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Vol. I

general management plan
land protection plan
wilderness suitability review

CAPE KRUSENSTERN

NATIONAL MONUMENT / ALASKA

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RECOMMENDED:

Charles M. Shaver
Superintendent, Cape Krusenstern National Monument — June 10, 1986

Q. Boyd Evison
Regional Director, Alaska Region — June 13, 1986

APPROVED:

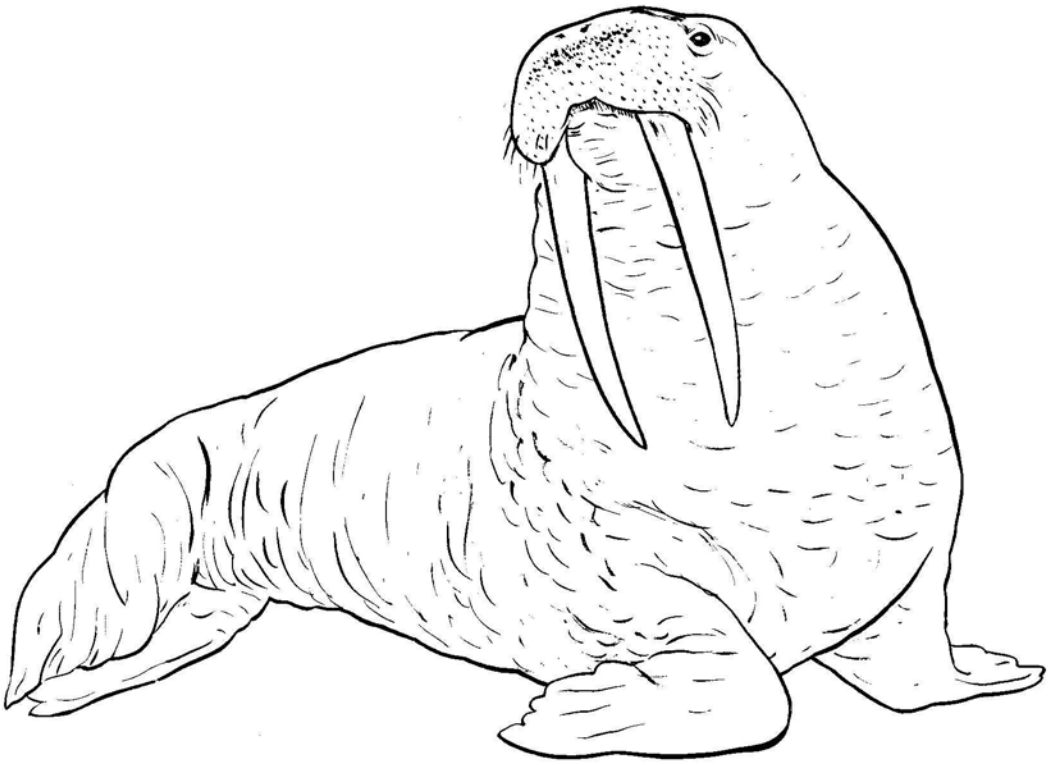
William Penn Mott, Jr.
Director, National Park Service — October 7, 1986

CONCURRED:

William P. Horn
Assistant Secretary of the Interior
Fish and Wildlife and Parks — November 7, 1986

CAPE KRUSENSTERN

NATIONAL MONUMENT



GENERAL MANAGEMENT PLAN • LAND PROTECTION PLAN
WILDERNESS SUITABILITY REVIEW

FOREWORD

This document contains an integrated set of plans and reviews for Cape Krusenstern National Monument. The "General Management Plan," "Land Protection Plan," and "Wilderness Suitability Review" are divided into six chapters that comprise this publication.

Chapter I INTRODUCTION

This chapter explains why the general management plan is being done, what the management objectives of the monument are, what issues have been identified in the planning and public involvement processes, and how the public will be involved in the plan's implementation. A brief regional overview is also provided.

Chapter II AFFECTED ENVIRONMENT

The cultural and natural resources found within and adjacent to the monument are described in chapter II. The socioeconomic characteristics of the region, including descriptions of activities and uses that occurred prior to the passage of the Alaska National Interest Lands Conservation Act (ANILCA), are summarized. Additionally, this chapter discusses proposed activities that could affect the resources within the monument.

Chapter III THE PLAN

This chapter explains the programs and strategies for management of the monument, its resources, public uses, subsistences uses, facilities and their development, and monument operations and administration.

Chapter IV LAND PROTECTION PLAN

This chapter explains options and recommends priorities and methods for protection of management lands from activities that might take place on private lands within or adjacent to the monument that could cause harm or threaten the monument's resources.

Chapter V IMPLEMENTATION

An implementation checklist of proposals contained within the plans is given in this chapter.

Chapter VI WILDERNESS SUITABILITY REVIEW

This chapter provides an analysis of the suitability of nonwilderness lands in federal ownership within the monument, and those lands that could come under National Park Service jurisdiction, for potential inclusion into the national wilderness preservation system.

APPENDIXES

Selected documents that are prepared as appendixes to the plans or documents and are reprinted in whole or part for convenience of the reader are presented in this section.

BIBLIOGRAPHY

The bibliography contains a list of all reference material used to write this document.

PLANNING TEAM, CONSULTANTS, AND CONTRIBUTORS

Planning team members, consultants, and those who contributed to this document are listed in this section.

PREFACE

The final general management plan, land protection plan, and wilderness suitability review is a full reprint of the December 1985 revised draft plan. The final plan closely follows alternative one, the National Park Service's preferred alternative from the draft document.

SUMMARY OF PUBLIC COMMENTS ABOUT THE MARCH 1985 DRAFT PLAN

Public comments on the draft plans were received primarily from public meetings, where collectively 200-300 people participated in the 14 public meetings, and from written comments. Over 150 letters were received.

Comments from the public meetings focused on: the need for extending the review period, an interest in not having the National Park Service actively advertise the monument, questions about the land protection plan recommendations (especially where fee-simple acquisition is recommended), wanting interpreters who speak Inuipaq to be present at public meetings, interest in a voluntary aircraft altitude of 2,000 feet, dealing with the concept of resident zones more directly and immediately in the plan, and that too little consideration was given to the potential impacts from the Red Dog Mine on the monument and its resources--especially the pending land exchange.

Many written comments tended to focus on a common list of concerns that included: a desire to have more analysis of impacts expected from the proposed Red Dog Mine and the then-proposed land exchange, requests to drop support of the Cape Krusenstern Land Exchange from the plan, requests to hold public meetings in the lower 48 states, requests that specific wilderness recommendations be made in the plans, that closure of the monument to recreational use of off-road vehicles (ORVs) and snowmachines occur, that the National Park Service work with Bureau of Land Management to seek land for land exchanges from outside the unit, and that environmental impact statements are done for all land exchanges and that Congress review all such exchanges. Also raised were concerns about the clarity of language explaining management intent about water rights, navigability, fish and wildlife, rights-of-way, and easements. Questions were raised about ORV use on rights-of-way, easements, and the wilderness suitability criteria. It was requested that topics relating to access be further consolidated and that treatment of rights-of-way and easement issues be included in the land protection plan.

DIFFERENCES BETWEEN THE MARCH 1985 DRAFT AND DECEMBER 1985 REVISED DRAFT

In most cases, comments required corrections or clarifications to the text. These changes have been made and generally did not significantly alter the document, but simply clarified it for the reader. The following list recounts major differences and important clarifications made to this final document.

1. Added information explaining the merits of the proposed Cape Krusenstern land exchange throughout the plan.

2. Clarified in the "Information and Interpretation" section that advertisement of the area is to be avoided and that requests for information will be filled by providing information that stresses basic safety information, location of private property, and information about subsistence uses and how to avoid conflict between user groups. Users will also be encouraged to seek out information from other sources.

3. Clarification that the visitor facility in Kotzebue will be a visitor contact station, not a visitor center.

4. Addition of a human use study to the list of proposed research and clarification of the concept that the focus of the plan is that various types of research be accomplished that will enable existing and future managers to make decisions based upon an expanded base of scientific information.

5. Addition, in several places, that the Indian Reorganization Act (IRA) council(s) be consulted about various issues.

6. Added that consultation will occur with the Alaska Department of Environmental Conservation to check on meteorological conditions if prescribed burns are planned.

7. Clarification that additional governmental housing will not be built until the need for it exists.

8. Clarification of local hire program goals.

9. Addition of a brief list of references where information about subsistence uses can be found.

10. Clarification of when and under what conditions aircraft can be used for subsistence hunting or fishing.

11. Clarification that all federal lands and waters in the monument are open to subsistence uses consistent with existing laws and regulations.

12. Clarified that cost estimates are in "gross" dollars and adjusted dollar amounts to reflect this clarification.

13. Noted that the Bureau of Indian Affairs (BIA) has a trust responsibility (role) with native allotments.

14. Clarified language that explains condemnation procedures.

15. Updated facts and figures whenever possible.

16. Deleted the "Environmental Consequences" section (draft Chapter 6) and the discussion of alternatives.

17. Deleted the Primary Subsistence Use Areas map.

18. Added references previously omitted from the bibliography.

19. Expanded the explanation of issues in chapter III (management intent) and reorganized some of the previous material presented in the draft plan.

20. Redrafted language explaining management intent about water rights, navigability, fish and wildlife, rights-of-way (RS 2477) and 17(b) easements.

21. Additional explanation was added to clarify the relationship among rights-of-way, easement management, and use of ORVs.

22. Wilderness suitability criteria was slightly modified.

23. Relocated appendixes from the land protection plan (chapter IV) to the appendixes.

CHANGES THAT WERE NOT MADE IN THE DECEMBER 1985 REVISED DRAFT PLAN

The following list includes the changes requested that were not made: the requested environmental impact statement and/or additional environmental analysis of the proposed Red Dog Mine's effects upon the monument and its resources; delaying final release of the plan until the Cape Krusenstern Subsistence Resource Commission completes its recommended subsistence hunting program; holding public meetings in the lower 48 states; recommended designation of wilderness; reducing the anticipated presence of NPS staff and facilities, largely by deleting the recommendation for ranger station cabins and substituting tents; recommending class I air quality standards; providing cost estimates for the land protection plan; and discussing ANSCA 17(b) easements in the land protection plan.

SUMMARY OF PUBLIC COMMENTS ABOUT THE DECEMBER 1985 REVISED DRAFT PLAN

Public comments on the revised draft plan were received in written form, and no additional public meetings were held to review the revised draft plan. Although over 200 letters containing comments were received by the National Park Service on the nine general management plans, which were out for review during the two-month comment period, less than 20 included comments specifically about the monument.

Comments specific to the monument revolved around the following suggestions/requests: that the airstrip in the Kakagrak Hills be specifically maintained by the National Park Service; deletion of the statement that "no new airstrips will be built in the monument"; that the area around the Kakagrak Hills airstrip be deleted from the area considered suitable for wilderness designation, that the language suggesting that if the Red Dog road is built that other "WAATS" study corridors are not necessary is wrong; that RS 2477 maps be deleted from the plan; that RS 2477 maps be kept in the plan; that three-wheeled and four-wheeled vehicles (ATVs) be considered a traditional means of access for subsistence in the monument;

that the NPS's northwest area office policy regarding use of timber greater than 3 inches in diameter be stopped; an expression of concern that the NPS's recent purchase of three city lots (two with structures) has occurred before the plan is finalized; that provisions for providing government housing for some employees runs counter to carrying out an effective local hire program; that pay for local hire positions be increased; that the National Park Service establish an advisory council for the monument; that a major boundary adjustment be made to cut out of the monument as many parcels of private property as could be reasonably done.

Comments common to all nine general management plans included: support for undeveloped character of the NPS units in Alaska; the National Park Service's use of policies that are too restrictive; the National Park Service is anti-people; the public is not capable of developing data to respond to the plans; radio repeaters do not belong in parks; subsistence and mining are future cultural values; the plans provide little improvement of recreational opportunities; employment opportunities for local residents was not discussed; there should be subsistence management plans for each NPS unit; definitions of traditional, temporary use, and public safety need to be included; the implementation of the plans will be too expensive; management intent for fish and wildlife between NPS and ADF&G needs to be clarified; all NPS units should have class I air quality; no pack animals except dogs should be allowed; the National Park Service should make greater effort to identify all resources, including minerals; "natural and healthy" wildlife populations should be defined and management implications identified; following USF&WS policy on regulation on navigable rivers should be considered; that the National Park Service has ultimate authority in managing fish and wildlife needs to be stated; and the process to involve fish and game advisory councils and committees needs to be described.

Additional comments included: complete federal ownership is needed for management; all private lands should be acquired; boundary should be adjusted to eliminate private lands; inholders are threatened by unnecessary regulations; opposition to high priority acquisition of nonfederal lands; exchanges within NPS units to minimize effects on native allottees should be considered; allotments should not be acquired; working with inholders to provide commercial services should be included; NEPA and 810 documents on land protection plans need to be prepared; private lands should be used as developed areas; additions to NPS units should not simply receive designation of adjacent units; the plans violate ANILCA provisions for access to inholdings (in land protection plans); limits on off-road vehicles use is supported; helicopters should be restricted to administrative use only; the National Park Service does not have adjudicative or management authority for RS 2477s; snowmachines and motorboats should be further restricted; ORV determinations regarding subsistence use lack substantiation; RS 2477s should be settled prior to wilderness consideration; permits for ATVs should be easily attainable, if necessary; the findings of Wrangell's ORV study should not be extrapolated to other NPS units; local participation should be institutionalized; the system for getting rural input was inadequate in preparing the plans; mechanisms for public review of resource management plans needs to be provided; potential transportation corridors should not be recommended for wilderness; Congress should review all changes in wilderness boundaries; and wilderness should be managed more liberally to be consistent with ANILCA.

SUMMARY

The General Management Plan/Land Protection Plan/Wilderness Suitability Review for Cape Krusenstern National Monument presents a plan for management of the monument for the next 10 years. Similar draft and revised draft plans for Kobuk Valley National Park and the Noatak National Preserve were written simultaneously, publicly reviewed, and published in final form.

The "General Management Plan" calls for increased staff and funding, expanded facilities for administrative offices, and construction of government housing and a small aircraft facility in Kotzebue. The National Park Service will initiate research in several areas, including cultural and natural resources, subsistence, and other public uses, with the expressed goal of increasing the information base for the monument. This expanded information base will enable managers to make more informed decisions regarding resource protection and use, and it will significantly contribute to the NPS's ability to develop human use/carrying capacity recommendations in future years. Further, it calls for initiating several new cooperative agreements for management and research. This plan also proposes to work cooperatively with the state of Alaska toward reservation of water rights within the monument, modestly expanding opportunities in Kotzebue to pass out information to the public, and encouraging a new cooperative museum for northwest Alaska in Kotzebue.

The "Land Protection Plan" proposes to protect resources of significant value on nonfederal lands within the boundaries of the monument by a variety of methods. At Cape Krusenstern, the National Park Service will acquire fee-simple interest in native allotments where significant cultural resources exist. Additional research must be done before this can occur. Acquisition may include all, or more likely only a portion, of an individual's allotment. Whenever possible, acquisition will occur on a willing-seller/willing-buyer basis. Other recommended methods of protection include the Alaska Land Bank, cooperative agreements, and acquisition of archeological and conservation easements.

The "Wilderness Suitability Review" finds much of the federal land within the monument suitable for inclusion in the national wilderness system.

Readers of this plan are encouraged to review the entire document so that sections can be viewed in the context of the whole plan.

DIFFERENCE BETWEEN THE DECEMBER 1985 REVISED DRAFT AND THE FINAL PLAN

1. The land protection plan was updated; it now reflects changes resulting from the Cape Krusenstern land exchange.

2. The use of proposed government housing by staff, including local hire staff, was clarified.

3. All parts of this document were updated to change factual items, including proposals and recommendations resulting from the Cape Krusenstern land exchange.

4. The statement that no new airstrips would be proposed in the monument was deleted.

5. The statement that if the Red Dog Mine road is built that other WAATS study corridors would not be necessary was deleted.

6. Management intent on fish and wildlife management was clarified.

7. A new section on public involvement in the plan implementation section was added.

8. The commitment to improve communication with local residents was clarified and strengthened.

9. The process to determine whether ATVs are traditional for subsistence was revised to allow for opportunities to review additional data.

10. Management intent on management of landing strips was clarified.

11. A commitment to inventory access routes and uses and involve the public in future actions regarding access was added.

12. A definition of "traditional" was added (appendix J).

13. The suitability of potential RS 2477 rights-of-way for wilderness designation were further clarified.

14. Management intent for additions to the monument were clarified.

15. NEPA and section 810 compliance requirements for the land protection plan were clarified.

CHANGES THAT WERE NOT MADE IN THE FINAL PLAN

Changes requested that were not made include: RS 2477 maps were not deleted from the plan; the area around the Kakagrak Hills landing strip was not deleted from the wilderness suitability recommendation; three- and four-wheeled vehicles were not determined to be a traditional means of access for subsistence in the monument; the policy on use of timber (greater than 3 inches in diameter) will remain in effect; government housing will still be provided in Kotzebue (when it becomes available) for some employees; a local advisory council will not at this time be recommended for the monument; and no boundary changes will be recommended.

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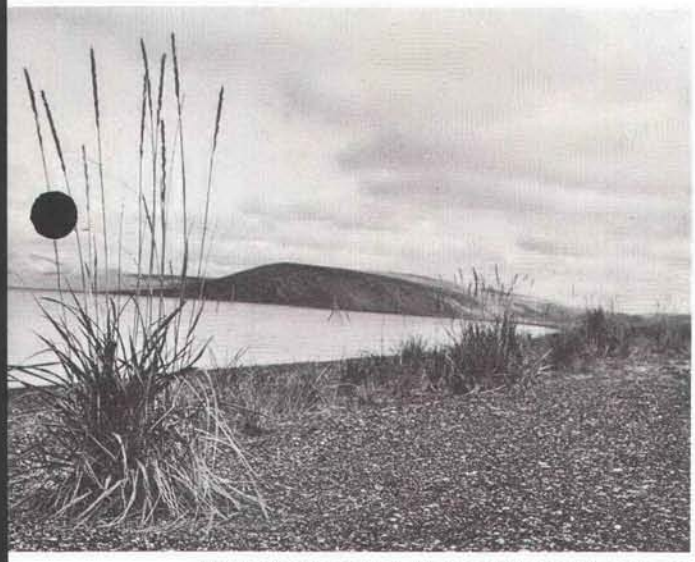
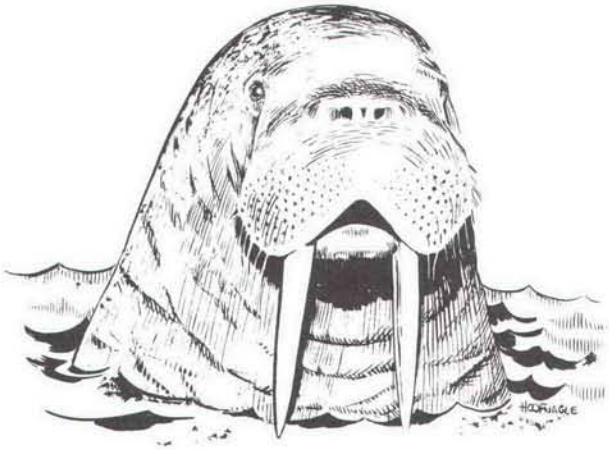
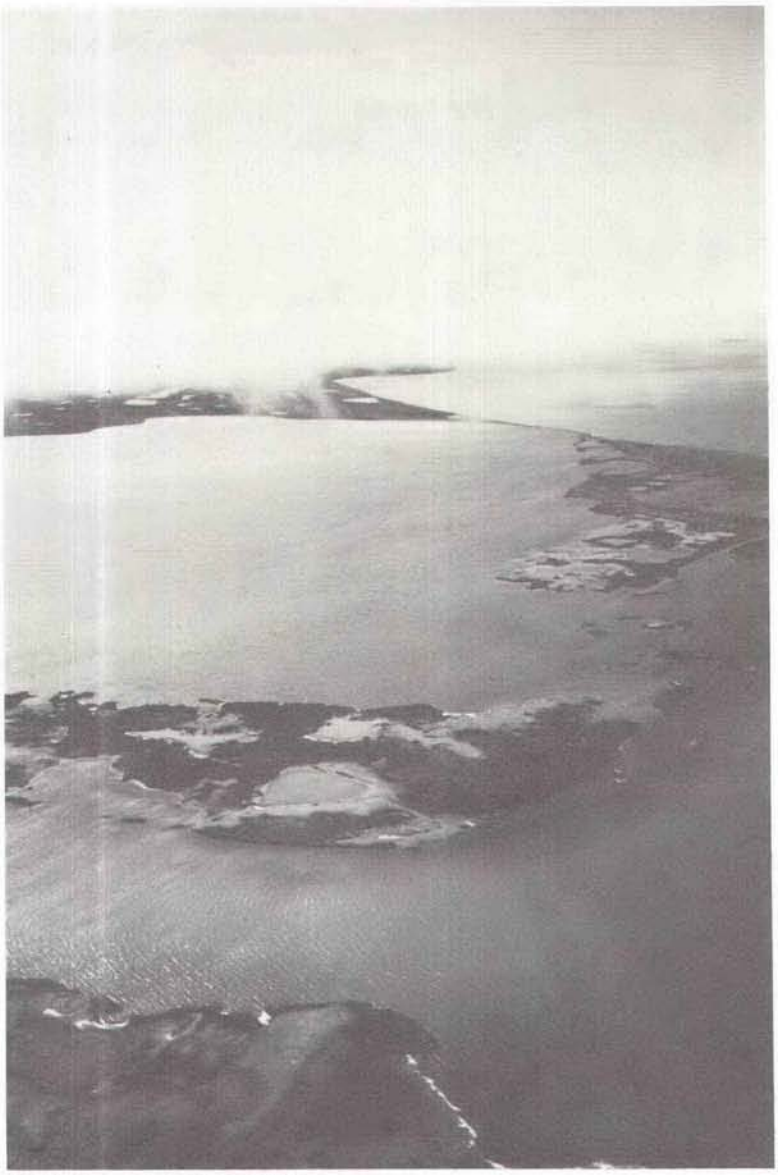
View of Cape Krusenstern, Krusenstern Lagoon to the left.



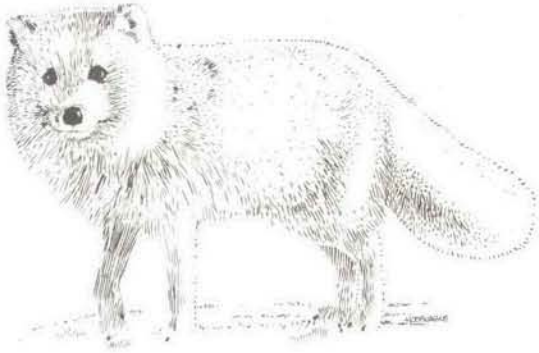
Rye grass along beach ridges of Krusenstern Lagoon.

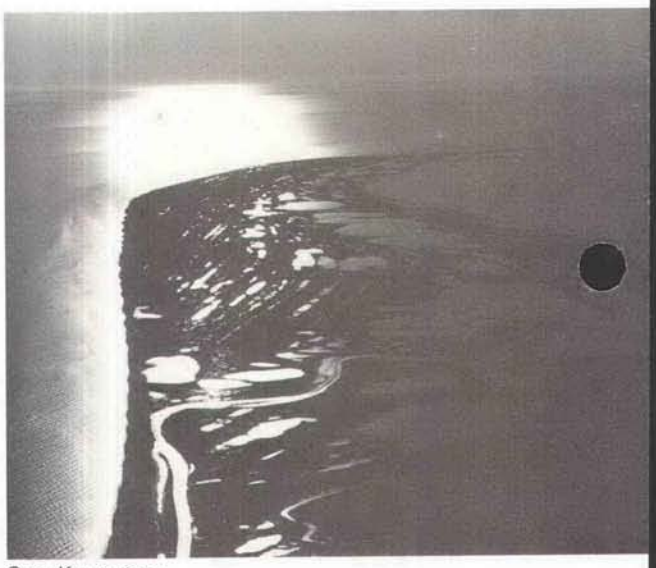
Eskimo woman trimming seal intestines.



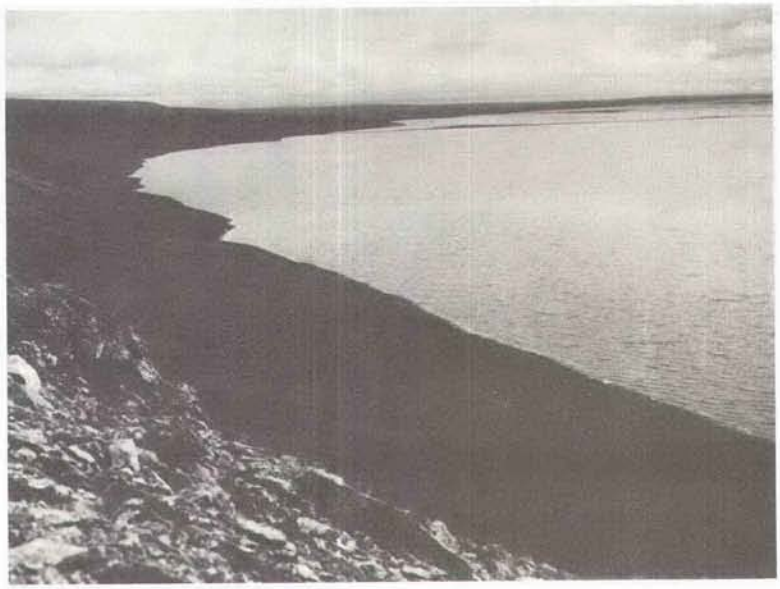


Coastal fog at Cape Krusenstern.





Cape Krusentern.



Krusenstern Lagoon.

INTRODUCTION

INTRODUCTION

MANDATES FOR MANAGEMENT OF THE MONUMENT

Cape Krusenstern National Monument was established in 1978 by presidential proclamation and then designated in the 1980 Alaska National Interest Lands Conservation Act (ANILCA, 16 USC 3101). Section 201(3) of ANILCA specifies that

> The monument shall be managed for the following purposes, among others: To protect and interpret a series of archeological sites depicting every known cultural period in arctic Alaska; to provide for scientific study of the process of human population of the area from the Asian Continent; in cooperation with Native Alaskans, to preserve and interpret evidence of prehistoric and historic Native cultures; to protect habitat for seals and other marine mammals; to protect habitat for and populations of, birds, and other wildlife, and fish resources; and to protect the viability of subsistence resources. Subsistence uses by local residents shall be permitted in the monument in accordance with the provisions of Title VIII [of ANILCA].

Many other sections of ANILCA are directly applicable to the management of the monument. These sections are discussed throughout this document.

Section 203 of ANILCA directs that Cape Krusenstern National Monument be administered as a new area of the national park system, pursuant to the provisions of the organic act of the National Park Service (39 Stat. 535, 16 USC 1 et seq.) as amended. Management and use of all units of the national park system are also directed by chapter I, Code of Federal Regulations, Title 36, some of which are specific to national park system units in Alaska and by NPS policies and guidelines.

MANAGEMENT OBJECTIVES

A Statement for Management for Cape Krusenstern National Monument was approved in January 1984; it guides all subsequent planning and management of the monument. Before its approval, over 150 copies of the statement were mailed out for review and comment. The Statement for Management will continue to be subject to public review and comment, and it will be updated periodically. Objectives for management of the monument are included in appendix E.

MONUMENT ISSUES AND CONCERNS

The major issues concerning Cape Krusenstern National Monument were developed after numerous interviews with individuals in northwest Alaska and others throughout the state. Additionally, a series of public meetings held throughout northwest Alaska in May 1984 provided an in-depth look at the immediate and long-range concerns of many local citizens. Major issues facing the National Park Service in the mananagement of Cape Krusenstern National Monument include the following:

1. Nationally and internationally significant archeological resources in the monument are on private land and other land that is likely to be conveyed to private ownership. Questions have arisen as to how the National Park Service intends to provide adequate protection for these resources without causing inconveniences to or problems for private landowners.

2. ANILCA mandates that the National Park Service shall protect the opportunities for the continuation of subsistence activities, some of which take place at times and locations where recreational users from outside the region visit. The issue revolves around the means of accommodating subsistence and recreational users and preventing conflicts from arising so that restrictions are unnecessary.

3. The National Park Service must deal with the issue of deciding the best approach and methods to be used in managing the nationally and internationally significant cultural resources in the monument.

4. Because ANILCA mandates that opportunities for subsistence activities in the monument be continued, questions are asked about what approach the National Park Service will take and what methods it will use to manage the monument's natural resources, particularly those harvested by subsistence users.

5. Monument users have expressed concern about current access privileges. The National Park Service recognizes the importance of the legislative responsibility to provide adequate access to the monument. It is also important that monument resources be protected--not only in accordance with the provisions of ANILCA, but also in accordance with the provisions of other laws, regulations, and policies applicable to the national park system. The issue revolves around protecting resources and affording adequate and appropriate access to accommodate a variety of users, including those owning land within the monument.

6. Because of a variety of mandates, regulations, and policies, the National Park Service must deal with the issue of deciding the approaches to be taken and the methods to be used in managing recreational uses of the monument.

7. An exchange of lands and interests in lands between NANA Inc. and the United States has resulted in, among other things, a 100-year transportation system easement for 19,747 acres of land in the monument. The easement spans approximately 25 miles of the monument. Proposed development calls for construction of a road from the mine through the monument to the coast and for port facilities and a mining operation that employs approximately 400 people. The issue revolves around how to manage the easement and other use and activities allowed by the agreement and still protect the monument's resources according to the many and varied provisions of ANILCA.

A summary chart of the plan and its relationship to the issues, ANILCA, and the Code of Federal Regulations is found at the end of chapter III.

PLANNING PROCESS AND PUBLIC INVOLVEMENT

ANILCA section 1301 requires that a conservation and management plan be written for Cape Krusenstern National Monument. This general management plan fulfills that legal requirement, and it is expected to remain valid for 10 years. It identifies management practices to carry out the requirements of ANILCA and the NPS organic act, including a description of management programs and methods, development areas, and access and circulation plans. ANILCA requires that the following factors, among others, be considered when developing a management plan for Cape Krusenstern National Monument:

(1) Specific purposes for which the monument was established.

(2) Potential methods of protection and preservation of the cultural, archeological, historical, ecological, environmental, wildlife, geological, recreational, wilderness, and scenic character of the monument and of areas in the vicinity of the monument.

(3) The potential for providing opportunities for local rural residents, including Alaska natives, residing in the monument and areas adjacent to it to continue using the area as they have traditionally done.

(4) The nature and extent of activities occurring in the monument and in areas adjacent to or surrounded by the monument.

The planning process for this general management plan was begun in March 1984 with an announcement in the Federal Register and a scoping meeting in Anchorage to identify issues that should be addressed in the general management plan. In April, May, and June, public meetings were held in Kivalina, Noatak, Kobuk, Shungnak, Selawik, Noorvik, Deering, Ambler, Buckland, and Kotzebue. All of these meetings enabled the superintendent and planners to answer questions and more fully understand peoples' concerns relating to the establishment of the monument and to its current and future management.

Also during March 1984 the planning team began gathering existing data about the region and the monument. Contact was made with the Alaska Departments of Fish and Game, Natural Resources, Transportation and Public Facilities, Commerce and Economic Development, and the Office of Management and Budget. Other contacts included the Citizen's Advisory Commission on Federal Areas Board, NANA Regional Corporation (NANA), Kikiktagruk Inupiat Corporation (KIC), Alaska Federation of Natives, NANA Coastal Resources Service Area Board, Maniilaq Association, the Resource Development Council, and the Audubon Society. A newsletter on the plan was published in July 1984.

The Draft General Management Plan/Environmental Assessment/Land Protection Plan/Wilderness Suitability Review was printed in March 1985 and distributed to the public in April. Over 700 copies were mailed to people throughout the United States and other countries. Beginning on April 29, 1985, the National Park Service held the first of 15 public meetings on the plan, with at least one meeting in each village in the NANA region and one each in Anchorage and

Fairbanks. The original 60-day review period was scheduled to close on June 19, 1985, but it was extended to August 30, 1985. Later it was reopened for an additional 60 days from December 1985 to February 1986. Both verbal and written comments have been throughly reviewed, considered, and incorporated into this final plan to the maximum extent possible.

PUBLIC INVOLVEMENT IN PLAN IMPLEMENTATION

The planning for and management of the units of the national park system in Alaska is an evolving and dynamic process. The general management plan provides overall guidance and direction for the management of the monument and announces the intent of the National Park Service to undertake a variety of actions pursuant to established law, regulation, and policy. Actions proposed in this plan, such as closures and use restrictions, and new or revised regulations do not become effective upon approval of this general management plan. Further information collection and analysis and appropriate public involvement are needed before these actions become final.

It is recognized that involving the public in the development of significant policies and management practices and in further planning for the monument can result in more comprehensive and better proposals and actions by the National Park Service, as well as better public understanding of them.

This section outlines the means by which the National Park Service will ensure continued public involvement in the ongoing planning for and management of the monument. Described here are the procedures the National Park Service will use for public involvement in the areas of policy development, action plans, closures, restrictions or openings, new or revised regulations, and amendments to this general management plan. The superintendent is expected to consult with all affected and interested parties as an integral part of the management of the area.

It is the policy of the Department of the Interior to offer the public meaningful opportunities for participation in decision-making processes leading to actions and policies that may significantly affect or interest them (301 Deparment Manual 2.1). Accordingly, the National Park Service will integrate public participation and the decision-making process. Public participation activities will be scheduled with other elements of the decision-making process to ensure that the timing of information both to and from the public results in the expression of public comment at points in the decision-making process where it can make the greatest contribution. The overall public participation process, closely tied to the decision-making process, will be flexible enough that methods may be added or deleted as public input shows a new level of need or interest.

All public review documents will be submitted to the state of Alaska for coordinated state review. The National Park Service will maintain an active mailing list of groups, agencies, and individuals who have expressed interest in reviewing the documents. These groups, agencies, and individuals will be notified of the availability of public review documents and upon request, copies of such documents will be made available to them.

Policy Development

The National Park Service manages the parks, monuments, and preserves in Alaska for the national interest and recognizes that the policies and management practices implemented by the National Park Service can be of great interest to the people of Alaska and the nation. These policies and practices can also affect the lives of individuals living in or near the areas and the public using the areas.

To the extent practicable, when a new policy or management practice that affects the public is to be developed or an existing policy or practice is to be revised, there will be public notification, ample opportunity for comment, and thorough consideration of comments received. If significant changes are made to the proposed policy or management practice as a result of public comment, there will be additional review prior to the policy or practice being adopted.

Action Plans

Several specific action plans are identified in this general management plan. Future plans include a resource management plan, wilderness recommendations, revisions to the land protection plan, and a subsistence management plan. These plans and the required public involvement are described in the appropriate management sections of this plan, and the major ones are summarized in Appendix F: "NPS Planning Process." These more detailed plans will be initiated by the superintendent over the life of the general management plan. Although it is the intention of the National Park Service to initiate all of the implementing plans identified in the general management plan in a timely manner, the undertaking of these plans will depend on funding and other considerations that cannot be accurately forecast at this time.

As part of the ongoing planning and management for the area, internal planning documents will be prepared. These include an interpretive plan (prospectus) and a scope of collections statement. Formal public review of these types of plans and studies is not anticipated; however, parties expressing an interest in these plans will be involved as appropriate in their preparation and invited to comment on them before they are finalized. Copies will be available from the superintendent upon request.

Closures, Restrictions, and Openings

In cases where the closure of areas within the monument or restrictions on activities are proposed in the general management plan, the procedures of 36 CFR 1.5 and 13.30; 13.46, 13.49, and 13.50 in the case of subsistence; and 43 CFR 36.11(h) must be followed before any proposed closures or restrictions take effect. These procedures also apply to any future proposals to open an area to public use or activity that is otherwise prohibited. The procedures of 36 CFR 1.5, 13.30, 13.46, 13.49, 13.50, and 43 CFR 36.11(h) are available at NPS offices. Specific proposals contained in this plan to close an area or restrict an activity include closing the monument to the use of pack animals, except dogs. (See "Access" and "Closures and Openings" sections in chapter III.)

Regulations

New regulations and revisions to existing regulations will be proposed in accordance with the requirements of the Administrative Procedure Act (5 USC 553). The National Park Service will provide a minimum 60-day comment period.

Amendment of the General Management Plan

Specific parts of the general management plan may be amended to allow for changing conditions or needs, or when a significant new issue arises that requires consideration. Amendments of this general management plan will include public involvement and compliance with all laws, regulations, and policies. If the proposed amendments are minor and not highly controversial, public notice and a 60-day waiting period will take place prior to making decisions to incorporate the changes into the plan. If the amendments are significant or highly controversial, the public will be provided opportunities to participate in the development and review of alternatives and the proposed action. This will include a minimum 60-day public comment period and public meetings as necessary and appropriate. All amendments to the general management plan must be approved by the regional director.

In the future, changing conditions will warrant preparation of a new general management plan. The public will be involved throughout the development of a new plan.

SURROUNDING LANDS

Cape Krusenstern National Monument is in northwest Alaska, approximately 450 miles northwest of Fairbanks and 10 miles northwest of Kotzebue. The monument is bordered by the Chukchi Sea on the west and Kotzebue Sound on the south. To the north and east are the river drainages of the Wulik and Noatak rivers.

Lands and waters surrounding the monument are managed by several governmental agencies, private corporations, and individuals. North and northeast of the monument is a mixture selected, tentatively approved, and patented state lands, and of selected, interimly conveyed, and patented native corporations' lands. The village of Kivalina lies approximately 10 miles northwest of the northern boundary.

Immediately to the east of the monument are lands managed by the Bureau of Land Management (BLM), and further east along the Noatak River are lands selected by native corporations. The village of Noatak is approximately 9 miles east of the monument, and Noatak National Preserve lies some 10 miles east of Cape Krusenstern at its closest point.

All of the land surrounding the monument is available for a variety of potential uses. Under current BLM management, the lands immediately east of the monument are open to mineral entry. The Red Dog Mine is the only major active proposal at this time that could significantly affect the monument and its resources. Developments are expected to include a 57-mile road, 25 miles of which would be in the monument. Also inside the boundaries would be

an ore storage facility and a port site. An accommodation center and the mine itself are to be 25 miles northeast of the monument.

BRIEF DESCRIPTION OF THE MONUMENT

North of Kotzebue and above the Arctic Circle, the monument is comprised of 659,807 acres of land and water. It is characterized by a coastal plain dotted with sizable lagoons and backed by gently rolling, limestone hills. On the east, the coastal plain meets an ancient sea cliff now mantled with tundra and blue-gray limestone rubble. In the southeast portion of the monument is the highest point, Mount Noak (elevation 2,010 feet).

Cape Krusenstern's bluffs and its series of 114 beach ridges show the changing shorelines of the Chuckchi Sea and contain a chronological record of an estimated 6,000 years of prehistoric and historic uses of northwest Alaska's coastline, primarily by native groups. Some of the archeological resources in the monument are older than the more well-known remains of ancient Greek civilization found along the Mediterranean Sea. The beach ridges along the monument's coast are known to contain exceptional resources for analyzing and interpreting the life cycles and technologies that ensured human survival in the arctic for the last 60 centuries.

Along the shoreline of the monument shifting sea ice, ocean currents, and waves have formed, and continue to form, spits and barrier islands that are considered important for their scientific, cultural, and scenic values. These same oceanic forces are integral to the dynamic nature of the beach ridges and the annual openings and closings of lagoon outlets.

The broad plain between the hills of the cape and the hills in the northern sector of the monument is the tundra-covered bed of an Illinoisan glacier formed 250,000 years ago. It is also the former (now dry) course of the Noatak River. Pingos, eskers, frost polygons, thermokarst lakes, and ice lenses are tundra forms found in the monument.

Five complete, though small, arctic river systems are important resources that influence the dynamics of the monument's ecosystem.

ACCESS TO THE REGION

Northwestern Alaska is not connected to the state's road system. Daily commercial jet flights connect Anchorage to Kotzebue, the largest community in the region. From Kotzebue, access to the monument is by aircraft or boat; in winter, during periods of adaquate sea ice, access by snowmachine, three-wheeled all-terrain vehicle, and dogsled is possible. Average flight time for a chartered aircraft to drop off passengers at Cape Krusenstern and return to Kotzebue is one hour. Aircraft land on public and private landing strips, beaches, tundra, or if float-equipped, on lagoon waters. Extremely variable weather can and does curtail travel to and from the monument.

