysis Section, Annual Population and Employment Projections, 1961-1980.

Alt, K. T., "Sheefish and Pike Investigations of the Upper Yukon and Kuskokwim Drainages With Emphasis on Minto Flats Drainages," Alaska Department of Fish and Game, Vol. 10, pp. 353-368, (1969).

Alt, D. E., "A Life History Study of Sheefish and Whitefish in Alaska," Alaska Department of Fish and Game, Vol. 12, (1971).

American Association of Petroleum Geologists, "Future Petroleum Provinces of the United States," American Association of Petroleum Geologists, Memoir 15, (1971).

Anderson, Douglas D., "A Stone Age Campsite at the Gateway to America," Scientific American, CCXVIII, 6, pp. 24-33, (1968).

Anderson, Eskil, "Asbestos and Jade Occurrences in the Kobuk River Region, Alaska," Alaska Department of Mines pamphlet No. 3-R, (1945).

Andreasen, G. E., "Total Intensity Aeromagnetic Profiles of Kobuk River, Alaska," U.S. Geological Survey Open-file Report, (1960).

Babb, J. D., "Age and Sex Characteristics of Alaska's Population," Review of Business and Economic Conditions, Vol. IX, No. 1, Institute of Social, Economic and Government Research, University of Alaska, (1972).

Bailey, A. M., Birds of Arctic Alaska, Colorado Museum of Natural History, (1948).

Bandi, Hans-Georg, "Eskimo Prehistory," Studies of Northern Peoples: Number Two, Translated by Ann E. Keep, University of Alaska Press, (1969).

Barnes, F. F., "Coal Resources of Alaska," U.S. Geological Survey Bull. 1242-B, (1967).

Berg, H. C., and E. H. Cobb, "Metalliferous Lode Deposits of Alaska," U.S. Geological Survey Bull. 1246, (1967).

Billings, W. D. and H. A. Monney, "The Ecology of Arctic and Alpine Plants," Biol. Rev. 43, (1968).

Black, Robert F., "Late Pleistocene to Recent Historic of Bering Sea - Alaska Coast and Man," Arctic Anthropology, Vol. 3, No. 2, (1966).

Bowles, Oliver, "Asbestos," U.S. Bureau of Mines Bulletin, 403, (1937).

Britton, M. E., "Vegetation of the Arctic Tundra," 18th Am. Biol. Colloq., Corvalis, Oregon, (1957).

Brooks, A. H., "Antimony Deposits of Alaska," U.S. Geological Survey Bull. 649, p. 67, (1916).

Carney, S. M., E. W. Martin, and M. F. Sorensen, "Waterfowl Harvest and Hunter Activity in the United States During the 1971 Hunting Season," U.S. Department of the Interior, U.S. Fish and Wildlife Service, Division of Wildlife Research, Migr. Bird Popul. Sta. Adm. Report 216, (1972).

Chamberlain, E. B., R. K. Martinson, and S. L. Clark, "Waterfowl Status Report, 1970," U.S. Fish and Wildlife Service, Spec. Sci. Rept.--Wildl., (1971).

Cobb, E. H.,

1960 Mineral Investigations Resources Map, U.S. Department of the Interior, Geological Survey.

1968a Metallic Mineral Resource Map of the Ambler River Quadrangle, Alaska, U.S. Geological Survey Open-file Report.

1968b Metallic Mineral Resources Map of the Baird Mountains Quadrangle, Alaska, U.S. Geological Survey Open-file Report.

1968c Metallic Mineral Resources Map of the Shungnak Quadrangle, Alaska, U.S. Geological Survey Open-file Report.

1972 Placer Deposits of Alaska, U.S. Geological Survey Open-file Report.

Colinvaux, Paul A.,

1964 "The Environment of the Bering Land Bridge," Ecol. Monog., Vol. 34.

1967 "Quaternary Vegetational History of Arctic Alaska," The Bering Land Bridge. D. M. Hopkins (Editor).