REGION

Cape Krusenstern
National Monument

United States Department of the Interior
National Park Service

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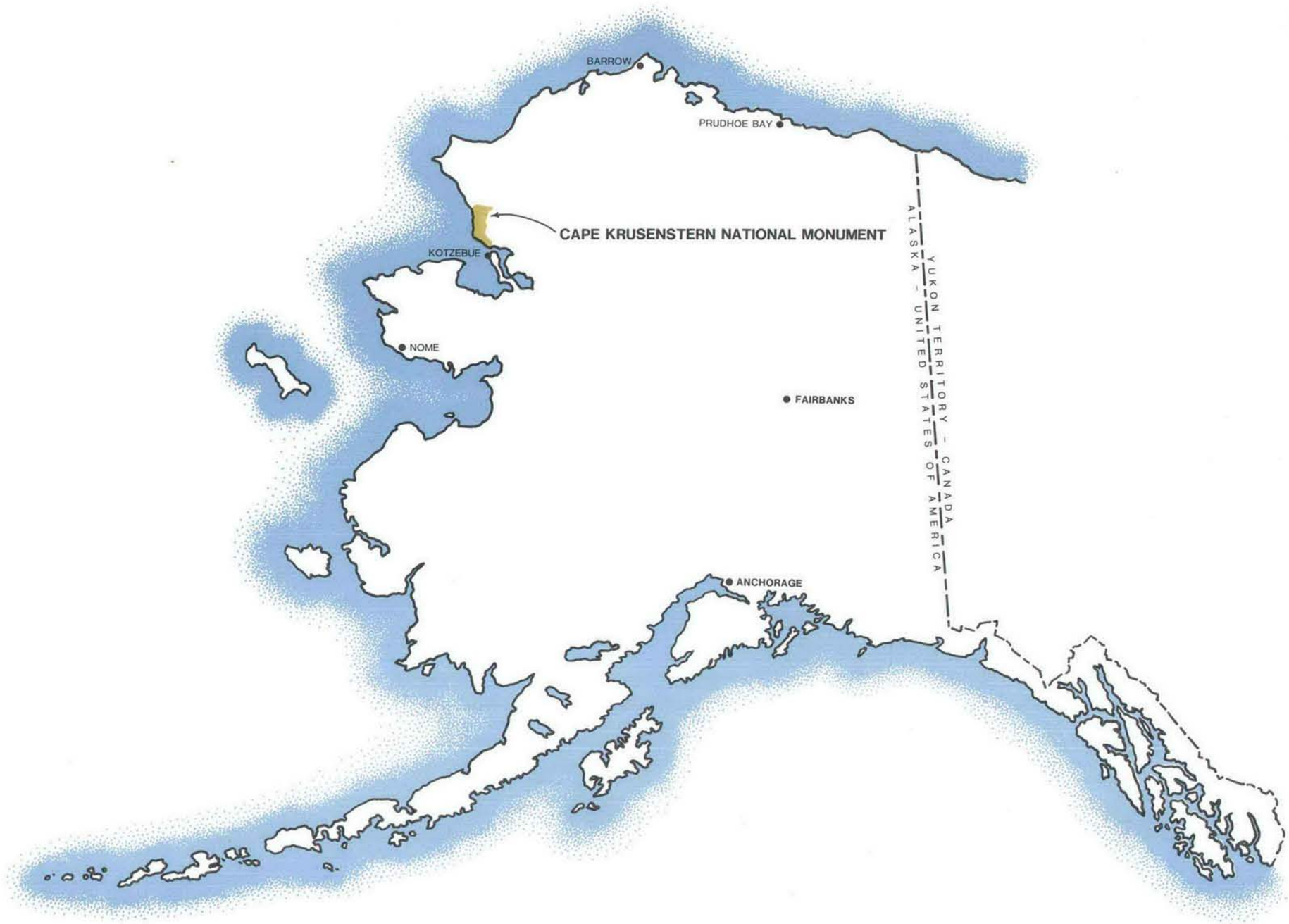

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VICINITY

Cape Krusenstern National Monument

United States Department of the Interior
National Park Service

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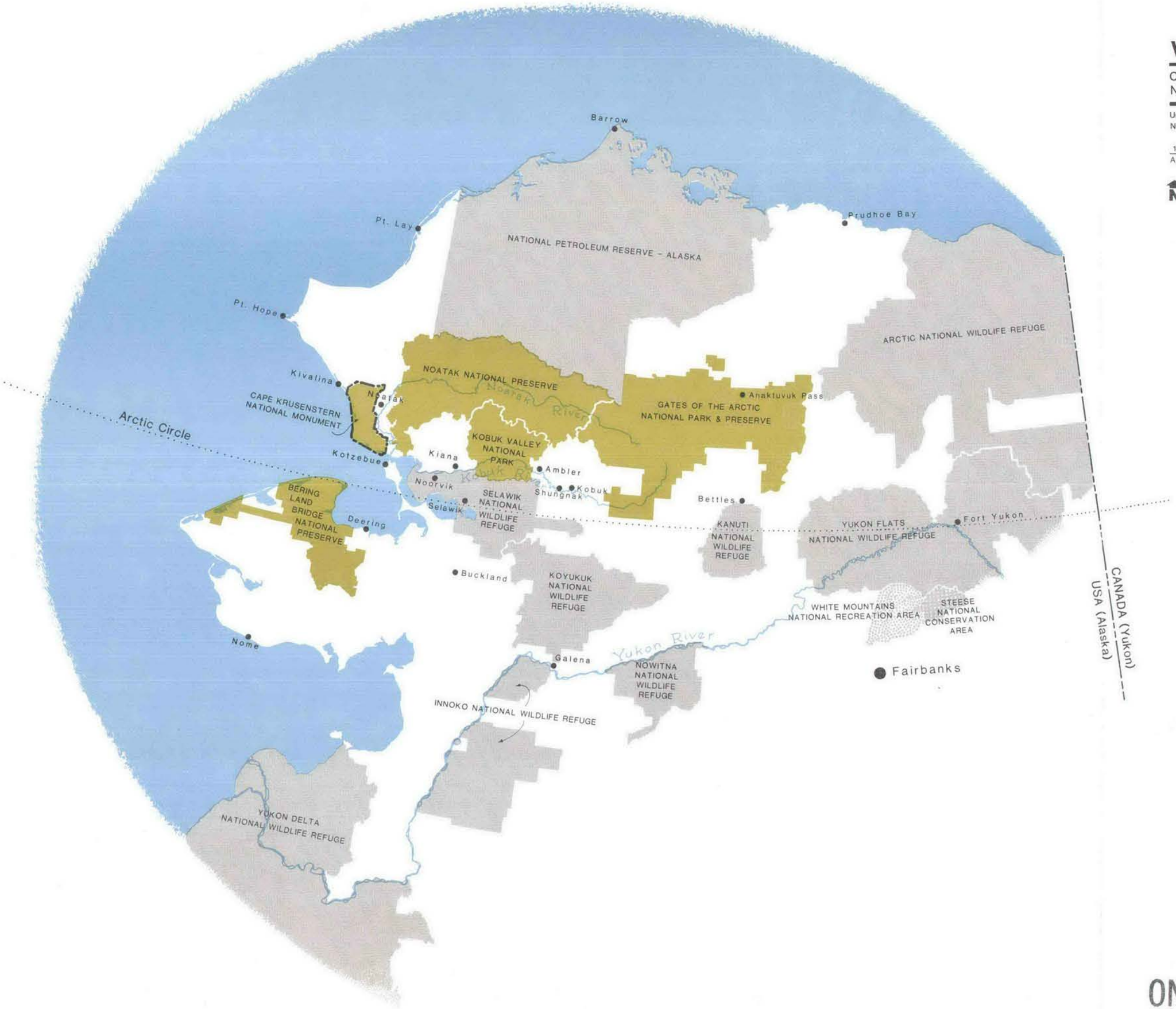

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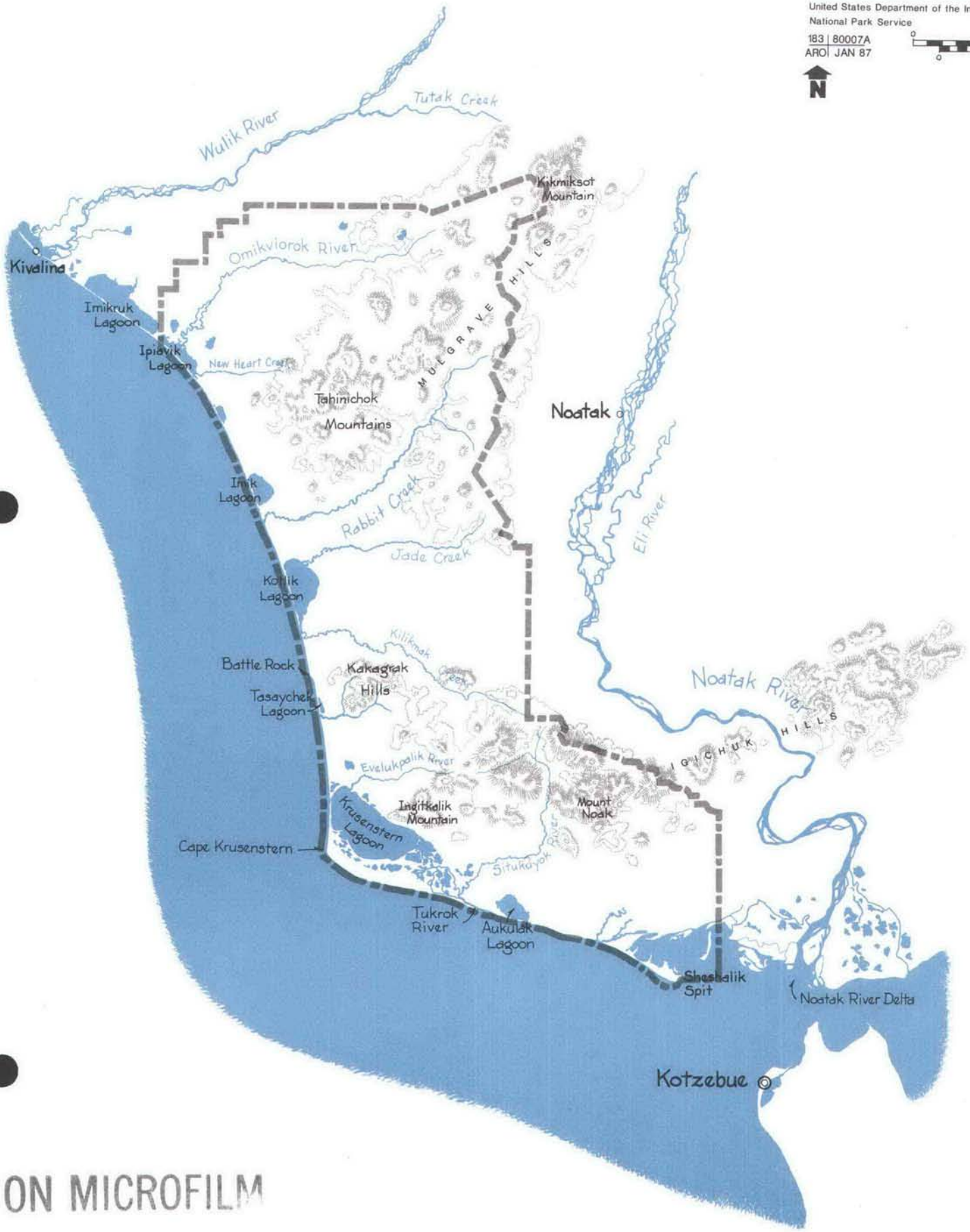

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AFFECTED ENVIRONMENT

AFFECTED ENVIRONMENT

CULTURAL RESOURCES

The monument's resources are a combination of dynamic and interacting elements. Following the description of each element, a brief list of implications for planning or management of the monument is presented.

Prehistoric

Northwest Alaska in general, and the monument specifically, is not the empty, trackless wilderness that many people might perceive it to be. Humans have continuously explored and lived here and utilized its resources for more than 12,500 years. In fact it is the preservation of the remains of these people's lives, their houses, tools, and artifacts that creates a major reason for the existence of the monument. Cape Krusenstern National Monument contains some of the most important prehistoric sites in the Arctic.

It has been well established (Hopkins 1967, 1982) that the great continental glaciers of the last ice age locked up vast amounts of water as ice. As a result sea levels were lowered, exposing a large land mass called Beringia (more than 1,000 miles wide at one point) that functioned as a land bridge between Alaska and Siberia and was above sea level from 25,000 to 14,000 years ago. Although the rising seas broke through about 14,000 years ago (Anderson 1981), the present sea levels were not reached until 4,500 years ago.

Even today the Bering Strait, about 90 miles wide, is easily crossed and is not really a barrier to human passage, especially in winter when choked with ice. It was across the Bering Land Bridge, and later across the inundated strait itself, that successive cultural groups of people entered northwest Alaska. Some groups continued on, eventually spreading over the face of the New World, all the way to the tip of South America. Other groups stayed to explore, settle, and adapt to Alaska and the Arctic. The prehistoric record of northwest Alaska contains the story of this process. However, our knowledge of the regional prehistory is hampered by a lack of information. Much of the area has not been thoroughly investigated. The Cape Krusenstern area in the monument, along with Onion Portage in Kobuk Valley National Park, provides the best information available about northwest Alaska prehistory, although more can still be learned at the cape, elsewhere in the monument, and in the region.

The archeological record in the monument reveals several main streams of cultural development and adaptation in northwest Alaska. The earliest people, the Paleo-Arctic tradition (a tundra culture), arrived in the region 12,500 or more years ago. Traces of their presence are few. We do know that they came from northern Asia and were nomadic hunters and gatherers, living off the land and traveling in small groups. Unlike many later groups, these early people did not depend on sea mammal hunting for their subsistence, but depended on caribou and other land animals (Anderson 1981). (See Cultural Sequence map.)

The next wave of people apparently moved into northwest Alaska from the forested regions to the south and east. These Northern Archaic peoples arrived about 6,500 years ago and had a distinctively different material culture, apparently depending on caribou and stream-caught fish for their livelihood and staying inland and near treeline most of the time. Because of their interior origin, many archeologists consider that these people represent an Indian rather than an Eskimo culture.

Around 4,200 years ago Arctic-oriented cultures again appeared on the scene in northwest Alaska. Either a new wave of people or new ideas swept into Alaska from Asia. This Arctic Small-Tool tradition, named after their finely made stone tools, was a dynamic one, adapting to efficient use of a wide range of arctic resources. The first people of this tradition (the Denbigh Flint culture) spread as far south as Bristol Bay and as far east as Greenland, occupying interior and coastal areas.

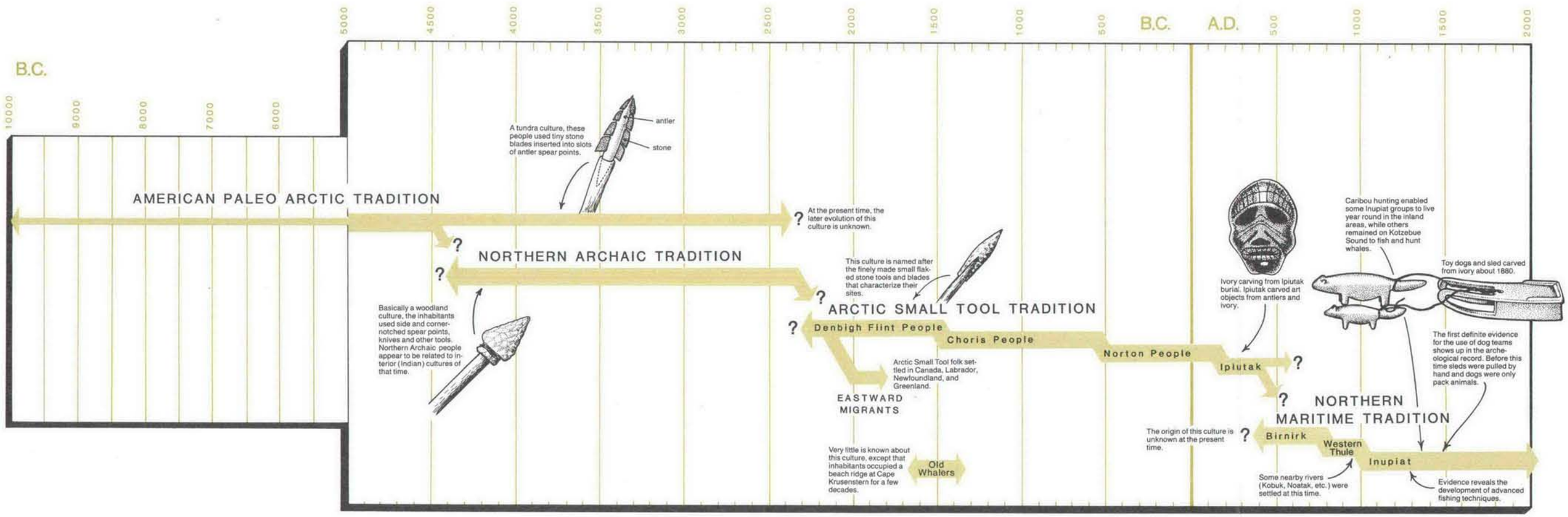
The spread of Arctic Small-Tool tradition people throughout arctic Canada, the first to do so, and their long timespan (the tradition lasted over 1,000 years) show that they were adept at the use of both coastal the interior resources. Major settlements have been found in coastal areas in the region, like the beach ridges at Cape Krusenstern and the Choris Peninsula, which was the home of the Choris people who were direct descendents of the Denbigh people.

By about 2,500 years ago people of the Arctic Small-Tool tradition and the related Norton/Ipiutak tradition had shifted much of their emphasis to coastal living and the use of marine resources. There are some indications that whaling had begun and was gaining importance. Interior resources, such as caribou from the tundra and the forest, were still sought and used extensively. Norton settlements sprang up in most productive coastal locations from the Alaska Peninsula around to a point east of the U.S.-Canada border. Fishing with seine nets became a primary source of food. The later Ipiutak people developed an advanced art style based on ivory carving.

Around 1,600 years ago a new cultural group appeared. It is not known whether these people came from Asia or developed from the earlier arctic peoples in Alaska. Whatever their origins, this group developed the full-fledged Eskimo lifestyle of utilizing marine resources such as seal, walrus, and whale and interior resources such as caribou and musk-ox. These people of the Northern Maritime tradition developed from the Birnirk culture into the Western Thule culture, which spread all across the Arctic from Norton Sound to Greenland. From the Western Thule culture came the modern Eskimo, the Inupiaq (identifiable in the archeological record by around 900 years ago). The Inupiaq used advanced fishing and hunting techniques such as the drag float and the sinew-backed bow. The first archeological evidence for the use of dogs to pull sleds shows up about 500 years ago. Before this, sleds were pulled by people and dogs were used as pack animals. Some people moved inland full time; others moved to the rivers (for example, the Arctic Woodland culture on the Kobuk River) and developed more specialized lifestyles. However, extensive trading networks were maintained throughout northwest Alaska.

CULTURAL SEQUENCE IN NORTHWEST ALASKA

United States Department of the Interior
National Park Service



(Adapted from Anderson, 1981: 56)

The traditional lifestyles of the Inupiaq remained fairly stable until about 1850. Russian trade goods had reached northwest Alaska during the 18th century through trade with Siberian peoples across the Bering Strait, but these goods had not significantly affected local people. Eskimo culture began to change significantly in response to outside contact after 1850.

In the late 1800s, when contacts with the outside world were significant, the fur trade expanded in economic importance and the use of sophisticated dogsledding methods became common. These concurrent developments allowed greater mobility and resulted in people spreading out over larger areas in winter and abandoning many of the larger villages. It was not until schools, post offices, and trading posts were set up around 1900 that large villages were again established (Anderson 1981:57).

Because of the national and international significance of prehistoric sites in Cape Krusenstern National Monument, in 1973 the monument area was designated as a national historic landmark and as a national archeological district on the National Register of Historic Places. (It should be noted that the landmark and district boundaries encompass an area much larger than that of the monument.) The monument has also been entered on the list of potential World Heritage nominations and could be only the second U.S. national park on the world cultural list (see Cultural Resources map).

Within the boundaries of the monument, 16 Alaska Native Claims Settlement Act (ANCSA) 14(h)(1) sites (native cemetery and historic sites) have been identified and selected by NANA (see Cultural Resources map).

The core of the archeologic district lies in the monument at Cape Krusenstern where the complex of approximately 114 marine beach ridges occurs. These beach ridges run roughly east-west, parallel to the present shoreline. They are composed of alluvium, are only about 10 feet above sea level, extend from 1-1/2 to 3 miles toward the sea, and are about 9 miles long. These beach ridges, formed of gravel deposited by major storms and regular wind and wave action, record in horizontal succession the major cultural periods of the Arctic over the last 4,500 years. The prehistoric inhabitants of northwest Alaska occupied the cape seasonally to hunt marine mammals, especially seals. As new beach ridges were formed, camps were made on the ridges closest to the water. Thus, over the centuries, a chronological "horizontal stratigraphy" was laid down in which the oldest cultural remains are found on the fossil beach ridges furthest from the ocean, with more recent remains and modern camps found on beach ridges closer to the water. The discoveries made at Cape Krusenstern, especially when used in conjunction with those at Onion Portage in Kobuk Valley National Park, provide a definite, datable outline of cultural succession and development in northwest Alaska.

The present coastline in the monument is the center of subsistence activities of present-day users from Kotzebue, Noatak, Kivalina, and the general area around the monument. Immediately behind the active shoreline at Cape Krusenstern, the first eight beach ridges contain evidence of the presence of modern to late prehistoric Inupiaq, dating back to about 600 years ago. Beaches 9 through 44, dating from about 1,000 to 2,400 years ago, contain in sequence, remains of campsites, house ruins, and artifacts of the Western Thule, Birnirk, Ipiutak, and Norton cultures. The Birnirk and Western Thule

cultures, which are part of the Northern Maritime tradition, evolved directly into the present-day Inupiat cultures of the Arctic.

The next group of beaches contain campsites of several stages of the Choris culture, dating from 2,500 to 3,500 years ago.

On beach 53, Giddings (1967) found the ruins of winter and summer houses of a unique whale-hunting group, including large stone tools and weapons never found before or since anywhere else. Named the Old Whaling culture, it dates from around 3,500 years ago and represents the earliest evidence in northwestern Alaska of year-round coastal life (Anderson 1977).

The oldest beaches contain evidence of the Denbigh culture, a remarkable stone-working complex that epitomizes the Arctic Small-Tool tradition. These people produced some of the most finely made stone tools ever found. Denbigh artifacts are related not only to those found in regions to the south (as far as Bristol Bay) and east (as far as Greenland), but also to cultural complexes in Siberia. At Cape Krusenstern ridges 78 to 80 exhibit artifacts of an early Denbigh phase (4,500 years ago), and the inner beach ridges (83 to 104) have artifacts dating from around 5,000 years ago.

The prehistoric cultural resources of the monument are not limited to the beach ridges but may be found throughout the area. In northwestern Alaska the only existing shore-edge features dating to earlier than 5,000 years ago (when the post-Pleistocene sea levels stopped rising) are the higher sea cliffs where perhaps earlier coastal archeological sites may be found. In the monument these cliffs exist only at Battle Rock, the western face of the Kakagrak Hills, and the bluffs around Ingitkalik Mountain.

Major sites have been found at several of these locations. One of these is the Lower Bench site. Two benches extend from Ingitkalik Mountain on the northeast shore of Krusenstern Lagoon, probably representing ancient shorelines formed before the beach ridges. On the lower bench, J.L. Giddings found a site that he dated around 3,500 B.C., just slightly older than the inner beach ridges and possibly from the Denbigh culture. Anderson (1977) feels that this site could be even older, from 4,500 to 8,000 years in age. Higher up on the slopes of the mountain, Giddings found another site called the Palisades site. Two components were identified. One of them, Palisades II, is at least 6,000 years old and is part of the Northern Archaic tradition. Related sites have been found at Onion Portage on the Kobuk River and at Anaktuvuk Pass (the Tuktu site) in the Brooks Range. This tradition appears to be a culture that is related to cultures in interior, forested Alaska and that expanded to the north and west for a short period of time about 8,000 years ago. The other component, Palisades I, could contain the oldest cultural material in the monument (Giddings thought so), but further investigation is needed before its full significance can be determined.

The coast north of the cape and the drainages flowing to it comprise a nearly continuous archeological zone whose resources have only been partially investigated. The density of site occurrence appears to be less than at the Cape and at Sheshalik Spit, but they are equally important because they represent a different part of the life cycle and seasonal rounds of the early inhabitants. The most significant of these sites was found by Giddings in

CULTURAL RESOURCES

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve

United States Department of the Interior
National Park Service

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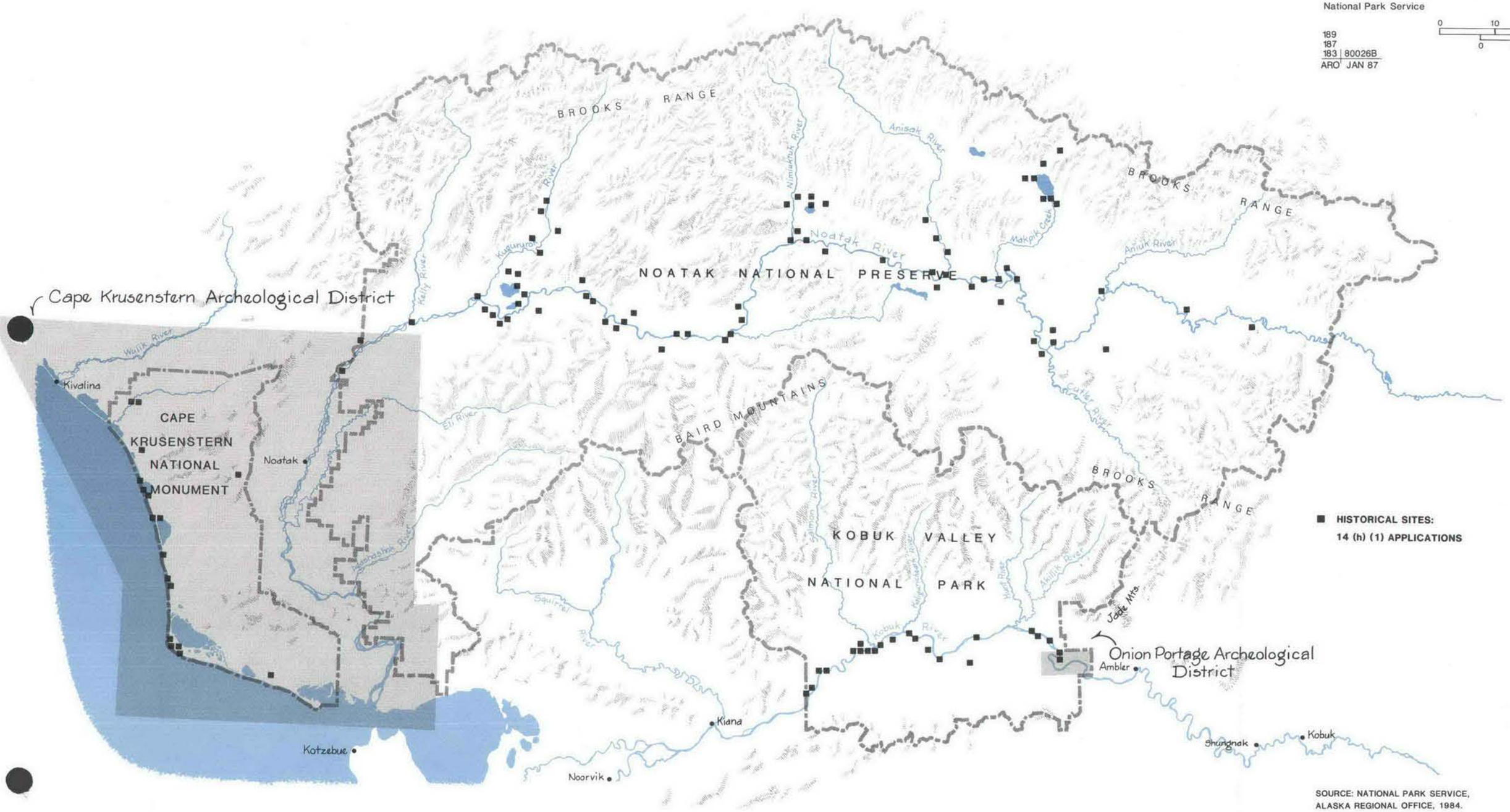

SOURCE: NATIONAL PARK SERVICE, ALASKA REGIONAL OFFICE, 1984.

ON MICROFILM

1967 on a rounded coastal limestone outcropping with a thin tundra sod. It was called Battle Rock by him because it was the location of a legendary fight between people from the cape and Point Hope. However, its history proved to be more complex than that. Stone-lined graves from the Western Thule or related cultures were found. Also there was evidence that people of the Arctic Small-Tool tradition cultures (Ipiutak, Choris, Norton, and Denbigh) had used Battle Rock. Also discovered were the remains of a large stone-lined, multiple burial containing the parts of more than one human skeleton and other artifacts, including 300 antler projectile points. It was assigned to a unique complex and named the Battle Rock phase (Giddings 1967). This phase is probably related to the Norton culture (of the Arctic Small-Tool tradition), but has some intriguing differences that need further research and interpretation.

More recent surveys of the northern part of the monument (Anderson 1977, Hall 1983) indicate that there are more sites scattered over the noncoastal areas. Sites found by Anderson on Rabbit Creek and New Heart Creek indicate a long-term use of that area extending over several thousand years (from pre-Denbigh times up to the late prehistoric period). Hall has found several more sites along the route of the proposed Red Dog mine road, including another stone-lined grave site and one from the Northern Archaic period (8,000 years ago).

Historic

Exploration and use of the Cape Krusenstern area by western civilization was preceded by more than 150 years of trade and contact along the coast of northwest Alaska. Russian trade goods reached people of the Kotzebue Sound through extensive trade ties across the Bering Strait between the native people of eastern Siberia and those of northwestern Alaska. Several voyages of exploration opened the era of European contact. In 1730 Michael Gvozdef and Ivan Fedorov reached the Diomede Islands and sailed along the Seward Peninsula. Both Vitus Bering (1741) and James Cook (1776) missed Kotzebue Sound on their voyages. It was Otto von Kotzebue who made the official discovery of the sound in 1816. He named the cape marking the northern entrance of the sound after his former commander, Admiral A.J. Krusenstern (Orth 1967). In 1816 Kotzebue noted permanent habitations at Cape Krusenstern. (H.W. Elliott also reported the cape as occupied in 1874.) In 1819 an American named Gray explored the area for John Jacob Astor, thereby establishing an American presence in the area. In 1820 G.S. Shishmaref surveyed the coast between Cape Krusenstern and Icy Cape. Captain F.W. Beechey from England entered Kotzebue Sound in 1826 and explored Hotham Inlet, which he named.

After this time, the increasingly frequent visits to the area by traders and whalers began to seriously affect the native way of life. Trading upset older habits and introduced new technologies, the reduction of the whale and caribou populations threatened the subsistence hunt, and diseases were introduced. When H. Zagoskin of the Russian Navy visited Kotzebue in 1842, he found that more than half the population had died during the smallpox epidemic of 1838-39.

Between the mid and late 1800s the interior country was penetrated by various military expeditions. Cantwell explored the Kobuk River, and McLenegan went up the Noatak. Further exploration in the area took place during the winter of 1885-86 when Stoney and his men explored the Kobuk River country and parts of the western Brooks Range. In 1897 a reindeer station was established in Kotzebue to offset the severe decline in the caribou population that was eroding the native way of life. In 1899 a post office made the name Kotzebue official, and the Society of Friends opened a mission and a school in town. The pressure for acculturation continued to grow. The desire for schooling, interest in Christianity, and access to trade goods and work drew many people to Kotzebue to live. Seasonal use of the Cape Krusenstern area continued, however, as people from Kotzebue, Kivalina, and Noatak traveled there to harvest marine and land resources. By 1958, when Giddings visited, the Cape was used only sporadically and seasonally (Giddings 1967).

Sheshalik Spit, which is at the southern end of the monument, has been heavily used for more than a century. It is extremely likely that an intensive archeological survey there would reveal evidence from earlier times. Today it is the most heavily used part of the monument, with intensive subsistence activities occurring during much of the year, especially in the late spring and summer months.

Near the outlet to Krusenstern Lagoon are the remains of an Alaska Road Commission mail cabin. The date of construction is unknown. Without a roof, the cabin is rapidly deteriorating.

Implications. The cultural resources in the monument have national and international significance and require the fullest attention available in the management of these resources. Because a baseline survey has never been carried out to identify additional cultural resources within the monument and because the potential for discovery in the area is so high, it should be presumed that additional sites will be discovered. Existing prehistoric and historic sites offer an outstanding opportunity to interpret a variety of themes that revolve around the monument's cultural resources. Cultural resources in the monument are protected by a number of overlapping state and federal laws. These laws mandate various types of protection and mitigation actions in the event of certain actions or disturbances.

NATURAL RESOURCES

Climate

The climate of Cape Krusenstern is essentially maritime, influenced by the adjacent Kotzebue Sound and Chukchi Sea. Cloudy skies, frequent fog, westerly winds, and minor fluctuations in daily temperatures are normal. In October when offshore waters become frozen, a more continental climate prevails. Temperatures decrease dramatically and fluctuate over a greater range during the winter months.

Average daily temperatures for the summer months (June, July, August) at Kotzebue range from 43°F to 53°F, with the highest temperatures occurring in July. Temperature extremes have reached as high as 85°F (during July 1958 at Kotzebue) and as low as 20°F (in June 1948) (NOAA 1982). The coldest months

are from January until early March, when average daily temperatures range between -40°F and 0°F. Temperature extremes at Kotzebue for the same period reached a low of -52°F in February 1980 (NOAA 1982).

During the winter months, lower temperatures and windchill dramatically affects and influences biological systems in the region and require that persons outside take precautions against the cold. An air temperature of 0°F, for example, influenced by a 15-mph wind reduces the temperature to a windchill of -30°F.

Precipitation at Kotzebue is light, with only about 9 inches falling annually. More than half of this moisture falls between July and September, when a warm, moist movement of air from the southwest predominates. August is the wettest month, with a mean monthly precipitation of 2.26 inches. In total, precipitation occurs on an average of 110 days per year.

Snowfall can occur during 10 months of the year, July and August usually being the exceptions. Annual snowfall averages less than 50 inches. An extreme high in monthly snowfall occurred during March 1954 when 21.9 inches fell.

Winds are common in the monument, particularly along the coastline, with mean annual speeds of approximately 13 mph. Mean monthly winds at Kotzebue are above 12 mph from September until April and blow from the east. Cyclonic storms are frequent during this time and are often accompanied by blizzard conditions. Wind speeds can reach 100 mph. Mean monthly wind speeds are comparable for the summer months but are from the west. Summer storms can cause coastal flooding in Kotzebue and other coastal communities.

The monument has extreme seasonal variations in daylight because of its northern location. The sky remains light for three continuous months in summer, while in midwinter a diffuse light occurs for only two to three hours per day. Clear skies are experienced on approximately 95 days each year, while cloud cover blankets the area on 70 days annually.

Freeze-up at Kotzebue occurs generally in late October and breakup in late May or early June.

Climatic conditions, including low temperatures and long seasons of light and darkness, play a major role in the lives of the area's inhabitants and monument visitors.

Implications. Cold temperatures, the windchill factor, and other rigors of weather influence public use and safety in the monument. The weather and its extremes will also influence the monument's staff while performing all aspects of outdoor work. Intense cold will also affect all structures and the performance of machinery.

Air Quality

Although comprehensive data are not available for the monument, the air quality of the monument and surrounding area is considered to be excellent. Arctic haze occurs in the region, but data are very scarce. The National

Park Service installed an air particulate sampler at the Red Dog Mine site in spring 1986 to begin generating air quality data for the area. This will enable the National Park Service to compare readings taken now with those taken in future years and better compare any changes that might occur. The monument and surrounding area have a class II air quality classification, which allows slight deterioration associated with moderate, well-controlled, industrial and population growth. The lack of concentrated point sources of pollution and the fluxing of air, particularly along the coast, should deter the accumulation of air pollutants well into the future.

Implications. Until systematic, on-site, air quality monitoring occurs, no truly accurate baseline data for the monument will be available.

Geology

The geological framework of the northwest Alaska region was set by the late Paleozoic era, 600 million years ago (see Geological and Paleontological map). During the Triassic period, 225 million years ago, the site of the present Brooks Range was stablized, and limestone and chert were formed. The process of mountain-building began during the mid-Jurassic period.

Then, 135 million years ago the land was intensely folded and faulted, and the existing east-west fault trends within the area were established. In late Miocene time, 25 million years ago, seas flooded much of the formerly dry area of the Chukchi zone but retreated somewhat to form a land bridge between Siberia and Alaska. This land area was again overlain by seas about 4 million years ago and remained so until approximately 1 million years ago.

The ice advances that occurred during Pleistocene time, 1 million years ago, caused a substantial drop in sea level and a consequent exposure of the land mass known as Beringia. Continental ice sheets did not cover all of northwest Alaska at this time, although glaciers did encompass most upland areas. The last retreat of the glaciers established the present sea level approximately 4,500 years ago.

Bedrock geology of the inland area north and east of the Krusenstern Lagoon includes rocks from Precambrian to Devonian times. Limestone, dolomite, chert, and phyllite are greatest in abundance. The southern extension of the Mulgrave Hills within the monument, known as the Tahinichok Mountains, contains dolomite, sandstone, shale, and limestone from the Devonian to Mississippian periods.

Glaciofluvial deposits are found over an area between the Noatak River to Kotlik Lagoon and between the Kilikmak and Jade Creek drainages. Within the monument this area was twice affected by glacial advances during the Pleistocene epoch. The first glacial advance occurred during the middle Pleistocene time (Hopkins, 1977). This event occurred between 250,000 and 1,250,000 years ago. The second, and more recent, glaciation correlates with the Illinoisian glaciation of the central United States and occurred between 125,000 and 250,000 years ago. During both periods of glaciation large glaciers extended down the Noatak River drainage, across the lowland area east of the Kotlik Lagoon, and left the present glaciofluvial deposits. The monument has not been glaciated for approximately 125,000 years. A unique

GEOLOGY & PALEONTOLOGY

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve

United States Department of the Interior
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PALEONTOLOGY

(FOSSIL COLLECTION SITES)

SITE 1. CONODONTS / RADIOLARIANS
SITE 2. CONODONTS / RADIOLARIANS
SITE 3. CONODONTS / RADIOLARIANS
SITE 4. BRACHIOPODS
SITE 5. CONODONTS
SITE 6. STROMATOPOROIDS / CORALS
SITE 7. CONODONTS
SITE 8. PLANTS (MESOZOIC)
SITE 9. CONODONTS
SITE 10. ECHINODERMS / BRACHIOPODS / SPONGE
SITE 11. CORALS / BRACHIOPODS / CONODONTS
SITE 12. RADIOLARIANS / PELECYPODS / CONODONTS
SITE 13. ECHINODERMS / CORALS / BRACHIOPODS

SOURCE: (FOR SITES 1-13) MF-1441, *GEOLOGY OF THE SINIKTANNEYAK MOUNTAINS AND MT. OPHIOLITE, HOWARD PASS QUAD*, BY STEVEN W. NELSON AND WILLIS H. NELSON, 1982.

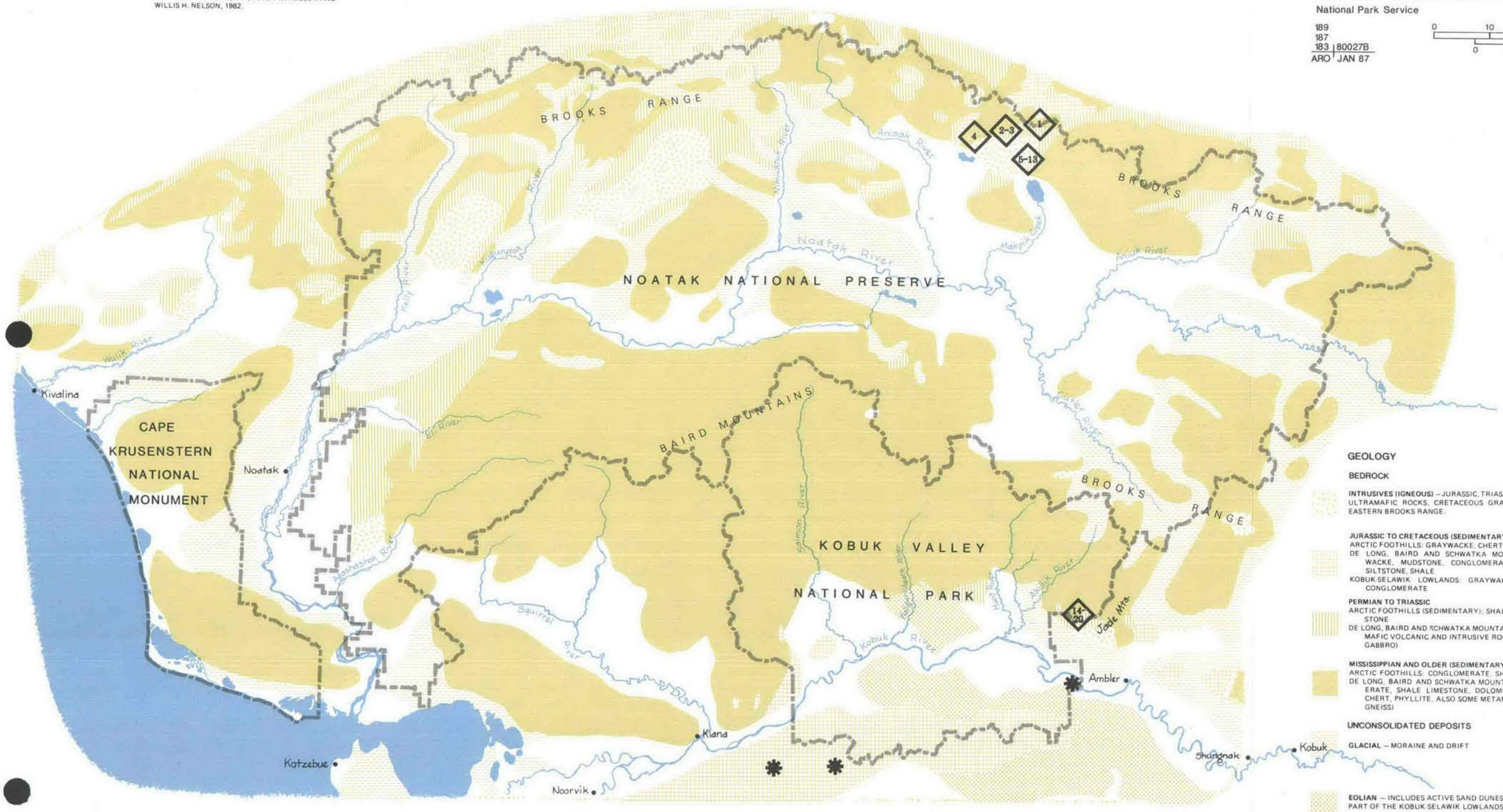
SITE 14. CORALS (MISSISSIPPIAN)
SITE 15. CORALS (MISSISSIPPIAN)
SITE 16. CORALS (MISSISSIPPIAN)
SITE 17. CORALS (MISSISSIPPIAN)
SITE 18. CORALS, STROMATOPOROIDS, GASTROPODS
SITE 19. CORALS, STROMATOPOROIDS, GASTROPODS
SITE 20. CORALS, STROMATOPOROIDS, GASTROPODS

SOURCE: (FOR SITES 14-20) I-554, *REGIONAL GEOLOGIC MAP OF THE SHUNGNAK AND SOUTHERN PART OF THE AMBLER RIVER*, BY W.W. PATTON, JR., T.P. MILLER AND IRVIN L. TAILLEUR, 1968.

SITE LOCATIONS

OTHER MAPPED SITES

OTHER UNMAPPED PALEONTOLOGICAL RESOURCES OCCUR IN THESE PARKS.



GEOLOGY

BEDROCK

INTRUSIVES (IGNEOUS) – JURASSIC, TRIASSIC AND PERMIAN ULTRAMAFIC ROCKS, CRETACEOUS GRANITIC ROCKS IN EASTERN BROOKS RANGE.

JURASSIC TO CRETACEOUS (SEDIMENTARY)
ARCTIC FOOTHILLS: GRAYWACKE, CHERT
DE LONG, BAIRD AND SCHWATKA MOUNTAINS: GRAYWACKE, MUDSTONE, CONGLOMERATE, SANDSTONE, SILTSTONE, SHALE
KOBUK-SELAWIK LOWLANDS: GRAYWACKE, MUDSTONE, CONGLOMERATE

PERMIAN TO TRIASSIC
ARCTIC FOOTHILLS (SEDIMENTARY): SHALE, CHERT, LIMESTONE
DE LONG, BAIRD AND SCHWATKA MOUNTAINS (IGNEOUS): MAFIC VOLCANIC AND INTRUSIVE ROCKS (BASALT, GABBRO)

MISSISSIPPIAN AND OLDER (SEDIMENTARY)
ARCTIC FOOTHILLS: CONGLOMERATE, SHALE, LIMESTONE
DE LONG, BAIRD AND SCHWATKA MOUNTAINS: CONGLOMERATE, SHALE, LIMESTONE, DOLOMITE, SANDSTONE, CHERT, PHYLLITE, ALSO SOME METAMORPHIC (SCHIST, GNEISS)

UNCONSOLIDATED DEPOSITS

GLACIAL – MORAINE AND DRIFT

EOLIAN – INCLUDES ACTIVE SAND DUNES IN THE EASTERN PART OF THE KOBUK-SELAWIK LOWLANDS

FLUVIAL/COASTAL/UNDIFFERENTIATED DEPOSITS:
ALLUVIAL (FLUVIAL) – FLOODPLAIN, TERRACE AND ALLUVIAL FAN DEPOSITS ASSOCIATED WITH STREAMS AND RIVERS
COASTAL — OLDER INTERLAYED ALLUVIAL AND MARINE SEDIMENTS AND MODERN BEACHES, DELTAS, BARS AND SPITS

SOURCE: *ALASKA REGIONAL PROFILES – NORTHWEST REGION*, BY LIDIA L. SELKREGG FOR STATE OF ALASKA, UNIVERSITY OF ALASKA, ARCTIC ENVIRONMENTAL INFORMATION AND DATA CENTER, ANCHORAGE, AK, NO DATE P. 63.

ON MICROFILM

feature within the monument is a recognizable Illinoisian glacial esker or gravel ridge marking the bed of a subglacial stream (Hopkins 1977). An esker of this age (over 100,000 years old) is considered rare.

The coastal area of the monument north of Kotzebue Sound is a beach ridge plain, which has received sediments deposited by longshore currents over the last several thousand years. The primary purpose of the Cape Krusenstern National Monument is to protect and interpret this beach ridge complex, which contains archeological sites depicting every known cultural period in arctic Alaska over a 6,000-year period.

Moore postulated that the primary components of Cape Krusenstern sediment (sandstone, chert, limestone) are derived from the bedrock cliffs and bluffs from Cape Thompson south to Kisimilok Mountain (Hopkins 1977). Limestone in the beach ridges is thought to originate from the cliffs flanking Battle Rock; gravel is thought to be derived from alluvium south of Rabbit Creek and north of Krusenstern Lagoon (Hopkins 1977).

Fossil mollusks apparent on the beaches of Cape Krusenstern suggest that gravels of the nearby sea bottom have also been a significant contributor to the beach ridges. In addition, a more recent study suggests that the locally northward drift of sediment from Kotzebue Sound and the mouths of the Noatak and Kobuk rivers also plays a role in deposition and ridge formation at Cape Krusenstern. In general, it can be assumed that several sources collectively contribute to beach formation at Cape Krusenstern. Today there are 114 discernible ridges, which extend up to 9 miles from east to west. These beach ridges record the post-glacial (Wisconsin) rise in sea level during warm spells and consequent deposition of sediments over older rock.

Not all of the 114 beach ridges at Cape Krusenstern are complete. At places unconformities appear, either where the sea has eaten back into part of a ridge series or where the direction of beach formation has changed. Shifts in beach formation are generally attributed to changes in wind direction. Northwest winds now prevail, and studies of sediments show that the beaches were built largely of gravels that slowly shifted with the presistent currents along the shoreline.

The likelihood of the occurrence of significant amounts of metallic minerals and nonmetallic minerals is considered to be low. The monument occupies a small portion of a broad east-west-trending belt across northwest Alaska within which the potential for the occurrence of oil and gas is rated as moderate (Selkregg 1975).

Implications. The monument affords the opportunity for scientific study and interpretation of the 114 recognizable beach ridges and other significant geologic sites that also contain prime archeologic resources of national and international importance. The monument contains glacial features of the Illinoisian period that lend themselves to scientific interpretation.

Paleontology

Little is known about paleontological resources that exist within the boundaries of the monument. Fossil mollusks and some ivory have been found along the beaches (see Geological and Paleontological map).

Oceanography

The climatic, geologic, and biological processes that have influenced the landscape and human activities at Cape Krusenstern are inseparably tied to the adjacent marine environment.

The Chukchi Sea includes that ocean area along the northwest coast of Alaska, as far south as the Bering Strait and the westernmost extension of the Seward Peninsula. It also encompasses a portion of the Arctic Ocean, which spans the entire northern coast of Alaska. The monument faces a southeastern portion of the Chukchi Sea and a portion of Kotzebue Sound along its southern boundary.