Collins, G. C., S. F. Olson, R. S. Luntey, D. F. Leonard and J. M. Kauffman, Operation great land: National Park Service Task Force Report.

Creager, Joe S., and Dean A. McManus, "Geology of the Floor of Bering and Chukchi Seas - American Studies," The Bering Land Bridge, Hopkins, ed., (1967).

Cresap, McCormick, and Paget, "A Program for Increasing the Contribution of Tourism to the Alaskan Economy," (1968).

Dake, H. C., "Alaska Jade Deposits," Mineralogist, Vol. 13, No. 9, (1945).

Dutro, J. Thomas, and Thomas G. Payne, Geologic Map of Alaska, U.S. Geological Survey, (1957).

Fackler, W. C., "Occurrence of Nemalite in Alaska," American Mineralogist, Vol. 30, No. 9-10, (1945).

Fernald, A. T., "Surficial Geology of the Central Kobuk River Valley, Northwestern Alaska," U.S. Department of the Interior, Geological Survey Bull. 1181-K, (1964).

Gabrielson, I. N., and F. C. Lincoln, Birds of Alaska, Stackpole Co., Harrisburg, Pa., and Wildl. Mgmt. Inst., Washington, D.C., (1959).

Giddings, J. Louis,

1952 "The Arctic Woodland Culture of the Kobuk River," Museum Monographs, University Museum, Philadelphia.

1956 "Forest Eskimos," University Museum Bulletin, Vol. XX, No. 2, Philadelphia.

1961 "Kobuk River People," Studies of Northern Peoples, No. 1, University of Alaska, College, Alaska.

1962 "Alaska Aboriginal Culture," U.S. Department of the Interior, National Park Service, National Survey of Historic Sites and Buildings, Washington, D.C.

1966 "Cross-dating the Archeology of Northwestern Alaska; a Sequence of Coastal and Interior Archeological Sites Established Cultural Successions in the Arctic," Science, Vol. 153, No. 8.

1967 Ancient men of the Arctic, A. Knopf, New York.

Grantz, A., and W. W. Patton, Jr., "Mineral fuel resources, petroleum and natural gas," U.S. Department of the Interior, Geological Survey, Mineral and water resources of Alaska, Com. Int. Insular Affairs, 88th Congr. 2d Sess., (1964).

Gressitt, J. L., (Editor), Pacific Basin Biogeography, Bishop Mus. Press, Honolulu, (1961).

Grinnell, J., "Birds of the Kotzebue Sound region," Pacific Coast Avifauna, Vol. 1, (1900).

Gryc, George,

1958 "Brooks Range," Landscapes of Alaska, Howel Williams, ed., University of California Press, pp. 111-113.

1971 "Alaska's Possible Petroleum Provinces," U.M.R. Journal, No. 2.

Hansen, Henry A., Sigurd T. Olson, Peter E. K. Shepherd, and Vernon Berns, 1959, Selawik production studies and banding, Alaska Game Commission, Fish and Game Restor., Job Completion Rept., 12(5): 1-5.

Hanson, Herbert C., "Characteristics of some Grassland, Marsh, and Other Plant Communities in Western Alaska," Ecol. Monogr., Vol. 21, (1951).

Hegg, Karl M., "A Photo Identification Guide for the Land and Forest Types of Interior Alaska," Northern Forest Exp. Stat., Juneau, Alaska, (U.S. Forest Service Res. Paper NOR 3), (1967).

Heide, H. E., W. S. Wright, and F. A. Rutledge, "Investigations of the Kobuk River Asbestos Deposits, Kobuk District, Northwestern Alaska," U.S. Bureau of Mines Report Inv. 4414, (1949).

Hemming, James E., "The Distribution and Movement Patterns of Caribou in Alaska," Alaska Department of Fish and Game Technical Bull. No. 1, (1971).