A number of shallow lagoons along the monument's coastline are formed by barrier spits and islands. Today these barrier formations and lagoons often provide important habitat for birds, fish, marine mammals, and terrestrial mammals. The most biologically stable and productive lagoons are those with outlets, allowing a free-fluxing action between marine and fresh waters. The longest lagoon in the monument is Krusenstern Lagoon, which is 9 miles long. Kotlik Lagoon is the next largest, at 4 miles in length.

The circulation of waters off Cape Krusenstern in the southern Chukchi Sea is generally northward through the Bering Strait and into the Arctic Ocean. A vast counterclockwise movement of water occurs within the Chukchi Sea, although wind, bottom contours, and coastline configurations also play an important part in circulation within localized areas (Selkregg 1975).

Tidal range for the Chukchi Sea is about 11 inches (Resource Analysts 1983). Wave heights are generally less than 6 feet, but the greatest wave heights in August have reached 22 feet.

The salinity of Chukchi Sea water is relatively low during the ice-free season because of the high volume of freshwater runoff and ice melt. Waters passing northward through the Bering Strait into the Chukchi Sea are of relatively low salinity because of the effects of the outflow of Yukon River water in the Norton Sound area. This pattern is reversed in winter when the upper layer freezes and salts are concentrated at lower depths (Selkregg 1975).

The Chukchi Sea is ice-covered from November until May. Ice formation begins in October, with the ice edge from the permanent polar ice pack extending progressively southward until late March. Although the sea ice in the Chukchi Sea is fairly solid, reaching 2 or more feet in thickness, several leads and breaks occur along the coastline. The northward retreat of the ice edge begins in April and continues until late September.

The relatively warm waters of the Bering Sea flow northward, bringing into the Chukchi Sea a continuous supply of plankton, microscopic floating plant and animal organisms that are basic components in food chains. Plankton production in open waters and along ice leads provide important feeding areas for fish, birds, and marine mammals. Plankton production peaks in July. The Chukchi Sea is considered relatively fertile, although the diversity and abundance of organisms are not as great as in the Bering Sea to the south.

Implications. High tides in association with storms can cause coastal flooding in the monument and in Kotzebue. Before construction any development in coastal areas should be evaluated for this environmental hazard. The addition of man-made structures in coastal areas or offshore waters could inadvertently affect natural oceanographic forces, which could in turn adversely affect the archeological resources at Cape Krusenstern and other coastal areas in the monument.

Soils

A variety of factors affect the development of soils in the monument. These include extreme low temperatures, strong winds, and low precipitation. Together they cause the physical processes of weathering to take precedence over chemical factors in soil development. Topography and soil drainage, or the lack of effective drainage as a result of underlying permafrost, are also important factors.

The major soil types associated with the monument include the upland or mountain slope soils and those associated with the lowland areas nearer the coast.

The lower slopes of the western Igichuk Hills and the Mulgrave Hills are covered with poorly drained, gravelly or loamy soils with a surface layer of peat. Depth to permafrost is variable. The upper slopes of these hilly areas have well-drained gravelly or loamy soils with a deep permafrost table.

Along the coastline of the monument and flanking Krusenstern, Kotlik, and other major lagoons are marine and alluvial deposits that form beaches, spits, and deltas. Soils of lowland areas along the coast are poorly drained, with a surface layer of fibrous peat and a shallow permafrost table. The peat layer ranges from 8 to 24 inches in depth.

Soil temperatures at nearby Kotzebue at a depth of 1 foot range from a high of 40°F during July and August to less than 15°F during most of February and March (Selkregg 1975). Because of the lag time between summer temperature highs near the surface and those at greater depths, the maximum depth of soils at more than 30°F is reached in Kotzebue in December. Soils within the monument are generally considered to be unsuitable for farming.

Implications. Soils at Cape Krusenstern are highly subject to erosion when the overlying vegetation mat is disturbed or removed. Compression and tearing impacts of heavy vehicles on the vegetative mat or overlying snowcover can induce or accelerate erosion. Permafrost at shallow depths in the monument and in Kotzebue present severe limitations for the construction of building foundations and utility lines. The removal of vegetation at the

surface can cause a change in the depth of the active layer overlying permafrost, with consequent heaving and sagging action at the surface.

Hydrology

The lands within the monument are drained by a number of streams that flow from the uplands and empty into the Chukchi Sea or coastal lagoons.

During the ice-free season, some of these streams and associated coastal lagoons provide important habitat for anadromous and freshwater fish populations, and migrating birds and terrestrial mammals. During the winter, streamflow at the surface ceases as waters freeze. In areas where substantial springs exist, water may continue to flow out at the surface and then freeze into successive thin sheets or layers of ice. The resultant thick ice formation, known as aufeis, may expand well beyond the normal stream channel. Such expansion can cause a shifting or modification in the direction of streamflow or channeling during successive periods of breakup. Both Jade and Rabbit creeks are subject to aufeis formation and have numerous channels and low intervening gravel bars.

Springs within the monument are often associated with limestone deposits that, through absorption and dissolution, can conduct large volumes of groundwater. Streams in the Igichuk Hills run dry where they cross limestone zones (Hopkins 1977). The best potential sources of groundwater within the monument are from limestone zones such as the one in the upper Jade Creek.

Permafrost plays an important role in the topographic development and appearance of lands within the monument. The lowland areas of the monument are underlain by thick continuous permafrost. Permafrost can reach depths of 2,000 feet, but generally reaches a maximum depth of 1,400 feet within the inland portions of the monument. At nearby Kotzebue permafrost depths are generally less than 240 feet because of saltwater intrusion at that depth (City of Kotzebue 1971).

A variety of permafrost features are evident within the monument, particularly in the lowland areas. These include thaw lakes, ice wedge polygons, pingos, frost mounds, and solifluction lobes. Many of these features are caused by localized melting of ground ice, resulting in settling or "caving in" of the ground surface. These features are collectively referred to as "thermokarst topography." Thaw lakes are formed by the collection of standing water in a surface depression underlain by permafrost. The collection of water in a pool causes the melting of some permafrost underneath. Because there is no downward percolation through the frozen material, the water expands in the direction of the wind across a broader surface area to form a shallow lake.

Ice wedge polygons occur when contraction of the ground surface because of extreme temperatures causes cracks, which accumulate water and snow. This moisture turns to ice and exerts a "wedging" effect that causes a polygonal patterning at the surface. Pingos are ice-cored hills raised by frost action above the permafrost layer. Frost mounds are essentially small pingos of heights up to 4 feet, and often occur in drained lake basins. Solifluction lobes often occur as tearlike terrace features on mountainsides or hillsides.

They are caused by the saturation of earth material overlying permafrost, resulting in a downslope slumping or solifluction. This feature is common on the steep slopes of the Igichuk Hills to the southeast of the monument.

Implications. Jade and Rabbit Creeks are known to experience aufeis. These locations and all other coastal and streamside areas should be carefully evaluated for this environmental hazard before any developments are constructed by a qualified hydrologist or hydraulic engineer. The best sources of groundwater for drinking water wells will occur in limestone formations. Permafrost may be encountered in any location within the monument or in Kotzebue; its effects on proposed facilities should be analyzed prior to design.

Water Quality

The most recent and thorough water quality studies in the region have been completed as part of the "Environmental Baseline Studies for the Red Dog Project" by Cominco Ltd. These studies, when interpolated, are thought to be accurate for the monument as a whole even though the New Heart Creek station was the only one inside the monument.

Typically the flowing streams of the monument are like other streams in the region. These clear water streams are unpolluted and exhibit low levels of color, suspended solids, turbidity, and nutrients. Water is highly oxygenated, moderately hard to hard, and of the calcium bicarbonate type. The pH is essentially neutral, and levels of most trace elements fall within the ranges acceptable for freshwater acquatic life (Cominco 1983 and 1984).

At the Red Dog Mine site outside the monument waters are naturally contaminated with cadmium, lead, and zinc. This contamination occurs because the ore in the ground is of sufficent quantity and concentration to alter the water as it passes over the ore deposit. None of these waters flows into the monument.

Most lagoons in the monument are brackish and are presumed to have sluggish circulation during much of the year.

Accumulations of naturally occurring, spawned-out, rotting fish may seasonally lower the water quality in some areas.

Some small lakes and small meandering streams in the monument's lowlands also have sluggish waters, which may have locally high accumulations of organic matter.

According to the Bureau of Land Management, wells in the region are generally deep, and the water from them is of poor quality (BLM 1974).

Implications. Surface waters in the monument are generally unpolluted, but seasonally local conditions may change the quality of water. Ground water information for the monument is currently very scarce. Development of wells for public water supplies could be very costly.

Vegetation

The majority of the monument is characterized by a moist tundra vegetation community there is a strip of wet tundra on the southern boundary, facing the Kotzebue Sound, and alpine tundra or barren ground is found in isolated upland areas. A community of salt-tolerant plants inhabits the coast. Isolated patches of white spruce trees are found in the southeast portion of the monument. As many as 300 vascular plants, 100 mosses and liverworts, and 81 lichens were found by Albert Johnson in his 1966 analysis of the vegetation in the tundra community at Cape Thompson, 80 miles north.

The moist tundra zone, encompassing virtually all lower slope and lowland areas back from the coastline, is characterized by extensive cottongrass tussocks with mosses and lichens in-between. Some areas are dominated by dwarf shrubs. Hiking through tussocks, is slow, wet, and usually strenuous. Shrubs and other species in the moist tundra include willow, dwarf birch, Labrador tea, Lapland rosebay, mountain alder, mountain avens, and saxifrages. In the wet tundra area along the southern boundary, a mat vegetation is found rather than tussocks. Grasses and sedges are dominant and include arrow grass, pendant grass, snow grass, and bog rosemary, louseworts, and woodrush.

At higher elevations (generally from 750 to 1,600 feet) on windswept, well-drained, and rocky slopes of the western Igichuk Hills and the Tahinichok Mountains to the north is an alpine tundra community. Vegetation is sparse and consists of willow, heather, and mountain avens in combination with grasses, sedges, herbs, and mosses. Lichens and saxifrages are common on drier areas. The alpine tundra is composed of a plant mat ,which is no more than a few inches high.

Along the coast wave action and scouring by ice largely restrict plant growth to the lagoon side of the barrier islands and dunes. The succession of rows of ancient beaches at Cape Krusenstern, occurring as horizontally stratified ridges, are distinguishable by slight vegetational differences between the low ridges and their intervening swales. The vegetation of the coastal lagoons along the coast is abundant because of the high accumulation of nutrients in shallow waters. A variety of freshwater and brackish water plankton are found, depending upon salinity, as well as numerous algal forms. Eelgrass is common in marine waters, and pendant grass and mare's tail are more common near freshwater.

The white spruce is an important wood source for the people of this area and is used for the construction of boat frames, sled runners, spear handles, oars, drying racks, tent stakes, and log homes (Uhl 1980). Spruce is also the most common source of fuel for those with wood stoves. The wood of the balsam poplar is used considerably less than spruce for construction material and fuel.

Local residents of the region have traditionally used berries, roots, and leaves of edible plants in the monument. Salmonberries are picked in great quantities in mid-August when ripe and are eaten as a fruit dessert all winter long. Blueberries, blackberries, and cranberries are also eaten. The leaves of sourdock are collected, stored, and eaten or fermented for use

as a brine solution for pickling meats. Sea lovage, wild chives, beach greens, and willow leaves are other local greens that are harvested. The starchy roots of masu and cottongrass are also eaten (Uhl 1980).

Implications. Tundra vegetation is highly vulnerable to disturbances and recovers slowly after disturbance. Disturbance should be kept to a minimum to prevent scarring and to help protect fish and wildlife habitat. Trees of appreciable size are very limited within the monument. Management of their timber use could be coordinated with surrounding landowners to relieve the pressure on the resource and to adequately maintain opportunities for wood use for customary and traditional needs.

Fish and Wildlife

Wildlife is a major resource of Cape Krusenstern National Monument. ANILCA requires the protection of habitat for seals, other marine mammals, birds, fish, and other wildlife of the monument. Twenty-one species of terrestrial mammals are thought to use lands within the monument boundaries (NPS 1974), and 21 species of marine mammals use the adjacent waters of the Chukchi Sea and Kotzebue Sound. Included among terrestrial mammals are caribou, grizzly bear, musk-ox, moose, Dall sheep, wolf, fox, weasel, and wolverine. Marine mammals include ringed seal, bearded seal, Stellar sea lion, walrus, bowhead whale, finback whale, beluga whale, and harbor porpoise.

Caribou. Caribou found within the monument are part of the western arctic herd that ranges over the entire northwest Alaska region. The herd declined from a population of at least 242,000 in 1970 to an estimated 75,000 in 1976. Since that time the herd has increased in size and was estimated to be 171,699 in 1982 (ADF&G 1984). The 1984 herd size is projected to be approximately 200,000 (J. Davis, personal communication 1984).

In modern times, caribou were first reported moving in the area encompassed by the monument in 1949 (Uhl 1980). Successive migrations in the early 1960s included up to 10,000 caribou moving through the Cape Krusenstern area. During recent years, as many as 60,000 caribou have been recorded moving through the monument, with as many as 10,000 wintering along the Kivalina drainage and within the Mulgrave Hills (Resource Analysts 1983). A maximum of 2,500 animals were reported wintering in the Wulik and Kivalina drainages in 1982. This "stopover" activity on the southward migration route appears to be related to the abundance of food and the availability of escape routes during predation (Uhl 1980).

During the post-calving period, animals aggregate for the spring migration northward toward the Arctic Coastal Plain. Between 20,000 and 30,000 animals moved south and east across the Wulik River during early July in recent years, although the majority of the herd moves farther north.

In general, the movement of a portion of the western arctic herd in the area of the monument varies greatly from year to year. Although herd size may, in part, be responsibile for regional herd movements, a variety of more localized factors are also important. These may include wolf concentrations, hunting activity, and behavior of leading caribou (see Caribou and Musk-Ox map).

Moose. Moose within the region are most abundant in areas of transitional vegetation, which include mixed willow and spruce forest. These areas are limited within the monument boundaries, although moose numbers regionally have increased in recent years. Uhl (1980) reports that moose were generally not known to occur within the area now encompassed by the monument until 1947.

The moose population increased and expanded its range during the 1950s and 1960s, particularly in the nearby timbered areas of the lower Noatak. Approximately 1,500 moose were estimated to inhabit the Noatak drainages in 1980 (ADF&G 1981) and approximately 2,227 were estimated to be in the middle Noatak drainage in 1985 (ADF&G/NPS 1985). Moose also moved into less timbered areas (including willow patches) within the monument. It is likely that no more than 50 moose inhabited the monument at one time (Uhl 1980), with a summer influx possibly related to the cooler temperatures and the breezes near the coast that reduced irritating insects. Today, moose densities appear to be high within the region.

Although moose have been used as a source of meat by subsistence hunters near the monument during years when caribou were scarce, caribou are preferred by local residents. The moose population appears to be highly variable because of its relationship to wolf numbers, caribou numbers, and icing conditions on major drainages (Uhl 1980). No major shifts in population composition were noted in the region in 1983, except for a somewhat reduced late-winter calf percentage, which dropped from 22 percent in 1982 to 14 percent in 1983 (ADF&G 1983) (see Dall Sheep and Moose map).

Bears. Comprehensive information regarding the abundance, distribution, food habits, and reproductive biology of the grizzly bear does not exist for the region or monument. Population estimates for an area encompassing the Kivalina, Noatak, Kobuk, Selawik, and Buckland drainages range between 700 and 2,400 (Darbyshire and Science Applications 1983).

Grizzly bears, not plentiful within the monument, are common visitors along stream courses and the shoreline near more mountainous terrain. Uhl (1980) estimated that fewer than 10 bears inhabited the monument at any one time. Greater densities are known outside the monument in the Noatak drainage.

Grizzly bears have an omnivorous diet. They usually forage along streams, wet meadows, and tundra slopes during the summer months for grasses, shrubs, and riparian vegetation. Salmon, ground squirrels, carrion (including marine mammals washed ashore), and berries are often eaten in the fall. Denning starts in mid-October and lasts until April or May, depending on the severity of the winter. Den sites are excavated in riverbanks or well-drained mountain slopes prone to snowdrift. Breeding occurs from May until July. Two cubs are generally born in the den in December. The interval between breeding and weaning is usually four years.

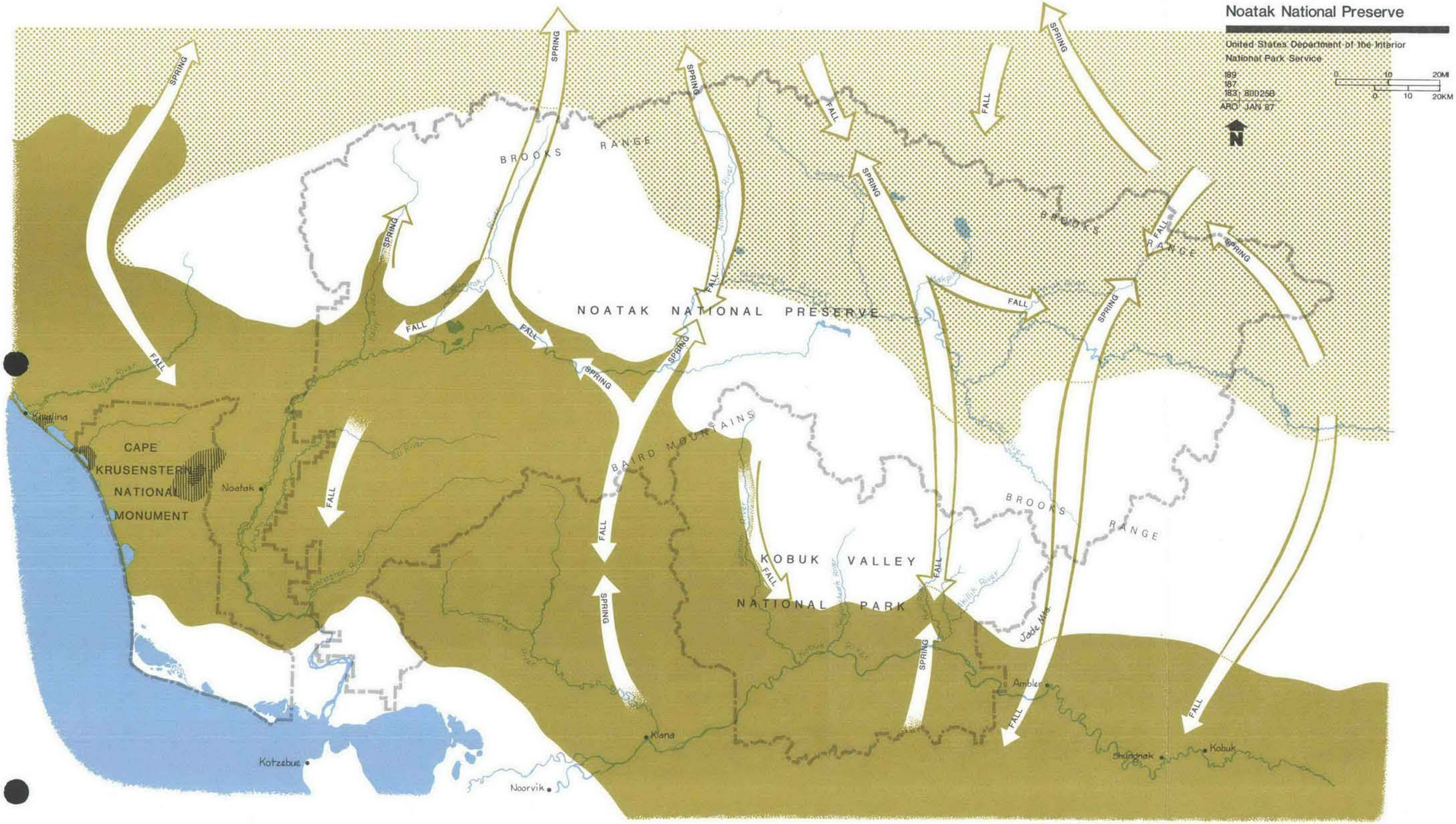
Black bears are known to inhabit the forested Kobuk drainage, but there are no recorded sightings from the tundra and forested areas within the monument (see Arctic Fox and Black Bear map).

CARIBOU & MUSK OX

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve



CARIBOU: SUMMER, WINTER, MIGRATION ROUTES

MUSK OX: SUMMER, WINTER

SOURCE: *ALASKA'S WILDLIFE & HABITAT*, ADF&G, 1973.

ON MICROFILM

DALL SHEEP & MOOSE

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve

United States Department of the Interior
National Park Service

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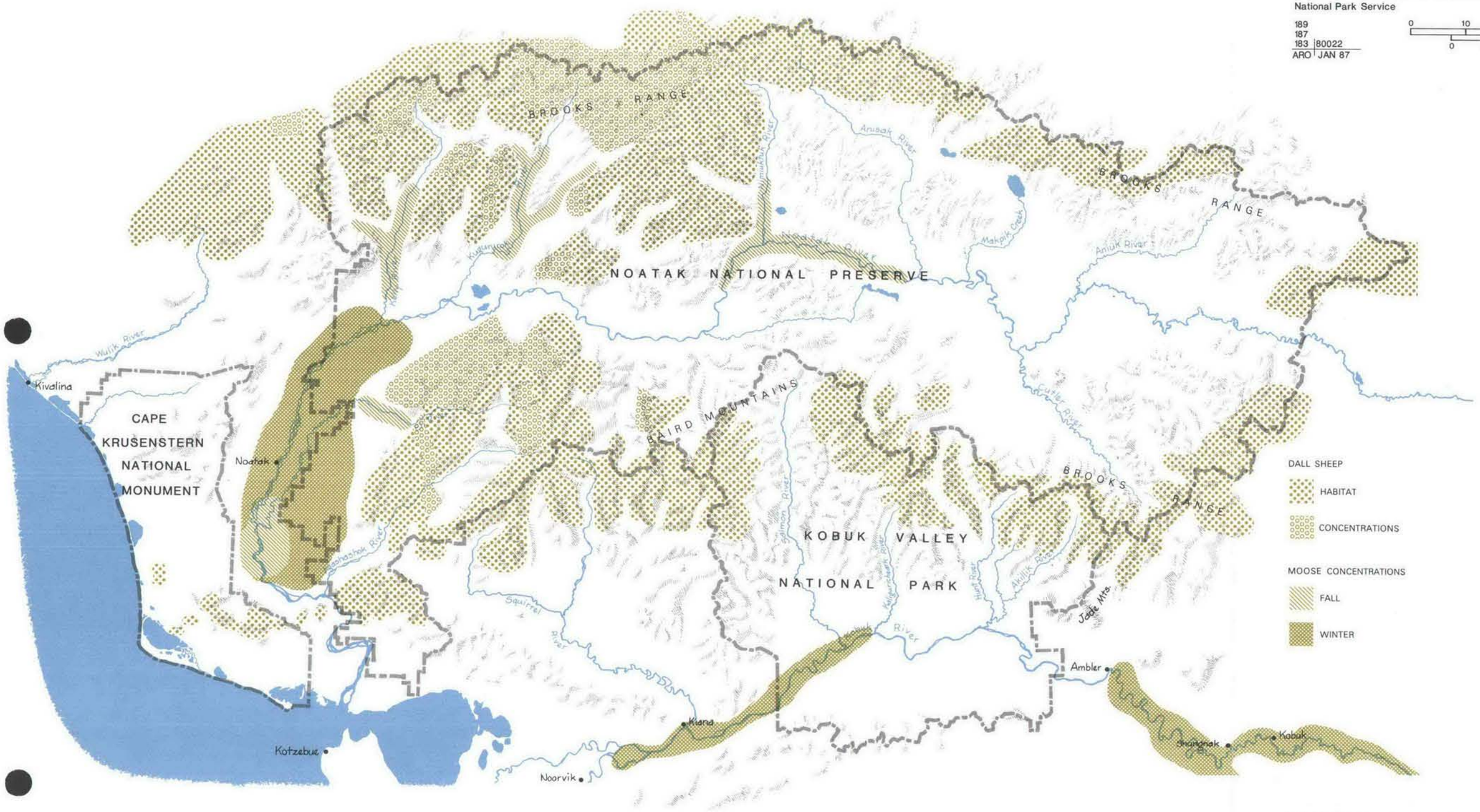

SOURCES: *ALASKA'S WILDLIFE & HABITAT*, ADF&G, 1973. ADDITIONAL DALL SHEEP RANGE DATA: F. SINGER, NPS, 1983.

ON MICROFILM

ARCTIC FOX & BLACK BEAR

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve

United States Department of the Interior
National Park Service

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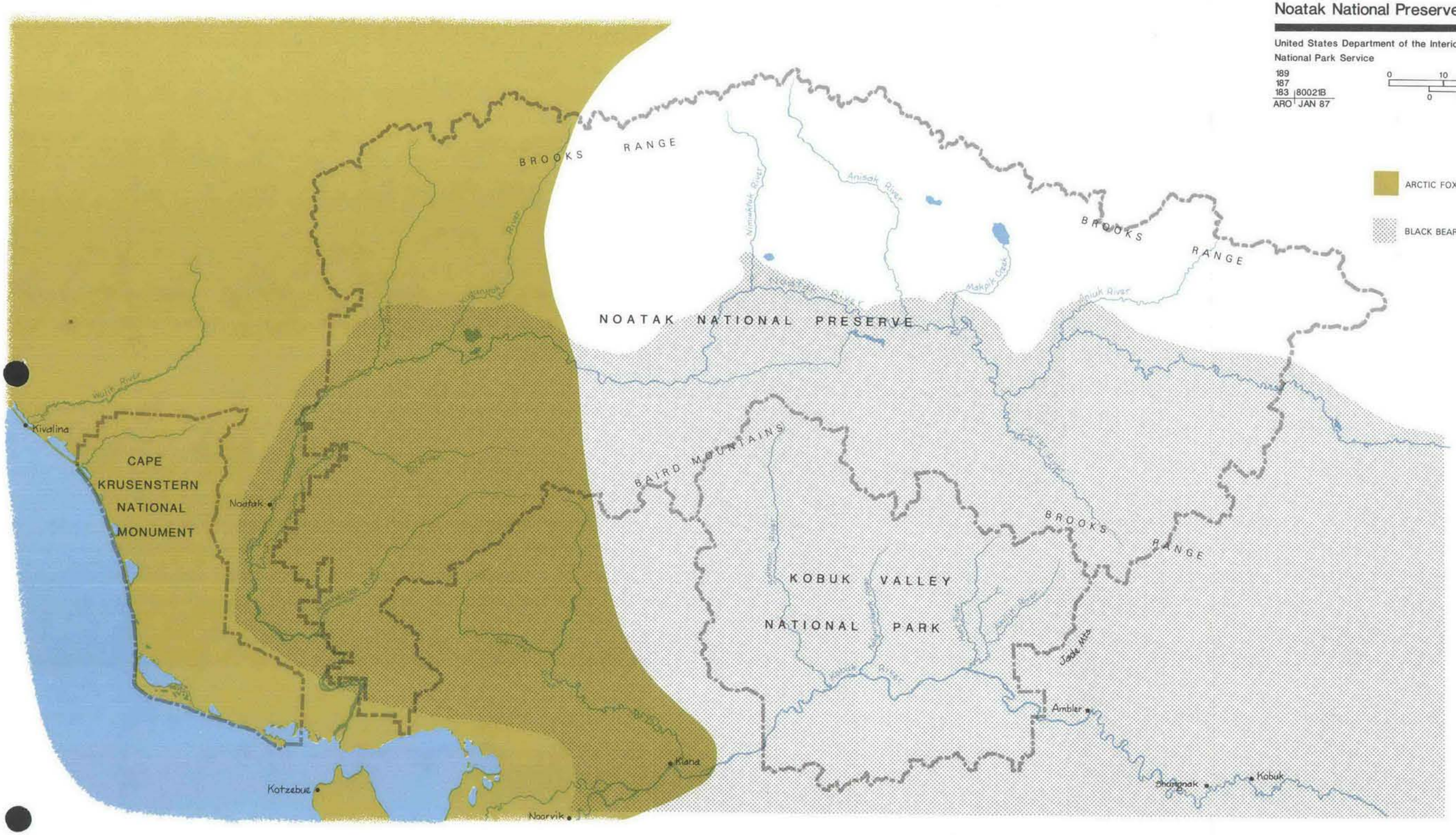

SOURCE: *ALASKA'S WILDLIFE & HABITAT*, ADF&G, 1973.

BROWN BEAR ARE FOUND THROUGHOUT REGION

ON MICROFILM

Musk-Ox. Musk oxen are present in the region in small numbers. The musk-ox is a hoofed, horned mammal with a long coat of brown hair. The last naturally occurring musk-ox died in Alaska in 1865, but musk-ox were reintroduced to the state from Greenland in 1936. Grasses, sedges, wood rushes, and dwarf birch are their primary food sources.

The release of 36 musk-ox near Cape Thompson (60 miles northwest of the monument) in 1970, and a second release of 30 animals in the same area in 1977, have resulted in the dispersion of musk-ox into the monument in recent years. An area in the Mulgrave Hills 8 to 10 miles west of the village of Noatak was identified by the ADF&G as summer and winter musk-ox range. Approximately 80 animals currently inhabit the area outlying Cape Thompson (Resource Analysts 1983). In July 1980 the U.S. Fish and Wildlife Service observed 67 musk-ox 20 miles northeast of Point Hope, and another group was present in the Mulgrave Hills between the Noatak and Wulik river drainages in the monument (see Caribou and Musk-Ox map).

Wolves. Wolves inhabit the major drainages within the monument. Food sources for wolves include caribou, moose, hare, mice, and salmon, depending on availability. An increase in the availability of caribou as prey in recent years is assumed to have caused a corresponding increase in the wolf population in the region. Wolf densities for the Wulik and Kivalina drainages during spring 1982 were approximately one wolf per 76 square miles. The estimate for the nearby Noatak drainage was one wolf per 325 square miles. The average for the region was one wolf per 90 square miles (ADF&G, 1982).

Dall Sheep. Dall sheep are present throughout the Baird and DeLong mountains west to the Wulik Peaks; the area is the northwestern limit of their range. Dall sheep feed on grasses, forbs, lichens, and willow. The sheep remain near rugged and rocky areas, which provide escape routes from wolves, bears, and other predators.

Dall sheep move in and out of the monument's western Igichuk Hills in sparse numbers. Recent surveys of these animals by the National Park Service showed 14 animals living in these hills and crossing from the Noatak drainage periodically. Although ADF&G surveys (1976-1981) indicate that sheep populations are on the increase, their density is substantially lower than in other areas of the state. Formerly prized by subsistence hunters for their fine skins, which make excellent parkas and inner clothing, the Dall sheep have become less important in recent years because of the greater use of down and synthetic garments (Uhl 1980) (see Dall Sheep and Moose map).

Other Smaller Mammals. Red fox, arctic fox, snowshoe hare, and arctic hare are present within the monument. Large grassy areas and a high population of voles and ground squirrels make the monument a highly suitable area for red fox. Their current population is high and stable despite substantial subsistence harvest. The arctic fox generally prefers coastal and delta areas, mostly within the Arctic Slope area, but it is wide-ranging in its feeding activities. Although dens are found within the monument, the arctic fox spends much of its life searching on the ocean ice for carrion.

Snowshoe hares are found in the western Igichuk Hills in timbered areas and within large patches of willow near the coast. These hares depend on willow growth for food and may starve during heavy snow years in areas of sparse willow growth. The arctic hare, with its characteristic long legs and ears, inhabits the monument east of Krusenstern Lagoon and in other areas where willow, alder, and spruce are located.

Wolverine within the monument are light colored and have nearly black legs. The wolverine is prized by subsistence hunters for its fine fur, which is used for parka ruffs. The population is very limited within the monument.

Porcupines are numerous in the monument and feed on the bark of willow and spruce. Usually restricted to the timber zones, porcupines are sometimes seen along the beach areas in mid-summer. Weasel, mink, lynx, river otter, and muskrat are also found within the boundaries of the monument.

Marine Mammals. Marine mammals inhabiting the estuarine and ocean waters in and abutting the monument are very important local resources. The ringed seal (Natchiq), the smallest of the northern seals, averages 150 pounds in weight and is a life-sustaining species for people in the region. Distinguished by the yellowish rings or splotches on its dark coat, the ringed seal provides skin, meat, and oil to subsistence users, who have traditionally hunted this species off Cape Krusenstern. In fact, Cape Krusenstern itself is known traditionally by subsistence hunters as "Sealing Point." The greatest densities of ringed seal off Cape Krusentern are found in June.

Bearded seals (Ugruk), the largest of the western arctic seals, weigh up to 800 pounds. They appear in June in the waters adjacent to the monument. Despite its short seasonal presence, the light grey bearded seal is a highly important subsistence resource. This seal is widely distributed in the Chukchi and Bering seas, where it feeds on shrimp, bottomfish, clams, and worms.

Spotted seals (Qusigiaq) and ribbon seals (Quigutlik) are also found off Cape Krusenstern. The spotted seal is of medium size, up to 300 pounds, and feeds on herring, salmon, and whitefish along the coast of Chukchi Sea. The animals concentrate generally along the southern extent of the ice pack. The ribbon seal, with its distinctive white bands against a black body, is found in greatest abundance south and east of the Seward Peninsula in the central Bering Sea.

Beluga whales, small whales about 16 feet long, occur throughout the Chukchi and Bering seas. These white whales travel in groups and are prized by subsistence hunters for their edible skin, blubber, and meat. A few beluga are taken from year to year along the monument's coastline when they appear in open leads in the ice during sealing time (Uhl 1980), although most are taken after the shoreline becomes ice-free.

Bowhead, gray, and finback whales have been observed within the waters of the Chukchi Sea off Cape Krusenstern. Walrus are uncommon off Cape Krusenstern, although stray animals and carcasses washed ashore are taken for their ivory, blubber, and meat, if usable.

Fish. In addition to the marine mammals, the coastal and inland waters of the monument support a variety of fish. Of primary importance to subsistence users are whitefish (Uhl 1980). Four species are used; they include humpback whitefish, least cisco, Bering cisco, and broad whitefish. They are taken seasonally at many locations, but Sheshalik Spit and Tukruk River are particularly important areas.

Arctic char are the second most important fish for local use, with quantities usually being taken at Sheshalik Spit. They are also found and spawn in Rabbit, Jade, and Kilikmak creeks and in the Situkuyok River. Grayling are known to overwinter in the Rabbit Creek drainage and in the streams draining the Igichuk Hills. All five salmon species are found within Kotzebue Sound, but only the chum (dog) Salmon is found in any major quantity. Currently the chum in offshore waters is the source of the area's only commercial fishery. Spawning pink (humpy) and chum salmon are found in the Wulik River immediately north of the monument, as are king (chinook) and red (sockeye) salmon, and in the Noatak River immediately to the east of the monument (ADF&G 1978; AOMB 1985). The biologic resources map made for the NANA Coastal Zone Management Plan indicates that both chum and pink salmon are found in Rabbit Creek, two small drainages northwest of Sheshalik Spit (Resource Analysts 1984).

Northern pike are present in many streams in the monument south of Krusenstern Lagoon and east to Sheshalik Spit. Occasionally burbot are found in the same areas (ADF&G 1978). Dolly Varden are known to spawn in Rabbit Creek. Herring spawn in Krusenstern Lagoon and in the shallow coastal waters north of Sheshalik Spit, where sheefish also overwinter (Resource Analysts 1984).

Other species that are occasionally used for human and dog food include: saffron cod, arctic cod, rainbow smelt, starry flounder, 4-horned sculpin, nine-spined stickleback, and herring. Some crabbing in ice-free periods has been done, but only with very limited success (Uhl 1980) (see Fish and Salmon maps).

Birds. Most birds found in the monument are summer nesters or migrants. Moist tundra lowlands and wet sedge meadows near the coast are especially important habitat areas. A total of 120 bird species was recorded at nearby Cape Thompson in 1966; 65 of these species are known to nest there. At Cape Krusenstern species include mallard duck, green-winged teal, shoveler, old squaw, greater scaup, common eider, black scoter, red-breasted merganser, Canada goose, snow goose, American widgeon, American pintail, horned and red-necked grebes, and the common, yellow-billed, and arctic loons. The two largest fowl within the monument are the swan and the tundra sandhill crane. Both migrate south in the fall, although the swans are late migrants and usually are in the monument until October (Uhl 1980). Seabirds in the monument include the long-tailed jaeger, common murre, arctic tern, and the willow and rock ptarmigan, goshawk, and snowy owl.

Although the importance of the monument to migrating birds in the spring probably varies with snow and ice conditions, the lagoons between Cape Krusenstern and Sheshalik are heavily used by migrating waterbirds when conditions permit. This area is also an important subsistence hunting area

for waterfowl and for an egg gathering area. It is an important fall staging area for thousands of geese, ducks, shorebirds, and gulls (USFWS 1984) (see Seabirds and Waterfowl map).

Implications. Fish and wildlife are major resources in the monument. Any actions that could affect them should be carefully analyzed for their impacts upon the populations and upon subsistence opportunities (ANILCA, section 810). Some wildlife species, particularly the grizzly bear, can pose a threat to monument visitors. Some species migrate to or through the monument. Careful consideration should be given to actions that would affect migrating species.

Threatened and Endangered Species

Cominco Ltd. reports that three peregrine falcon nests were found in the Wulik and Kivalina drainages north of the monument in 1982 and two nests were found in the Omikviorok River drainage in the monument. Additional survey work in 1983 failed to find these nesting birds.

Arctic peregrine falcons have also been reported to nest within the southern half of the monument. The total extent of nesting is unclear, and the area is not considered to be one of the more important peregrine nesting areas (USF&WS 1984). No other threatened or endangered species are known to occur within the monument (see appendix D for additional information).

Implications. Information on threatened and endangered species within the monument, especially the peregrine falcon, is neither up-to-date nor comprehensive for all of the monument.

Scenic Character

Cape Krusenstern National Monument is a broad, relatively flat coastal plain, with foothills rising eastward to the monument's boundary. The foothills are composed of two series of hills, the Mulgrave Hills in the north and the Igichuk Hills in the south. Both are predominantly limestone that has eroded to produce hills that present soft flowing forms. Numerous small drainages drop from the hills across the east-west breadth of the monument. As they wind to the coastal plain, they create large boggy lowlands, sometimes interlaced with meandering waterways or large coastal lagoons only thinly separated from the Chukchi Sea. The coast itself is flat, windswept, and always changing. During summer some areas of the coastal tundra come alive with brightly blooming flowers visible only from a short distance. The flatness of the coastal plain also brings the sky into prominent view.

Lastly, most visitors will notice the lack of man-made objects. Although some cabins and buildings do exist, they are mostly on private lands and are typically small, one-story, weathered structures that impose little upon the natural scene. Overall, visitors will likely realize that this landscape, although regularly used by man, is dominated by natural forces.

Implications. The scenic character of the monument is dominated by natural features; any NPS structures should be designed to blend into the natural environment.

FISHES

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve

United States Department of the Interior
National Park Service

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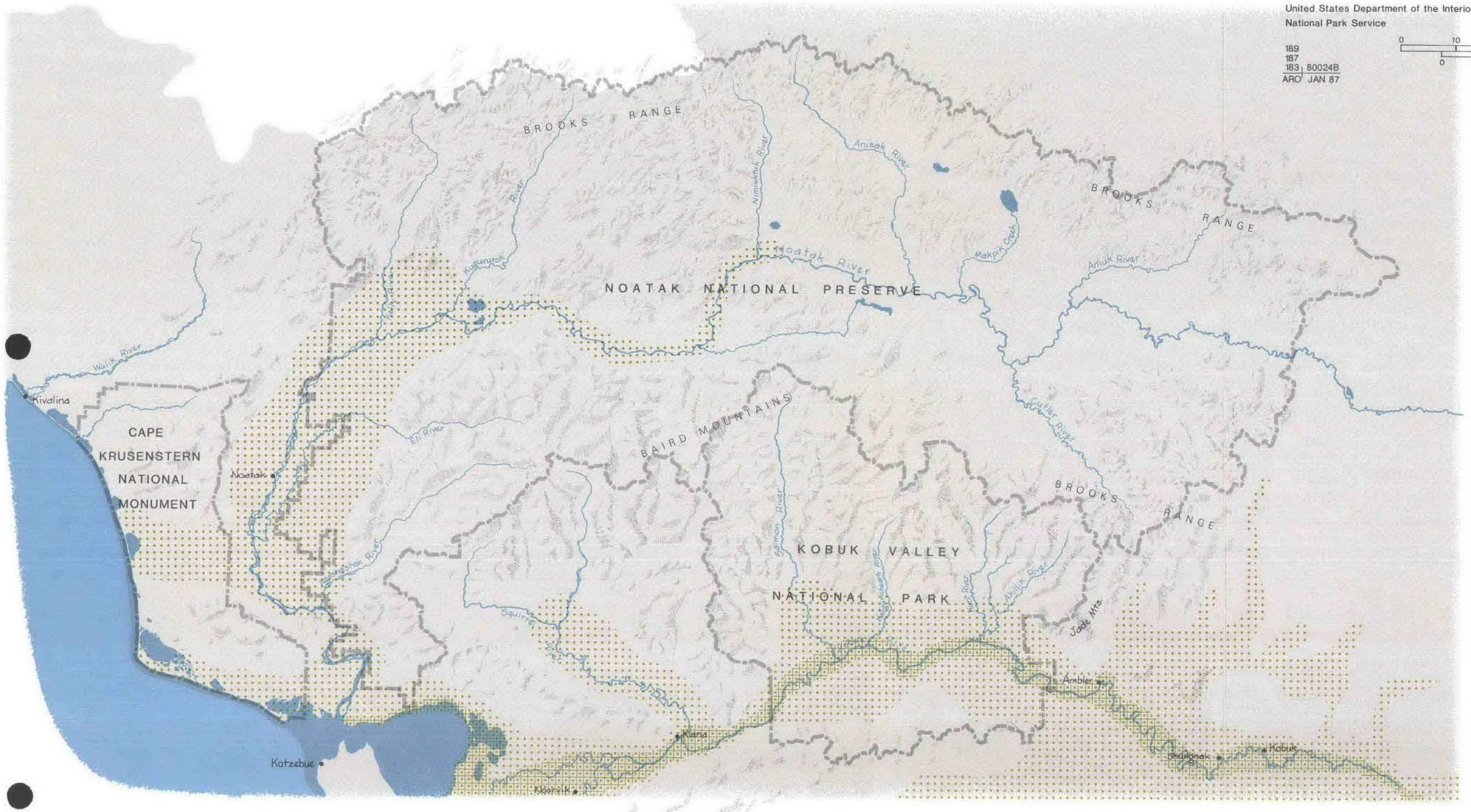
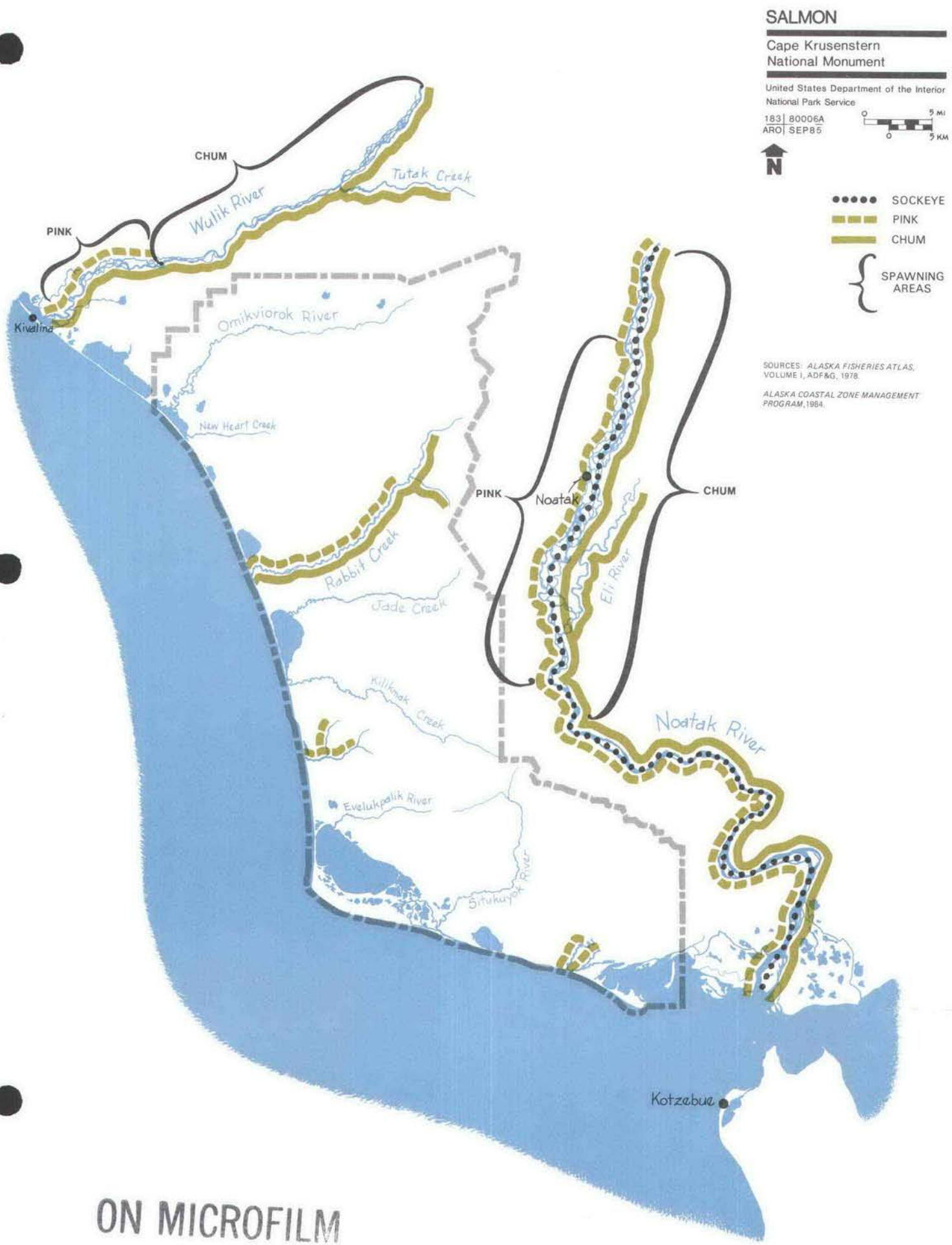


SOURCE: *ALASKA'S FISHERIES ATLAS*, VOLUME I, ADF&G, 1978.

THE RANGE OF FISH ON THIS MAP CONFORMS TO THE FISH "PRESENT" CATEGORY ON THE SOURCE LISTED ABOVE: THE "OCCASIONAL" CATEGORY IS NOT SHOWN ON THIS MAP.

GRAYLING & WHITEFISH PRESENT THROUGHOUT REGION

ON MICROFILM



ON MICROFILM

SOCIOECONOMIC CHARACTERISTICS

Population

Northwest Alaska, an area of approximately 38,000 square miles, has 11 communities with a total 1980 population of 4,048. Of these residents, 85 percent are native, primarily Inupiat, and 14 percent are Caucasian.

Kotzebue, with a 1983 population of 2,981, represents about 40 percent of the region's residents. It has a larger Caucasian population (23 percent) than the outlying villages. In 1910 less than half of the population lived in villages, but by 1920 the number increased to 75 percent, and by 1950 it was 96 percent (Darbyshire & Associates 1983). Today aggregation into villages is occurring again; nonetheless, mobility within the region is still characteristic.

Three major factors have influenced changes in lifestyles in the region: availability of health care, economic opportunity, and cultural persistence. These factors may cause people to move between the villages or to leave the region. A 200-percent increase in the population of Kotzebue from 1950-1960 is attributed largely to in-migration from outlying villages.

The overall trend in the regional population is growth, although this growth has been occurring at a decreasing rate. Two sources (Darbyshire & Associates 1982 and Dames & Moore 1983) forecast that the regional population will continue to grow, increasing by 30 to 34 percent between 1980 and 1990, or at an average annual rate of about 3 percent. The growth rate for Kotzebue is expected to be even greater than that of the region.

Implications. The projected growth rate for the region will help keep subsistence activity levels up even though other factors might reduce individual use.

Regional Economy

Northwest Alaska's economy is characterized by a mixture of subsistence, wage employment, and other forms of income. It is typified by a large percentage of government spending, seasonal variations in economic activity, and the prominance of Kotzebue as an economic center.

Subsistence is defined in the NANA Region Coastal Management Plan (Darbyshire 1982) as "those activities providing food, fiber and shelter requirements of living and maintaining a household whose end products do not involve the exchange of cash." Preservation of a subsistence lifestyle is a primary goal of the people of northwest Alaska (Dames & Moores 1983).

Although participation in the cash economy has substantially increased over the last decade, and is expected to continue to increase in the future, this does not mean that subsistence efforts will necessarily decline. A 1979 survey of 311 native households in the region revealed that subsistence is still an important part of the local economy (Dames & Moores 1983). When the residents were asked how much of their food they obtain from subsistence, the responses were: most--35 percent, one-half--24 percent, some--35 percent,

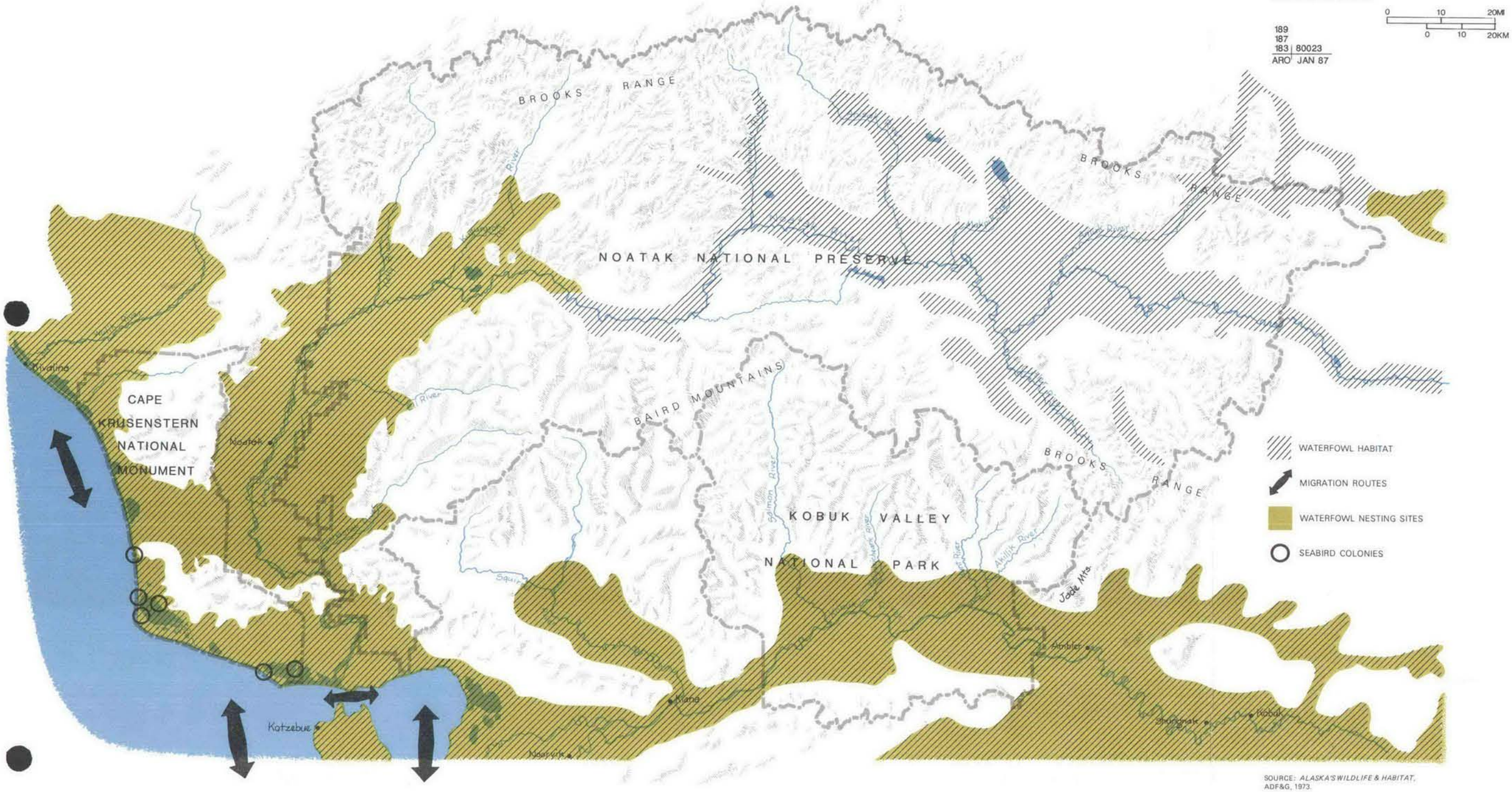
SEABIRDS & WATERFOWL

Cape Krusenstern National Monument

Kobuk Valley National Park

Noatak National Preserve

United States Department of the Interior
National Park Service



SOURCE: *ALASKA'S WILDLIFE & HABITAT*, ADF&G, 1973.

ON MICROFILM

and none--6 percent. The survey also showed that as income increased, no less time was spent on subsistence activities.

Thirteen sectors make up the region's cash economy. These include renewable resource harvest, mining and exploration, construction, household manufacturing, transportation, warehousing and distribtion, communications and private utilities, trade and private services, finance, real estate, quasi-public and nonprofit organizations, local and regional governments, state agencies and services, and federal agencies and services (Darbyshire and Associates 1982).

Local and regional governments are the largest dollar contributors to the economic base of the entire region and of Kotzebue. Transfer payments (payments directly to households for public assistance, GI bill benefits, pensions, etc.) and income brought home by persons working outside the region are together the largest contributors to the economic base of the outlying villages.

Ninety percent of the region's income is directly or indirectly generated as a result of government spending, with over 40 percent derived from federal expenditures. Sixty percent of all personal income is earned through the government sector, and 21.6 percent is specifically from transfer payments (Dames & Moore 1983). State and local governments employ the region's workers; the federal government employs another 13-20 percent.

The most important private sector economic activities are construction, fishing, transportation, and communication. The construction industry is the second largest contributor to the regional economic base and the greatest source of jobs for residents of outlying villages.

Income and employment rates for northwest Alaska are well below that of the state, and income levels of the outlying villages are lower than those of Kotzebue. In 1980 the average per capita income for the region was $7,225; statewide it was $12,633. The average annual unemployment rate for the region (Kobuk Division) in 1981 was 10.5 percent (U.S. Department of Labor 1982) compared to a state rate of 9.4 percent (Dames & Moore 1983).

A notable characteristic of employment in the region is its seasonality. A 1978 survey (Darbyshire & Associates 1982) showed that 54 percent of the region's adults had been employed in the past 12 months, and of those 44 percent had worked less than 6 months. Some of the residents wish to work wage jobs only part of the year so they can participate in subsistence activities during the appropriate seasons. The highest rates occur in the late spring, and the lowest are in September, when construction and school-related jobs are available.

Kotzebue is the center of demand for services, trade and transport in the region. Sixty four percent of the region's employment opportunities are found in Kotzebue even though it contains only 40 percent of the population. One-third of this Kotzebue-based employment and income is directly attributable to the provision of services for outlying villages.

The overall net growth in employment is expected to be very small over the next 10 years, yet population increases will be comparatively large. Although the average regional income increased through the 1970s, two recent studies predict a leveling of the economy at 1980 figures (Darbyshire & Associates 1982; Dames & Moore 1983). These projections include estimated employment at the Red Dog mining development.

Implications. Although cash incomes may increase, local residents within the time frame of this plan are not expected to lessen their dependence upon subsistence resources. If cash incomes do increase, many local hunters may utilize the income to purchase more efficient and sophisticated hunting, fishing and trapping gear and equipment. If job requirements and work schedules change, like the use of a two-weeks-on/two-weeks-off schedule, hunting, fishing, and trapping may occur during successively shortened time periods.

Access

Access to the Monument. Access to the monument most typically occurs by snowmachine and occasionally by airplane, ATVs, or dogsled. In the summer months people use small, shallow, draft boats and skiffs. Typically users come from Kotzebue, Noatak, or Kivalina to hunt, fish, trap, commercial fish, harvest wood, reach their private land, travel from one village to another, or to recreate. No roads exist within the monument or anywhere nearby.

An often-used winter trail (Coastal Winter Trail) exists between the communities of Kotzebue and Kivalina along the coastline of the monument. This trail is annually marked, with funds coming from the Alaska Department of Transportation and Public Facilities. It has been maintained since the 1920s and may be a right- of-way under federal Revised Statute 2477. No determination of the trail's legal status has yet been made. A portion of the trail on NANA lands within the monument, approximately six miles, is an ANCSA 17(b) easement.

Revised Statute 2477. Formally codified at 43 USC 932 and enacted in 1866 RS 2477 provides that: "The right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted." The act was repealed by PL 94-579 as of October 21, 1976, subject to valid existing claims.

The monument is subject to valid existing rights, including rights-of-way established under RS 2477. The validity of these rights-of-way will be determined on a case-by-case basis. One right-of-way that the state contends may be valid under RS 2477 is #21, the Coastal Winter Trail (see appendix G). This route is not all-inclusive. Private parties or the state of Alaska may identify and seek recognition of additional RS 2477 rights-of-way within the monument. Supporting material regarding potential rights-of-way identified by the state may be obtained through the Alaska Department of Transportation and Public Facilities or the Alaska Department of Natural Resources.

ANSCA 17(b) Easements. Pursuant to Section 17(b) of the Alaska Native Claims Settlement Act, easements have been reserved on native lands where necessary to provide for continued access to public lands. From the village of

Kivalina, running southeast, a winter trail with a 25-foot-wide easement provides access to the northern-most coastline of the monument. This also connects with the Kotzebue-Kivalina Coastal Winter Trail.

Uses allowed by the Bureau of Land Management, which presently administers all 17(b) easements for the above-described, 25-foot-wide easements include travel by foot, dogsled, and small all terrain vehicles (ATVs) less than 3,000 pounds gross vehicle weight.

Maps and descriptions of 17(b) easements are available at National Park Service offices in Kotzebue and Anchorage. There may be additional 17(b) easements designated in the monument in the future as additional lands are conveyed to native corporations. The management of 17(b) easements is discussed in the "Access" section in chapter III.

Aircraft. Fixed-wing aircraft access is unrestricted in the monument with one exception--local subsistence users cannot land aircraft within the monument if undertaking subsistence hunting or fishing (unless a permit has been issued by the superintendent for such use as allowed by 36 CFR 13.51). This restriction does not apply to private lands, nor does it apply if the user is not engaging in subsistence hunting or fishing. Helicopter landings are not permitted in the monument unless authorized by written permit from the superintendent or by use of a designated landing site. There are no designated landing sites in the monument (43 CFR 36.11(f)).

Circulation in the Monument. Nonmotorized travel within the monument is unrestricted. Snowmachines can be, and often are, used anywhere in the monument provided snowcover is adequate. ATVs may be used where allowed by the terms and conditions of ANCSA, sections 17(b), 34, and 35, and on easements when and where a valid access permit has been issued according to 36 CFR 13.31 and 43 CFR 36.10. National Park Service observations since 1980 indicate that ATV use in the monument has occurred primarily at or below the mean high tide line along the monument's coastal beaches.

To Private Lands Within the Monument. ANILCA guarantees private property owners reasonable access to their lands. Typically private owners will reach their lands either by snowmachine, ATV, or boat. Most small private parcel owners use the Kotzebue to Kivalina trail (Coastal Winter Trail) for access because their land is adjacent to this winter trail. Access by boat in coastal waters is governed by the state of Alaska, and no restrictions are known to exist at this time. The use of inland waterways is currently unrestricted.

Implications. Several types of access are allowed by law within the boundaries of the monument. Some access is, or could be in the future, managed by the state of Alaska.

Pre-ANILCA Use and Activities

ANILCA provides for the continuation of certain activities that occurred in the monument before the passage of the legislation. These include commercial fishing, navigational markers, and valid mining claims.

Commercial Fishing. Commercial fishing dates back to 1914 in the Kotzebue area. From 1914 to 1918 the Midnight Sun Packing Company processed 10,130 cases and 300 barrels of hard salt salmon in the vicinity of Kotzebue. Today's fishery dates back to July 1962 when the effort was renewed.

A consideration of the 96th Congress when it created the monument was the continuation of commercial fishing that occurs along the sea coast of the Kotzebue area. ANILCA section 205 specifically allows this use, but does not allow a significant expansion of monument use beyond 1979 levels. Although the fishery occurs outside of the monument's boundary, onshore activities like camping, waiting out storms, and setting up small base camps do occur within the monument. Some of these activities occur on what will become private land as the Bureau of Land Management conveys ownership of native allotments to private individuals.

Navigational Markers. One navigational-aid marker, a day board and beacon, is at the western tip of Cape Krusenstern on VABM 13. The U.S. Coast Guard recently requested and received a permit to maintain the marker. ANILCA section 1310 allows for maintenance, access to, and reasonable expansion of such facilities.

Mining Claims. Although some mining claims were filed within the present monument boundaries, none of these claims remain in effect today according to NPS records.

Abandoned Military Site. One surplused military site exists within the boundaries of the monument. In the Igichuk hills an old landing strip approximately 3,000 feet long with a surface of mineral soil remains. About 1,500 feet is in usable condition. A dirt trail/road orignates at the airstrip and winds to the top of a nearby hill and ends. A less well-defined and somewhat overgrown trail also originates at the site and provides foot access to the coast. At the site and in the vicinity, several hundred 55-gallon drums are strewn about the ground, some a mile or more away from the airstrip.

Implications. Allowances for activities mandated by ANILCA must be recognized in long-term planning and in the daily management of the monument.

Current Recreation Uses, Activities, and Trends

Although both local residents and visitors to the region recreate in the monument, it is often difficult to accurately distinguish when local residents are recreating or subsisting. In reality the two are intermixed in a fashion unique to the Inupiat culture. It is safe to say that as local people carry out subsistence activities, socializing activities and recreation do occur, but to measure the amount of one compared to the other is difficult.

Currently, the best estimate of visitation by recreationists from outside the region is 50 persons per year (NPS 1983a). These visitors typically come to Kotzebue knowing about the special archeological features of the monument, and they arrange air transportation to and from the monument. Camping, hiking, and photography are typical associated activities. No definitive map

of this use can be made at this time because of the low use levels and the lack of historic data.

Because statistical information for use levels within the monument is sparse, predicting future trends to aid in planning has involved the blending of information gathered through interviews and public meetings and from impressions of park staff, planning team members, and contributors to the plan. Use by local residents at Sheshalik Spit is increasing. Although this use is on private land, it is within the boundaries of the monument and can have a spillover to adjacent public lands. In the winter two people are known to reside in the monument, but in summer up to 300 stay for several months. Summer use at Sheshalik Spit has grown substantially in the past few years and may continue to do so. However, this growth is limited by the number of native allotments and by the land use policies of the NANA, the major landholder in the area.

Use by visitors from outside the region is expected to grow very slowly, if at all, during the life of this plan. No more than 50 to 100 out-of-region recreational users are expected in the monument annually.

Commerical Visitor Services. Overall, the number of user days in the monument has been very low. In 1982 one commercial company reported six user days for a photography trip. In 1983 ten companies held commercial use licenses, but only one actually took clients to the monument. That involved a total of eight user days spent fishing and taking pictures. In 1984 the number of operators dropped to seven and use dropped to two visits to native allotments. In 1985 the number of commercial operators has risen to 12 companies (use figures for the season were not available at the time of this writing).

Implications. The current lack of information on recreation use by local residents makes day-to-day application of statutes and regulations difficult for the monument staff. The current lack of reliable scientific/statistical information on recreational uses and trends makes planning for these activities difficult.

Subsistence Uses, Activities, and Trends

Modern users of the monument are predominantly Inupiat people who reside in the villages of Kivalina, Noatak, Kotzebue, and Sheshalik, a small settlement developing on native-owned lands at Sheshalik Spit. All these areas lie within resident zones as defined by 36 CFR 13.62. All lands and waters in the monument are open to subsistence use as defined by existing laws and regulations.

In conjunction with the shift in settlement patterns during the last century, alterations in subsistence technology and practices have also occurred. Muscle power has, in part, been replaced or supplemented by machine power. The modern snowmachine has all but replaced the dog team as the primary mode of winter surface travel. Boats constructed of wood, metal, or fiberglass and powered by large outboard motors have virtually made the paddle-propelled skin boat obsolete. Three-wheeled ATVs carry local residents back and forth in the villages and along the monument's ocean beaches, where only summer

foot travel once occurred. Items such as CB radios, chain saws, and gasoline-powered ice augers are also seen as positive advances by users who now participate in subsistence activities in a modern technological world.

Subsistence activities continue to make a substantial contribution to the economic makeup of the region. Protein gained through hunting and fishing activities is, in varying degrees, a major contributer to the local diet. Without this source of food many families would find it difficult if not impossible to purchase the supplies necessary to live in the area. Within the monument a limited amount of trapping provides residents with furs, which can either be used for personal clothing or converted into cash for the purchase of necessary subsistence tools. Berries, roots, and other edible plants help to round out the diet. Wood taken from the beaches and from the limited stands of spruce in the monument provides fuel for heating homes during the long cold winters.

Subsistence serves not only as an economic support but also as a cultural and social focus of the local residents. Land and resource uses are directly tied to cultural history, spiritual beliefs, sharing patterns, status, territoriality, and value systems. Participation in, even if peripheral, and identification with subsistence pursuits are unifying forces in the local culture. Without subsistence, the relevance of many customs and traditions would be diminished and ultimately would be lost. This in turn would diminish the viability of the culture as a whole.

The monument is part of a much broader area used by residents for subsistence activities. Although a few activities are relatively specific to the monument, most subsistence pursuits occur across the landscape, without regard to political boundaries. Depending on such variables as weather, wildlife movements, surface conditions affecting travel, and changing socioeconomic conditions, an activity that is intense one year may be light or even absent the following year in the monument. A description of the typical subsistence use pattern over an annual cycle follows:

> Late winter (February-March)--hunting ringed seal, arctic hare, caribou; gathering driftwood and wood for firewood; fishing for Bering cisco and whitefish; trapping white fox, red fox, wolverine, wolf, and occasionally lynx
>
> Early spring (March-April)--hunting ringed seal, early spring waterfowl, ptarmigan, grizzly bear; trapping white fox; collecting firewood
>
> Mid-spring (May)--hunting ringed seal, migratory waterfowl, ground squirrels; collecting bird eggs; gathering willow leaves and other edible plants
>
> Late spring (June-July)--hunting bearded seal, ringed seal, spotted seal, beluga whale; collecting bird eggs; fishing for Arctic char, whitefish, tomcod herring, smelt; gathering edible plants; collecting driftwood for fuel

Summer (July-mid August)--occasional hunting of waterfowl and caribou; gathering edible plants and berries; fishing for whitefish and chum salmon

Early fall (mid August-mid October)--hunting waterfowl, caribou, grizzly bear, Dall sheep, ptarmigan, and occasionally walrus; fishing for whitefish; collecting mussels and clams

Late fall (mid-October to November)--hunting caribou, waterfowl, seals, ptarmigan; fishing for whitefish, arctic cod; trapping wolf, wolverine, white fox, red fox, and occasionally lynx; gathering driftwood and wood for firewood

Mid-winter (mid-December to January)--occasional hunting of caribou; trapping furbearers; gathering firewood

Additional subsistence data can be obtained by reviewing publications from the NANA Coastal Resources Service Area Board, Maniilaq Association, Alaska Department of Fish and Game (Subsistence Division), Bob and Carrie Uhl's publication Taqiumsinaagmiit, and the Joint Federal-State Land Use Planning Committee.

Among the most recent studies of subsistence use patterns in the area of the monument are environmental baseline studies undertaken for the proposed Red Dog Mine (Cominco Ltd. 1983). These studies include information that is limited to a geographic area that the proposed Red Dog mine might affect. In general this means that the more detailed information presented does not consider the southeast half of the monument or use by residents from Kotzebue or Sheshalik Spit.

Residents from Noatak intensively hunt caribou in the Mulgrave Hills. Char fishing occurs in lower Rabbit Creek, and sea mammals are hunted along the entire coastline of the monument. Waterfowl hunting is concentrated around Imik Lagoon and along the lower portion of Kilikmak Creek.

Residents of Kivalina similarly hunt caribou in the Mulgrave Hills but also seek them out in the Kakagrak Hills south of Kilikmak Creek and north of Krusenstern Lagoon. Sea mammals are hunted along the monument's coastline but normally only south to Imik Lagoon. Bowhead whales are hunted in the same area. Similarly, trapping, hunting waterfowl, and gathering greens, eggs, and berries occur in a zone near the coast from Imik Lagoon north.

The NANA Coastal Resource Service Area Board (1984) reports intensively used portions in the monument include the Sheshalik Spit area, Cape Krusenstern, the mouth of Rabbit Creek, and the Ipiavik Lagoon area.

Residents of Noatak, Kivalina, Kotzebue, and Sheshalik travel widely in pursuit of subsistence resources, and "no one year can be taken as a normal year. . . subsistence living and all it entails does not function that way" (Uhl 1980). It is understood by the National Park Service that subsistence activities take place over a wide ranging area within the monument from year to year.

In response to economic, social, and technological changes subsistence strategies have changed. Individual, or a relatively small number of persons, can usually accomplish hunts and other activities that once required the cooperative effort of a large number of participants. The time and effort once required to obtain food for dog teams is now directed toward acquiring cash to purchase and support mechanical vehicles. Wage employment, schools, modern homes, and other factors tend to limit the time that can be allotted to subsistence, and harvest activities often occur in "bursts" of intense activity rather than long-term sustained practices. Also fewer persons tend to carry out subsistence harvests for their families, and others pursue wage earning employment or offer other types of support.

Residents have continually adapted to changes in their environment and to fluctuations in the availability of natural resources, and changes can be expected to continue. Perhaps the only trend that could be safely predicted is that change will come more quickly than it has in the past. Programs, such as NANA's Spirit Program, have been established in the region in an attempt to retain important cultural links to the Inupiat past.

Implications. Rapid loss of subsistence opportunities would severely affect the social fabric of the Inupiat people. Local people's use of subsistence resources in the monument varies seasonally and annually. Although many good sources of information do exist, consistent, long-term information on subsistence use in all the monument is not available. Economic, social, and technological changes will continue to alter subsistence use patterns of people in the region and in the area of the monument. Some modern tools of subsistence users (like ATVs) can damage or conflict with archeologic resources and natural resources in the monument.

Subsistence Resource Commission. As directed by ANILCA section 808, the National Park Service has established the Cape Krusenstern National Monument Subsistence Resource Commission. The commission is charged with broad powers that could affect regulations governing subsistence hunting in the monument. Specifically, they are to propose a subsistence hunting program to the secretary of the interior and the governor of Alaska. At its first meeting in Kotzebue on May 3 and 4, 1984, the commission elected its officers, listed immediate concerns of members, and scheduled future meetings. Through these meetings the commission is expected to begin to fulfill its mandate. All meetings are open to the public and are announced in the Federal Register.

Implications. The National Park Service must continue to work closely with the Subsistence Resource Commission, providing staff support and analysis of their work and recommendations. Recommendations of the commission have dramatic potential to change subsistence hunting regulations in the monument.

Water Rights

In Alaska, two basic types of water rights doctrines are recognized: federal reserved water rights and appropriative water rights. The reservation doctrine established federal water rights on lands reserved, withdrawn, or set aside from the public domain for the purposes identified in the documents establishing the unit. State appropriative rights exist for beneficial uses recognized by the state, including instream flows, and are applied to lands

where federal reserved water rights are not applicable. No appropriative rights (federal or state) have been applied for in the monument to date.

Implications. Filing for a "reservation of instream flow" with the state of Alaska is a mechanism that could be used by the national Park Service to afford increased protection of natural and subsistence resources within the monument.

Communications

Two automated radio repeater stations have been set up in park units in northwest Alaska to broaden the coverage of radio contact within the NPS units. One of these repeaters is in Kobuk Valley National Park, on Mount Angayukaqsraq; the other is located on Mount Noak, the highest peak in the Cape Krusenstern National Monument.

Uses, Activities, and Trends on Adjacent Lands

Uses and activities on lands adjacent to the monument are similar to those inside the monument. Land managers include the state of Alaska, Bureau of Land Management, NANA, and the Kikiktagruk Inupiat Corporation (KIC). A very small percentage of land is also privately owned. Typically, people hunt, fish, and trap on these lands, as well as travel across them from village to village. Snowmachines and boats are the most typical modes of transportation used. Other subsistence activities, including gathering berries and eggs and cutting wood, occur throughout the area. Some recreational activities may occur on these lands and waters, although very little information is readily available on their extent.

Primary users of these lands are residents of Kotzebue, Kivalina, and Noatak, although other people throughout the region are known to occassionally utilize them too. Kotzebue is only 7 miles from the southeast corner of the monunment. Kotzebue residents commonly use a broad area of land within and around the monument, as well as land to the south and to the east of Kotzebue itself.

People from Noatak, only 9 miles from the monument's eastern boundary, typically hunt, fish, and trap throughout the year. In the summer months some people move south to Sheshalik Spit (within the monument) to fish and hunt marine mammals. Other people move seasonally so they can work in wage-earning jobs.

People from Kivalina live on a narrow barrier island between the Chuckchi Sea and Kivalina Lagoon. Only 10 miles north of the monument, they hunt, fish, and trap throughout the year. Their location on the coast affords them better access to marine mammals, and therefore, they spend more time hunting these species than people from Noatak or Kotzebue. Like their neighbors in Noatak, some people move to work in a segment of the cash economy during the summer months. Throughout most of the year, however, residents depend upon the land for their subsistence.

Although not much information is available for use in forecasting base trends, some things can be projected with some confidence. Foremost are the changes that the Red Dog Mine will bring. Construction and operation activities of the mine will bring hundreds of people, some from local villages and some from outside the region, along with equipment and machinery, to an area where similiar previous activity is unknown. The road linking the mine site and the port would open access to the area, although actually getting to the port by water would remain difficult for nonindustrial vehicular traffic.

There are local concerns that industrial activities could disrupt various subsistence activities, especially the caribou migrations. This topic has been and continues to be discussed between private parties and governmental agencies associated with the management of lands in the region.

The Western and Arctic Alaska Transportation Study (WAATS), completed in 1981 for the Alaska Department of Transportation and Public Facilities, indicated a potential transportation route across the monument. In that study a road, railroad, and coal slurry line that crossed the southern third of the monument, from east to west, were shown as possibilities. A port site at Cape Krusenstern was also indicated.

Other uses in the area such as fishing, hunting, trapping, travel, commercial fishing, and recreational activities are anticipated to continue at about the same level. As additional new technology emerges, and as population in the region changes, so might the levels of use.

Further mineral exploration may occur on state-selected and patented lands to the north and east of the monument.

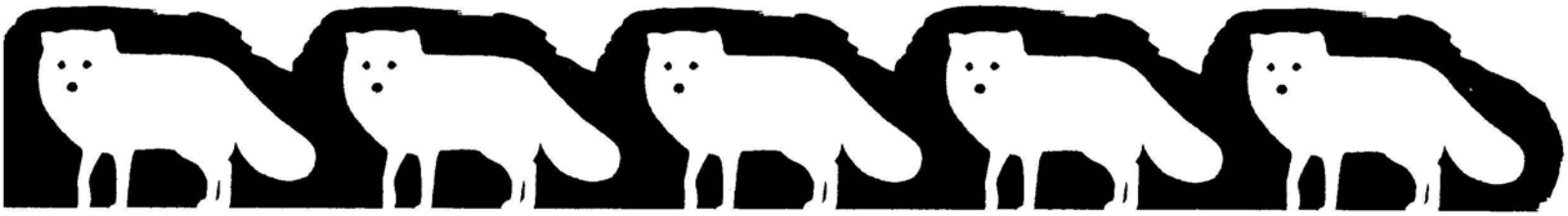
Implications. Land use decisions by adjacent land managers can affect resources inside the monument. Decisions by land managers other then the National Park Service will affect decisions about the Red Dog Mine proposal. Development of the Red Dog Mine and continued mineral exploration in the area may affect the monument's resources.

Proposed Red Dog Mine. The proposed Red Dog lead and zinc mine is approximately 25 miles northeast of the monument's northeast corner, or 90 miles north of Kotzebue. A right-of-way through the monument for the road was authorized by an amendment to ANCSA on September 25, 1985. The proposed mine and port site and ore storage facility are on land owned by NANA and would be developed in cooperation with Cominco, Ltd. The proposal calls for the development of an open pit mine, a mill, and an accommodation complex on-site. A 57-mile road, approximately half of which would be in the monument, will be built to connect the site with the coast. To be built at the coast are a 20-acre port facility and a 9-acre storage facility for the ore awaiting shipment.

It is predicted by Cominco, Ltd., that the mine is of sufficent size to influence world markets for several decades. An infusion of money into the region's cash economy would undoubtedly occur during both construction and operation. The operations phase is expected to last approximately 50 years. Cominco, Ltd., has made commitments to NANA to train and hire local residents

for jobs during both phases, which could provide greater stability to the regional economy.

Implications. Proposed Red Dog Mine facilities inside the monument can be constructed only after the National Park Service reviews and approves a plan of operation submitted by Cominco, Ltd. The Red Dog Mine proposal can affect subsistence resources within the monument, and a subsistence evaluation (ANILCA section 810) has been completed. Exploration, reconaissance, survey, construction, and operational activities could affect cultural resources in the monument. The National Park Service must protect these resources with every available means to preserve, protect, and interpret these resources. Exploration, recconaissance, survey, construction, and operational activities that can be reasonably expected to occur have the potential to affect natural resources in the monument. The National Park Service must protect these resources with every available means to preserve, protect, and interpret these resources. Construction and operational activities could affect opportunities for subsistence use in the monument, especially the caribou hunting. The National Park Service must protect opportunities for subsistence use, especially opportunities for caribou hunting, because this resource is particularly important to subsistence users in the region and protection is mandated by ANILCA, section 810. The National Park Service must review and approve a plan of operations for the road through the monument. Thereafter monitoring the construction and use of the road throughout its lifespan must occur by NPS staff.



THE PLAN

THE PLAN

This final general management plan for Cape Krusenstern National Monument is the result of a more than two years of effort by the National Park Service, numerous agencies, groups, and individuals, especially the native corporations of northwest Alaska and the many individuals who live in the region. The plan is meant to be a firm but flexible guide for the National Park Service as it continues to manage the monument for all the people of the United States and in fact for the people of the world.

The plan presented here is very similar to the "preferred alternative" (alternative one) presented in the March 1985 Draft General Management Plan and the December 1985 Revised Draft. Both have been modified as a result of public comment. The National Park Service will continue to welcome ideas and suggestions about the ongoing planning and management of the monument.

It must also be noted that the monument is used and often occupied by Alaska natives, many of who depend upon the area's subsistence resources for their livelihood and way of life. The concept of a national monument has appropriately been extended as provided for in ANILCA to provide for local community needs, and thus some activities not normally asociated with national monuments are appropriate in Cape Krusenstern National Monument. The monument concept here must also embrace a living culture.

CULTURAL RESOURCES MANAGEMENT

The primary purpose for the creation of the monument was the protection of a series of archeological sites. Section 201(3) of ANILCA states:

> The monument shall be managed . . . to protect and interpret a series of archeological sites depicting every known cultural period in arctic Alaska; to provide for scientific study of the process of human population of the area from the Asian Continent; [and] in cooperation with Native Alaskans, to preserve and interpret evidence of prehistoric and historic Native cultures....

The importance of these resources is supported by their placement on the National Register of Historic Places as an archeological district. The monument is entirely within the archeological district. Because of its international significance, it has been entered on the list of potential U.S. World Heritage nominations by the United States. On a practical level, this means that all archeological sites on federally owned land in the monument will receive certain levels of protection before any action can occur that might affect these cultural resources.

The National Park Service will carry out a slightly more active management strategy than has been followed in the past five years by identifying, recording, evaluating, preserving, protecting, and interpreting all significant cultural resources in the monument. These actions will be implemented through the cultural resources management part of the monument's resources management plan, which is updated annually to reflect changing

needs and priorities. Changes should be anticipated because of the expected Red Dog Mine start-up and its eventual operation.

The cultural resources in the monument will be managed for preservation and protection in a manner consistent with federal and state laws and NPS policies and regulations. A basic principle of this management strategy is preservation. In other words, leaving resources in place rather than excavating or collecting them will be the standard method for dealing with cultural resources. The National Park Service will waive this policy only when the resources are threatened with imminent damage or when there is a significant potential for legitimate scientific research that would expand our knowledge of the history or prehistory of the region. This research would be allowed only when there are no sites outside the monument that would provide comparable data. Research would be controlled through the NPS permit process.

Developments in the monument will be designed to be compatible with the cultural fabric and to avoid or minimize adverse effects on cultural resources. Development with potential for disturbance, either directly or indirectly, will be preceded by archeological clearances. When appropriate, the state historic preservation officer and the Advisory Council on Historic Preservation will be given the opportunity to comment on those develoments and their impacts before they are constructed. Before any actions with potential for impacts on traditional sites are undertaken, local native Americans will be consulted.

The National Park Service also proposes that recovered artifacts not be allowed to permanently leave the northwest region of the state. Rather, a museum for the permanent care and exhibition of collections should be established in Kotzebue (see the section on recommended facilities in Kotzebue). It is proposed that a research project be undertaken to inventory all extant collections that originated in what is now the monument because a major cultural resource exists in the collections that are now located throughout the world.

Additionally the National Park Service will continue to implement or will initiate the following actions:

1.) Conduct a cultural resource inventory in the monument to identify and evaluate new and presently unknown sites.

2.) Develop a monitoring program to assess the effects of ongoing activities on sites within the monument, including the impacts of NPS activities.

3.) Obtain ownership of land, interests in land, or agreements for land management for lands that contain the primary resources for which the monument was created (see the "Land Protection Plan," chapter IV). In those cases in which fee-simple acquisition is not necessary, enter into cooperative agreements or employ other methods to protect resources on private land (see the "Land Protection Plan," chapter IV).

4.) Protect sites on federal land from pothunting and vandalism by use of ranger patrol.

5.) Develop a program in cooperation with native Alaskans to interpret and preserve evidence of prehistoric and historic native cultures.

6.) Research and record, for possible adaptive use, the old mail cabin near the mouth of the Tukrok River.

The National Park Service has protected and will continue to protect prehistoric and historic resources from fires. This protection is accomplished through participation in the interagency fire plan (see "Fire Management" in chapter III), which calls for immediate suppression efforts on all known sites.

Significant archeological resources are also known to be located on several native allotments, all potentially private land. After further research and an evaluation of their significance, the National Park Service will initiate acquisition procedures or seek cooperative agreements or other forms of protection for management of these lands to ensure that resources are protected (see chapter IV for more detail).

A comprehensive inventory of the known archeological resources of the monument and a reconnaissance-level survey for new sites will also be conducted. An archeological resources base map will be prepared and updated regularly. Changes in landownership or land uses resulting from the recently completed Cape Krusenstern land exchange could necessitate updating and shifting work priorities in the near future. This data base will be used to develop and update a cultural resources management plan for the monument to serve as the programming document for active management of these resources. From this inventory a cultural sites inventory list will be compiled. This list, with maps and site records, will be kept up-to-date and will serve as a primary reference for the management of archeological sites in the monument.

Section 14(h)(1) of ANCSA authorizes the transfer of historic and cemetery site lands to native corporations. Transfer is dependent on selection by NANA, adjudication by the Bureau of Land Management, and verification of historicity by the Bureau of Indian Affairs. To date none of the 16 sites selected in the monument has been transferred. If transferred, they must be managed for the preservation of their historic resources by the corporations. The National Park Service has and will continue to protect and manage all 14(h)(1) sites as if they were eligible for inclusion on the National Register. The National Park Service recognizes that these sites may represent sacred or otherwise traditionally important sites and that they are potentially closely associated with the very purposes for which the monument was established. After adjudication and verification, any sites not conveyed will be properly evaluated to determine their level of historic significance and managed accordingly. The National Park Service will encourage the participation of NANA, KIC, Maniilaq Association, IRA Councils, the state historic preservation officer, and any other interested groups, agencies, or individuals in the development of methods to protect, preserve, and interpret these sites.

If the ANCSA 14(h)(1) sites within the monument are transferred, the National Park Service will actively pursue cooperative agreements with NANA to achieve management goals similar to those expressed above.

Prehistoric Resources on Private Lands

The National Park Service will encourage and assist private landowners within the monument and individuals, groups, native corporations, and the state of Alaska to protect and preserve prehistoric resources on their lands.

Historic Resources

A historic resource study will be conducted as part of the comprehensive inventory of cultural resources. Oral and written information will be collected from early residents of the area. Any cabin sites or ruins scattered throughout the monument and all other aboveground structures will be located and their historical, architectural, and cultural values will be professionally evaluated. From this inventory, a list of classified structures will be prepared. Potential classified structures, like the old mail cabin near the mouth of the Tukrok River, will be evaluated for adaptive and interpretive uses. These properties will then be protected and interpreted, as appropriate.

Cultural Resources on Private Land

Wherever possible, the National Park Service will encourage the owners of significant cultural resources on private land within the boundaries of the monument to allow nomination of eligible properties to the National Register by the state historic preservation officer. The National Park Service will provide technical assistance and advice in the proper care and treatment of such properties.

Collections Management

A "Scope of Collection Statement" has been written to guide the monument staff in the acquisition and management of museum objects. All monument collections, including archeological artifacts, natural history specimens, library and archival materials, records, and museum collections, will be managed in accordance with this statement and relevant NPS guidelines and policies.

Cultural Resource Research Recommendations

A list of proposed projects for the cultural research component of the resource management plan include the following:

cultural resources inventory

archeological site monitoring and impact survey

archeological collections inventory project

Cape Krusenstern ethnohistory and oral history project

NATURAL RESOURCE MANAGEMENT

The natural systems within Cape Krusenstern National Monument have been left largely unaltered by man. This condition is due to the remote and rugged nature of the area and the sparse human use of resources for subsistence purposes. With the use of new technologies in the region and the emerging requirements for access through the monument, the National Park Service needs to be able to identify and respond promptly to proposals or potential impacts on resources.

The current emphasis in natural resource management is to study natural systems so that baseline data can be developed. These efforts will receive increased emphasis. Some work has already been done by the state of Alaska, the National Park Service, other government agencies, universities, and private organizations. A need exists to gather and synthesize this past work and then to plan and carry out effective programs for greater resource understanding and protection.

The monument's natural resource management program will consist primarily of studies. Studies and monitoring will be conducted so that thorough information about the condition of resources will be available to monument managers. Management of natural resources will be achieved primarily by the management of human uses that affect resources. The only direct management of natural resources will be to restore natural conditions in areas where resources have been unnaturally altered by human intervention.

Collections made during the research process will be categorized into the monument's collections, in accordance with existing regulation 36 CFR 2.5. They will be housed either in the administrative offices or the proposed museum.

The research objectives for natural resources are threefold: 1) to perpetuate and interpret natural resources and processes, 2) to devise and implement subsistence programs that fulfill the intent of ANILCA, and 3) to provide for visitor enjoyment and appreciation of the natural features of the monument.

In 1962 the secretary of the interior established the National Natural Landmarks Program as a natural areas survey to identify and encourage the preservation of geologic features and biotic communities that best illustrate the natural heritage of the United States. Although no sites within the monument have yet been designated as national natural landmarks, a portion (209,360 acres) of the monument surrounding Cape Krusenstern (Cape Krusenstern and the Igichuk Hills) has been identified as a potential national natural landmark (Bliss and Gustafson 1981). Further evaluation of that site by the National Park Service, which has not yet occurred, may result in its designation as a national natural landmark. All national natural landmarks will be managed to protect those features contributing to their national significance and would be managed in a manner consistent with ANILCA provisions.

Ecosystem Approach

National Park Service policy requires that the management of lands possessing significant natural features and values be managed with respect to ecological processes and that the impacts of people upon these processes and resources be mitigated. The concept of perpetuating a total natural environment or ecosystem, in contrast to the protection of individual features or species, is a distinguishing aspect of the National Park Service's management of natural lands. The major ecosystems within northwest Alaska have received little comprehensive study in the past. A fuller understanding of the natural movements and interplay of energy and materials within major ecosystems is crucial to effective management decisions affecting the monument and other national park system areas in the region.

Of particular interest are the impacts upon natural systems of existing and potential future modes of transportation across the monument. While current transportation is largely limited to the use of snowmachines, motorboats, ATVs, and aircraft between the monument and surrounding villages, there is increasing pressure to develop larger transportation systems that will facilitate economic development.

Air Quality

The National Park Service is mandated to protect habitat for seals, other marine mammals, birds, and other fish and wildlife resources so that their populations remain natural and healthy. The prevention of significant deterioration of air quality and its secondary impacts on wildlife habitat in the monument is crucial to fulfilling this mandate.

Cape Krusenstern is currently classified as a class II airshed under the provisions of the Clean Air Act as amended (42 USC 7401 et seq.).

The monument will be managed so as to achieve the highest attainable air quality levels and visibility standards consistent with the Clean Air Act designation for the respective area and mandates specified by enabling legislation, e.g., ANILCA and the NPS organic act.

The National Park Service established a monitoring program to provide baseline data on air quality within the monument, against which future sampling can be compared.

Water Quality

Maintaining the quality of waters within the monument is important to man and to all wildlife species. Maintenance of water quality within the monument will be carried out under the regulatory authorities of the National Park Service, the Alaska Department of Environmental Conservation, and the Environmental Protection Agency. The Alaska Department of Environmental Conservation will be consulted prior to initiation of any National Park Service developments that may have adverse effects upon water quality in the park. The Alaska Department of Environmental Conservation and the Environmental Protection Agency enforce water quality regulations on National Park Service lands.

The National Park Service will establish a monitoring program in coordination with the Alaska Department of Environmental Conservation and the Environmental Protection Agency to provide baseline data on water quality of the monument against which future sampling can be compared.