Herreid, Gordon, "Geology and Ore Deposits of Alaska," Mining Eng., Vol. 13, No. 7., (1961).

Hippler, Arthur E., From Village to Town: An Intermediate Step in the Acculturation of Alaska Eskimos, University of Minnesota, Training Center for Community Programs, (1970).

Hopkins, D. M.,

1951 with R. S. Sigafoos, "Frost Action and Vegetation Pattern on Seward Peninsula, Alaska," U.S. Geological Survey Bull. 9746.

1955 with Pewe, A. T. Fernald, and E. H. Muller, "Permafrost and Ground Water in Alaska," U.S. Department of the Interior, Geological Survey Prof. Paper 264-F.

1967a The Bering Land Bridge, Stanford University Press, Stanford, California.

1967b "The Cenezoic History of Beringia--A Synthesis," The Bering Land Bridge, D. M. Hopkins, editor, Stanford University Press, pp. 451-484.

Hudson, G. E., Birds Observed in the Kotzebue Sound Area of Alaska During the Summer of 1956, Murrelet, Vol. 38, No. 3, pp. 26-29, (1957).

Hulten, Eric, Flora of Alaska and Neighboring Territories, Stanford University Press, Stanford, California, (1968).

Human Resources Planning Institute, A Forecast of Industry and Occupational Employment in the State of Alaska, Vol. I, Summary of Findings, Prepared for Man in the Arctic Program, Institute of Social, Economic, and Government Research, (1974).

Johnson, Philip L., "Arctic Plants, Ecosystems and Strategies," Arctic, (1969).

Joint Federal-State Land Use Planning Commission for Alaska,

1972 The Native Subsistence Values and Their Relationships to d(1) - d(2) Land Classification.

1974 Recommendations of August 1973 on Uses and Resources of National Interest Lands, The Resource Planning Team.

1974 Summary of the Conference on Taking Fish and Game Resources to Meet Subsistence Needs, Juneau, Alaska, February 5-6, 1974.

Karlstrom, T. N. V., et al., "Surficial Geology of Alaska," U.S. Geological Survey Miscellaneous Geologic Investigations, (1964).

Kellogg, C. E., and I. J. Nygard, "The Principal Soil Group of Alaska," U.S. Department of Agriculture, Agr. Mon. 7, (1951).

Kessel, Brina, "West-east Relationships of the Birds of Northern Alaska," Pacific Basin Biogeography, a Sympsoium, J. Linsley Gressitt, Ed., Bishop Mus. Press, Honolulu, pp. 79-84, (1963).

King, J. G., and Calvin J. Lensink, An Evaluation of Alaskan Habitat for Migratory Birds, Department of the Interior, Bureau of Sport Fisheries and Wildlife, Washington, D.C., (1972).

Klein, David R., "Tundra ranges north of the Boreal Forest," Journ. Range Management, Vol. 23, No. 1, (1970).

Laughlin, W. S., "Human Migration and Permanent Occupation in the Bering Sea Area," The Bering Land Bridge, Hopkins, ed., (1967).

Lentfer, J., Alaska Department of Fish and Game Prog. Report, (1973).

Lin, P. C., "Alaska's Population and School Enrollments," Review of Business and Economic Conditions, Vol. VIII, No. 5, Institute of Social, Economic and Government Research, University of Alaska, (1971).

Lutz, A. J., "Effects of Forest Fires in Interior Alaska," U.S. Department of Agriculture Tech. Bull. 1133, (1956).

MacLean, Bryan, Robert Weeden et al., Point Hope Project Report, University of Alaska, (Grant from the National Science Foundation, Division of Student Originated Studies), (1971).

McColloch, D. S., D. W. Taylor, and Meyer Rubin, "Stratigraphy, Nonmarine Mollusks, and Radiometric Dates from Quaternary Deposits in the Kotzebue Sound Area, Western Alaska," Jour. Geology, Vol. 73, (1965).

McCutchen, S. D., "A cruise on the Kobuk," Alaska Sportsman, Vol. 30, No. 4, (1964).

McGowan, J., "Raptor Survey-Inventory Progress Report - 1973," ADF&G, Annual report of survey - Inventory Activities, Part III, Wolf, Wolverine, small game and furbearers, Fed. Aid Wildl. Rest. Proj., (1973).

McPhail, J. D., and C. C. Lindsey, "Freshwater fishes of northwestern Canada and Alaska," Fisheries Research Board Canada Bull. 173, (1973).

Malone, K., D. P. Blasko, and J. A. Williams, "The Mineral Industry of Alaska," U.S. Dept. Mines Minerals Yearbook 1969, Vol. 3, (1969).

Manville, R. H., and S. P. Young, "Distribution of Alaskan Mammals," U.S. Department of the Interior, U.S. Fish and Wildlife Service, Circular 221, (1965).

Mendenhall, W. C., "Reconnaissance from Fort Hamlin to Kotzebue Sound, Alaska, by way of Dall, Kanute, Allen, and Kowak Rivers," U.S. Geological Survey Prof. Paper 10, (1902).

Miller, D. J., T. G. Payne, and George Gryc, "Geology of Possible Petroleum Provinces in Alaska," U.S. Geological Survey Bull. 1094, (1959).

Miller, T. P., W. W. Patton, Jr., and M. A. Lanphere, "Preliminary Report on a Plutonic Belt in West-Central Alaska," U.S. Geological Survey Prof. Paper 550-D, (1966).

Muller-Beck, Hansjurgen, "On Migrations of Hunters Across the Bering Land Bridge in the Upper Pleistocene" The Bering Land Bridge, (1967).

Northwest Alaska Native Association, Survey of Resources Harvested in the NANA Region, unpublished report.

Odum, E. P., "The Strategy of Ecosystem Development: An Understanding of Ecological Succession Provides a Basis for Resolving Man's Conflict with Nature," Science, Vol. 164, (1969).

Orth, Donald J., Dictionary of Alaska Place Names, U.S. Geological Survey Professional Paper 567, Government Printing Office, Washington, D.C., (1967).

Patton, W. W., Jr., and T. P. Miller,

1968 "Regional Geologic Map of Selawik and Southeastern Baird Mountains Quadrangles, Alaska," U.S. Geological Survey Misc. Geol. Investigations Map I-530.

1968 with I. L. Tailleur, "Regional Geologic Map of the Shungnak and Southern Part of the Ambler River Quadrangles, Alaska," U.S. Geological Survey Misc. Geol. Investigations Map I-554.

Pegeau, R. E., "Furbearers, Survey-inventory Report - 1971," Alaska Department of Fish and Game, Annual Report of survey-inventory activities, Part III, Wolf, Wolverine, small game and furbearers, Fed. Aid Wildl. Rest. Proj., (1973).

Pewe, Troy L., "Permafrost and Its Effects on Life in the North," Oregon State University Press, (1966).

Ray, Dorothy Jean, "Nineteenth Century Settlement and Subsistence Patterns in Bering Strait," reprinted from Arctic Anthropology, Vol. II, No. 2, Madison, Wisconsin, (1964).

Rich, P. E., and A. R. Tussing, "The National Park System in Alaska - An Economic Impact Study," Institute of Social, Economic, and Government Resources, Fairbanks, Alaska, (1973).

Schmidt, R. A. M., and Harvey H. Reinholtz, Evaluation of Great Kobuk Sand Dunes for Eligibility for Registered National Landmark, Official Report to the U.S. National Park Service, (1969).

Schweger, Charles E., Late-Quaternary Paleoecology of the Onion Portage Region, Northwestern Alaska, Abstracts with Programs, Geological Soc. America, Rocky Mountain Section, 24th Annual Meeting, Vol. 3, No. 6, (1971).

Sigafoos, Robert S.,

1951 "Soil Instability in Tundra Vegetation," Reprint, The Ohio Journal of Science, Vol. 51, No. 6.