Fish and Wildlife

The National Park Service is mandated by ANILCA and other laws to protect the habitat for, and populations of, fish and wildlife within the monument (ANILCA, Section 201(3) and 16 USC 1). The National Park Service will strive to maintain the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystems. NPS management of fish and wildlife will generally consist of baseline research and management of the human uses and activities that affect such populations and their habitat rather than the direct management of resources.

The Alaska Department of Fish and Game, under the constitution, laws, and regulations of the state of Alaska, is responsible for the management, protection, maintenance, enhancement, rehabilitation, and extension of the fish and wildlife resources of the state; in accordance with the state constitution, the department manages fish and wildlife using the recognized management principle of sustained yield. Within conservation system units, including the monument, state management of fish and wildlife resources is required to be consistent with the provisions of ANILCA; therefore, some aspects of state management may not apply within the monument.

The National Park Service and the state of Alaska will cooperatively manage the fish and wildlife resources of the monument. A memorandum of understanding between the National Park Service and the Alaska Department of Fish and Game (see appendix B) defines the cooperative management roles of each agency. The "Department of the Interior, Fish and Wildlife Policy: State-Federal Relationships" (43 CFR 24) further addresses intergovernmental cooperation in the protection, use, and management of fish and wildlife resources. The closely related responsibilities of protecting habitat and wildlife populations, and of providing for fish and wildlife utilization, require close cooperation of the Alaska Department of Fish and Game, the National Park Service, and all resource users.

Sportfishing and subsistence fishing, hunting, and trapping are allowable uses in the monument (ANILCA, section 1314 and applicable state law). Trapping in national park units can only be conducted using implements designated to entrap animals, as specified in 36 CFR 1.4 and 13.1(u). ANILCA requires that such harvest activities remain consistent with maintenance of natural and healthy populations in the monument (ANILCA, section 815 1).

Congress recognized that programs for the management of healthy populations may differ between the National Park Service and the U.S. Fish and Wildlife Service because of differences in each agency's management policies and legal authorities; therefore "the policies and legal authorities of the managing agencies will determine the nature and degree of management programs affecting ecological relationships, population dynamics, and manipulation of the components of the ecosystem." (Senate Report 96-413, p. 233.)

The state of Alaska, through the boards of game and fisheries, establishes fishing, hunting, and trapping regulations for the monument, consistent with the provisions of ANILCA. The National Park Service will cooperate with the state wherever possible to establish regulations that are compatible with monument management goals, objectives, and NPS policies.

Section 805(d) of ANILCA authorizes the state to manage the taking of fish and wildlife for subsistence purposes on federal lands if state laws that satisfy specific criteria in sections 803, 804, and 805 of ANILCA are enacted and implemented.

A subsistence resource commission has been established for the monument in accordance with section 808 of ANILCA. The commission is charged with devising and recommending a subsistence hunting program for the monument. Submission of a program is anticipated in 1986 (see "Subsistence Management" section for a more complete discussion of the commission).

Regarding customary and traditional subsistence uses in parks, monuments, and preserves in Alaska, the legislative history of ANILCA states that

> The National Park Service recognizes, and the Committee [on Energy and Natural Resources] agrees, that subsistence uses by local rural residents have been, and are now, a natural part of the ecosystem serving as a primary consumer in the natural food chain. The Committee expects the National Park Service to take appropriate steps when necessary to insure that consumptive uses of fish and wildlife populations within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years. (Senate Report 96-413, p. 171.)

The National Park Service "may temporarily close any public lands..., or any portion thereof, to subsistence uses of particular fish or wildlife population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population" (ANILCA, section 816 (b)). Except in emergencies, all such closures must be preceded by consultation with appropriate state agencies. If it becomes necessary to restrict the taking of populations of fish and wildlife in the monument, nonwasteful subsistence uses will be accorded priority over the taking of fish and wildlife for other purposes.

The state has developed resource management recommendations containing management guidelines and objectives that are generally developed for broad regions. Therefore, some of the guidelines and objectives may not be applicable to the monument. The state has also developed fish and wildlife management plans. The master memorandum of understanding indicates that the National Park Service will develop its management plans in substantial agreement with state plans unless state plans are formally determined to be incompatible with the purposes for which the monument was established.

Habitat and animal population manipulation will not be permitted within the monument except under extraordinary circumstances and when consistent with NPS policy, as described in the master memorandum of understanding.

Congressional intent regarding this topic is presented in the legislative history of ANILCA as follows:

> [I] t is the intent of the Committee that certain traditional National Park Service management values be maintained. It is contrary to the National Park Service concept to manipulate habitat or populations to achieve maximum utilization of natural resources. Rather, the National Park Service concept requires implementation of management policies which strive to maintain the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystem, and the Committee intends that that concept be maintained. (Senate Report 96-413, p. 171.)

In recognition of mutual concerns relating to protection and management of fish and wildlife resources, the National Park Service and the Alaska Department of Fish and Game will continue to cooperate in the collection, interpretation, and dissemination of fish and wildlife data. The National Park Service will continue to permit and encourage the Alaska Department of Fish and Game to conduct research projects that are consistent with the purposes of the monument.

The monument's informational programs will inform visitors about the allowable uses of the monument, including consumptive uses of fish and wildlife, to prevent or minimize user conflicts. Information will also be provided to visitors about ways to avoid or minimize adverse effects on fish and wildlife populations and their habitats.

Aquatic habitat of the monument will be protected to maintain natural, self-sustaining aquatic populations. The introduction of eggs, fry or brood stocks, and the alteration of natural aquatic habitat, will not be allowed. Artificial stocking of fish in monument waters will be considered only if necessary to reestablish species extirpated by man's activities.

The National Park Service will continue to review priorities, regulations, and harvest limits established by the Alaska Board of Fisheries and Board of Game and will provide its recommendations to them for consideration. During the life of this plan, the National Park Service will seek to strengthen the enforcement of hunting regulations through closer cooperation with the state of Alaska and with NANA and Cominco, Ltd., when the Red Dog Mine becomes operational.

Because the perpetuation of natural and healthy wildlife populations in the monument is a major concern of the National Park Service, it is important that the harvest of wildlife for subsistence purposes is regulated in consideration of the most comprehensive data available for the region. Annual census work is performed for major big-game species in northwest Alaska by the Alaska Department of Fish and Game and affords important information about the health of specific wildlife populations. A comprehensive compilation and analysis of existing historical data will be accomplished by National Park Service's Northwest and Alaska Regional Office personnel. Information gaps will be identified, and goals for additional research will be established.

A coordinated system between the National Park Service's Alaska Regional Office and Alaska Department of Fish and Game will obtain statewide harvest ticket information divided into regions, park units, and game management units. This data will then be used by park managers to identify problems associated with specific species and to undertake appropriate management actions.

The existence within and use of the monument's habitat by threatened and endangered wildlife species is not well documented. Although sightings of peregrine falcons have been recorded in the past, a more systematic survey will occur. Gathering of baseline information about the importance as a spring and fall staging area of the Cape Krusenstern and the Sheshalik area to migrating birds including geese, ducks, shorebirds, gulls, and swans will also occur.

Fluctuations in caribou and moose populations in the region are not well understood. For the purpose of coordinating habitat research for these species, a cooperative agreement will be initiated by the National Park Service Alaska Regional Office with other agencies, including the Fish and Wildlife Service, Bureau of Land Management, Alaska Department of Fish and Game, and the Soil Conservation Service. Each cooperating agency would identify and assume its research responsibility, commensurate with its available funding level and related to its specific lands and interests. The goal of this joint effort would be to assemble a regional mosaic of habitat types and their uses by these large mammals. The work will also be coordinated with the Alaska Department of Natural Resources, which is preparing a regional land use plan, and with the NANA/Cominco partnership. This approach is consistent with regional research policies as stated by numerous participants who attended the 1984 and 1985 NANA Regional Strategy meetings held in Kotzebue.

A similarly structured cooperative agreement will occur for the study of seals and other marine mammals that use offshore habitat but are known to haul out on the beaches of the monument.

A research project for the small musk-ox herd that frequents the monument and the lower Noatak drainage will be undertaken to guide the mitigation of existing impacts of the existing herd. This will be accomplished jointly by the Alaska Department of Fish and Game and the National Park Service. The project will also assess the potential impacts of increased herd size if the state reintroduces additional musk-ox in northwestern Alaska.

Dall sheep, which moved into the Igichuk Hills in the southern portion of the monument in the early 1970s, today number 14. The National Park Service considers this herd too small and isolated to be subject to any harvest pressure and remain viable. Thus, it is recommended that the Alaska Board of Game, in consideration of joint National Park Service and Alaska Department of Fish & Game (Singer et al. 1983) research on Dall sheep, close the Igichuk Hills in the monument to hunting either sex of Dall sheep.

Although the major fisheries in northwest Alaska are productive by arctic standards, the combination of short summer seasons, cool temperatures, and limited food combine to limit growth rates of some resident fish; it also

increases their susceptibility to damage by overharvest. Recent increases in harvest pressures on all species require collection of more baseline information about the populations and pressures on them. The National Park Service will initiate a cooperative agreement with the Alaska Department of Fish and Game to to expand current fisheries research within the region to be performed on a joint basis. Actions will include a formal sharing and a review of information about northwest Alaska fisheries and, therefore, a more effective system of problem identification and definition of research needs.

Minerals Management

The public land within the monument is closed to new mineral entry and location, and there are no valid mining claims within the monument. Should patented or unpatented mining claims occur (through land exchanges or trades) they would be subject to National Park Service regulations governing mining operation and access to mining operations (36 CFR part 9A and 43 CFR 36.10). Plans of operations would be reviewed by appropriate federal and state agencies to ensure that mining operations would be in compliance with state and federal regulations and that adverse effects on resources and other uses would be minimized.

The U.S. Geological Survey is conducting an Alaska mineral resources assessment program. The National Park Service will work cooperatively with this agency and other public and private entities to carry out, as appropriate, the legislated responsibility to assess oil, gas, and other mineral potential on lands within the monument (ANILCA section 1010).

Paleontological Resources

Fossil resources within the monument are protected by existing laws and regulations. The significance and extent of the monument's fossils are not well known. The National Park Service will cooperate with interested agencies and universities who apply for scientific research permits to add to the information base about these fossils.

Vegetation

The public may gather natural plant food items for personal use and dead or downed wood for use in fires in the park (36 CFR 13.20). Local residents may gather plant materials, including fruits, berries, mushrooms, roots, and birch bark, and may cut and gather trees for subsistence purposes, as authorized by the law and existing regulations (36 CFR 13.49). However, a permit is required for subsistence users for the cutting of live standing trees with a diameter of greater than 3 inches at ground height.

The National Park Service will not use wood from the monument for construction materials, thereby avoiding additional harvest of forest resources. An effort to identify the current status, regenerative capability, and importance of existing forest resources within the monument and the NANA region will be undertaken jointly by the National Park Service and other land managers like NANA, KIC, the state of Alaska, and the Bureau of Land Management.

Fire Management

The National Park Service is a participant in the Kobuk Interagency Fire Management Plan, which encompasses an area of 32 million acre areas. All lands within the monument are within the area. This fire management plan coordinates fire suppression management objectives of all the participating landowners; it was completed and put into operation for the 1984 fire season.

In accordance with the fire management plan, the suppression objective for the monument is to allow natural forest and tundra fires to burn unless they threaten private lands or certain identified cultural sites, thereby necessitating suppression measures. ANSCA section 21(e) provides native lands with wildland fire protection services from the United States at no cost, subject to some limitations.

Additionally, the National Park Services proposes to continue research initiated in 1984 in Kobuk Valley National Park. This research, when completed, will enable the National Park Service to develop a fire management program consistent with the interagency fire supression plan. It could result in future prescribed controlled burns to provide greater degrees of protection for monument resources and for private lands. Before any such prescribed burn, the National Park Service will consult with the Alaska Department of Environmental Conservation to determine when the best meterological conditions exist to minimize adverse effects on air quality.

Shorelands, Tidelands, and Submerged Lands

The Submerged Lands Act of 1953, the Alaska Statehood Act of 1958, and the state constitution provide for state ownership of the water (subject to the reservation doctrine discussed in the "Water Rights" section), shorelands (the beds of navigable waters), tidelands (lands subject to tidal infuence), and submerged lands (lands seaward from tidelands).

Determinations of what waters are navigable is an ongoing process in Alaska, at both the administrative and judicial levels. Only one area in the monument has been determined navigable by the BLM at this time, that being the approximately 10,000 acres of coastal water in the monument's southeastern township, which encompasses the Sheshalik Spit area. Other water bodies may be determined navigable in the future. Tidelands within the monument are located primarily in the vicinity of Sheshalik Spit.

The National Park Service will work cooperatively with the state to ensure that existing and future activities occurring on these shorelands, submerged lands, or tidelands within and adjacent to the unit boundary are compatible with the purposes for which the monument was created. Any actions, activities, or uses of nonfederal lands that will alter the beds of these lands or result in adverse effects on water quality or on the natural abundance and diversity of fish and wildlife species will be opposed by the National Park Service. The National Park Service will manage the monument's uplands adjacent to shorelands, submerged lands, and tidelands to protect their natural character.

In particular, the National Park Service is interested in establishing additional protection for seals and other marine mammal habitat that Congress specifically addressed in ANILCA section 201(3). The National Park Service will work with the state as it proceeds with its northwest area regional land use plan and will recommend that the state consider the purposes of the monument and the importance of monument resources as it makes recommendations for using state lands and waters.

Additionally, the National Park Service recommends that the state close these areas to new mineral entry or to extraction of oil, gas, and sand and gravel resources and will apply to the state for these closures. The National Park Service will also pursue cooperatiave agreements with the state for the management of lands under navigable water bodies (shorelands) and tidelands.

Management of Watercolumns

Sections 101 and 201 of ANILCA and 16 USC 1a-2(h) and 1c direct the National Park Service to manage all waters within the boundaries of the monument. The state of Alaska has authority to manage water, based on the laws cited in the previous section. These laws provide for water management by both the state and the National Park Service.

The National Park Service will oppose any uses of waterways that will adversely affect water quality or the natural abundance and diversity of fish and wildlife species in the monument. The National Park Service will work with the state on a case-by-case basis to resolve issues concerning the use of the various waterways where management conflicts arise. Cooperative agreements for the management of uses on the water will be pursued if a case-by-case resolution of management issues proves unacceptable to the National Park Service and the state.

Water Rights

(Descriptive information about water rights is found in chapter II.) For waters available under the reservation doctrine, unless the United States is a proper party to a stream adjudication, the National Park Service will quantify and inform the state of Alaska of its existing water uses and those future water needs necessary to carry out the purposes of the reservation. When the reserve doctrine or other federal law is not applicable, water rights will be obtained in accordance with Alaska laws and regulations. In all matters related to water use and water rights, the National Park Service will work cooperatively with the state of Alaska.

Natural Resource Research Recommendations

Resource management plans are prepared to describe the scientific research, surveys, and management activities that will be conducted in each national park system unit. Information obtained from research described in a resource management plan is used by monument managers to better understand the unit's cultural and natural resources and is used in making resource-related decisions and funding requests. Resource management plans are evolving documents that respond to the changing requirements of managing a unit's resources. They are reviewed at least once each year and are updated as

necessary. The most elementary resource management plan is essentially a list of proposed research projects that are required to better understand the resources of a national park system unit. More fully evolved resource management plans may include detailed management strategies for addressing specific resource issues.

A resource management plan is being prepared for the monument. The National Park Service will consult with interested parties, including the state of Alaska, during the preparation and subsequent revisions of the plan. Draft plans will be transmitted to the state and will be available to the general public for a 60-day review and comment period. Adequate notification of the availability of the draft plan will be provided. If significant changes are made in the resource management plan during the annual review, the same public involvement practices as described above will be followed.

This listing of research projects is current at the time of printing of this document; however, proposals and priorities for research projects are reviewed annually and are updated as necessary.

Research Projects

1. Population data: big-game and fur-bearing species

2. Role of natural fire in northwest Alaska ecosystems (Northwest Area Fire Management Plan)

3. Baseline study of the genetic characteristics and monitoring of Noatak River chum salmon

4. Compilation and analysis of big-game harvest information on all harvested species

5. Baseline study of ecosystem dynamics within northwest Alaska

6. Study and monitoring of caribou and moose habitat

7. Study of the impacts of existing and proposed methods of transportation on northwest Alaska ecosystems

8. Analysis and monitoring of conflicts between subsistence and recreational users

9. Musk-ox cooperative research and reintroduction study

10. Endangered species inventory and monitoring cooperative survey

11. Baseline research on waterfowl and shorebirds, with emphasis on Cape Krusenstern and Sheshalik Spit

12. Cooperative baseline research on fishery populations and pressures

13. Baseline research into the potential for mineral extraction

14. Impact study on popular visitor use areas

15. Air quality monitoring

16. Water quality monitoring

17. Cooperative timber inventory

PUBLIC USE

Carrying Capacity

National Park Service planning guidelines require that the "carrying capacity" of the monument be addressed in the general management plan. This policy requires that the service "carefully plan and regulate the use of the parks so that park resources are perpetuated and maintained unimpaired for the enjoyment of future generations."

Because recreational visitor use is currently very low, because the National Park Service recognizes that subsistence uses by local rural residents have been and will continue to be a natural part of the ecosystem, serving as a primary consumer in the natural food chain (Senate Report 96-413, p. 171), and because scientific data about the ecosystem and its many components are scarce, no "carrying capacity" study is presently recommended. However, the various studies and research projects called for in this plan will provide the basis for such a future study. A human use study to measure the impacts of human use in selected areas in the monument is planned and will be designed to monitor impacts on the resources by existing use levels. If the resources of the monument are thought to be threatened or are threatened, use levels or activities could be limited in accordance with ANILCA.

Management Zoning

National Park Service planning guidelines require that management zoning for the monument be addressed in the general management plan. However, the National Park Service does not now recommend management zones for the monument. Until further studies produce better knowledge of the monument resources, zoning is considered premature.

Information and Interpretation

Interpretation and education activities are important to the protection and use of the natural and cultural vlues of the monument. Professionals and volunteers will carry out these important functions of interpretation and education by using a variety of media to reach monument visitors and the general public.

Information and interpretation will be provided to monument users for the purposes of public safety, understanding and enjoying the monument resources, avoiding and minimizing conflicts between user groups, and precluding damage to monument resources. Because of the specific purposes of the monument, especially the cultural resource values and the need to maintain the viability of subsistence resources, the National Park Service will not encourage visitation to any particular sites or features in the monument. Instead, it will encourage individuals to seek out information about the area and choose their own destinations.

Several methods will be used to provide information, including brochures, scheduled interpretive talks and presentations, displays, slide programs, movies, and informal talks with the staff.

The National Park Service will develop an interpretive prospectus to define the monument's interpretive themes. These themes will focus on the primary purposes and resources of the monument. These include the following:

1. Interpretation of the monument's archeological sites, including known cultural periods in arctic Alaska

2. The processes of human habitation of the area from Asia

3. Natural resources of the monument and adjacent lands

4. Subsistence resources and activities in the monument

In response to the public need for information about the monument, the National Park Service will update the current monument brochure. The brochure will present information on current subsistence uses, general recreational opportunities, methods of avoiding conflicts between user groups, bear behavior, location of private land, known hazards to public safety, and other topics as needed. The National Park Service will not attempt to advocate use in any one area. Local native corporations, the Cape Krusenstern Subsistence Resource Commission, and IRA Councils will be offered an opportunity to review the brochure so that information about subsistence use and activities and information about private land is accurately portrayed. Additional brochures, similar to the Alaska Department of Fish and Game brochure on bear safety, will also be distributed.

The National Park Service will conduct annual meetings in the villages most directly affected by the monument and will continue to conduct scheduled programs on request. These programs will include information about the local areas and various resources administered by National Park Service, the significance of the monument, other national park system areas throughout the United States, career opportunities, and local hire.

The National Park Service will try to have all presentations translated into Inupiaq so that all village residents will be better able to understand the information. Additionally, the National Park Service will continue to work with the NANA Regional Strategy Lands Subcommittee, which is investigating how to improve communication between agencies and people in villages.

The primary location for disseminating information and presenting interpretive programs will be the National Park Service visitor contact station in Kotzebue (see the "Public Use Facilities" section in this chapter). Information about the monument and written interpretive materials will also be available at a ranger station to be located at the village of Noatak. This office will serve residents of Noatak and nonlocal recreation visitors who require information about Noatak National Preserve and Cape Krusenstern National Monument.

Personnel assigned to a ranger station in the southern end of the monument will provide simple and basic information and interpretive services for the entire monument, with particular emphasis on the southern half. These services will be provided to monument users on request and as other duties allow. Personnel will also be trained to discuss the cultural and natural resources of the area, including previous archeological and scientific investigations. As appropriate and necessary, personnel will explain to nonlocal monument visitors the current subsistence activities, including caribou and fish harvests that occur within the monument and marine mammal hunting that occurs adjacent to the monument. Personnel will also provide information about recreational opportunities, private lands in the monument, and other topics of interest to visitors.

Personnel assigned to a ranger station in the northern half of the monument will, in addition to these duties, provide information about the proposed Red Dog Mine in an attempt to preclude any potential conflicts between the out-of-region recreation visitor and the proposed industrial uses.

Access

Because of the complexity of access and transportation issues related to the monument, planning for the various topics described in this access section is an ongoing process. The National Park Service will continue to document past and current uses of the monument, inventory access routes, and study special issues as described below. This process will of necessity be accomplished in phases over a period of several years. In carrying out this process of inventorying and collecting information, the National Park Service will consult with interested agencies, organizations, and individuals. When sufficient information has been gathered on a particular topic, the National Park Service, in consultation with others, may propose further action. Actions may include developing further management policy; proposing closures, restrictions, or openings; proposing access improvements; or proposing revisions to existing policies or regulations. Pursuant to section 1110(a) of ANILCA, 36 CFR 13.30 and 13.46, 43 CFR 36.11(h), and NEPA where applicable, adequate public notice and opportunity to comment will be provided.

Access is guaranteed to nonfederal land, subsurface rights, and valid mining claims, but any such access is subject to reasonable regulations to protect the values of the public lands that are crossed (ANILCA, sections 1110 and 1111). Existing regulations (43 CFR 36.10) govern access to inholdings.

Pack Animals. One change is proposed in existing regulations. Animals that can be used for transportation in the monument will be limited to dogs. Sled dogs have been used for transportation for many years in the monument, whereas pack and saddle stock, such as horses, mules and llamas, have not been used. Detrimental impacts associated with regular use of pack and saddle stock in other park areas have included soil compaction, denudation of vegetative cover, erosion, excrement deposition, and the introduction of exotic plants and diseases. Since the monument was established (in part) to maintain its environmental integrity, it is inappropriate to subject the monument to such possible impacts. Therefore, the National Park Service proposes to permanently close the monument to all other pack or saddle animals.

This closure is proposed, but not implemented, in this general management plan. Any proposed closure can be implemented only after following the closure procedures contained in federal regulations (36 CFR 13.30 and 43 CFR 36.11(h)). Complete analyses of proposals will be developed before initiating closure proceedings. Closure proposals may require revision before initiation of closure proceedings if more detailed information indicates that different measures (for example, less than unit-wide closures) are required to remedy resource problems.

Rights-of-Way. Revised Statute 2477 (formally codified at 43 USC 932 and enacted in 1866) provides that: "The right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted." The act was repealed by Public Law 94-579 as of October 21, 1976, subject to valid existing claims.

The monument is subject to valid existing rights, including rights-of-way established under RS 2477. The validity of these rights-of-way will be determined on a case-by-case basis. One right-of-way that the state contends may be valid under RS 2477 is #21, the Coastal Winter Trail.

A map illustrating the location of the Coastal Winter Trail is found in appendix G. This list and map are not necessarily all-inclusive. Private parties or the state of Alaska may identify and seek recognition of additional RS 2477 rights-of-way within the monument. Supporting material regarding potential rights-of-way identified by the state may be obtained through the Alaska Department of Transportation and Public Facilities or the Alaska Department of Natural Resources.

Identification of the potential right-of-way listed above and the map in appendix G does not establish the validity of these RS 2477 rights-of-way and does not provide the public the right to travel over them. The use of off-road vehicles in locations other than established roads or designated routes in units of the national park system is prohibited (EOs 11644 and 11989 and 43 CFR 36.11(g)). Identification of possible rights-of-way does not constitute the designation of routes for off-road vehicle use.

ANCSA 17(b) Easements. Campsite and linear access easements may be reserved on native corporation lands that are within or adjoin the monument, as authorized by section 17(b) of ANCSA. The National Park Service will be responsible for the management of these public access easements inside the

monument and for those assigned to the National Park Service outside of the monument. Pursuant to Part 601, Chapter 4.2 of the Department of the Interior "Departmental Manual" (601 DM 4.2), where these easements access or are part of the access to a conservation system unit, the easements shall become part of that unit and be administered accordingly. The purpose of these easements is to provide access from public lands across these private lands to other public lands. The routes and locations of these easements are identified on maps contained in the conveyance documents. The conveyance documents also specify the terms and conditions of use, including periods and methods of public access. A list of 17(b) easements and authorized uses is included in chapter II. These easements appear on the Land Status map in chapter IV. Further record-keeping by the National Park Service may result in revision to the locations and authorized uses of 17(b) easements presented in chapter II.

The National Park Service will work cooperatively with the affected native corporation and other interested parties, including the state of Alaska, to develop a management strategy for the easements. Management of these easements will be in accord with the specific terms and conditions of the individual easements and applicable park regulations (pursuant to 43 CFR 2650.4-7(d)(4) and 37 CFR 1.2). As the easements are reserved and the National Park Service assumes management responsibilities for them, the locations, mileages, and acreages will be compiled and management strategies will be formulated. This information will be maintained at monument headquarters.

As authorized in 601 DM 4.3G, an easement may be relocated to rectify a usability problem or to accommodate the underlying landowner's development of the lands if both the National Park Service and the landowner agree to the relocation. Easements may also be exchanged if an acceptable alternate easement or benefit is offered by the underlying landowner and the exchange would be in the public interest. An easement may be relinquished to the underlying landowner if an alternate easement has been offered by the landowner or termination of the easement is required by law. The National Park Service may also propose to place additional restrictions (to those authorized in the conveyance document) on the use of an easement if existing uses are in conflict with the purposes of the unit. In all cases where a change is proposed in authorized uses or location from the original conveyance, the National Park Service will give adequate public notice and opportunity to comment to the affected native corporation and other interested parties, including the state of Alaska. Any National Park Service proposal for changing the terms and conditions of 17(b) easements will include justification for the proposed change, an evaluation of alternatives considered, if any, and an evaluation of potential impacts of the proposed action.

The various types of access routes and easements discussed in the previous sections may overlap. For example, a valid RS 2477 right-of-way may overlap an easement conveyed under section 17(b) of ANCSA. Where this occurs, management strategies will reflect valid existing rights and other considerations unique to the situation. The National Park Service will work cooperatively with interested parties to ensure that management is compatible with the purposes of the monument. Overlap situations will be dealt with on

a case-by-case basis in conformance with the general management policies discussed in these sections.

Off-Road Vehicles. The use of off-road vehicles (ORVs)*, including all-terrain vehicles (ATVs), off established roads, parking areas, or designated routes is generally prohibited. Experience and research indicate that such use of ORVs adversely affects the natural, aesthetic, and scenic values of the monument and as such is contrary to existing laws, executive orders, regulations, and policy. Section 1110(a) of ANILCA provides for the use of snowmachines, but not for ORVs other than snowmachines. Consequently, the recreational use of other ORVs is subject to the provisions of Executive Order 11644, "Use of Off-Road Vehicles on the Public Lands." The executive order requires the designation of specific areas for ORV use in national park system areas and a determination that ORV use in these areas will not adversely affect the natural, aesthetic, or scenic values. The executive order specifically provides ORV routes in designated wilderness areas.

The research in the Wrangell-Saint Elias National Park and Preserve** was designed to measure the effects of various types of all terrain vehicles (ATVs) in tussock-shrub terrain and document the amount of damage that occurs to the vegetation and terrain as the number of vehicle passes increases. The findings of this study are that the use of ATVs off established roads does result in substantial resource damage even at the lowest traffic levels (10 passes) and that resource damage increases with additional use.

Two exceptions to the general prohibition on the use of ORVs off established roads occur in the monument. They include access to inholdings allowed under section 1110 of ANILCA and use of ATVs along two trail easements from Kivalina to Noatak as provided for by ANCSA, sections 34 and 35. Section 1110(b) of ANILCA guarantees the right of access to inholdings within park areas, subject to reasonable regulations to protect natural and other values of park lands. Access to inholdings is covered in existing regulations (43 CFR 36.10). The use of ORVs for access to inholdings may be allowed under 43 CFR 36.10 by the superintendent on a case-by-case basis on designated routes. In determining what routes and restrictions should apply to the use of ORVs for access to inholdings, the superintendent will consider the potential for resource damage and user conflicts and the availability of alternate routes and methods of transportation. The use of ORVs for access to inholdings will only be allowed upon a finding that other customary and traditional methods of access will not provide adequate and feasible access. All ORV use allowed

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*An off-road vehicle is any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, wetland, or other natural terrain, except snowmachines or snowmobiles (36 CFR 13.1).

**"Response of Tussock-Shrub Terrain to Experimental All-Terrain Vehicle Tests in Wrangell-St. Elias National Park and Preserve, Alaska." A progress report by Charles H. Racine and Gary M. Ahlstrand, USDI, NPS, ARO, July 1985.

under section 1110(b) of ANILCA will be subject to applicable state and federal laws and to permits and restrictions necessary to prevent resource damage. These restrictions may limit the size and type of vehicle, vehicle weight, season of use, number of trips and other conditions necessary to protect park resources and values.

The use of ORVs on rights-of-way and easements established under various authorities, including RS 2477 and ANSCA section 17(b) but excluding ANCSA sections 34 and 35 easements, will be determined as their validity is determined (i.e., RS 2477 rights-of-way) or they come under management authority of the National Park Service (i.e., 17(b) easements). Whether ORV use will be allowed on a particular right-of-way or easement will depend on the specific terms and conditions of the right-of-way or easement, the history of use, and other environmental factors.

Air Access. Fixed-wing aircraft may be landed and operated on lands and waters within the monument, except where such use is prohibited or otherwise restricted by the superintendent pursuant to 36 CFR 13.30 and 43 CFR 36.11(f) and (h). The use of aircraft for access to or from lands and waters in the monument for purposes of taking fish or wildlife for subsistence uses therein is generally prohibited as set forth in 36 CFR 13.45.

Currently all federal lands within the monument are open to authorized aircraft uses and no changes are proposed at this time. In the future, if the need for closures or restrictions is identified, the National Park Service will propose them through the procedures outlined in 36 CFR 13.30 and 43 CFR 36.11(f) and (h).

No designated landing sites for helicopters have been previously designated, and none are recommended in this plan. The use of a helicopter in the monument, other than at designated landing areas or pursuant to the terms and conditions of a permit issued by the superintendent, is prohibited (43 CFR 36.11(f)(4).

The National Park Service will actively advise pilots that all aircraft maintain a minimum altitude of 2,000 feet above the ground whenever possible to avoid disruption of wildlife movement as well as subsistence and recreational activities. The suggested altitude minimums over any national park unit have been printed on the sectional aeronautical charts (scale 1:500,000) since the mid-1970s.

These flight advisories will be a stipulation in all special use permits and commercial use licenses subject to the requested use. It is recognized that these minimum altitude suggestions are advisory only (except for permits and licenses mentioned above) because the Federal Aviation Administration regulates air space and lower altitudes may be required because of weather conditions, terrain, and emergency conditions.

Additional discussion of management intent on landing strip maintenance is found under "Landing Strips" later in this chapter. Additional discussion of access for subsistence uses is found under "Subsistence Management" later in this chapter.

Red Dog Mine. Access for the Red Dog mine is provided for under the provisions of "Terms and Conditions Governing Legislative Land Consolidation and Exchange between the NANA Regional Corporation, Inc., and the United States of America as amended by the Act of September 25, 1985," Public Law 99-96, 99 Stat. 460-464. In brief, the United States conveyed to NANA an easement (19.747 acres) for developing a transportation system across approximately 25 miles of the monument including rights to use and sell sand, gravel, rock, and other construction materials for the system. The easement provides access from the mine site to the coast across the monument.

Reservation Of Public Use Easements. The National Park Service will request the reservation of public (nonexclusive) use easements from the BLM on lands being conveyed under the Native Allotment Act of 1906 where important public use trails cross the lands being conveyed. The public use easements will ensure continued public access to public lands and resources in the monument.

To more fully understand the many and varied provisions relating to access, the reader is encouraged to review the "Access" section in chapter II and tables 1 and 2, which consolidate legislative and regulatory provisions and plan proposals for access.

Commercial Visitor Services

Commercial visitor services presently provided within the monument are chiefly related to air and water transportation and guide services for various purposes. Private entrepreneurs are adequately meeting the current demand for these services, which is very low.

All commercial services in the three National Park Service units in northwest Alaska are currently managed under a system of commercial use licenses. Commercial use licenses are issued annually to any applicant if the services are deemed "necessary and appropriate" to the use and conservation of the area. Each commercial use license contains stipulations to ensure the protection of monument resources, the continuation of other uses occurring within the monument (for example, subsistence uses), and assurances of visitor safety. Each license holder is required to submit a yearly report describing the types of services provided, the number of clients served, the dates services were provided, and the areas of the monument where services were provided.

The National Park Service will continue the present commercial use license system to manage commercial services. This allows for commercial services to be provided to the public while reducing associated management costs to both the provider of services and to the government; it also ensures the protection of the monument's resources and other uses. The superintendent will continue to determine what commercial services are necessary for public use and enjoyment of the monument and what services are appropriate based upon the legislatively stated purposes of the monument.

If, during the projected 10-year life of this plan, commercial services need to be limited in number or to be more strictly regulated to prevent unacceptable impacts on the resources or other uses of the monument, a concession permit system will be instituted. Under this system the number of

Table 1: General Access Provisions For Subsistence And Recreation, Cape Krusenstern National Monument

This chart is a summary of current access provisions and proposed changes. For a complete discussion of access, including where the various provisions may overlap, please refer to the "Access" section.

PROVISION	SUBSISTENCE	REFERENCE(A)	RECREATION	REFERENCE(A)	CHANGES PROPOSED IN PLAN
1. SNOWMACHINE	Yes Except: (B)	ANILCA 811 36 CFR 13.46 43 CFR 36.11(b)	Yes Except: (C)	ANILCA 1110 36 CFR 13.10 43 CFR 36.11(c)	None
2. OFF-ROAD VEHICLES (ORVs)	No Except: (F)	ANILCA 811 36 CFR 13.46 ANCSA 34 & 35	No	ANILCA 101 43 CFR 36.11(g)	None
3. MOTORBOAT	Yes Except: (B)	ANILCA 811 36 CFR 13.46 43 CFR 36.11(b)	Yes Except: (C)	ANILCA 1110 43 CFR 36.11(d)	None
4. FIXED-WING AIRCRAFT	No Except: (D)	ANILCA 811 36 CFR 13.45 43 CFR 36.11(f)	Yes Except: (C)	ANILCA 1110 43 CRF 36.11(f)	None
5. HELICOPTER	No	43 CFR 36.11(f)	No Except:(E)	ANILCA 1110 43 CFR 36.11(f)	None
6. DOGS, HORSES, AND OTHER PACK ANIMALS	Yes Except: (B)	ANILCA 811 36 CFR 1.4 36 CFR 2.16 36 CFR 13.46 43 CFR 36.11(b)	Yes Except: (C)	ANILCA 1110 36 CFR 1.4 36 CFR 2.16 43 CFR 36.11(e)	Superintendent to permanently close entire monument to to use of horses and other pack animals, except dogs, as authorized by 36 CFR 13.30 and 43 36.11(h).

7. ULTRA LIGHTS, HOVERCRAFT AND AIRBOATS	No	ANILCA 811 36 CFR 2.17 36 CFR 13.46	No 36 CFR 2.17 43 CFR 36.11(f)	ANILCA 1110	None

NOTES
The terms "yes" and "no" in this chart reflect a general rule as to whether a type of access is allowed. Where exceptions exist, they are footnoted.

FOOTNOTES

A. "ANILCA" stands for the Alaska National Interest Lands Conservation Act of 1980; 36 CFR 13.00 stands for Title 36 of the Code of Federal Regulations, part thirteen; 43 CFR 36 stands for title 43 of the Code of Federal Regulations, part 36; and EO stands for Executive Order.

B. The superintendent may restrict or close a route to use of snowmachines, motorboats, dog teams, or other means of surface transportation (36 CFR 13.46 (b & c).

C. The superintendent may close an area or restrict an activity on an emergency, temporary, or permanent basis (36 CFR 1.5 and 13.30, and 43 CFR 36.11(h).

D. In extraordinary cases authorized by 36 CFR 13.45, an aircraft may be employed for the subsistence taking of fish and wildlife, but aircraft may be used for subsistence uses that do not include the taking of fish and wildlife resources.

E. The use of a helicopter in any area of the monument, other than at designated landing areas or pursuant to the terms and conditions of a permit issued by the superintendent, is prohibited (43 CFR 36.11(f)(4).

F. ATVs are allowed on two trail easements established under an amendment to ANCSA (addition of sections 34 and 35) when sufficient snow and or frozen ground exists. Additional details on stipulations allowing use are available in National Park Service offices in Kotzebue and Anchorage.

Table 2: Summary Other Access Provisions, Cape Krusenstern National Monument

PROVISION	REFERENCE	PROPOSALS IN THE PLAN
1. Access to Inholdings (Valid property or occupancy interests) Ensures adequate and feasible access, subject to reasonable regulations to protect the natural and other values.	ANILCA 1110 36 CFR 13.31 43 CFR 36.10 43 CFR 36.11	Continue to follow provisions of ANILCA and and existing regulations.
2. Temporary Access (Applies to state and private land-owners not covered in 43 CFR 36.10 and 36.11). Superintendent shall permit temporary access across a park area for survey, geophysical, exploratory, or similar temporary activities on nonfederal lands when determined that such access will not result in permanent harm to park area resources.	ANILCA 1111 43 CFR 36.12	Continue to follow provisions of ANILCA and existing regulations.
3. Transportation and Utililty Systems in and across, and Access into, Conservation System Units Sets procedures for applications and approvals. Must be compatible with purposes for which the unit was establisted and no other economically feasible and prudent alternative route exists; establishes terms and conditions of rights-of-way.	ANILCA TITLE XI 43 CFR 36	Continue to follow provisions of ANILCA and existing regulations.

PROVISION	REFERENCE	PROPOSALS IN THE PLAN
4. Revised Statute 2477 (Rights-of-Way) Revised Statute 2477 (repealed in 1976) provides that: "The right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted." The monument was established subject to valid existing rights, including rights-of-way established under RS 2477. The validity of these rights-of-way will be determined on a case-by-case basis. These rights-of-way are discussed further in the "Access" section of the plan. A list and map of the rights-of-way that the state contends may be valid under RS 2477 are in appendix G.	43 USC 932	Work with state of Alaska to determine validity of RS 2477's on a case-by-case basis.
5. Navigation Aids and Other Facilities Access is provided to the existing water navigaton aids, subject to reasonable regulation. Access is also provided to facilities for national defense purposes.	ANILCA 1310	Continue to follow provisions of ANILCA and existing regulations. Continue use of existing permit to U.S. Coast Guard for navigational aid at Cape Krusenstern.
6. Alaska Department of Fish and Game The National Park Service recognizes the right of ADF&G to enter onto park lands after timely notification to conduct routine management activities that do not involve construction, disturbance to the land, or alterations of ecosystems.	NPS/ADF&G master memorandum of understanding	Continue provisions of master memorandum of understanding (see appendix B).

PROVISION	REFERENCE	PROPOSALS IN THE PLAN
7. Alaska Mineral Resource Assessment Program Allows for access by air for assessment activities permitted by ANILCA sec. 1010, subject to regulations ensuring that such activities are carried out in an environmentally sound manner.	ANILCA 1010	Continue to follow provisions of ANILCA and existing regulations.
8. Easements Campsite and linear access easements may be reserved on native corporation lands that are within or adjoin the monument, as authorized section 17(b)of ANSCA. The routes and locations of these easements are identified on maps contained in the conveyance documents. The conveyance documents also specify the terms and conditions of use, including periods and methods of public access. It is anticipated that the National Park Service will be responsible for the management of several public access easements within and adjoining the monument.	ANCSA sec. 17(b)	Continue to follow existing provisions of law, regulation and policy
9. Helicopter Use The use of helicopters is generally prohibited. The superintendent may permit the use of helicopters subject to terms and conditions of a permit.	43 CFR 36.11(f)(4)	Continue to follow existing regulations; no proposed designated landing areas.

PROVISION	REFERENCE	PROPOSALS IN THE PLAN
10. Kivalina to Noatak Trail Easements Allows for access from Kivalina to Noatak along the routes of two trail easements. Use is allowed according to the terms and conditions of the agreement as ratified by the Act of September 25, 1986. Uses include foot, dogsled, snowmachine, and ATV; some restrictions apply.	ANCSA 34 & 35	Continue to follow provisions of agreement.
11. Transportation System Lands Provides for a 100-year easement to NANA for developing a transportation system across 25 miles of the monument.	ANCSA 34 & 35	Continue to follow provisions of agreement.

providers of one or more commercial services offered within the monument will be limited. For instance, it might be determined that three hiking guide companies could adequately accommodate this demand within the monument. Concessioners would be selected on the basis of their ability to furnish adequate services and operate in a manner that is compatible with the legislative purposes of the monument.

A commercial services survey may be conducted by the National Park Service if it is believed that monument resources are being adversely impacted or if the public is being inadequately served. The purpose of the survey would be to assess the quality of commercial services provided to the public in the monument, the impacts of commercial services on resources and other monument uses, and whether public needs are being satisfied by existing commercial services. Based on this survey, the National Park Service will determine whether additional commercial visitor services were appropriate and where and when they are required to help fulfill the purposes for which the monument was established. In the meantime the National Park Service will continue requiring commercial operators to obtain the commercial use license. If the replacement of commericial use licences with the more restrictive concessions permits is recommended, the National Park Service will issue concession permits or contracts to commercial operators who operated within the monument before January 1, 1979, to the extent practicable, and who are able to meet the needs of visitors and to operate in a manner consistent with the purposes for which the monument was established (ANILCA, section 1307).

Revenue-Producing Visitor Services. Section 1307 of ANILCA provides that persons who were providing visitor services on or before January 1, 1979, in any conservation system unit established by ANILCA, under certain conditions, shall be permitted to continue providing such services. Section 1307 also specifies that in selecting persons to provide any type of visitor services (except sportfishing and hunting guiding activities) for any conservation system unit, preference shall be given to affected native corporation and local residents. Every effort will be made to carry out these provisions of ANILCA. Any interpretation of this section will be implemented through rule-making and published in the Federal Register.

The National Park Service has expressly asked representatives of both NANA and KIC about their current interests in revenue-producing visitor services as they relate to the monument. No positive interest has been shown. The National Park Service will, however, again contact both NANA and KIC should the commercial service study (proposed) recommend any new commercial services for visitors.

Commercial Fishing

The plan recommends no changes in existing legislative (ANILCA, section 205) or regulatory (36 CFR 13.21) provisions.

The National Park Service will initiate work, in cooperation with the Alaska Department of Fish & Game, to determine what levels of use occurred in 1979. ANILCA allows the secretary of the interior, after a public hearing, to restrict users of the monument for such things as campsites, cabins, motorized vehicle use directly related to commercial fishing activities if

there occurs a "significant expansion of the use of park lands beyond the level of such use during 1979." By establishing exactly what these levels were, the National Park Service will be able to better carry out the legal mandate of ANILCA.

Additionally, the National Park Service recognizes that the fishing industry is variable; from year to year the number of participants and the number of fish caught fluctuate relative to availability of fish, weather conditions, and market prices. Thus, the National Park Service recognizes that the year 1979 may or may not truly reflect the level of use that has typically occurred. The National Park Service will discuss the matter and openly consider alternative measures of the use levels that satisfy the intent of ANILCA.

Subsistence Management

One of the purposes of ANILCA is to provide the opportunity for local, rural residents engaged in a subsistence way of life to continue to do so, consistent with the management of fish and wildlife in accordance with recognized scientific principles and consistent with the purposes for which each conservation system unit was established (ANILCA, section 101(c)). Section 201(3) of ANILCA permits local residents to engage in subsistence uses within the monument according to the provisions of Title VIII of ANILCA.

Title VIII of ANILCA addresses subsistence management and uses, and section 802 states the subsistence policy of ANILCA. Consistent with sound management principles and the conservation of healthy populations of fish and wildlife, the use of public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence use of the resources of such lands. Also nonwasteful subsistence uses of fish and wildlife and other renewable resources on the public lands are to be given preference over other consumptive uses. Furthermore, federal land-managing agencies, in managing subsistence activities and in protecting the continued viability of all wild renewable resources, shall cooperate with adjacent landowners and land managers. Other sections of Title VIII give further direction for the management of subsistence resources.