1952 "Frost Action as a Primary Physical Factor in Tundra Plant Communities," Repnt. from Ecology, Vol. 33, No. 4.

1958 "Vegetation of Northwestern North America as an Aid in the Interpretation of Geologic Data," U.S. Geological Survey Bull. 1061.

Slaughter, C. W., R. J. Barney, and G. M. Hansen, Editor, Fire in the Northern Environment, Pacific Northwest Forest and Range Experiment Station, U.S. Forest Service, U.S.D.A., (1971).

Smith, P., and J. B. Mertie, Jr., "Geology and mineral resources of Northwestern Alaska," U.S. Geological Survey Bull 815, (1930).

Smith, Valene L., Kotzebue: A Modern Alaskan Eskimo Community, University of Utah, (Ph.D. Dissertation), (1966).

Snodgrass, Roland, and Horace B. Sanders, Agricultural resources in Withdrawals under Section 17d(1) and d(2) of the Alaska Native Claims Settlement Act, Alaska Resource Planning Team, (1972).

Spetz, E. E., Inventory and cataloguing of the Sport Fish and Sport Fish Waters in the Interior of Alaska, Alaska Department Fish Game, Sport Fish Division, Fed. Aid Fish Restor., (1969).

Spetzman, Lloyd A.,

1951 Plant Geography and Ecology of the Arctic Slope of Alaska, University of Minnesota, (M.A. Thesis).

1963 Terrain Study of Alaska, Part 5: Vegetation, U.S. Army, Office of Chief of Engineers, Engineer Intelligence Study 301.

Stebbins, Robert C., A Field Guide to Western Reptiles and Amphibians, Houghton Mifflin Co., Boston, (1966).

State of Alaska, Alaska Department of Fish and Game, Alaska's Wildlife and Habitat, (1973).

Trailleur, Irvin L., and William P. Brosge, Brooks Range Origin, Arctic Alaska, Abstracts with Programs, Geol. Soc. American Rocky Mountain Section 24th Annual Meeting, Vol. 3, No. 6, (1971).

U.S. Department of the Army, Alaska National Guard, Open file data and reports, Anchorage, (1973).

U.S. Army, Corps Engineers,

1957 Northwestern Alaska, Harbors and Rivers in Alaska Survey Report, Interim Rept. 6, U.S. Army Eng. Distr., Alaska, Corps Eng.

1963 Water resources Development by the U.S. Army Corps of Engineers in Alaska, U.S. Army Engineer Div., North Pacific Corps of Engineers, Portland, Oregon.

U.S. Congress, Senate Committee on Interior and Insular Affairs, Mineral and Water Resources of Alaska, 88th Congress, 2nd session, (1964).

U.S. Department of Commerce, Bureau of Census,

1970a Census of Population, Alaska, Detailed Characteristics, PC(1) -D3, Alaska.

1970b Census of Population, Alaska Number of Inhabitants, PC(1) -A3, Alaska.

1971a 1970 Census of Population, General Social and Economic Characteristics, Alaska.

1971b 1970 Census of Population, Number of Inhabitants, Alaska.

U.S. Department of Commerce, NOAA, EDS,

1970 Local Climatological Data, Annual Summary with Comparative Data, Kotzebue, Alaska, Narrative Climatological Summary.

1971 Local Climatological Data, Annual Summary with Comparative Data, Kotzebue, Alaska.

U.S. Department of the Interior, Bureau of Indian Affairs,

1971 General Assistance annual reports, fiscal years 1967-1971, Division of Social Services.

1973 Alaska Native Enrollment - Summary Listing.

1973 Juneau Area Personnel Directory.

U.S. Department of the Interior, Bureau of Land Management,

1972 "A Proposal for Permanent Reservation in the Federal Ownership of those Lands Withdrawn under the Alaska Native Claims Settlement Act."