Under section 805(d) of ANILCA, the secretary of the interior shall not implement portions of the subsistence provisions if the state of Alaska enacts and implements subsistence preference laws that provide for the taking of fish and game on federal lands for subsistence purposes and that are consistent with the other applicable sections of ANILCA.

The state did enact within the specified time a law that met the criteria. Therefore, the state of Alaska's fisheries and game boards set the bag limits, methods of take, the seasons of take, and other factors related to the taking of fish and wildlife for subsistence purposes in the monument. Insofar as state laws and regulations for the taking of fish and wildlife are consistent with the provisions of ANILCA and the applicable federal regulations, the state shall continue to regulate the subsistence harvests of fish and wildlife within the park units.

Sections 805 and 808 of ANILCA authorize the establishment of subsistence advisory councils and subsistence resource commissions, respectively. The councils and the Cape Krusenstern Subsistence Resource Commission have been established and are executing their duties as defined by ANILCA. The regional subsistence advisory councils currently advise on subsistence matters on both federal and state lands. Section 808 of ANILCA states that:

> (a) . . .the Secretary and the Governor shall each appoint three members to a subsistence resources commission for each national park or park monument within which subsistence uses are permitted by this Act. The regional advisory council established pursuant to section 805 which has jurisdiction within the area in which the park or park monument is located shall appoint three members to the commission each of whom is a member of either the regional advisory council or a local advisory committee within the region and also engages in subsistence uses within the park or park monument. Within eighteen months from the date of enactment of this Act, each commission shall devise and recommend to the Secretary and the Governor a program for subsistence hunting within the park or park monument. Such program shall be prepared using technical information and other pertinent data assembled or produced by necessary field studies or investigations conducted jointly or separately by the technical and administrative personnel of the State and the Department of the Interior, information submitted by, and after consultation with the appropriate local advisory committees and regional advisory councils, and any testimony received in a public hearing or hearings held by the commission prior to preparation of the plan at a convenient location or locations in the vicinity of the park or park monument. Each year thereafter, the commission, after consultation with the appropriate local committees and regional councils, considering all relevant data and holding one or more additional hearings in the vicinity of the park or park monument, shall make recommendations to the Secretary and the Governor for any changes in the program or its implementation which the commission deems necessary.
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> (b) The Secretary shall promptly implement the program and recommendations submitted to him by each commission unless he finds in writing that such program or recommendations violates recognized principles of wildlife conservation, threatens the conservation of healthy populations of wildlife in the park or park monument, is contrary to the purposes for which the park or park monument is established, or would be detrimental to the satisfaction of subsistence needs of local residents. Upon notification by the Governor, the Secretary shall take no action on a submission of a commission for sixty days during which period he shall consider any proposed changes in the program or recommendations submitted by the commission which the Governor provides him.

The Cape Krusenstern Subsistence Resource Commission is proceeding with the formulation of a program. If any of the recommendations of the commission that are accepted by the secretary of the interior are in conflict with this general management plan, the land protection plan, or other planning

documents, these planning documents will be amended or revised to incorporate the commission's recommendations.

Section 810 of ANILCA requires the heads of federal agencies to evaluate the effects upon subsistence uses of any proposed land withdrawl, reservation, lease, occupancy, use or other disposition of federal lands. These evaluations will be conducted by the National Park Service for all such actions. A section 810 evaluation for this plan is contained in appendix C.

Section 811 provides for access to subsistence resources: "The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on public lands."

Section 814 directs the secretary of the interior to prescribe regulations, as necessary and appropriate, to implement Title VIII of ANILCA. Regulations that implemented or clarified the provisions of ANILCA, including Title VIII, became effective on June 17, 1981, following a public comment period on proposed regulations. These regulations (CFR 36 13) address numerous aspects of subsistence management and uses within park units in Alaska, including determination of which rural residents qualify to engage in subsistence activities in the park units, what means and methods of access may be used in conducting subsistence activities, what laws and regulations apply to the taking of fish and wildlife for subsistence purposes, subsistence use of timber, and how and under what conditions subsistence uses may be temporarily terminated. Residents of the following communities are authorized by 36 CFR 13.62 to engage in subsistence activities in the monument: Kivalina, Kotzebue, and Noatak.

The National Park Service will prepare a subsistence management plan for the monument that will provide additional clarification in the management of subsistence uses. This management plan will be developed in cooperation with all affected parties and the appropriate subsistence advisory councils and the Cape Krusenstern Subsistence Resource Commission. The plan will be available for public review and comment before it is approved. The approved subsistence hunting program and recommendations of the Cape Krusenstern Subsistence Resource Commission will be incorporated into the subsistence management plan. Following adequate notification, the draft plan will be available for public review and comment for a minimum of 60-days prior to its approval. Significant future revisions to the plan require public involvement procedures like those used in the plan's formulation.

The following items are proposed elements of the subsistence management plan:

Timber. Section 13.49 of the interim regulations governs the use of timber for noncommercial cutting by local rural residents for appropriate subsistence uses within the park units. As specified in these regulations, cutting of live, standing timber with a diameter greater than 3 inches requires a permit. Cutting of live, standing timber of less than 3 inches in diameter and cutting of dead or down timber do not require a permit. The National Park Service now requires that all timber cut within the park units in northwestern Alaska be used respectively within those units. This policy will be continued, at least until the cooperative timber management plan for northwestern Alaska is completed.

Resident Zones. The National Park Service will, in accordance with 36 CFR 13.43, periodically carry out surveys of the resident zone communities to determine if significant changes have occurred in the makeup and character of the communities. The Park Service will consult with the subsistence advisory councils, subsistence resource commissions, IRA councils, and other interested publics before and during such surveys. Resident zone communities that do not meet the criteria contained in ANILCA and the Code of Federal Regulations will be deleted from resident zone status following completion of the proper regulatory procedures. Individuals within these communities who have customarily and traditionally (as defined in title 5, chapter 99 Alaska Administrative Code) engaged in subsistence uses within the monument will be issued subsistence permits and allowed to continue to engage in subsistence activities.

Requests were made during the public comment period for the Draft General Management Plan to have other communities in northwest Alaska added as resident zone communities for the monument. This would allow all other people in the region to engage in subsistence harvests within the monument without a National Park Service permit. This recommendation will be forwarded to the Cape Krusenstern Subsistence Resource Commission for their consideration.

Subsistence Shelters and Cabins. Section 1303(a)(4) of ANILCA authorizes the secretary of the interior to issue permits for the use, occupancy, construction, and maintenance of new cabins or other structures if he determines that the use is necessary to reasonably accommodate subsistence uses.

Regulations governing the use of shelters and cabins have been proposed and reviewed by the public and are expected to be implemented in the future. (Additional information about cabin regulations can be found in the "Cabins" section later in this chapter.)

Trapping. To gather necessary data and to measure impacts on the resources of the monument, a trapping monitoring program will be instituted. This program will build upon past efforts to identify trapping areas and persons engaged in this activity. The program will address trapping methods, harvest levels, the role of trapping in the local economy, the cultural implications of trapping, and other pertinent topics. The information acquired will be used to develop guidelines for the management of trapping for subsistence uses within the park unit, as necessary. If it is determined that park resources are being harvested and sold for purposes that exceed basic subsistence requirements or that the health of the resource is threatened, the National Park Service will work directly with the Subsistence Resource Commission, the Subsistence Advisory Councils, the Alaska Department of Fish and Game, and other interested persons to devise means of protecting monument resources and prevent activities that exceed the intent of Congress.

Congress intends that "trapping or any other customary trade practice within parks and monuments. . ." are not intended ". . . to be or become a solely or predominantly commercial enterprise beyond its traditional role as part of the subsistence regimen" (Federal Register, Vol. 46, No. 116, June 17, 1981, Rules and Regulations). The National Park Service will work with the state

of Alaska in monitoring the "customary trade" aspect of subsistence (including trapping) and will promulgate regulations consistent with the intent of Title VIII of ANILCA (Senate Report No. 96-413, p. 234).

Access. Access to subsistence resources is provided for in section 811 of ANILCA, which states:

> (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.
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> (b) Notwithstanding any other provisions of this Act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulations.

In the monument subsistence uses by local residents are allowed in accordance with the provisions of Title VIII of ANILCA and ANCSA sections 34 and 35. Authorized means of access for subsistence uses include snowmachines, motorboats, and dog teams. They are governed by existing regulations (36 CFR 13.46). The use of ORVs for subsistence is not allowed because the use has not been shown to be a traditional means of access. However, ATVs are authorized for subsistence use on two trail easements between Kivalina and Noatak (ANCSA sections 34 and 35). If another means of surface access is shown to have been traditionally employed in the monument for subsistence purposes, it will be permitted in the monument subject to reasonable regulations. The existing regulations contained in 36 CFR 13.46 do not allow for transportation modes other than snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed. Any additional information about traditional means will be reviewed on a case-by-case basis.

The legislative history of ANILCA indicates that it was not Congress' intention to foreclose the use of new or presently unidentified means of surface transportation (Senate Report No. 96-413, p. 275). New modes of access that are developed and implemented for general use in rural Alaska and originate from technological advances that cannot be shown to have been traditionally employed may be allowed in the future for subsistence purposes under circumstances that prevent waste or damage to fish, wildlife, or terrain and that would not degrade other monument resources or values. The effect of new technology on areas and intensity of subsistence use that would also need to be addressed.

The use of aircraft as a means of access to areas within the monument for purposes of taking of fish or wildlife for subsistence purposes is prohibited except in cases of extraordinary hardship, when a permit may be granted by the superintendent pursuant to 36 CFR 13.45. In allowing for exceptions to the ban on aircraft use for subsistence activities, the legislative history of ANILCA states that "these types of situations are the exception rather than the rule and that only rarely should aircraft use for subsistence hunting purposes be permitted within National Parks, National Monuments and National Preserves" (Congressional Record-House, November 12, 1980, p. H 10541).

General provisions for subsistence and recreation access are summarized in a chart found earlier in the "Access" section of this chapter.

Cape Krusenstern Subsistence Resource Commission. The National Park Service will offer all possible assistance to the subsistence resource commission. When a subsistence program is recommended by the commission and accepted by the secretary of the interior, it will be incorporated in the subsistence management plan.

Although the subsistence resource commission's primary responsibility is to formulate a subsistence hunting program, the National Park Service will consult with this body whenever possible on all substantive matters relating to subsistence uses.

Section 810 of ANILCA. The National Park Service will, as required by section 810 of ANILCA, evaluate all management actions in terms of their potential impacts upon subsistence activities.

Recreational Use

Recreational use by visitors from outside of the region is very low, approximately 50 persons per year. Such use over the next 10 years is likely to remain low, with only small increases in the number of these visitors using the monument because of limited interest and because transportation costs to the region are relatively high. Air transportation is the only logical option for these visitors, and costs are expected to remain high because the total number of passengers will probably continue to be limited by overnight lodging space and other available services in Kotzebue. Few services are available in the region's villages, and little change is expected.

Several other sections of this plan relate to proposals that affect recreational use in the monument. Most importantly, sections on information and interpretation, access, subsistence, visitor facilities, and commercial visitor use all relate directly.

The National Park Service will provide visitors with only a minimum of services while they are in the monument. In Kotzebue, visitors will be advised about the hazards of local weather, given suggestions that could help prevent human/bear conflicts, asked to haul out their own trash, encouraged to "leave only footprints and take only pictures," and asked to respect private property, subsistence users and resources.

Staffing levels in the monument will be influenced by recreational and subsistence uses. The other major factor affecting staffing levels is the protection of the area's resources and the level of scientific study ongoing in the monument. The level of staffing proposed (see "Staffing" later in this chapter) is consistent with the existing and projected low-use levels and provides adequate protection of the monument's resources and support for planned studies.

Waste Disposal

The policy for trash removal in the monument will continue to be "pack in, pack out." Visitors will be informed of the policy and asked to adhere to it.

The several hundred abandoned 55-gallon drums, a variety of waste metal, and other litter near the former military landing site in the Igichuk Hills will be collected and removed. The National Park Service will request funds to clean up the site from the Department of Defense, which annually provides funding for such cleanup operations.

Finally, the removal or discard of human waste from administrative sites and visitor use sites within the monument will be accomplished in compliance with applicable regulations of the Alaska Department of Environmental Conservation and the Environmental Protection Agency.

Pollution Control and Abatement

In addition to the air and water pollution potential (discussed previously), the National Park Service recognizes the potential for fuel and oil spills along the coastline of the monument. The sensitive nature of the resources and the difficulty of containing spills in shallow, wind-whipped waters and in ice, make these spills of special concern. To minimize the danger to the resources within and adjacent to the monument, the National Park Service will work with other federal and state agencies in preparing for and responding to spills, should they occur.

Closures and Openings

Regulation 36 CFR 1.5(c) specifies the following:

> Except in emergency situations, prior to implementing or terminating a restriction, condition, public use limit or closure, the superintendent shall prepare a written determination justifying the action. That determination shall set forth the reason(s) the restriction, condition, public use limit or closure authorized by paragraph (a) has been established, and an explanation of why less restrictive measures will not suffice, or in the case of a termination of a restriction, condition, public use limit or closure previously established under paragraph (a) a determination as to why the restriction is no longer necessary and a finding that the termination will not adversely impact park resources. This determination shall be available to the public upon request.

The superintendent has the authority to close and open areas of the monument to use as provided by CFR 36 1.5 and 13.30, parts (a)-(h), and 43 CFR 36.11(h). Regulation 13.30 allows for three types of closures: emergency, temporary, and permanent. A brief description of them follows.

Both closures and openings can be for reasons of public health and safety, resource protection, protection of cultural and scientific values, subsistence uses, threatened or endangered species, and assurance that the

activity or area is being managed in a manner compatible with the purposes for which the monument was established.

Emergency and temporary closures or restrictions can relate to any of the above and to the use of aircraft, snowmachines, motorboats, or nonmotorized surface transportation, or to the taking of fish and wildlife. Either type of closure must be accompanied by notice and hearings as prescribed in the regulations (CFR 36 13.30 (c)(f) and 43 CFR 36.11(h)). Emergency closures may not exceed 30 days, and they may not be extended.

Notices of permanent closure or restrictions and openings shall be published in the Federal Register, with a minimum public comment period of 60 days. Additionally, for closures, it is required that public hearings be held in the area affected and other locations as appropriate.

Public Use Research Recommendations

1. Commercial services survey

2. Cooperative study of 1979 commercial fishing levels

3. Human use study

FACILITIES

Existing Facilities in the Monument

Cabins. There is currently one dilapidated shelter cabin within the monument; no other habitable, unoccupied cabins are known to exist in the monument. The shelter cabin is maintained by NANA Search-and-Rescue Group and is about 4 miles north of Krusenstern Lagoon. The NANA Search-and-Rescue Group has been authorized to build a new cabin in the same general vicinity to replace the existing structure. The new cabin will be allowed to remain under provisions of ANILCA, other federal regulations, and the terms and conditions of the permit.

The National Park Service has proposed revisions to the existing regulations contained in 36 CFR 13.17 that deal with cabins and other structures authorized under sections 1303, 1315, and 1316 of ANILCA. The revised regulations would further establish policy, criteria, and procedures for issuing cabin permits as authorized by ANILCA. The proposed regulations have undergone a separate public review process. They were made available for public review on April 3, 1984, with the comment period being extended through January 10, 1985. Three public hearings were held during that time. The National Park Service and the Department of the Interior are in the process of finalizing the regulations at the time of publication of this plan.

The superintendent will maintain an ongoing inventory of the location and description of all cabins in the monument. As part of the inventory, the cabins will be evaluated for potential historic significance pursuant to the National Historic Preservation Act, as amended in 1980. The National Park Service will actively seek to determine any valid claims within applicable

regulations for cabins on federal lands. Unclaimed cabins will be evaluated according to the pattern of public use associated with them since the unit was established. Those that support intermittent compatible activities or authorized local activities without any adverse effects on monument resources or other valid uses will be left standing. For example, a cabin used for occasional winter dog team trips or used as an occasional stopover for local village-to-village snowmachine travel may be in this category. Such cabins will be available for nonexclusive public use, including use by commercial guides, on a first-come, first-served basis. Where determined to be essential for public health and safety and funding is available, the National Park Service may propose to maintain certain of these cabins. Maintenance by others may be permitted by the superintendent, but no possessory interest or exclusive use rights will be acquired.

Unclaimed cabins that do not support compatible activities or have adverse effects on park resources or other valid uses may be proposed for removal, in accordance with section 1315(d) of ANILCA and section 106 of the National Historic Preservation Act, as amended 1980, where applicable. For example, a cabin that regularly attracts recreational visitors to an area during a season of important subsistence use may be proposed for removal. If the National Park Service proposes to remove a cabin, public notice and Congressional notification in the case of public use cabins in wilderness, should any be designated in the future by Congress, will be provided.

No new public use cabins are proposed in this general management plan. The construction of public use cabins is an issue that is evaluated through the planning process. New public use cabins will only be constructed after being assessed through an amendment to this plan or the preparation of a new general management plan.

The National Park Service could include shelter facilities as part of any reconstruction of the potentially historic mail-run cabin near the mouth of the Tukrok River.

Landing Strips. Fixed-wing aircraft may land anywhere in the monument. Typically aircraft land on gravel areas and on tundra. A number of these natural aircraft landing sites occur in the monument. These natural landing sites do not require any form of maintenance or improvement. The superintendent has inventoried landing strips within the monument and will designate, after public notice and opportunity to comment, those strips where maintenance is necessary and appropriate for continued safe public use of the area. These designations are for maintenance purposes only and will be made pursuant to 36 CFR 1.7(b). Designated landing strips may be maintained as needed with nonmotorized hand tools by people using the areas. Maintenance or improvements to designated landing strips involving equipment other than nonmotorized hand tools must be accomplished under a permit from the superintendent. Outside of designated areas, no alteration of vegetation or terrain is authorized for landings and take-offs except in emergency situations.

In the interim, established landing strips may be maintained as needed with nonmotorized hand tools by people using the areas. The superintendent may permit on a case-by-case basis the use of mechanized equipment for

maintenance. In determining whether to authorize such maintenance, the superintendent will consider 1) whether the proposed maintenance constitutes expansion of the landing strip, 2) any adverse impacts on natural or other values of the monument area that would result from the proposed activity, including the transportation of equipment across monument lands, 3) whether the maintenance is needed for public safety in support of an authorized activity, and 4) whether adequate and feasible access otherwise exists.

The construction of new landing strips on federal land may be allowed under one of the following circumstances:

1) When the need has been identified, assessed, and approved in an amendment to the general management plan or a new general management plan.

2) When approved under Title XI of ANILCA, which provides a process for approval or disapproval of applications for the development of transportation and utility systems across conservation system units.

3) For access to inholdings pursuant to 43 CFR 36.10.

The inventory has shown that there is one existing landing strip within the monument in the Kakagrak Hills (within the Igichak Hills). The landing strip is part of an abandoned military communications site. The 1500-foot landing strip will be maintained by the National Park Service in its present condition to provide access to the central portion of the monument and the beach that is 4 miles to the west. No new landing strips are proposed by the National Park Service in the monument. (Additional information about access can be found in the access section of this chapter.)

Ranger Station. There is one temporary ranger station (wall tent on a tent platform) within the monument; it is about one mile west of the mouth of the Tukrok River. This location was initially selected on a trial basis. The existing structure is a wall tent that can easily be moved. As use patterns develop, a permanent location for ranger station(s) will be determined. The target area for a station in the southern end of the monument is between Cape Krusenstern and Sheshalik Spit (see "Proposed Facilities" in this chapter).

Communications. The automated radio repeater on Mt. Noak will stay in place and continue to operate. Although no other facilities are now proposed, it may be necessary to relocate or establish new communications sites in the future.

Navigational Markers. The one existing U.S. Coast Guard navigational marker at Cape Krusenstern is maintained according to terms and conditions of a National Park Service permit. ANILCA section 1310 guarantees reasonable access to and operation and maintenance of existing air and water navigation aids. New facilities can also be permitted under provisions of the same section of ANILCA. If any additional facilities are proposed, they will be reviewed on a case-by-case basis.

Abandoned Military Site. The National Park Service will work cooperatively with the U.S. Army Corps of Engineers and the Department of Defense to clean up the abandoned military site in the Kakagrak Hills in the central portion of the monument. The landing strip at this site will be retained, as explained in the "Landing Strips" section.

Proposed Facilities in the Monument

Ranger Stations. The plan calls for a maximum of two ranger stations in the monument. One will be in the southern portion of the monument on or between Sheshalik Spit and Cape Krusenstern. The other will be in the northern half and near the Red Dog Mine developments on or near the coast; it will be constructed only if the Red Dog Mine becomes a reality.

The southern ranger station has been located according to criteria that include access for aircraft and boat and proximity to use areas and cultural resources. Its location should be sensitive to subsistence use patterns and local communities' concerns.

In summer 1984 the National Park Service established a southern ranger station at what was considered a test location. The ranger station consisted of a wall tent about 1 mile west of the Tukrok River's outlet to Kotzebue Sound (the outlet of Krusenstern Lagoon). The site was again used in the summer of 1985, and it continued to serve National Park Service needs. Also, in the summer of 1985 the National Park Service completed a historic building survey of the old mail cabin located near the tent site. Rehabilitation plans are to utilize this historic structure as a southern ranger station. In addition to the rehabilitated structure a small storage cache would be constructed. At that time, the existing wall tent and platform will be removed from the site.

The site for a northern ranger station has not been selected at this time, but it will likely be between Imik Lagoon and the unnamed lagoon 5 miles to the north or at the proposed port site. It will be located so that it has access to any road system constructed as a result of the Red Dog Mine project. It would also be desirable to have potential for small aircraft access to naturally occurring landing areas or facilities constructed as part of the port site. Facilities here are envisioned to include a permanent residence/office/garage structure(s) of 1,500-2,000 square feet. This ranger station will be built only if the proposed Red Dog Mine road is constructed.

Both the southern and northern ranger stations will be sited so they would not be damaged by floods. Cultural resources, stream confluences, important wildlife habitat, and other resources will also be considered.

Because the proposed ranger stations would be compatible with the purposes of the monument, they (according to ANILCA section 1306(a)(1)), could be located within the monument. Should locations within the monument later prove unsuitable, the National Park Service, whenever practical and desirable, will locate facilities on native-owned lands in conformance with ANILCA, section 1306.

Visitor Facilities. No visitor facilities within the boundaries of the monument are proposed in this general management plan.

Temporary Management/Research Facilities. The National Park Service anticipates and recognizes the necessity and importance of providing support for National Park Service staff and researchers and for those of other federal, state, and local agencies within the monument. As early as 1982, the National Park Service expressed its support for this need by including a provision for temporary facilities in the Alaska Department of Fish and Game/National Park Service master memorandum of understanding (see appendix B).

Consistent with that memorandum of understanding, the National Park Service proposes to continue to allow temporary facilities for both management and research projects. However, permits must be obtained from the superintendent before any projects may be undertaken. The National Park Service proposes that annual blanket permits may simplify this procedure for agencies. The procedures for application and granting or denying permits is found in 36 CFR 13.31.

Future Transportation Corridors. If ANILCA Title XI applications are received, they will be processed according to the provisions mandated in that title.

Existing and Proposed Facilities in Kotzebue

The National Park Service headquarters in Kotzebue services Cape Krusenstern National Monument, Kobuk Valley National Park, and Noatak National Preserve. Facilities include administrative offices, a visitor contact and information/display area, and storage and maintenance space for aircraft and boats. The National Park Service will expand space for most of these functions and will share facilities with the Fish and Wildlife Service and possibly other federal agencies such as BLM. Facilities will be accessible to the handicapped to the extent practicable.

Additionally, ANILCA section 1306 directs the National Park Service "to the extent practical and desirable" to locate facilities on native lands. In 1984 the superintendent of the monument inquired of both NANA and KIC whether they might have lands suitable for various management facilities, particularly lots suitable for residential four-plexes. The National Park Service will again ask NANA and KIC about their interests in the sale or lease of suitable properties before closing any transaction with another party.

Administrative Offices. The plan calls for administrative offices that would accommodate up to 13 permanent National Park Service employees rather than the six currently employed. In addition, there would be space for several seasonal employees, a small conference room, library, laboratory, and small storage space. It is estimated that the administrative offices for the National Park Service would have a floor space of about 3,000 square feet--in contrast to 1,500 square feet presently rented from NANA.

In Noatak village, year-round storage (1,000 square feet) at the airstrip will be leased from the state and a ranger station/residence/office (about 1,800 square feet) will be leased or purchased for year-round use. The station/residence may also be shared by staff from Noatak National Monument. The location of any NPS facilities in Noatak village will be coordinated with the village government.

Public Use Facilities. The primary sources of information and interpretation about the three park units in northwest Alaska will be in a National Park Service multiagency visitor contact station in Kotzebue. The expanded visitor contact station will be designed and operated to serve the public interested in these areas. The visitor contact station would accommodate up to 50 people. It would have an information desk, space for small exhibits about each of the three park units, space for at least three or four topical exhibits, a small audiovisual room with a capacity for 30 people, for slide shows and movies, and space for the sale of books, other printed material, and local crafts. In total the area would increase from the 200 square feet now used to approximately 1,500 square feet.

The visitor contact station will also contain space for a work area and storage of interpretive exhibits, slide and movie files, books, and other items essential to operating the visitor contact station. The visitor contact station could also be located in a larger structure that also contained other National Park Service or other agency functions.

The facilities would be staffed during the summer with seasonal employees. Requests for information during the winter will be handled by administrative personnel.

Cooperative Museum. At present there is no facility in northwest Alaska where federal, state, or local agencies can adequately store and exhibit cultural artifacts. The National Park Service will work with other interested parties to cooperatively fund and operate a museum in Kotzebue. The museum will house and exhibit artifacts and specimens from the park units and other lands in northwest Alaska. Other organizations that may be interested in participating in the construction and operation of a museum include the Alaska State Museum, the University of Alaska Museum, the U.S. Fish and Wildlife Service, NANA, KIC, the Alaska Department of Fish and Game, and the City of Kotzebue. A single organization will likely be designated to lead the planning and operation of the museum.

The primary objective of the museum would be to illustrate the cultural and natural history of northwest Alaska, including the resources of the National Park Service units in the region, for the benefit of residents and visitors to Kotzebue and the region.

Traveling exhibits would be a possible feature of this museum. Exhibits could go from village to village in the region in cooperation with existing state museum and local school district programs. Additionally, exhibits could travel to other locations inside and outside Alaska for brief periods of time.

The possibility of combining the multiagency visitor contact station and museum in a single building will be considered. This could serve to consolidate some facilities and would result in lower construction, maintenance, and operational costs. Museum collections and exhibits will be maintained to meet National Park Service museum standards.

Storage and Shop Space. The National Park Service will continue to lease, purchase, or construct space for equipment storage (including boats) and shop equipment. Approximately 6,000 square feet is required.

Aircraft Hangar. Operations for the three park system areas involve regular and extensive aircraft use because the three areas in the northwest are large and are far from the headquarters in Kotzebue; no road system or practical waterway system serves any of the areas. The National Park Service will construct or lease a heated aircraft facility. This facility would have approximately 3,000 square feet of floor space with a loft, a float plane dock with ramp, and a paved tie-down area of 4,000 square feet. It would have the capacity of housing three aircraft. Agreements might be made to share the facility with the U.S. Fish and Wildlife Service and the Alaska Department of Public Safety.

The facility will afford better protection and maintenance for the aircraft in contrast to the current, rental outdoor tie-down space. In addition, a hangar will make it possible for personnel to ready aircraft on short notice in response to emergencies, NANA Search-and-Rescue Group callouts, and particularly during periods of extreme cold weather.

Government Housing. One 5,000-square-foot four-plex is scheduled for construction in summer 1987. This four-plex should be in the community rather than adjacent to NPS offices or facilities. The four-plex units will be occupied by a mixture of permanent staff, seasonal staff, local hires, newly relocated staff (for limited time only) and temporarily assigned staff. The government housing, as proposed, will be economical and convenient for seasonal employees, many of whom are local hires, and National Park Service personnel on temporary duty who often find it difficult to get overnight accommodations during the summer season in Kotzebue. These combined factors would hopefully provide a greater degree of staff continuity, which the Kotzebue administrative office has had difficulty in achieving in the past.

ADMINISTRATION OF THE MONUMENT

Staffing

The three national park system units in northwest Alaska will continue to be administered by one superintendent in Kotzebue. Most of the permanent staff of these units will also continue to be stationed in Kotzebue. Concentrating staff in Kotzebue, the regional center, will increase management efficiency. Managers and specialists will be able to distribute their time among the three areas while sharing office space and all support services. A new unit manager will be assigned to the monument, one to Kobuk Valley National Park, and another to Noatak National Preserve, so that one person will be knowledgeable about and responsible for each area. The total staff for all three units will consist of the following:

Permanent Full-Time Staff:	Existing Positions	Proposed Positions
Superintendent	X	
Chief Ranger	X	
Unit Manager (Cape Krusenstern)		X
Unit Manager (Kobuk)		X
Unit Manager (Noatak)		X
Headquarters Ranger		X
Maintenance Worker		X
Biologist	X	
Resource Management Specialist		X
Cultural Resource Specialist		X
Interpretive Specialist		X
Administrative Technician		X
Receptionist*	X	
Less-Than-Full-Time Staff		
Park Rangers	X 8 per season	
Biological Technicians	X 5 per season	
Resource Technicians*	X 10 per season	

*Currently filled by local hire

Of this total staff, one unit manager, two park rangers and two resource technicians will be assigned to work exclusively within the monument.

Local Hire

The minimum goal of park management has been and will continue to be to hire at least half of the seasonal staff from northwest Alaska to carry out ANILCA, section 1308, and chapter 320 of the "Department Manual," which relate to the hiring of local residents. Furthermore, the National Park Service will work to advance these employees into permanent staff positions as they obtain the necessary experience. A cooperative education program will continue to be used to provide local residents with necessary training with the cooperation of NANA and Chukchi Community College. However, efforts will be needed to make the program more effective. The National Park Service further recognizes that both the relative low pay, when compared with other wage jobs in the region, and the lack of community motivation for local permanent employment with the National Park Service have in the past four years contributed to a low return rate for local hires. The National Park Service will work to improve this situation.

Involvement of Local People in Management

Congress intended that the people of the region be involved in the management of the monument (Senate Report 96-413, p 145). Involvement of local people in the management of the monument is provided for in various sections of this chapter. The National Park Service is committed to local hire of staff; local involvement in management of cultural resources, natural resources, and subsistence (through the subsistence resource commission); and interpretation (through the proposed interagency visitor contact station and museum in Kotzebue).

In addition to these methods of involving local people in the management of the monument, the National Park Service will conduct annual meetings in the villages most directly affected by the park units in northwest Alaska. Meetings will be held in the villages of Ambler, Kiana, Noatak, Kivalina, and Kotzebue. At the meetings National Park Service staff will make presentations on the topics of interest to local people, including current informational programs, park operations, research projects, commercial operations, planning efforts, and the land protection program. A part of each meeting will be devoted to discussion and answering questions.

Search and Rescue

The National Park Service will continue initiating search-and-rescue operations within the monument boundaries when it believes that human life is in danger.

Additionally, the National Park Service will remain an active member of the NANA Search-and-Rescue Group and the local Civil Air Patrol squadron. The Alaska State Troopers have overall coordination responsibilities for search-and-rescue efforts in the region.

Concurrent Jurisdiction

The Act of October 7, 1976, commonly referred to as "The General Authorities Act," Public Law 94-458, section 6 states: "The Secretary shall diligently pursue the consummation of arrangements with each State, Commonwealth, territory, or posession within which a unit of the National Park System is located to the end that insofar as practicable the United States shall exercise concurrent legislative jurisdiction within the units of the National park System." Pursuant to this legislation, the National Park Service will request concurrent legislative jurisdiction with the state of Alaska regarding the monument and enabling authorized park rangers to enforce applicable state laws in the monument.

Naming of Natural Features

Numerous natural features within the monument are currently unnamed on U.S. Geological Survey topographic maps. These include local features like rivers and creeks, lagoons, mountain peaks, hills, valleys, and spits.

The National Park Service, in an attempt to maintain the natural and wild character of the monument, will normally discourage additional new names of unnamed features. However, should the National Park Service learn that some or many of these features have local names and are of cultural significance, it will recommend to the federal Board of Geographic Names that these traditional names be used when naming features on updated U.S. Geological Survey topographic maps. Meanwhile, when the National Park Service produces maps, it will use traditional names for features without official names and the existing official names in accord with maps of the U.S. Geological Survey. In the future, the superintendent could utilize the services of local employees to research and develop updated base maps that identify traditional names of local features.

Boundary Marking

The National Park Service proposes to mark the boundaries where frequently used transportation routes enter or leave the monument. Materials and the form of the markers will be consistent with existing local custom.

Cooperative Agreements

The effective management and operation of many aspects of the monument depend on cooperation with other agencies and oraganizations. Already, cooperative agreements are in effect. They include the following:

1. The National Park Service's and the Alaska Department of Fish and Game's master memorandum of understanding focusing on fish and wildlife management (see appendix B).

2. The National Park Service's and the Alaskan Air Command's Rescue Coordination Center cooperative agreement regarding high altitude search-and-rescue.

3. The National Park Service's and the Alaska State Troopers' cooperative agreement for search-and-rescue work throughout the state.

4. The National Park Service and the NANA Search-and-Rescue Group agreement for use of communications equipment during search-and-rescue activities.

5. The National Park Service and the Selawik National Wildlife Refuge agreement for shared shop and office facilities and use.

6. The Kobuk Planning Area Interagency Fire Management Plan, involving BLM, USF&WS, Bureau of Indian Affairs, Alaska Departments of Natural Resources and Fish and Game, NANA, Arctic Slope Regional Corporation, and Doyon Ltd. Corporation.

7. The National Park Service, NANA, and the Alaska Natural History Association agreement that provides for the sale of locally made native handicrafts in the National Park Service Kotzebue visitor contact station.

8. The National Park Service, USF&WS, and Federal Aviation Administration interagency agreement concerning aircraft over-flights. This agreement sets no restrictions on over-flights, but provides a system for identifying and minimizing the effects of low-flying aircraft on the resource values of conservation system units.

The National Park Service will seek to develop and to implement additional cooperative agreements to more effectively and efficiently administer the monument. These include the following:

1. An agreement on timber management that will include the resources in the monument, in Kobuk Valley National Park, and in Noatak National Preserve. This will be in cooperation with NANA, BLM, KIC, the state of Alaska (various departments), and the USF&WS.

2. An agreement focusing on the development of a regional museum, perhaps jointly operated, that will be a federal/state repository for materials of northwest Alaska and possibly a branch of the Alaska State Museum. This will be in cooperation with the Alaska State Museum, University of Alaska Museum, NANA, KIC, the City of Kotzebue, and other groups or agencies that wish to pursue the project.

3. Agreements with NANA, KIC, and owners of conveyed native allotments for management of culture resources on ANCSA 14(h)(1) cemetery and historic sites and native allotments. Additional recommendations on this subject are explained in chapter IV.

4. An agreement for coordinated search-and-rescue activities among all members of the NANA Search-and-Rescue Group, the Alaska State Troopers, and the National Park Service.

5. An agreement on radio communications among the U.S. Fish and Wildlife Service, Bureau of Land Management, and the National Park Service.

6. An agreement for cooperative management with the state of Alaska regarding shorelands submerged lands, and tidelands.

7. An agreement for cooperative management with the state of Alaska regarding water rights.

8. An agreement for cooperative management with the state of Alaska regarding public uses on waterways (to be pursued only if case-by-case resolution of management issues proves unacceptable to the National Park Service and the state).

9. An agreement for cooperative management with regional and village native corporation for management of 17 (b) easements should any be created by the BLM and subsequently transferred to National Park Service management.

Table 3: Summary of the Plan

The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Page 4)
CULTURAL RESOURCES			
1. Conduct cultural resources inventory. 2. Monitoring program. 3. Land acquisition program. 4. Cooperative agreements and other forms of land protection. 5. Program to interpret and pre-evidence of prehistoric and historic native cultures. 6. Research and record mail cabin for possible adaptive re-use.	201(3)	--	1,3
NATURAL RESOURCES			
Air Quality Begin air quality monitoring.	--	--	2,3,5
Water Quality Begin water quality monitoring.	--	--	2,3,4
Fish and Wildlife 1. Continue to use NPS/ADF&G master memorandum of understanding. 2. Strengthen enforcement of regulations through closer cooperation with the state of Alaska. 3. Compilation and analysis of big-game species harvest information. 4. Coordinate harvest ticket information (cooperative). 5. Threatened and endangered species cooperative survey. 6. Cape Krusenstern/Sheshalik Spit waterfowl cooperative study. 7. Caribou and moose habitat research cooperative study. 8. Seal and marine mammal cooperative study.	804	36 CFR 13.21	2,4,5,6,7

The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Page 4)
9. Musk-ox management plan (cooperative). 10. Recommend closure of either sex Dall sheep hunting in the Igichuk Hills with Alaska Board of Game. 11. Expand cooperative fisheries research.			
Minerals Management Work with U.S. Geological Survey as directed by ANILCA.	1010		3,4,5,6
Paleontologic Resources Cooperate with agencies and universities who apply for permits to initiate research.	--	36CFR13.20(c)	4,6
Vegetation Management 1. Continue existing management policies. 2. Initiate timber inventory and management plan (cooperative).	--	36 CFR 13.20	2,4
Fire Management 1. Continue as member of Kobuk Interagency Fire Plan Group. 2. Develop monument's fire management plan.	--	--	1,2,3,6
Shorelands, Submerged Lands, and Tidelands 1. Continue to manage as federal lands until determination of navigability is completed. 2. Work cooperatively with state to avoid incompatible uses on these lands.	--	--	4,5
Water Rights 1. Continue to use existing statutory provisions. 2. File for reservation of instream flow in accordance with AS46.15.030 as appropriate.	--	--	3,4

The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Plan 4)
Research Recommendations See listing in this chapter.			2,4,5,6, 7
PUBLIC USE			
Carrying Capacity 1. No carrying capacity recommended. 2. Human use study.	--	--	1,2,3,4, 5,6,7
Management Zoning None proposed.	--	—	1,2,3,4, 5,6,7
Information and Interpretation 1. Minimal visitor services in the monument. 2. Primary visitor information provided in Kotzebue.	1318	--	1,2,3,4, 5,6,7
Access 1. Follow existing laws and regulations. 2. Close monument to pack animals (excluding dogs).	201 205 1100 and others	36 CFR 13.46 and 43 CFR 36.10, 36.12	1,2,5,7
Commercial Visitor Use 1. Continue existing practices. 2. Within life of plan consider initiation of a commercial visitor services study.	1306 1307	--	5,6
Commercial Fishing 1. Continue existing practices. 2. Initiate cooperative study to determine 1979 use levels.	205	36 CFR 13.21	2,4,6
Subsistence Use 1. Continue opportunities for subsistence uses. 2. No changes proposed for 36 CFR 13 3. Continue to work with Cape Krusenstern Subsistence Resource Commission and subsistence advisory Council(s). 4. Write subsistence management plan.	Title VIII	36 CFR 13.40-13.51	2,4,5,6, 7

The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Page 4)
Recreation Use 1. Provide minimum services and protection to visitors in the monument. 2. Pass out basic safety information.	--	--	1,2,3,4, 5,6,7
Waste Disposal Pack in, pack out policy.	--	--	2,4,5,6
Pollution Control and Abatement Work cooperatively with other agencies.	--	--	2,4,5,6
Closures and Openings Continuation of existing procedures.	806 815 816	36 CFR 13.30 43CFR36.11(h)	2,4,5,6 2,4,5,6
Research Recommendations 1. Commercial services study. 2. Subsistence management plan.	--	--	1,2,3,6, 7
EXISTING FACILITIES IN THE MONUMENT			
Cabins 1. Existing shelter cabin (permit) to remain valid and renewable. 2. No new shelter cabins to be proposed. 3. Potential reconstruction of old mail cabin and possible use as southern ranger station.	1315 1316	36 CFR 13.17	2,4,5,7
Landing Strips 1. Continued use of Igichuk Hills airstrip. 2. No new airstrip construction proposed.	--	--	2,4,5,6, 7
Ranger Station Continue use of southern ranger station until old mail cabin is reconstructed and available for use.	--	--	1,2,3,4, 5,6,7

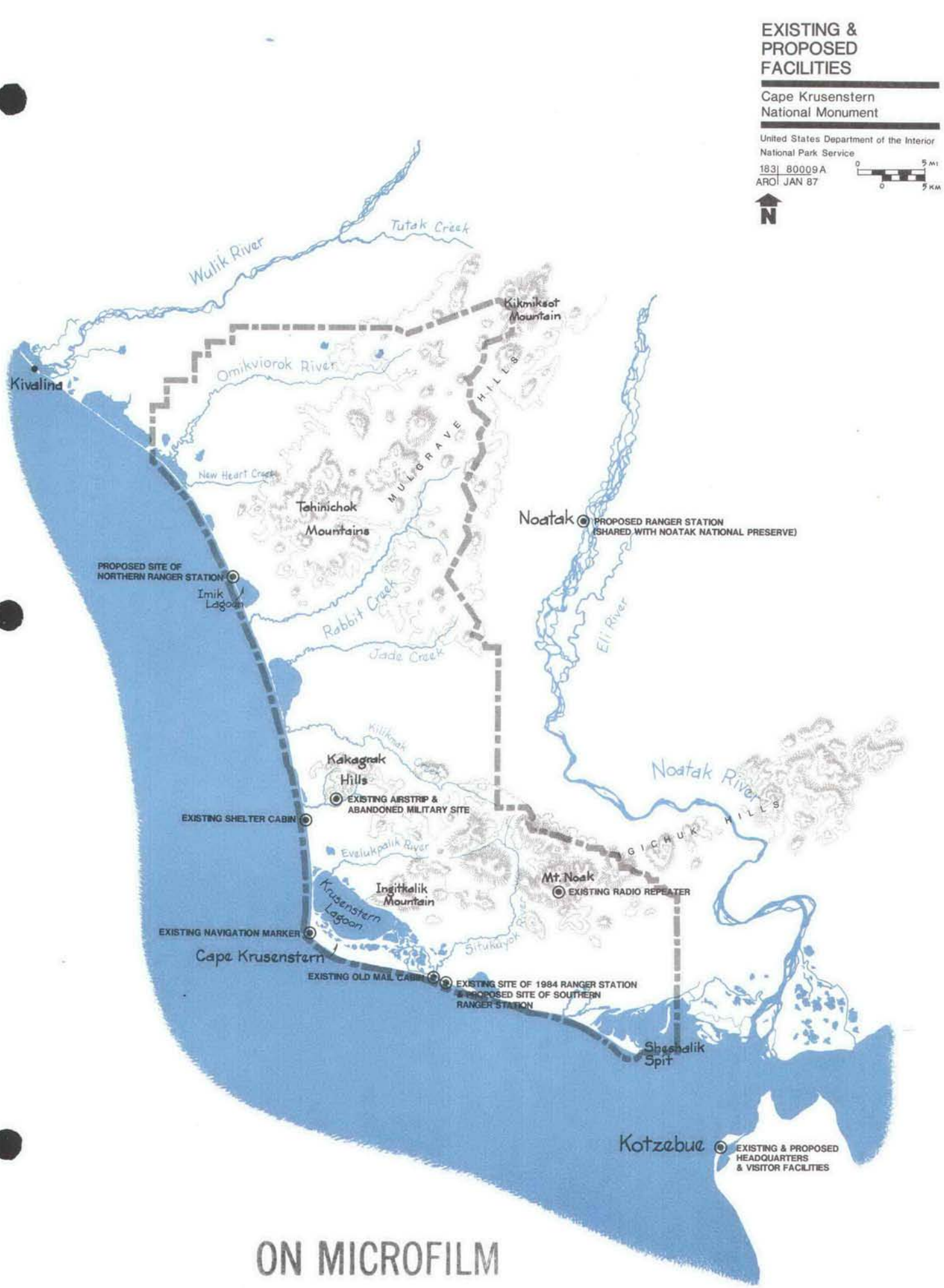
The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Page 4)
Communications Mt. Noak repeater to remain.			
Navigational Marker Continue existing policies.	1310	--	7
Abandoned Military Site Clean up site through cooperative effort.	--	--	4,5,6
PROPOSED FACILITIES IN THE MONUMENT			
Ranger Station 1. One seasonal ranger station in southern half of monument. 2. One year-round ranger station with access to the proposed Red Dog Road (only if Red Dog Mine is developed).	--	--	1,2,3,4, 5,6,7
Visitor Facilities 1. Ranger station(s) serve as visitor contact point. 2. No new visitor facilities proposed in the monument.	--	--	1,2,3,4, 5,6
Temporary Management/Research Facilities Continue to allow temporary facilities.	--	--	1,2,3,4, 5,7
Future Transportation Corridors 1. Follow procedures in ANILCA Title XI.	Title XI	--	2,3,4,5, 6,7
EXISTING AND PROPOSED FACILITIES IN KOTZEBUE			
Administrative Offices Expand from 1,500 to 3,000 square feet.	1306	--	1,2,3,4, 5,6,7
Public Use Facilities Expand visitor contact station from 200 square feet to 1,500 square feet.	--	--	2,3,4,6
Cooperative Museum Pursue joint northwest museum.	--	--	2,3,4,6

The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Page 4)
Storage and Shop Space Continue to utilize 6,000 square feet.	1306	--	1,2,3,4, 5,6,7
Aircraft Hangar Establish facility of 3,000 square feet with a heated hangar.	1306	--	1,2,3,4, 5,6,7
Government Housing Construct one 5,000-square-foot four-plex.	1306	--	1,2,3,4, 5,6,7
ADMINISTRATION OF THE MONUMENT			
Staffing 1. Establish a unit manager position. 2. Share staff with Noatak Preserve in Noatak village. 3. Establish cultural resources position (shared among three northwest NPS areas). 4. Share additional staff with other northwest areas so that entire Kotzebue office staff equals 13 staff positions.	--	--	1,2,3,4 5,6,7
Local Hire 1. Follow ANILCA and departmental provisions. 2. Improve return rate of local hires. 3. Advance local hires into permanent positions.	1308	--	2,3,6
Involvement of Local People in Management Involve local people in the management of the monument.		-	1,2,3,4, 5,6,7
Search and Rescue 1. Initiate search-and-rescue when appropriate. 2. Continue as member of NANA Search-and-Rescue Group.	--	--	2,3,6

The Plan	ANILCA* (citation)	CFR** (citation)	Issues Addressed (Page 4)
Naming of Natural Features 1. Utilize existing USGS place names. 2. Discourage new additional naming of features. 3. Use native and local names whenever updates are made. 4. Update lists of native names names periodically.	--	--	2,3,4,6
Boundary Markers Use customary and traditional methods to mark heavily used access routes.	--	--	1,2,4,5, 6
Cooperative Agreements Initiate new cooperative agreements. See listing in this chapter.	--	--	1,2,3,4 5,6,7

*ANILCA is the abbreviation for the 1980 Alaska National Interest Lands Conservation Act.

**36 CFR 13 is volume 36, part 13, the Code of Federal Regulations; 43 CFR 36 is volume 43, part 36, of the Code of Federal Regulations.



ON MICROFILM

LAND PROTECTION PLAN

LAND PROTECTION PLAN

INTRODUCTION

In May 1982 the Department of Interior issued a policy statement for use of the federal portion of the Land and Water Conservaton Fund for land acquisition. In response to that policy, this draft land protection plan has been prepared under the guiding principle of ensuring that the protection of resources in Cape Krusenstern National Monument is consistent with the Alaska National Interest Lands Conservation Act (ANILCA) and other applicable laws, executive orders, regulations, and policies. Specifically the plan was prepared to

> Determine what nonfederal lands or interests in nonfederal lands inside the monument boundary need to be in public ownership and what means of protection in addition to acquisition are available to achieve the monument's purpose as established by Congress.
>
> Inform landowners about the intentions of the National Park Service to protect land through purchase or other means.
>
> Help managers identify priorities for making budget requests and allocating available funds to protect land and other resources.
>
> Find opportunities to help protect unit resources through cooperative agreements with state or local governments, native corporations, interested groups or organizations, landowners and the private sector.

The major elements to be addressed by this plan include (1) the identification of nonfederal lands within the monument's boundaries that need to be protected, (2) the minimum interest in those lands that the National Park Service must acquire to assure protection, (3) the recommended means of acquiring the lands or interests in lands, (4) the priorities for protection to assure that available funds are used to protect the most important resources, (5) the impacts of the land protection plan on local residents, (6) the amount, type, and density of private use or development that can take place without harming monument resources, and (7) the external activities that have or may have effects on monument resources and land protection requirements.

This plan represents the first formal attempt to address land protection issues related to the monument. These issues are presented in chapter 1 of this document. Because of continuing change in the status of many of the nonfederal lands, the recommendations in this plan should be viewed as tentative. They are expected to be formally reviewed every two years by the superintendent to determine if conditions have changed. Recommendations may be revised in updated land protection plans. As changes are needed, all affected landowners and the general public will be notified and provided an opportunity to comment on the proposed changes. In addition, more needs to be known about the cultural resources on nonfederal lands within the monument. As more information is gathered and the significance of the

resources is determined, the priorities may change to reflect this information.

The land protection plan does not constitute an offer to purchase lands or interests in lands and it does not diminish the rights of nonfederal landowners. The plan is intended to guide the National Park Service in subsequent land protection activities subject to the availability of funds and other constraints and to inform the public about the National Park Service intentions.

National Environmental Policy Act (NEPA) requirements for proposals in this plan related to native corporation lands and state lands will be fulfilled at a later date when, and if, conceptual agreements are reached with these landowners. The effects of land exchanges can be evaluated only when both the lands to be acquired and the lands to be removed from federal ownership are identified. This land protection plan currently identifies only the lands (or interests in lands) to be acquired. Environmental assessments and or environmental impact statements will be prepared prior to the implementation of any land exchange, with the exception of land exchanges involving the conveyance of lands to native corporations that fulfill entitlements under the terms of ANCSA, as provided for by ANILCA, section 910.

Other actions proposed in the land protection plan would cause no significant change in existing land or public use and are therefore categorically excluded from NEPA considerations, in accordance with the U.S. Department of the Interior implementing procedures (516 DM6, Appendix 7.4 and 516 DM2, Appendix 2). Proposed actions for small tracts and submerged state lands are included in this category.

Consistent with current policies on implementation of ANILCA, section 810, evaluations will be prepared on any proposals in this land protection plan that require the preparation of environmental assessments and or environmental impact statements, or any proposals that would result in the removal of lands (or interests in lands) from federal ownership.

It should be noted that the appropriation of funds for land acquisition is expected to be very limited for the next five years. Therefore, the purchase of nonfederal lands in the monument during this period is expected to be minimal.

The land protection plan will be reviewed every two years by the superintendent to determine if revisions are required. The superintendent will maintain current land status information, which will be available for review at the monument headquarters. If the plan requires revision other than routine updating of land status information, all affected landowners and the general public will be notified and provided a 60-day public comment period.

Table 4: Summary of Land Protection Plan Information and Recommendations

		Acres	Percent of Monument
1.	CURRENT OWNER		
	Federal (includes selections* by native corporations and individuals)	616,768	93%
	Nonfederal (native corporations, state and individuals)	43,039	7%
	Total	659,807	100%
	*Not all lands selected by native corporations are expected to be conveyed since their selections have exceeded total acreage entitlements.		
2.	ACREAGE TO BE PROTECTED	88,979	13%
3.	PROPOSED METHODS OF PROTECTION		
	a.) Fee-simple acquisition (exchange, donation, purchase or relinquishment)	3,723	
	b.) Easements	10,624	
	c.) Cooperative agreement/Alaska Land Bank	74,632	

4. STATUTORY ACREAGE CEILING: There is no acreage ceiling for the monument. Up to 23,000 acres may be added to or deleted from the monument (ANILCA, section 103 b). In addition, the secretary may acquire private lands or designate other federal lands from outside of the monument, not to exceed 7,500 acres, which contain significant archeological or paleontological resources closely related to the monument (ANILCA, section 1304).

5. FUNDING STATUS

Authorized: $900,000*
Appropriated: $900,000*
Obligated: $900,000*

*Shared between the three northwest area park units.

6. TOP PRIORITIES: The top priorities consist of native allotments between the outlet of Krusenstern Lagoon (Tukrok River) on the south and Battle Rock on the north, including the allotments on Cape Krusenstern itself. The primary reason for creating the monument was to protect the known significant cultural resources on the beach ridges at the cape. Some of the allotments are believed to lie atop known major cultural resources, while others are suspected to be located where there is a high probability of significant cultural resources.

PURPOSE OF THE MONUMENT AND RESOURCES TO BE PROTECTED

Significance

Cape Krusenstern National Monument was created primarily for the following reasons:

> To protect and interpret a series of archeological sites depicting every known cultural period in arctic Alaska; to provide for scientific study of the process of human population of the area from the Asian continent; in cooperation with Native Alaskans, to preserve and interpret evidence of prehistoric and historic Native cultures; to protect habitat for seals and other marine mammals; to protect habitat for and populations of, birds and other wildlife, and fish resources; and to protect the viability of subsistence resources. Subsistence uses by local residents is to be permitted in the monument in accordance with the provisions of Title VIII (ANILCA, section 201{3}).

Mandates for management of the monument are discussed further in chapter I of the general management plan.

Because of the national and international significance of the prehistoric sites in the monument the entire area is included in the much larger Cape Krusenstern Archeological District, is on the National Register of Historic Places, and is a National Historic Landmark. The monument has also been placed on the list of potential World Heritage Cultural Parks and could be only the second U.S. national park on the world list. Additionally, a portion of the monument (Cape Krusenstern and the Igichuk Hills) totalling some 209,360 acres has been identified as a potential national natural landmark in recognition of resource values (Department of the Interior 1981).

Resource Description

The monument has been recognized primarily for its archeological resources. The cape's bluffs and its series of 114 beach ridges, the primary area of known cultural resources, show the changing shorelines of the Chuckchi Sea and contain a record in chronological order of an estimated 8,000 years of prehistoric and historic uses of northwest Alaska's coastline. Other significant resources include habitat for a variety of birds, wildlife, and marine mammals.

Nesting by arctic peregrine falcons within the monument has been reported. Although the total extent of nesting is unclear, the area is not considered to be one of the more important peregrine nesting areas. No other threatened or endangered species are known to occur within the monument.

The monument's resources are more fully described and mapped in chapter II "Affected Environment" of the general management plan.

Legislative Authorities

ANILCA provides a general framework for land protection in the monument. The secretary of the interior is authorized to acquire (by purchase, donation, exchange or otherwise) any lands or interests in lands within the monument. However, any lands or interests in lands owned by the state, local governments, or by native village and regional corporations may be acquired only with the consent of the owners unless the secretary determines that the land is no longer used for the purpose for which it was conveyed and is now being used in a manner incompatible with the purpose of the monument.

Native allotments or other small tracts may be acquired without consent but only after an offer exchange for other public lands with similar characteristics and like values (if such lands are available outside of the monument) and a refusal to accept the exchange by the owner.

In recognition of the Bureau of Indian Affairs' (BIA) responsibility to owners of native allotments, the National Park Service will notify the BIA before taking actions relating to native allotments, such as securing agreements, acquiring easements, acquiring fee-simple title, or leasing the property for administrative purposes.

No improved property will be acquired without the consent of the owner unless an acquisition is necessary for protection of resources or for protection of those monument values listed in ANILCA. When an owner of improved property consents to exchange lands or to sell to the United States, the owner may retain certain property rights including the right of use and occupancy for noncommercial residential and recreational use for a period of up to 25 years or for life by agreement with the National Park Service.

Potential additions to the monument by exchange with the state pursuant to section 1302(i) of ANILCA or boundary adjustments or additions pursuant to section 103(b) will be designated as monument. Potential acquisitions within the monument will similarly be designated as monument. For additions to the monument beyond the 23,000-acre limit of section 103(b), congressional action would be required. Public and congressional notification and review of proposed additions pursuant to sections 1302(i) and 103(b) will be provided as appropriate. The compliance requirements of NEPA and ANILCA will be fulfilled in the case of administrative boundary adjustments.

Additions to the monument or acquisitions that are within any future congressionally established wilderness boundary will automatically become wilderness upon acquisition pursuant to section 103(c) of ANILCA.

Lands added or acquired will be managed in the same manner as other unit lands of the same designation.

Section 1304 of ANILCA authorizes the secretary to designate other federal lands or acquire, with consent of the owner, lands that contain significant archeological or paleontological resources closely related to the monument. Such acquisitions may not exceed 7,500 acres from outside the boundaries.

Section 205 of ANILCA protects valid commercial fishing rights or privileges within the monument. The secretary may take no action to unreasonably restrict these rights and privileges, including the use of public lands for campsites, cabins, motorized vehicles, and aircraft landings on existing airstrips except where the secretary finds a significant expansion of the use of monument lands beyond the 1979 level of such use.

In addition to complying with the these legislative and administrative requirements, the National Park Service is required to administer the area as a unit of the national park system pursuant to the provisions of the act of August 25, 1916 (39 Stat. 535, National Park Service organic act) as amended and supplemented, and in accordance with the provisions of Title 16 of the United States Code, Title 36 of the Code of Federal Regulations, and other applicable laws. The National Park Service has proprietary jurisdiction over federally owned lands in the monument.

State, native, and other private lands within the boundaries are not subject to regulations applicable solely to federal lands. If later conveyed to the federal government, these lands will become part of the monument and then be subject to those regulations.

Resource Management and Visitor Use Objectives

Objectives for management of the monument are listed in appendix E. Major objectives include identifying, evaluating, and protecting cultural resources; managing natural resources to perpetuate biological processes and systems; providing for better understanding of and appreciation for the area; and allowing traditional uses, including subsistence, consistent with the foregoing values.

LANDOWNERSHIP AND USES

The majority of the monument is already in federal ownership; however, up to 13 percent of the lands could become private as a result of existing land selections. Most of the monument is used primarily for subsistence activities. Uses of the monument are described in chapter II.

In various portions of the monument, the regional corporation, NANA, and native village corporations of Kotzebue, Kivalina, and Noatak have selected 43,156 acres (see Land Status map).* (These selections are subject to ANCSA 17 1(b) easements.) Some of the same lands have been selected by both NANA Regional Corporation and the village corporations. Not all of the acreage selected by the various native corporations is expected to be conveyed

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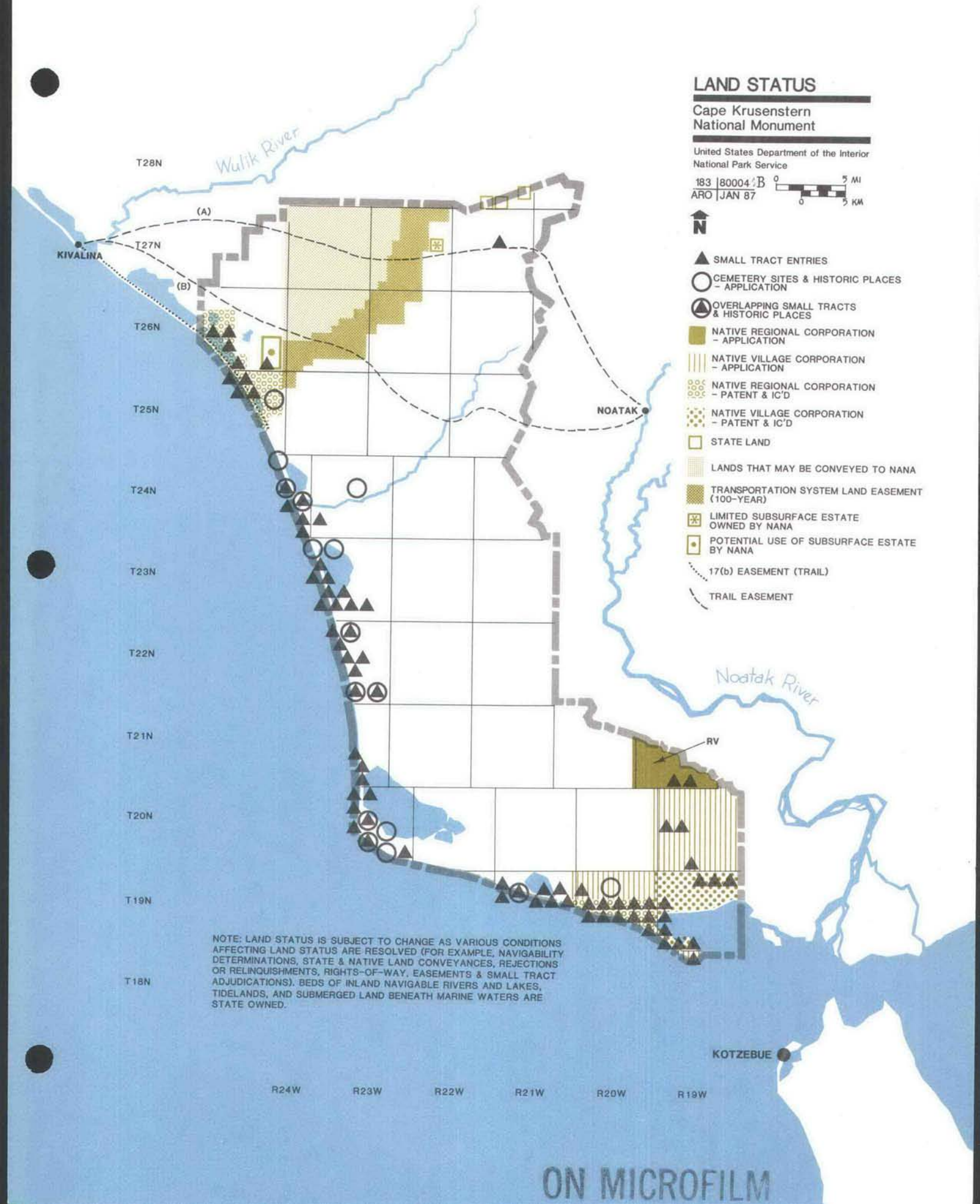
*The village corporations of Kivalina and Noatak, but not Kotzebue, along with all others in the region, have consolidated with NANA into one corporation. For the discussion of land status in this plan, each village is listed separately, as appropriate, because land records record facts in this way.



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because the corporations were allowed to exceed their entitlements when making the original selections. NANA has also applied for 16 historical places and cemetery sites throughout the monument. All of these selections are pursuant to the Alaska Native Claims Settlement Act of 1971 and have been applied for on the basis that these sites contain native cemeteries or sites of historic value. The state has selected 353 acres within the monument.

The state of Alaska contends that certain rights-of-way may be valid under RS 2477 (see discussion in "Access" section of chapter III). The validity of these rights-of-way has not been determined. Any valid rights-of-way will be included in future land protection plans as nonfederal interests and appropriate protection strategies will be identified. Lastly, applications for 32 native allotments comprising 2,630 acres are pending adjudication; 52 allotments comprising 7,209 acres have been approved or certificated. The majority of native allotments are concentrated along the coastline (see the Land Status map). They are used predominately as base camps for subsistence activities. These uses are expected to continue and to slowly increase. For a more detailed description of these uses see chapter II.

The following table presents landownership acreages and the land status within the monument.

Compatibility of Land Uses

The National Park Service is required to examine existing and potential uses of nonfederal lands within the monument to determine if these uses are compatible with the purposes for which the monument was established (ANILCA, section 1301).

The following lists of compatible and incompatible uses of nonfederal lands in the monument are presented to publicly inform landowners which uses of nonfederal lands are generally compatible with the purposes of the monument and which uses will cause the National Park Service to initiate actions to protect monument resources and values. These lists are intended to serve as general guidelines for both monument managers and nonfederal landowners. Because all possible uses of nonfederal lands can not be anticipated, and other compatible and incompatible uses may exist, the following lists of uses cannot be considered all-inclusive.

Compatible. Compatible uses are:

1. Use of lands for residential, recreational, or subsistence activities that do not adversely impact wildlife or other values on adjacent federal lands.

2. Repair, replacement, or minor modification of existing structures whose appearance blends with the undeveloped character of adjacent federal lands.

3. Limited construction of new structures whose appearance blends with the undeveloped character of adjacent federal lands.

Table 5: Land Status, Cape Krusenstern National Monument*

Federal Lands	Acres	Acres
Federal lands with no encumbrances		504,458
Federal lands with encumbrances		
Lands under regional and village corporation applications	104,091	
Lands under 14(h)(1) applications	5,589	
Lands under native allotment applications	2,630	
Subtotal, federal lands with encumbrances		112,310
Total federal lands		616,768
Nonfederal Lands		
Native regional and village corporation (patent and interim conveyance)	25,382	
Native allotments (approved and certificated)	7,209	
State lands	353	
State navigable waters	10,095	
Subtotal, nonfederal lands		43,039
Gross acreage, nonfederal lands		659,807

*Acreages are approximate and subject to change as various conditions affecting land status are resolved (for example, navigability determinations; state and native land conveyances, rejections or relinquishments; rights-of-way, easement, and small tract adjudication) and as surveys are completed.

4. Commercial fishing activities that do not constitute a significant expansion of the use of monument lands beyond the level of use during 1979.

Some uses of nonfederal lands that would be incompatible with the cultural, ecological, and recreational values of the monument include the following:

Incompatible. Incompatible uses are:

1. Activities that damage or contribute to damage of archeological or historical resources (e.g., increased recreational use, artifact collection, new construction).

2. Activities that result in water pollution, sedimentation, or other impairment of fish spawning, rearing, feeding, and overwintering habitat or other surface or ground waters (e.g., logging, mining, waste disposal).

3. Construction of roads and airstrips and other surface disturbances that disrupt drainage patterns, accelerate erosion, and increase runoff and sediment loads or that unduly change the visual character of the monument.

4. Activities that impair wildlife's use of habitat on adjacent federal lands (e.g., substantial human population increase and habitat manipulations affecting distribution of wildlife).

5. Hunting or trapping that impairs the natural condition of wildlife populations on adjacent federal lands.

6. Disposal of refuse in a manner that attracts bears, pollutes water resources, or otherwise impairs public health and safety.

7. Blocking public access when and where no other viable options for public access occur (e.g., no easements to key beach areas or other features).

8. Major new commercial development or subdivision of land that would promote major land use changes.

External Conditions Affecting Land Protection

Section 1301(b)(8) of ANILCA requires the general management plan to consider the relationship between management of the monument and activities being carried out, or proposed for surrounding areas. Many activities and several plans may affect land use and or protection of resources within the monument. The lands surrounding the monument are available for a variety of uses. They are described in chapter I of the general management plan. A brief discussion of activities that may occur follows.

The Red Dog mine site, some 25 miles northeast of the monument, has proven economic quantities of lead and zinc. There is considerable interest on the part of the state of Alaska and NANA to develop the mine. A 100-year

easement for a road through the monument was authorized by the Congress on September 25, 1985. The easement allows for construction of a road that crosses 25 miles of the monument's northern half.

The zinc and lead deposits may eventually support a mining operation employing up to 400 people. Some of these workers may use the monument for subsistence and recreation because at least half of them are to be hired from the region; however, increased use from this group is expected to be small because of the proposed two-week-on/two-week-off, 12-hour-per-day work schedules and limited access to the monument.

The Ambler/Bornite mining districts in the Kobuk River drainage may result in the influx of additional people and a new transportation corridor into the region in the future, although present activity in the district is very limited. In cases such as these the National Park Service will work with the developers to mitigate any adverse impacts that these activities and/or their secondary effects would have on monument resources.

The NANA Regional Strategy (revised 1985) is a 10-year plan for the overall development of NANA lands. The strategy stresses the subsistence-based culture, improvement of the standard of living for NANA stockholders, strengthening the spirit and pride of the Inupiat people, and developing local management capability and local control. Numerous opportunities are identified such as the Noatak salmon hatchery, secondary service businesses to mineral companies, local processing of resources, management of growth and development to minimize impacts, and developing training programs that blend traditional values and modern management techniques. The National Park Service is a member of the NANA Regional Strategy Lands Task Force and will continue to work closely with NANA and other agencies and groups in the preparation and implementation of their respective land management plans.

The draft NANA region coastal zone management plan is another regional plan that provides "for the balanced protection of natural systems and cultural values" (Darbyshire and Associates, 1982). The draft plan identifies several key geographical areas of biological, cultural, and industrial importance in or near the monument. The National Park Service has provided technical information and testimony in the preparation of the NANA coastal zone management plan and intends to be consistent with it to the extent practical in managing the monument consistent with federal law.

Proposed off-shore oil and gas leases by the state of Alaska and the Minerals Management Service include the following tracts and areas: state of Alaska--Icy Cape #53, September 1987; Hope Basin #45, May 1989; and Offshore Icy Cape #58, September 1989; MMS, OCS--Barrow Arch #85, February 1985 and #109, February 1987. Except for the Squirrel River corridor, the BLM-managed lands in the region are open to oil and gas leases as well as mineral entry. However, pending litigation may affect the status of BLM lands in the region.

The Western Arctic Alaska and Transportation Study (WAATS) identified three utility corridors along the Kobuk River between the Ambler mining district and Cape Krusenstern that could affect the monument. These are discussed in the "Uses, Activities, and Trends on Adjacent Lands" section in chapter II and under future transportation corridors in the "Proposed Facilities in the

Monument" section in chapter III; they are also identified on the External Influences map in this chapter. There are no plans at present to develop any of these corridors. If a corridor is formally proposed, the National Park Service will work closely with the applicant and follow the procedural requirements of Title XI of ANILCA.

In 1985 the state of Alaska started a comprehensive land use plan for state lands in northwest Alaska. The plan will identify state lands and waters suitable for resource development, settlement, and resource conservation. The National Park Service intends to work closely with the state in the preparation of its plan, especially for those lands adjacent to the monument.

Other external influences include activities in the conservation system units surrrounding the monument. These include Kobuk Valley National Park, Selawik National Wildlife Refuge, and Noatak National Preserve (see External Influences map).

Past Acquisition Activities and Current Protection Program

Since the monument's establishment in 1978, one land exchange and one purchase of land has occurred. The exchange between the United States and the NANA Corporation is referred to as "Terms and Conditions Governing Legislative Land Consolidation and Exchange between the NANA Regional Corporation, Inc., and the United States of America as amended by the Act of September 25, 1985," Public Law 99-96, 99 Stat. 460-464 (ANCSA, sections 34 & 35). The purchase was for a tract of land in Kotzebue consisting of three city lots. It was acquired in 1986 for administrative purposes by the National Park Service.

This plan is the first to prioritize a land protection program for the monument. The National Park Service encourages landowners who wish to sell properties (inside the monument) to contact the National Park Service to see if the Service is interested in acquisition.

Kikiktagruk Inupiat Corporation Proposed Land Exchange. KIC has proposed to exchange two sections of land, (1,280 acres) within Bering Land Bridge National Preserve for an equal area of land within Cape Krusenstern National Monument near Sheshalik Spit. The KIC lands in Bering Land Bridge is undeveloped. This is the site of an unsuccessful oil well exploration in 1978. The lands proposed for exchange in the monument are on the coastline between Aukuluk and Krusenstern lagoons and lie between native allotments in the area. The National Park Service will continue to discuss the proposal for a land exchange with KIC to see if a mutually agreeable exchange can be developed.

Sociocultural Characteristics

About 13 percent of the monument has been selected for or is currently in private ownership by native residents or corporations of northwest Alaska. Most of this land was selected by the villages of Noatak, Kivalina and Kotzebue and the regional corporation, NANA. Their selections are in the northwest, east, and southeast portions of the monument with native allotments scattered mostly along the coastline. There are at least two

year-round residents of the monument. Most corporation shareholders or allottees reside in Noatak, Kivalina, or Kotzebue and use the land area intermittently for subsistence, depending upon availability of the different plant and animal species. There are no known plans for changes in the subsistence use of these lands. Subsistence activities are discussed further in chapters II and III of the general management plan and in appendix C.

NANA Corporation is seeking to develop the Red Dog Mine in order to provide a broader economic base for the region.

PROTECTION ALTERNATIVES

The following six alternatives offer varying degrees of protection to the cultural and natural environment of the monument's nonfederal and adjoining federal lands. Each alternative is analyzed with respect to its a) application, b) sociocultural impacts, and c) effectiveness in land protection.

Agreements and Alaska Land Bank

Agreements are legal instruments defining arrangements between two or more parties, which can provide for the transfer of services, money or other benefits from one party to another.

ANILCA, section 907 established the Alaska Land Bank program to provide legal and economic benefits to private landowners and to provide for the maintenance of land in its natural condition, particularly where these nonfederal lands relate to conservation system units. Native corporation lands (but not small patented tracts) will have immunity from adverse possession, real property taxes, and assessments when brought into the land bank. They will also be immune from judgment in any action of law or equity to recover sums owed or penalties incurred by any native corporation or group or any officer, director, or stockholder of the corporation or group.

The National Park Service realizes that its finding in the "Wilderness Suitability Review" (chapter VI), which says that much of the federal lands in the monument is suitable for wilderness, could potentially conflict with native corporate interest in utilizing the land bank program. Because of the special wilderness provisions in ANILCA (sections 1315, 1316, and 1317), the National Park Service believes that future uses of native corporation lands will be compatible with adjacent wilderness management.

Application. Some of the elements that could be addressed in an agreement include: each landowner's land management responsibilities, access for resource management activities, fire management, law enforcement, trespass control, enforcement of environmental protection laws, access for public use, maintenance of land in its natural condition, and exclusion of specific uses or activities.

Agreements and the land bank could also be used as an interim protective measure when long-term goals could not be immediately achieved. Assistance might be provided to private landowners without reimbursement if the

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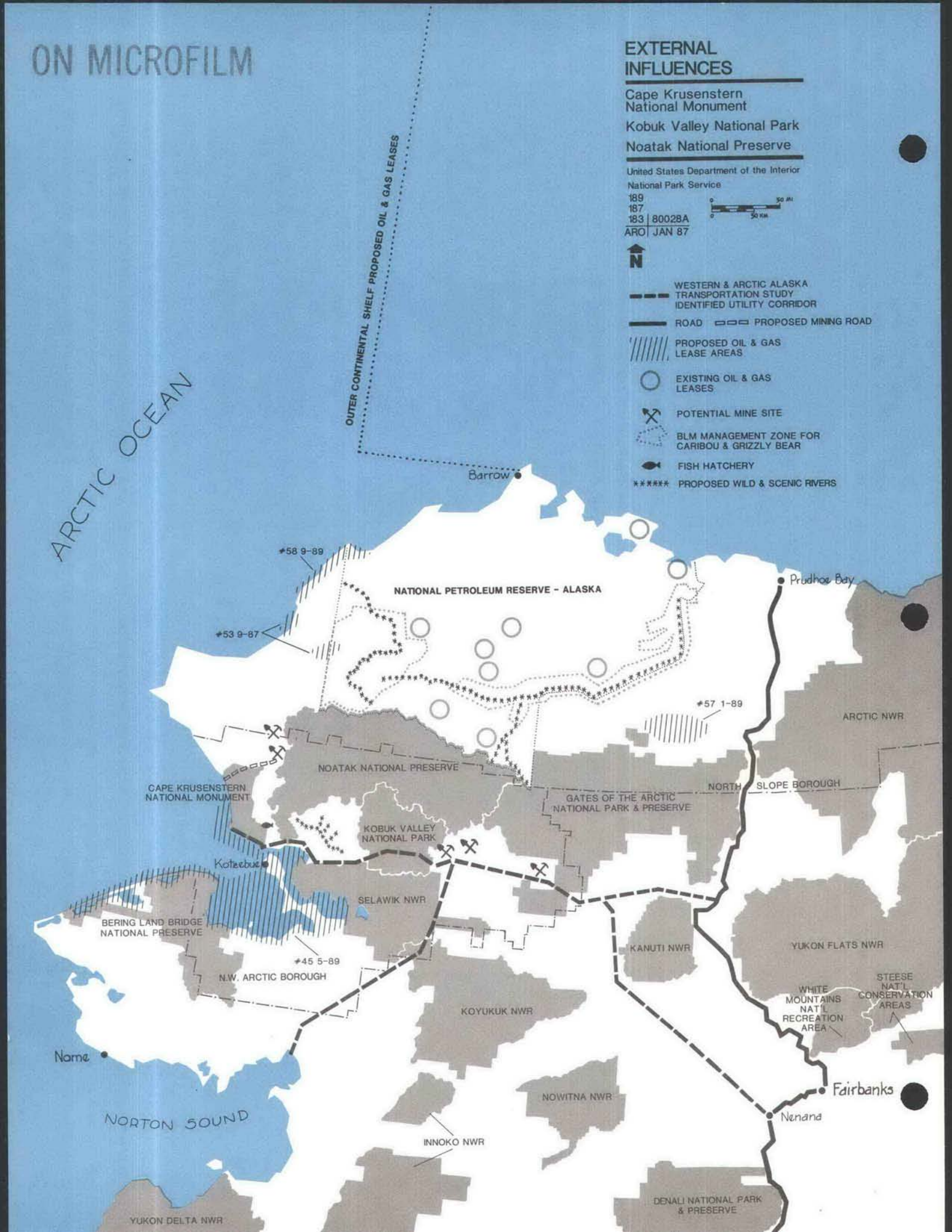


secretary of the interior determines that it would further the agreement and be in the public interest.

Sociocultural Impacts. Impacts would be defined by the terms of the agreement. Since all parties would have to agree to its terms, it is unlikely there would be any negative or adverse impacts.

Effectiveness. Where economic incentives for private land development are limited or the landowner's uses of the land are basically compatible with management of adjoining monument lands, cooperative agreements could be a cost-effective, mutually beneficial means of ensuring compatible uses on private land in the monument.

Land bank agreements would be particularly important in cooperating with native corporations that own large tracts of land in and adjacent to the monument.

Advantages of agreements include their flexibility and relatively low cost. Disadvantages include the potential administrative costs and the right of one party to terminate on short notice.

Zoning by State and Local Governments

The zoning of land is based on the authority of state and local governments to protect public health, safety, and welfare by regulating land use. At present, the monument is not within an organized borough, thus there is no local zoning. If a borough or other form of regional government was formed that encompassed the monument, the National Park Service would propose the establishment of conservation zoning for the monument's land.

Classification of State Lands

The Alaska Department of Natural Resources, Division of Land and Water Management, is responsible for managing most state lands. The Division of Land and Water Management classifies the state lands it manages. Types of classifications include "resource management," "public recreation," and "wildlife habitat." These classifications establish primary uses for state lands; however, multiple uses of classified lands can occur as long as these other uses are compatible with the designated primary use.

Application. Future navigability determinations might affirm that portions of rivers and lagoons in the monument are state owned. Additionally, state lands abut the northern boundary of the monument. The National Park Service, or any individual or organization, could request that the Division of Land and Water Management classify or reclassify state lands for specific purposes. Classification of state lands might be useful in cases where the interests of the National Park Service and the state of Alaska are similar.

Sociocultural Impacts. Classification of state lands is established through a public process. Any impacts upon the people of the region and state would likely be identified and eliminated or minimized during the process. The uses of the lands subject to classification and the type of classification would determine what impacts will result.

Effectiveness. Classification would provide protection for state lands within and adjacent to the park. Advantages of classification include, no acquisition cost and no need to exchange lands; disadvantages of classification include lack of permanent protection for park purposes.

Easements

Landownership may be envisioned as a package of interests. Acquiring an easement conveys only some of the interests from one owner to another; other interests of ownership remain unchanged. Easements can include an array of interests ranging from limiting specific uses of the land to providing for public access.

Application. Easements would most likely to be useful where

some, but not all, existing or potential private uses are compatible with monument's purpose

current owners desire to continue existing use and occupancy of the land with limited conditions imposed by the National Park Service

public access across or protection of scenic values is only needed on a portion of the land

Terms and conditions for easements should be written to fit the topography, vegetation, visibility, and character of existing or potential developments on each tract.

Sociocultural Impacts. The impacts of easements would vary depending on the rights acquired. Overall, the impacts would be judged beneficial because both parties must agree to the terms before the easement went into effect and because it would contribute to the fulfillment of the monument's objectives while allowing the landowners continued use of the land subject only to negotiated limitations.

Effectiveness. Because easements are permanent and enforceable interests in property, they would provide greater assurance of permanent protection than would agreements or zoning ordinances. Easement interests would stay with the property and are binding on future owners.

Advantages of easements include: continued private ownership and use subject to the terms of the easement, lower acquisition costs than fee-simple purchase, and consequently the potential to protect more lands and resources with available funds.

Disadvantages of easements as compared to fee-simple acquisition include: potential difficulty of enforcement in remote areas, landowners' lack of familiarity with less-than-fee simple ownership, relatively high costs of acquisition on undeveloped properties where no further development is compatible, and costs incurred in monitoring terms and conditions of easement provisions over time.

Fee-Simple Acquisition

When all the interests in land are acquired, it is owned in fee simple.

Application. Fee-simple acquisition may be recommended when other methods of protection have been found to be inadequate, inefficient, or ineffective to meet management needs. Fee-simple acquisition is most appropriate in the monument when land must be maintained in a pristine natural condition that precludes reasonable private use, when owned by individuals who do not wish to sell less-than-fee-simple interest, when resources cannot be protected by other methods in accord with monument purposes, or when other alternatives would not be cost-effective.

The National Park Service will acquire property, or portions of property, only when necessary to further park purposes. An example of a partial acquisition would be an important archeological site that occurs only on a portion of a property. If fee-simple acquisition were the only method of protecting the site, the Park Service would attempt to acquire only as much of the property as is necessary to protect this archeological site.

Sociocultural Impacts. Little change is likely to occur within the monument at the present time because most lands are undeveloped and or seasonally utilized. If lands were purchased, people would still be able to use them for subsistence purposes, as they now use surrounding federal lands. Exclusive use and development opportunities on acquired parcels would be precluded.

Effectiveness. Fee-simple acquisition is the most secure land protection alternative, but it is also generally the most expensive. The ability to purchase fee-simple interest is dependent on the appropriation of funds.

Advantages of fee-simple acquisition include: permanent and complete control over uses of the land by the National Park Service, authority to develop necesary facilities, private landowners' familiarity with this type of transaction, and opportunities for continued private use when reservations for use and occupancy are included in the acquisition.

Disadvantages of fee-simple acquisition include: acquisition costs, maintenance and management requirements (especially for developed properties), the potential relocation of private landowners, and the removal of housing and or land from the local market.

For a description of methods of acquistion see appendix H.

Environmental Protection Standards

Activities and developments on nonfederal lands in the monument must meet applicable state and federal environmental protection laws and regulations. These authorities help to maintain the existing natural environment in the monument.

Application. These authorities include but are not limited to the Alaska Coastal Zone Management Program, Alaska Anadromous Fish Act, Clean Water and Clean Air acts, and Executive Order 11990, "Protection of Wetlands."

Sociocultural Impacts. Individual landowners could be prevented from using their land in a particular manner if a restriction on individual freedom was imposed for the benefit of the community as a whole. This type of action would be beneficial to the public at large.

Effectiveness. These laws and regulations would assist in preventing harm to cultural resources and the natural environment but would not necessarily preclude other activities that might adversely affect the monument's resources.

RECOMMENDATIONS

The recommended means of land protection for nonfederal land in the monument are in priority order below. Ownership, location, acreages involved, minimum interest needed for protection, and justification are also given. Priorities may be readjusted if incompatible uses develop, as additional information is obtained, or to address emergencies or hardships. The land protection plan will be reviewed every two years and revised as necessary to reflect new information and changing uses and priorities. Review and revision procedures, including public involvement, are discussed in the introduction to this plan.

"Owner," as it pertains to privately owned real property inside the monument, is defined as follows: "The person(s), corporation, or other entity who first received patent or other conveyance from the United States of America or the state of Alaska." When the title to real property is conveyed by the United States of America or the state of Alaska (in the case of state land disposals), maintainance by the government of records of future transfers of ownership are not required. Those records are maintained in each recording district. Abstracts of such records are available from various title insurance companies throughout the state. The National Park Service is not required to maintain transfer of ownership records for priately owned lands. Accordingly, the listed tract owner may not be the current owner.

This plan identifies a minimum interest needed for protection but recognizes that the actual means of protection may change as a result of negotiation. In carrying out the purposes of ANILCA, section 1302 authorizes the secretary of the interior to acquire by purchase, donation, exchange, or otherwise any lands within the boundaries of conservation system units. Where acquisition is proposed, exchange is the preferred method whenever possible. Donations or relinquishments, where applicable, are encouraged. Purchase with appropriated or donated funds is another possible method. It should be noted that the appropriation of funds for land acquisition is expected to be very limited for the next few years. Therefore, the purchase of nonfederal interests in the monument is expected to be minimal.

A minimum interest has been defined for the protection of native allotments. However, the National Park Service recognizes that the traditional use of native allotments is compatible with the purposes of Cape Krusenstern

National Monument. If the owners of native allotments continue to use their property as it has been traditionally used, the Park Service does not intend to acquire allotments. The need for federal acquisition to protect resource values will be triggered if a change is perceived from this traditional use to an incompatible land use.

No estimates of the cost of implementing the recommendations of this plan have been prepared at this time. A useful estimate requires appraisals that are costly and have a short shelf life because of variable and changing market conditions. Appraisals for individual tracts will be prepared following agreement in concept with the landowner to acquire a specific interest in real property.

The major consideration in selecting site specific land protection alternatives is the need to comply with the intent of congressional legislation that established the monument. This authority emphasizes the preservation and protection of the monument's resources. In all cases, the minimum interest needed to carry out the intent of Congress will be defined and sought. Fee-simple acquisition may be needed to protect significant resources that are essential to the purposes of the monument, to provide for public use, or for improved resource management capability. Easements could protect the monument from incompatible developments that would impair its environment and detract from the public's use of the monument. Cooperative agreements would ensure that the management of private lands would be consistent with monument objectives. The following list of priorities is based on the resource values of the monument, potential threats to the land and resources, and nonfederal landowners' interests in selling, trading, exchanging, or entering into an agreement of one form or another.

Landowners who wish to sell property within the monument are encouraged to contact the superintendent to see if the National Park Service is interested in acquiring the land. These proposals will be reviewed for possible purchase based on their priority in the land protection plan recommendations and their potential contribution to resource protection, continuance of subsistence opportunities, provision of recreational opportunities, and maintenance of the undeveloped character of the monument. Extenuating circumstances, including hardship as defined in ANILCA section 1302(g), would also be considered. The availability of appropriated funds would also determine the National Park Service's ability to act on proposals from willing sellers.

Priorities

The plan establishes priority groups to identify the relative importance of tracts and to provide a general explanation of what lands are considered most important for monument purposes. However, because ANILCA and its legislative history strongly supports acquisition of lands from voluntary sellers and by exchange, the land protection program will proceed primarily on an opportunity basis as owners offer to sell or exchange their lands. Therefore, tracts may not be acquired in exact priority order. Priorities will be most important if several different offers are submitted at the same time. Limited funds and lands suitable for exchange will generally mean that

only high priority lands among those offered can be acquired. Emergency and hardship cases also may be addressed as they arise, regardless of priority.

Priority Group 1. This group consists primarily of native allotments between the outlet of Krusenstern Lagoon (Tukrok River) on the south and Battle Rock on the north, and it includes the allotments on Cape Krusenstern itself. The primary reason for creating the monument was to protect the known significant cultural resources of the beach ridges at the cape. Some of the allotments are believed to lie atop known significant cultural resources, and others are suspected to be where there is a high probability of significant cultural resources. (See Land Protection Priority Groups map in this chapter.)

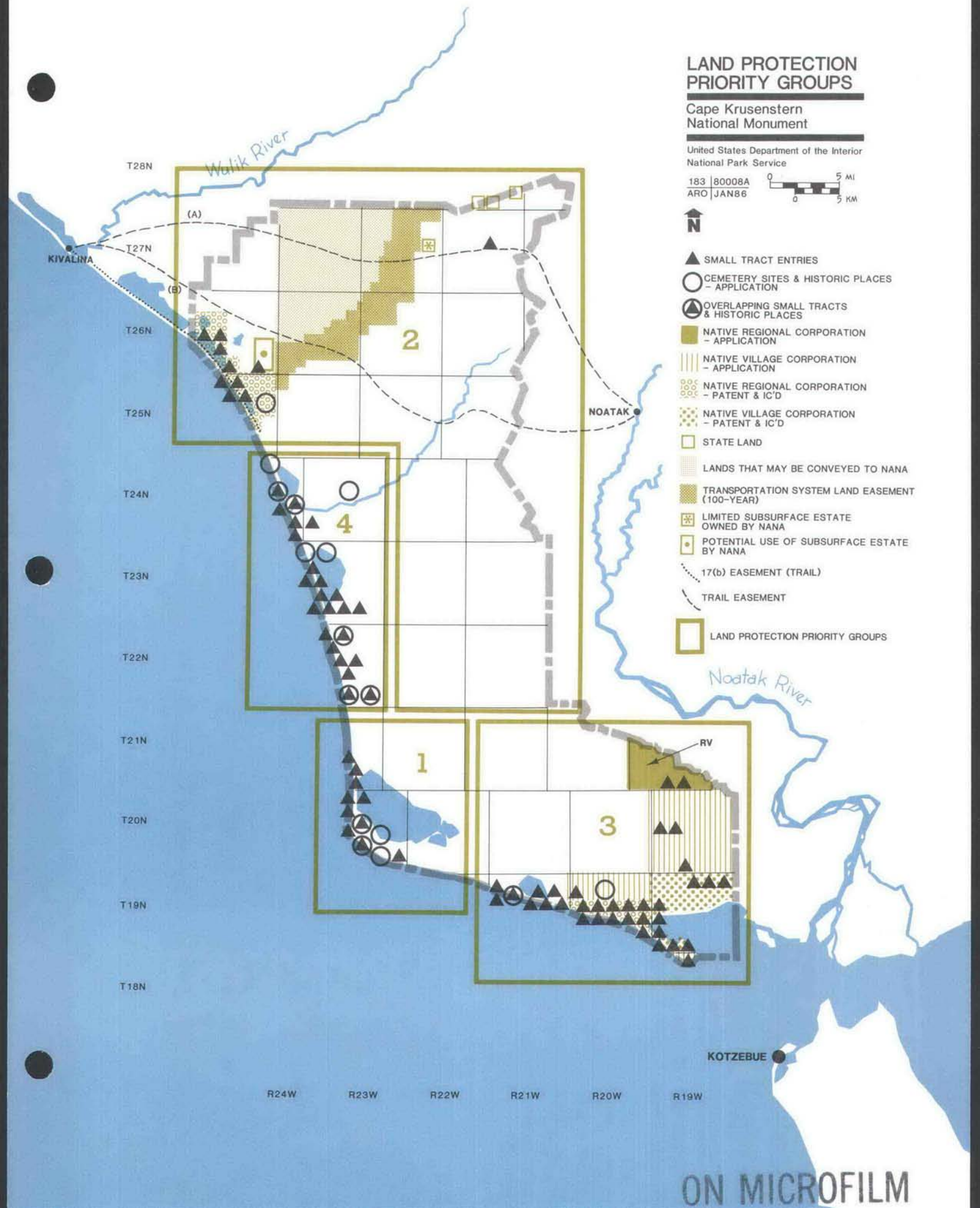
Priority Group 2. This group primarily contains native village and regional corporation lands or interests in land and native allotments that are primarily in the northern one-quarter of the monument. Native corporation lands are already protected by the "Terms and Conditions Governing Legislative Land Consolidation and Exchange between the NANA Regional Corporation, Inc., and the United States of America, as amended by the Act of September 25, 1985," Public Law 99-96, 99 Stat. 460-464, (ANCSA, sections 34 & 35). This agreement provides for, among other things, a development and operations plan, consideration of visual impacts, protection of fish and wildlife habitat, protection of cultural and paleontological resources, reclamation of material sites, and protection of threatened and endangered fish, wildlife, and plants on native corporation lands or interests in land within this group.