---- Open file data on emergency firefighters, District Office, Anchorage.

U.S. Department of the Interior, Bureau of Reclamation, Alaska, Reconnaissance Report on the Potential Development of Water Resources in the Territory of Alaska, 82d Congress, 1st Session, House Document 197, (1952).

U.S. Department of the Interior, U.S. Fish and Wildlife Service, National Survey of Fishing and Hunting, 1970, Resource Pub. 95, (1972).

U.S. Department of the Interior, Geological Survey,

1963-68 Water Resources Data for Alaska, Pt. I, Surface Water Records.

1972 The Status of Mineral Resource information on the major land withdrawals of the Alaska Native Land Claims Settlement Act of 1971, Unpubl. Adm. Rept.

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

1969 Kobuk - Koyukuk: a Reconnaissance Report.

1970 Compilation of the Administrative Policies for the Natural Areas of the National Park System, GPO, Washington.

1971 Criteria for Parklands, GPO, Washington.

1972 Part Two of the National Park System Plan: Natural History, GPO, Washington.

1972 Part One of the National Park System Plan: History, GPO, Washington.

1973 Compilation of the Administrative Policies for the Historical Areas of the National Park System, GPO, Washington.

U.S. Federal Field Committee for Development Planning in Alaska,

1968a Alaska Native and the Land, GPO, Washington.

1968b A Subregional Economic Analysis of Alaska.

1971a Alaska Community Inventory.

1971b Economic Outlook for Alaska.

1971c Strategies for Economic Development in Alaska.

Van Hagen, G. E., "Mountain of Jade." Alaska Sportsman, Vol. 28, No. 11, (1962).

Vanstone, J. W., Notes on Nineteenth Century Trade in Kotzebue Sound Area, Alaska, Arctic Anthropology, Vol. 1, No. 1, pp. 126-128, (1962).

Viereck, Leslie A.,

1970 Forest Succession and Soil Development Adjacent to the Chena River in Interior Alaska, Arctic and Alpine Research, Vol. 2, No. 1.

1972 and Elbert Little, Jr., Alaska Trees and Shrubs, Agriculture Handbook No. 410, Forest Service, U.S. Department of Agriculture.

Wahrhaftig, Clyde, Physiographic Divisions of Alaska, U.S. Geological Survey Professional Paper 482, GPO, Washington, (1965).

Waring, G. A., Mineral Springs of Alaska, U.S. Department of the Interior, Geological Survey Water Supply Paper 418, (1917).

Watson, C. E., C. I. Branton, and J. E. Newman, Climatic Characteristics of Selected Alaskan Locations, University of Alaska Tech. Bull. No. 2, Institute of Agricultural Sciences, (1971).

Webb, G. L., "Kobuk Diary, From 1898 to 1900," Alaska Sportsman, Vol. 27, Nos. 8, 9, 11, 12; Vol. 28, Nos. 1-5, (1961-62).

Willey, Gordon R., An Introduction to American Archeology, Volume One: North and Middle America, Prentice-Hall, Englewood Cliffs, N.J., (1966).

Williams, Howel, editor, Landscapes of Alaska, Their Geologic Evolution, Univ. Cal. Press, (1958).

Winslow, P. C., Investigation and cataloging of sport fish waters in Interior Alaska--char in northwestern Alaska, Alaska Department Fish Game, Sport Fish Div., Fed. Aid Fish Restor., (1969).

Wolff, Ernest N., Nils I. Johansen, Chris Lambert, Jr., Edwin M. Rhoads, and Richard J. Solie, Optimum Transportation System to Servie the Mineral Industry North of the Yukon Basin in Alaska, Mineral Industry Research Laboratory, University of Alaska, Fairbands, Alaska, Report 29, (1973).

Young, Steven B., The Vascular Flora of St. Lawrence Island with Special Reference of Floristic Zonation in the Arctic Regions, Contributions from the Gray Herbarium of Harvard University, No. 201, (1971).

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