Priority Group 3. This group contains native allotments and native lands in the southeastern portion of the monument. The allotments, mostly along the coastline, are in areas where less is known about the cultural resources than those in group 1 but where the probability for significant resources is considered to be high, especially on Sheshalik Spit. The National Park Service has received a conservation easement on the lands (approximately 10,942 acres) for the protection and study of resource values from NANA, as part of the terms and conditions of the exchange between NANA and the United States, ANCSA, sections 34 and 35.

Priority Group 4. This group consists of allotments between Battle Rock and Imik Lagoon. Little work has been done to investigate the potential for cultural resources in this area. But the proximity to sites such as Battle Rock would indicate that there is reason to suspect a high occurrence of cultural resource sites. (See Land Protection Priority Groups map in this chapter.)

Specific Proposals

The recommended land protection approaches for nonfederal lands are listed below. Owners, acreages to be protected, minimum interests needed for protection, justification and proposed method of acquisition are also shown. The actual means of acquisition of land or interest in land will not be known until negotiations are initiated. Methods of acquisition are presented in appendix H of this document. Donations and exchanges are the preferred methods. Purchases may be made with appropriated or donated funds. Exercising the power of eminent domain is not recommended, although it could



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be used where allowed by law and with the approval of the secretary of the interior to prevent land use activities that would severly damage the monument's integrity. Where land or interest in land is to be acquired by direct purchase, every effort will be made to reach an agreement on the purchase price with the owner. Condemnation proceedings will not be initiated until negotiations to achieve satisfactory resolution of the problem through means other than condemnation have been exhausted. However, if an agreement cannot be reached, a complaint in condemnation may be filed in the federal court to establish the fair market value of the property. In addition, condemnation action may be used to overcome defects in title or to address emergency situations where no other method will prevent damage to park resources. Tracts within each of the following priority groups are considered relatively equal in priority. An index to nonfederal interests is contained in appendix I of this document.

Priority Group 1 (A)

Type of Ownership:
Native allotments

Location:
Between the outlet of Krusenstern Lagoon (Tukrok River) on the south and Battle Rock on the north

Number:
30 allotments (36 parcels)

Parcels:
2B, 7B, 20, 22A, 22B, 23, 27, 28, 29, 33, 34, 35, 36, 37, 38 39A, 44A, 44B, 46A, 46B, 51A, 51B, 51C, 52B, 53, 54, 55, 56, 58B, 61, 71, 75, 79, 81A, 81B, 83 (see appendix I for a description of these parcels)

Total Acreage:
3,723

Minimum Interest Needed:
Fee-simple or easements

Justification:
These allotments are primarily on the beach ridges of Cape Krusenstern. The major reason for creating the monument was to protect the significant cultural resources of the beach ridges. Some of the allotments lie atop these resources, and others are located where there is a high probability of significant cultural resources. Further cultural resource survey of the area will occur to identify the specific locations of significant resources. Based on the results of these surveys and existing surveys, acquisition of fee-simple title to those allotments or portions of allotments containing significant cultural resources will ensure their long-term protection and possible interpretation. For those allotments not containing significant resources, less-than-fee-simple interests (easements) or agreements to maintain current uses will provide sufficient protection. These uses, primarily subsistence-related, are compatible with the purpose and

proposed management of the monument. Changes in these uses that would result in significant additional development population increases or actions that damage or threaten to damage resources would be viewed as incompatible with the purposes of monument.

Priority Group 1 (B)

Type of Ownership:
Cemetery and historical sites applied for under section 14(h)(1) of ANCSA

Location:
Between the outlet of Krusenstern Lagoon (Tukrok River) on the south and Battle Rock on the north

Number:
6

Parcels:
87,* 88,* 89, 90, 103,* 105 (see appendix I for a description of the parcels)

Total Acreage:
2,050 net acres applied for.
*(overlapping applications)

Minimum Interest Needed:
Agreement

Justification:
These sites are also on the beach ridges of Cape Krusenstern in an area where significant cultural resources are known to exist. The primary reason for creating the monument was to protect the significant cultural resources of the beach ridges. These sites may form part of the cultural resource base of the monument and should be protected. The National Park Service is mandated to protect cultural values and would manage these sites with sensitivity to native concerns if they remain in federal ownership. If they are conveyed to NANA, the National Park Service could carry out its mandate by entering into a cooperative agreement with NANA.

Priority Group 2 (A)

Type of Ownership:
Native regional corporation (NANA) and native village corporations (Kivalina, Noatak)

Location:
Lands, or interest in land, in the northern one-quarter of the monument. These include the 100-year transportation system lands (19,747 acres); lands that NANA may select within the monument referred to as "amended A-1 lands" (up to 42,337 acres); limited subsurface estate at Mud Lake (600 acres); and up to six sections of land (3,840 acres) where NANA may

use a limited subsurface estate, if requested by NANA and approved by the secretary of the interior.

Parcels:
List not available

Total Acreage:
66,524

Minimum Interest Needed:
None

Justification:
Sections 34 and 35 of ANCSA and the terms and conditions of the land exchange agreement provide sufficient protection for the monument's resources on these lands.

Priority Group 2 (B)

Type of Ownership:
Native allotments

Location:
Six of the seven tracts are in the northwest corner of the monument; the seventh is in the northeast corner of the monument.

Number:
6 allotments (7 parcels)

Parcels:
11, 15, 16,18, 21C, 21D, 74

Total Acreage:
560

Minimum Interest Needed:
Agreement

Justification:
Six of the parcels located along the northwest coastline are surrounded by native corporation lands. One parcel in the northeast corner of the monument (no. 11) is surrounded by monument lands. Under present compatible uses an agreement setting forth compatible and incompatible uses should be sufficient to maintain monument values.

Priority Group 2 (C)

Type of Ownership.
Cemetery and historical sites applied for under section 14(h)(1) of ANCSA

Location:
Northwest corner of the monument

Number:
4

Parcels:
95, 100, 101, 104

Total Acreage:
2,125 acres applied for

Minimum Interest Needed:
Agreements

Justification:
Any cultural resources these sites may contain may form part of the cultural resource base of the monument and should be protected. The National Park Service is mandated to protect cultural values and would manage the sites with sensitivity to native concerns if they remain in federal ownership. If they are conveyed to NANA the National Park Service will carry out its mandate by entering into an agreement with NANA.

Priority Group 2 (D)

Type of Ownership
State of Alaska

Location
Northeast corner of the monument

Parcels
T. 28 N., R. 23 W., portions of sections 25, 33, and 34

Total Acreage
353

Minimum Interest Needed
Agreement

Justification:
These small parcels abut the northern boundary of the monument. An agreement with the state of Alaska will be sufficient to protect significant cultural and natural resources.

Priority Group 3 (A)

Type of Ownership:
Native regional corporation (NANA Corporation)

Location:
Southeastern corner of monument

Parcels:
106

Total Acreage:
10,624

Minimum Interest Needed:
Less-than-fee (easement)

Justification:
This area contains native corporation lands in the southeastern corner of the monument, including portions of Sheshalik Spit not covered by native allotments. The probability of significant cultural resources is considered high in the area, although little is known about the resources. Because of the numerous native allotments in this area, especially on Sheshalik Spit, continued development of seasonal homes, fishing camps, etc. is considered likely. NANA intends to retain these lands but involve the National Park Service in planning any development, providing protective procedures for cultural resource, and allowing study of cultural resources as a result of the terms of the Cape Krusenstern land exchange. An easement limiting development is necessary to ensure compatible uses and thereby prevent adverse impacts on cultural and natural resources.

Priority Group 3 (B)

Type of Ownership:
Native regional and village corporation (NANA and Kikiktagaruk Inupiat Corp.)

Location:
Southeastern portion of monument

Parcels:
107, 117, 118, 119

Total Acreage:
41,514

Minimum Interest Needed:
Agreement

Justification:
These lands are in areas where less is known about the cultural resources than those in group 1, but where the probability for significant resources is considered to be high, especially on Sheshalik Spit. To determine the presence of significant cultural resources, an Alaska Land Bank or other agreement with NANA and KIC is necessary to provide for further inventory, evaluation, and protection of cultural resources to the degree possible. Limitations on developments are

necessary elements of any agreement to maintain uses compatible with the purposes of the monument.

Priority Group 3 (C)

Type of Ownership:
Native allotments

Location:
Southeastern portion of the monument

Number:
38 allotments (42 parcels)

Parcels:
1, 2A, 3A, 3B, 4A, 4B, 5, 6, 7A, 8C, 9, 10, 14, 19A, 24, 25, 31B, 32, 39B, 40, 41, 42, 43A, 43B, 45, 52A, 57, 58A, 59A, 60, 63, 66A, 67, 68, 72, 76, 77, 78A, 78B, 80, 82, 84, 122, 123

Total Acreage:
3,836

Minimum Interest Needed:
Agreement

Justification:
The allotments, mostly along the coastline including Sheshalik Spit, are in areas where less is known about the cultural resources than those in group 1. The probability for significant resources is thought to be high, especially on Sheshalik Spit. To determine the presence of significant cultural resources, the National Park Service will seek an Alaska Land Bank or other agreement with the allotment owners to provide for further inventory, evaluation, and protection of cultural resources to the degree possible. The agreements would also propose to limit significant development and uses beyond existing levels to ensure continued compatibility with the purposes of the monument.

Priority Group 3 (D)

Type of Ownership:
Cemetery and historical sites applied for under section 14(h)(1) of ANCSA.

Location:
Southeastern portion of the monument

Number:
1

Parcels:
86

Total Acreage:
625 applied for

Minimum Interest Needed:
Agreement

Justification:
This site was selected and applied for under section 14(h)(1) of ANCSA on the basis that it contains cemeteries or historical values of local or regional native concern. Any cultural resources this site may contain forms part of the cultural resource base of the monument and should be protected. The National Park Service is mandated to protect cultural values and will manage these sites with sensitivity to native concerns if they remain in federal ownership. If they are conveyed to NANA, the National Park Service will carry out its mandate by entering into an agreement with NANA.

Priority Group 4 (A)

Type of Ownership:
Native allotments

Location:
Beginning north of Battle Rock and going north to the southern half of Imik lagoon

Number:
13

Parcels:
12, 13, 17, 30, 47, 48, 49, 50, 62, 65, 69, 70, 85 (see appendix I for a description of these parcels)

Total Acreage:
1,720

Minimum Interest Needed:
Agreement

Justification:
The allotments, mostly along the coastline north of Battle Rock, are in areas where little work has been done to investigate the potential for cultural resources. However, the proximity to sites such as Battle Rock indicates that there is reason to suspect a high occurrence of cultural resource sites. To determine the presence of significant cultural resources, an Alaska Land Bank or other agreement with the allotment owners is appropriate to provide for further inventory, evaluation, and protection of cultural resources. The agreements would also propose to limit significant development and uses beyond existing levels to ensure continued compatibility with the purposes of the monument.

Priority Group 4 (B)

Type of Ownership:
Cemetery and historical sites applied for under section 14(h)(1) of ANCSA

Location:
Beginning north of Battle Rock and going to the southern half of Imik lagoon

Number:
9

Parcels:
91,* 92, 93,* 94, 96, 97, 98,* 99, 102* (*overlapping applications)

Total Acreage:
1,130 net acres applied for

Minimum Interest Needed:
Agreement

Justification:
These sites were selected and applied for under section 14(h)(1) of ANCSA on the basis that they contain cemeteries or historical values of local or regional native concern. Any cultural resources these sites may contain form part of the cultural resource base of the monument and should be protected. The National Park Service is mandated to protect cultural values and will manage these sites with sensitivity to native concerns if they remain in federal ownership. If they are conveyed to NANA, the National Park Service will carry out its mandate by entering into an agreement with NANA.

Priority Group 4 (C)

Type of Ownership:
State of Alaska

Location:
Kotzebue Sound

Number:
N/A

Parcels:
121

Total Acreage:
10,095

Minimum Interest Needed:
Agreement

Justification:

At the time of Alaska statehood, title to the tidelands, shorelands, and submerged lands beneath interior navigable waters was vested in the state pursuant to the Alaska Statehood Act and the Submerged Lands Act of 1953. Determination of navigable waters with respect to title of the beds of such waters is an ongoing process. Where the state is determined to own submerged lands (as is the case for submerged lands in Kotzebue Sound within the monument boundaries), agreements are necessary to protect the monument values associated with the beds or waters or adjacent lands. Of particular concern in Kotzebue Sound and the Chukchi Sea are seals and other marine mammals. In creating the monument, ANILCA, section 201(3), specifically mentions protection of habitat for seals and other marine mammals. In addition, the National Park Service will work with the state to incorporate proposals for the protection of marine mammal habitat into its northwest area region land use plan that is being prepared by the Department of Natural Resources.

5. IMPLEMENTATION

9. Musk-ox cooperative management and reintroduction study

10. Endangered species inventory and monitoring cooperative survey

11. Baseline research on waterfowl and shorebirds with emphasis on Cape Krusenstern and Sheshalik Spit

12. Cooperative baseline research on fisheries populations and pressures

13. Baseline research into the potential for mineral extraction

14. Impact study on popular visitor use areas

15. Air quality monitoring

16. Water quality monitoring

17. Cooperative timber inventory

Public Use Research

1. Commerical use study

3. Commercial fishing study (1979 levels)

3. Human use study

Additional Planning

1. Resource management plan

2. Subsistence management plan

3. Interpretive prospectus

4. Wilderness designation study (EIS)

5. Updated land protection plan

Cooperative Agreements

1. An agreement on timber management that includes the resources in the monument, in Kobuk Valley National Park, and in Noatak National Preserve. This agreement will be developed in cooperation with NANA, BLM, KIC, the state of Alaska (various departments) and the USFWS.

2. An agreement focusing on the development of a regional museum possibly jointly operated that will be a federal/state repository for materials of northwest Alaska and possibly a branch of the Alaska State Museum. This will be in cooperation with the Alaska State Museum, University of Alaska Museum, NANA, KIC, the city of Kotzebue, and other groups or agencies who wish to pursue the project.

IMPLEMENTATION

The key to effective implementation of the general management plan is the addition of new staff. With 13 positions (6 existing, 7 new) there will be enough personnel to carry out all proposed actions, research studies, and cooperative agreements. The second important factor is the expansion of administrative office space, visitor contact facilities, and construction of government housing and an aircraft facility. With people and facilities, plan implementation can begin, in earnest. Construction and operation of a museum is proposed as a cooperative venture and is expected to be carried out over many years. Until an agreement between interested parties is signed, no time tables can be presented.

IMPLEMENTATION CHECKLISTS

The lists below comprise a checklist for implementation. Because funding requests govern implementation to such a large degree, an implementation schedule is not practical at this time. Where cost estimates are available, they have been presented.

Cultural Resources Research

1. Cape Krusenstern National Monument cultural resources inventory
2. Archeological site monitoring and impact survey
3. Archeological collections inventory project
4. Cape Krusenstern ethnohistory and oral history project

Natural Resources Research

1. Population data: big game and fur-bearing species
2. Role of natural fire in northwest Alaska ecosystem
3. Baseline study of the genetic characteristics and monitoring of Noatak River chum salmon
4. Compilation and analysis of big-game harvest information on all harvested species
5. Baseline study of ecosystem dynamics within northwest Alaska
6. Study and monitoring of caribou and moose habitat
7. Study of the impacts of existing and proposed methods of transportation on northwest Alaska ecosystems
8. Analysis and monitoring of conflict between subsistence and recreational users

3. Agreements with NANA, KIC, and owners of conveyed native allotments for management of cultural resources on ANSCA 14(h)(1) cemetery and historic sites and native allotments. Additional recommendations on this subject are explained in the "Land Protection Plan" (chapter IV).

4. An agreement for coordinated search-and-rescue activities among all members of the NANA Search-and-Rescue Group, the Alaska State Troopers, and the National Park Service.

5. An agreement on radio communications among the U.S. Fish and Wildlife Service, Bureau of Land Management, and the National Park Service.

6. An agreement for cooperative management with the state of Alaska regarding shorelands, submerged lands, and tidelands.

7. An agreement for cooperative management with the state of Alaska regarding water rights.

8. An agreement for cooperative management with the state of Alaska regarding public uses on waterways. This is to be pursued only if case-by-case resolution of management issues proves unacceptable to the National Park Service and the state.

9. An agreement for cooperative management with regional and village native corporations for management of 17 (b) easements if any are created by the BLM and subsequently transferred to NPS management.

Development in Kotzebue: Lease, purchase, or construction of facilities in Kotzebue include: expanded administrative offices and a visitor contact station and construction of one four-plex housing unit.

Development in the Monument:

1. One seasonal ranger station in the southern half of the monument.

2. One permanent ranger station in the northern half of the monument (if the Red Dog Mine is developed).

Other Actions

1. Work to quantify and inform the state of Alaska of about the National Park Service's existing and future water needs under the federal reserve doctrine. When the federal doctrine is not applicable, work with the state to carry out the needed reservation under Alaska law.

2. Continue to consult with the U.S. Fish and Wildlife Service about threatened and endangered species in the monument as it relates to planned actions that might affect peregrine falcons.

3. Make application to Alaska Department of Fish and Game for necessary Title 16 (anadromous fish) permits.

4. Forward public meeting recommendations to expand subsistence hunting resident zones to Cape Krusenstern Resource Commission.

Table 6: Estimate of Development Costs

Item	Estimated Cost*
1. Administrative offices: 3,000 square feet	$687,750
2. Visitor contact station: 1,500 square feet	343,875
3. Government housing: one 5,000-square-foot four-plex	851,500
4. Shop and storage space: 6,000 square feet	786,000
5. Aircraft hanger: 3,000 square feet heated and 4,000 square feet outdoors, surfaced	550,200
6. Ranger Stations: Rebuild old mail run cabin	50,000
Northern ranger station, 2,000 square feet	393,000
Total Development Costs	$3,654,575**

*Estimates are NPS class C (gross) estimates, which are expected to be accurate to plus or minus 30 percent. Estimates are based on existing bidding and contracting policies and reflect costs expected if each item were bid separately. It is realized that significant reductions are possible if more than one item is put out to bid with other items so that larger bid packages are created.

**Costs on items 1-5 will be shared with Noatak National Preserve and Kobuk Valley National Park budgets as presented in the general management plans for those areas.

Table 7. Estimated Annual Operating Cost for Northwest Areas (Cape Krusenstern, Kobuk Valley, and Noatak)

Personnel (includes permanent and seasonal staff benefits, travel, overtime, etc.)	$600,000
Rent, Communications, and Utilities (NANA building, Quonset hut, phones, etc.)	130,000(*)
Services and Supplies (OAS aircraft, other services, consumable supplies, etc.)	350,000
Capitalized Equipment	100,000(**)

* Costs will be reduced if U.S. Fish and Wildlife Service shares costs and if OAS budgets for this item.

** Does not include replacement costs.

AMENDMENTS TO THE GENERAL MANAGEMENT PLAN

The general management plan may be amended as provided for by the National Park Service "Planning Process Guideline" (NPS 2). Amendments are appropriate when needs or conditions change or when a significant issue arises that requires consideration or when an item has been omitted from the plan by error. An amendment usually deals with a single issue and a complete revision usually occurs because of many changing conditions, needs, or the passage of many years. Any amendments or future revisions of this plan would include public involvement and compliance with all laws, regulations, and NPS policies (see chapter I).

WILDERNESS SUITABILITY REVIEW

WILDERNESS SUITABILITY REVIEW

MANDATES

Because no lands in the monument were designated as wilderness by ANILCA section 1317(a), a review of lands in the monument must be made to determine their suitability or nonsuitability for preservation as wilderness.

Section 1317(b) specifies that "the Secretary shall conduct his review by December 2, 1985, and the President shall advise the United States Senate and House of Representatives of his recommendations, in accordance with the provisions of sections 3(c) and (d) of the Wilderness Act" by December 2, 1987. Actual recommendations on whether to designate suitable areas as wilderness will be made following completion of the general management plan. An environmental impact statement will be prepared as part of the recommendation process.

The Wilderness Act of 1964 defines wilderness as follows:

> A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficent size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

WILDERNESS SUITABILITY CRITERIA

Wilderness suitability criteria were developed that reflect the definition of wilderness contained in the Wilderness Act and the provisions of ANILCA specific to wilderness areas in Alaska. These criteria were applied to all federal lands in the monument to determine their suitability for designation. These criteria relate to the current land status and physical character of the land.

The actual recommendations will follow completion of the general management plan (see "Future Wilderness Recommendations"). For a particular tract of land to be determined suitable or not suitable for wilderness designation, it must meet all of the following criteria:

Table 8: Wilderness Suitability Criteria

Description of Land or Activity		Suitable for Wilderness	Not Suitable for Wilderness	Suitability Pending
Land Status	Federal	X		X
	Federal - under application or selection.		X	
	State or private land - patented or tentatively approved		X	
	Private ownership of subsurface estate		X	
Mining	Areas with minor ground disturbances from past mining activities.	X		
	Areas with major past ground disturbances from mining activities.		X	
	Current mining activities and ground disturbances		X	
Roads and ORV trails	Unimproved roads or ORV trails that are unused or little used by motor vehicles.		X	
	Improved roads and ORV trails regularly used by motor vehicles.		X	
Landing Strips	Unimproved or minimally improved and maintained.	X		
	Improved and maintained.		X	
Cabins	Uninhabited structures; hunter, hiker, and patrol cabins.	X		
	Inhabited as a primary place of residence.		X	

Description of Land or Activity		Suitable for Wilderness	Not Suitable for Wilderness	Suitability Pending
Size of Unit	Greater than 5,000 acres adjacent to existing wilderness, or of a manageable size.	X		
	Less than 5,000 acres or of unmanageable size.		X	

WILDERNESS SUITABILITY DETERMINATION

Using these criteria, 513,926 of the 659,807 acres in the monument have been determined suitable for wilderness designation based on their present undeveloped and unimpaired state. There are no major past or present mining developments, improved roads or improved ATV trails, or inhabited cabins on federal lands.

The existing landing strip in the Kakagrak Hills was constructed before the monument was established. Since its abandonment by the military, approximately 1,500 feet of the landing strip's 3,000 feet has fallen into disrepair. The usable 1,500 feet is proposed for continued use. As such, the landing strip does not preclude the area's suitability for wilderness.

Most of the current activity (fishing camps, etc.) takes place on native allotments and native corporation lands. Approximately 54,177 acres of the monument are not suitable for wilderness, and approximately 89,704 acres' suitability for wilderness is pending. The final status of native land selections and native allotments has not been determined and it is not certain at this time whether they will be transferred out of federal ownership.

All lands determined suitable for wilderness designation will be managed under the terms of ANILCA to maintain the wilderness character and values of the lands until designation recommendations have been proposed and Congress has acted on these proposals.

Changes in land status or those likely to occur between now and the time that the recommendations are made to the president and Congress will be reflected in those recommendations. A determination of suitability does not affect any pending selections or other prior existing land disposal actions. All wilderness recommendations and subsequent designations will be made subject to valid existing rights including rights-of-way under RS 2477.

FUTURE WILDERNESS RECOMMENDATIONS

Recommendations on whether to designate suitable areas as wilderness will be made following completion of the general management plan. An environmental impact statement will be prepared as part of the wilderness recommendations

process. The public will have the opportunity to review and comment on these recommendation and secretarial review and public hearings will be held. Upon completion of the EIS, the president will make his recommendations to the Congress.

WILDERNESS MANAGEMENT

Should the secretary of the interior and the president recommend and should the Congress designate lands within the monument for inclusion in the national wilderness preservation system, this section on wilderness management will apply throughout the lifespan of this plan.

The Wilderness Act states that wilderness areas "shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness."

Wilderness is then defined (in part) as "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitations, which is protected and managed so as to preserve its natural conditions."

ANILCA made certain exceptions to the Wilderness Act that apply only to the management of wilderness areas in Alaska. These are summarized below.

Section 1110(a) provides that the secretary will permit in conservation system units, which by definition in Section 102(4) includes units of the national wilderness preservation system

> the use of snowmachines (during periods of adequate snow cover...), motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other law) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the [wilderness] . . . areas, and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use would be detrimental to the resource values of the unit or area.

The National Park Service has incorporated this provision into the 43 CFR 36.11, which covers special access in conservation system units in Alaska.

The use of airplanes in designated wilderness is allowed under the above-cited sections of ANILCA and the Code of Federal Regulations. Helicopter landings are prohibited except in compliance with a permit issued by the superintendent.

Motorboats may also be used on bodies of water within wilderness. Snowmachine access occurs throughout the monument and will continue to be allowed in designated wilderness under the above-cited sections of ANILCA and the CFR. No other forms of motorized access are permitted except as provided by ANILCA, sections 811, 1110 and 1111, and ANCSA, sections 34 and 35.

The Wilderness Act, section 4(c), states that subject to existing private rights, there shall be:

> no commercial enterprise and no permanent road within any wilderness area . . . and except as necessary to meet minimum requirements for the administration of the area for purposes of this Act (including measures required in emergencies involving health and safety of persons within the area), there shall be no temporary road . . . and no structure or installation within the area.

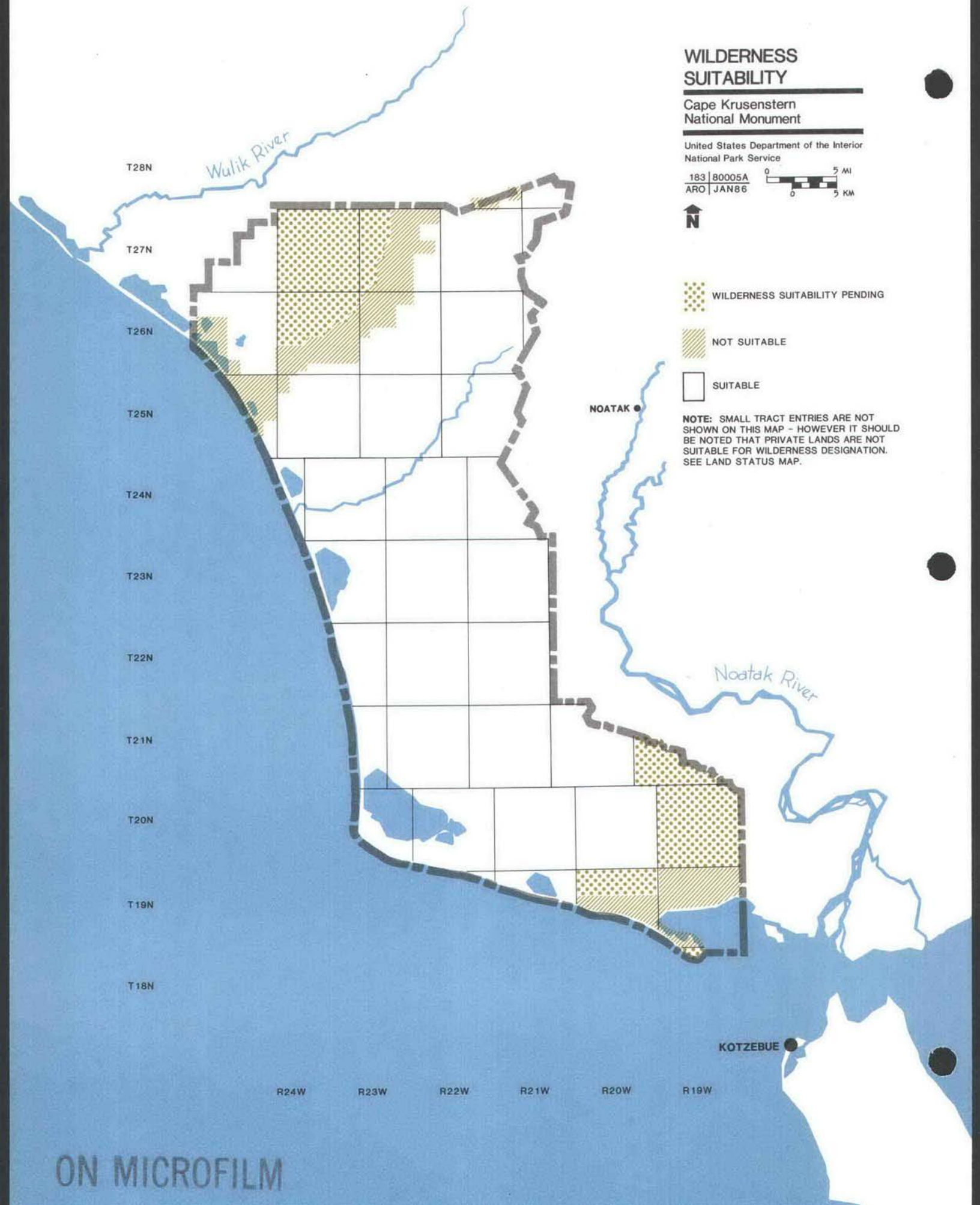
Section 1303(a)(3) of ANILCA, however, authorizes the use and occupancy of existing cabins other structures in national park system units under a permit system. Cabins and other structures not under a permit system may be used for official government business, for emergencies involving health and safety, and for general public use. Also under section 1303(a)(4), the secretary may permit the construction and maintenance of cabins or other structures if it is determined that the use is necessary for reasonable subsistence use. Section 1315 of ANILCA contains more specific language about existing cabins:

> Previously existing public use cabins within wilderness . . . may be permitted to continue and may be maintained or replaced subject to such restrictions as the Secretary deems necessary to preserve the wilderness character of the area.

Section 1315 also allows the construction of new cabins and shelters if necessary for the protection of public health and safety. Appropriate congressional committees must be notified of the intention to remove existing public use cabins or shelters or to construct new ones in wilderness.

Section 1310, subject to reasonable regulation, provides for access to and the operation, maintenance, and establishment of air and water navigation aids, communications sites and related facilities, and facilities for weather, climate, and fisheries research and monitoring in wilderness areas.

The decision-making process established in Title XI of ANILCA for the siting of transportation and utility systems applies to designated wilderness in Alaska.



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APPENDIXES

APPENDIX A: CONSISTENCY DETERMINATION FOR ALASKA COASTAL MANAGEMENT PROGRAM

The Coastal Zone Management Act of 1972, section 307(c) (PL 92-583) as amended, states that "each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state coastal management programs."

The Alaska Coastal Management Act of 1977, as amended, and the subsequent Alaska Coastal Management Program (ACMP) and Final Environmental Impact Statement of 1979 set forth policy guidelines and standards used for review of this general management plan.

Separate consistency determinations related to the proposed Red Dog Mine have been prepared and are incorporated by reference into this determination. In its review of the Red Dog Mine Title 11 permit package, the state of Alaska on August 6, 1984, concurred that the proposal is consistent with the ACMP. The state reserved comment on the final recommended terms and conditions applicable to the NPS right-of-way permit until such time as terms and conditions of the permit are developed.

In its review of the land exchange, the state of Alaska on December 6, 1984, did not concur with the determination of consistency. In its letter the state recommended amendments to the consistency determination. The National Park Service is responding to those concerns and fully expects to mutually resolve the matter and receive a concurrence from the state in the near future.

The ACMP identifies 12 primary categories that are to be used in consistency evaluations. The basis of the following consistency determination is the environmental assessment that accompanied the Draft General Management Plan for the monument. The highlights of this assessment are organized in the ACMP format in the consistency determination.

The 12 categories in the ACMP and an indication of the parts that are applicable to this plan follow:

ACMP Categories

1.	Coastal development	Yes
2.	Geophysical hazard areas	Yes
3.	Recreation	Yes
4.	Energy facilities	No
5.	Transportation and utilities	No
6.	Fish and seafood processing	No
7.	Timber harvest and processing	No
8.	Mining and mineral processing	No
9.	Subsistence	Yes
10.	Habitats	Yes
11.	Air, land, and water quality	Yes
12.	Historic, prehistoric, and archeologial resources	Yes

The following matrix evaluates the consistency of the GMP with the requirements of each of the applicable categories identified.

Consistency Determination Matrix

ACMP Section	Policy	Evaluation of Preferred and Other Alternatives	Consistency
6 AAC 80.040 Coastal Development	(a) In planning for an approving development in coastal areas, districts and state agencies shall give, in the following order, priority to: 1) water-dependent uses and activities; 2) water-related uses and activities; 3) uses and activities which are neither water dependent nor water related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.	(a) The plan calls for little development in the monument. Developments would be water dependent or water related and would take place along the beach and lagoons of the monument. A seasonal ranger station will be located in the southern half of the monument. A permanent ranger station with one to three structures will be located in the northern half of the monument in conjunction with the Red Dog Mine if developed.	Consistent
	(b) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with CFR, Title 33, Parts 320-323, July 19, 1977.	(b) The plan does not propose discharging any dredged or fill material into coastal waters.	Consistent
6 AAC 80.050 Geophysical Hazard Areas	(a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.	The plan does not propose developments in any known geophysical hazard area.	Consistent

	(b) Development in areas identified Under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.		
6 AAC 80.060 Recreation	(a) Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use are: (1) the area receives significant use by persons engaging in recreational pursuits or is a major tourist destination; or (2) the area has potential for high quality recreational use because of physical, biological, or cultural features.	(a) The plan recognizes and protects the monument's potential for high quality recreational opportunities related to its physical, biological, and cultural features.	Consistent
	(b) District and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal water.	(b) The establishment of the monument guarantees and provide for public access to federal lands adjoining coastal waters.	Consistent
6 AAC 80.120 Subsistence	(a) Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources.	See appendix C of the draft plan "ANILCA SECTION 810 Subsistence Evaluation". This evaluation finds that the plan would not result in a significant restriction of subsistence uses within the monument.	Consistent

(b) Districts shall identify areas in which subsistence is the dominant use of coastal resources.

(c) Districts may, after consultation with appropriate state agencies, native corporations, and any other persons or groups, designate areas identified under (b) of this section as subsistence uses and activities have priority over all nonsubsistence uses and activities.

(d) Before a potentially conflicting use of activities may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted and appropriate safeguards to assure subsistence usage must be provided.

(e) Districts sharing migratory fish and game resources must submit compatible plans for habitat management.

60 AAC 80.130 Habitats	(a) Habitats in the coastal area which are subject to the Alaska Coastal Management Program include (1) offshore areas (2) estuaries (3) wetlands and tidelands (4) rocky islands and seacliffs (5) barrier islands and lagoons (6) exposed high energy coasts (7) rivers, streams, and lakes (8) important upland habitat (b) The habitats contained in (a) of this section must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.	The plan would serve to maintain the integrith and biological health of coastal habitats by promoting research and monitoring programs.	Consistent
6 AAC 80.140 Air, Land, and Water Quality	The statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the ACMP.	All requirements would be met by the plan. Development of any facilities would require compliance with applicable federal and state laws and regulations regarding air, land and water quality.	Consistent

6 AC 80.150 Historic, Prehistoric, and Archeological Resources	Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory.	The National Park Service would would survey, evaluate, and protect archeological and historical sites within the monument as mandated by laws and regulations.	Consistent

DETERMINATION

A consistency determination has been prepared pursuant to the federal Coastal Zone Management Act of 1971, as amended, and the plan is consistent with the standards of the Alaska Coastal Zone Management Program (ACMP) of May 1979. The consistency determination was reviewed by the state of Alaska during the summer of 1985, and notification that the plan is consistent with the program's standards was received from the Office of the Governor in a letter dated August 30, 1985. Compliance with the ACMP pursuant to section 307 of the federal Coastal Zone Management Act of 1972, as amended, is thus assumed.

For proposed activities that directly affect the Coastal Zone, the National Park Service will comply to the maximum extent practical with the ACMP as it proceeds with additional plans, actions, and various permitted activities within the monument. This will take place by continued coordination and cooperation between the National Park Service and appropriate state agencies. A draft memorandum of understanding that addresses the process to achieve consistency is currently being worked on by state and federal officials.

APPENDIX B: NPS/ADF&G MASTER MEMORANDUM OF UNDERSTANDING

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

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

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

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

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

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

(copy)

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

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

THE DEPARTMENT OF FISH AND GAME AGREES:

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

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

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

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

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

THE NATIONAL PARK SERVICE AGREES:

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

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

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

(copy)

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

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

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

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

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

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

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

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

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

(copy)

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

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

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

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

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

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

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

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

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

(copy)

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

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

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

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

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

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

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

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

(copy)

STATE OF ALASKA
Department of Fish and Game

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

Date 14 October 1982

U.S. DEPARTMENT OF THE INTERIOR
National Park Service

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

Date October 5, 1982

APPENDIX C: ANILCA 810 EVALUATION, CAPE KRUSENSTERN NATIONAL MONUMENT

I. INTRODUCTION

Section 810(a) of ANILCA states:

> In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency-
>
> > (1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;
> >
> > (2) gives notice of, and holds, a hearing in the vicinity of the area involved; and
> >
> > (3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

The purposes for which the monument was established and how it shall be managed are presented in ANILCA, section 201(3) (see chapter I). Subsistence uses are to be permitted in conservation system units in accordance with Title VIII of ANILCA.

II. EVALUATION CRITERIA

The potential for significant restriction must be evaluated for effects of the proposed action and alternatives upon "subsistence uses and needs, the availability of other lands for the purposes sought to be achieved and other alternatives which would reduce or eliminate the use." Restriction on subsistence use would be significant if there were large reductions in the abundance of harvestable resources, major redistributions of those resources, or substantial interference with harvester access to active subsistence sites.

After evaluating the proposals and recommendations in the Draft General Management Plan for Cape Krusenstern National Monument against the criteria, an evaluation of significance to subsistence activities can be made.

1. Whether there is likely to be a reduction in subsistence uses because of

   (a) factors such as direct impacts on the resource, adverse impacts on habitat, or increased competition from nonrural harvesters

   (b) changes in availability of resources caused by an alteration in their distribution, migration, or location

   (c) limitations on the access to harvestable resources, such as by physical or legal barriers

2. The availability of the lands that could be used for the proposed action, including an analysis of existing subsistence uses of those lands; and

3. Alternatives that would reduce or eliminate the proposed action from lands needed for subsistence purposes.

III. PROPOSED ACTION ON FEDERAL LANDS

The National Park Service will implement a general mangement plan for Cape Krusenstern National Monument that would guide management of the area for the next 10 years. The plan presents proposals for the management of natural resources, cultural resources, visitor use and development, subsistence, and administration.

IV. ALTERNATIVES CONSIDERED

Two alternatives were considered in the Draft General Management Plan. This final plan is primarily based upon alternative 1, the preferred alternative. Minor modifications in the plan have been made in the preparation of this final plan.

V. AFFECTED ENVIRONMENT

As described in the subsistence use section in chapter II, the monument is part of a much broader area used by local residents for subsistence activities. Although a few activities are relatively specific to the monument, most subsistence pursuits take place throughout a broad area without regard to political boundaries. Primary users of the monument are Inupaiq Eskimos who reside in the villages of Kivilina, Noatak, Kotzebue, and Sheshalik, a small settlement developing on native-owned lands at Sheshalik Spit. All use the monument at various times for hunting, fishing, trapping, and gathering. Wood taken from the beaches and from the limited stands of spruce in the monument provide fuel for heating homes during the long cold winters.

VI. EVALUATION

In the determination of potential restrictions on existing subsistence activities, the evaluation criteria were analyzed relative to existing subsistence resources that could be impacted. The Draft General Management Plan/Environmental Assessment describes the total range of potential impacts that may occur. This section discusses any possible restrictions to subsistence activities.

The Potential to Reduce Populations, Adversely Impact Habitat, or Increase Competition from Nonrural Harvesters

No significant declines in populations would result from implementation of the plan. The National Park Service will continue to manage fish and wildlife species consistent with ANILCA, the master memorandum of understanding with the Alaska Department of Fish and Game, and NPS policies (see appendix B).

Conclusion: Implementation of the plan will not result in a reduction in the population of any harvestable resource, significantly impact habitat, or increase competition from nonrural harvesters.

Availability of Subsistence Resources

The distribution, migration patterns, and location of subsistence resources are expected to remain essentially the same.

Conclusion: The plan will not result in significant changes in the availability of resources caused by an alteration in their distribution, migration, or location.

Restriction of Access

Access to the monument for subsistence purposes is guaranteed by section 811 of ANILCA. Regulations implementing section 811 are already in place, and neither of the alternatives proposes changes in those regulations.

Conclusion: Neither of the alternatives would result in limitations on access to harvestable resources.

Availability of Other Lands for the Proposed Action

There are no other lands available for this action because the monument boundaries were established by Congress to achieve specific purposes. There are, however, lands outside the monument that are available for subsistence uses. The plan is consistent with the mandates of ANILCA and the National Park Service organic act.

Alternatives

No alternatives that would reduce or eliminate the proposed actions from lands needed for subsistence purposes were identified because preparation of a general management plan is required by ANILCA and the plan is consistent

with provisions of ANILCA related to subsistence. In addition, it is possible for subsistence users to utilize other lands outside the monument, and they do. Subsistence users utilize the lands most easily accessible that can provide for their needs and extend their activities to other areas on an "as needed" basis.

VII. CONSULTATION AND COORDINATION

The Alaska Department of Fish and Game and the NANA Coastal Resources Service Area Board were consulted throughout preparation of this plan. Further information is contained in the "Consultation and Coordination" section of the draft plan.

VIII. FINDINGS

Based upon the evaluation process, the National Park Service concludes that the plan would not result in significant restrictions of subsistence uses within Cape Krusenstern National Monument.

APPENDIX D: COMPLIANCE WITH OTHER LAWS, POLICIES, AND EXECUTIVE ORDERS

This appendix provides a reference to many applicable laws, executive orders, and policies that should be complied with in the general management plan for Cape Krusenstern National Monument.

Natural Environment

Clean Air Act, Clean Water Act: Actions in the plan would not affect air or water quality within the monument. All NPS facilities would meet or exceed standards and regulations for proper waste disposal estalished by the Environmental Protection Agency and the Alaska Department of Environmental Conservation.

Rivers and Harbors Act: Any permits required from the U.S. Army Corps of Engineers for work in navigable waters of the United States would be obtained.

Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands): Because no floodplain mapping exists for the monument, the National Park Service would assume worst-case conditions for placement of facilities. Development of any new facilities would be preceded by site-specific analyses. No proposal would affect wetlands within the monument.

Because there is little or no human habitation along the rivers in the monument, the Corps of Engineer does not consider floodplain mapping within the preserve a high priority in Alaska.

Prime and Unique Agricultural Lands: No arable lands have been identified within the monument.

Safe Drinking Water Act: The plan does not propose to provide any public drinking water within the monument.

Endangered Species Act: Pursuant to section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service was contacted in March 1984 for a list of threatened and endangered plant and animal species that might occur within the monument. In their response of March 28, 1984, the Fish and Wildlife Service stated that nesting by arctic peregrine falcons has been reported within the southern half of the monument. Although the total extent of nesting is unclear, the area is not considered to be one of the more important peregrine nesting areas. Additionally, Cominco Alaska Inc. consultants have, in their environmental studies for the proposed Red Dog Mine, noted the existence of arctic peregrine falcons near to the northern boundary of the monument.

As appropriate, consultation with the U.S. Fish and Wildlife Services will continue.

Protection of Waters Important to Anadromous Fish (Alaska Statutes Title 16): The Alaska Anadromous Fish Act (Stat. 16.05.870) provides protection to specific rivers, lakes, and streams or parts of them that are important for

the spawning, rearing, or migration of anadromous fish. The Noatak River and many portions of its tributaries are on the list of specific rivers that any person, organization, or governmental agency proposing construction that involves or uses one of the above water bodies must notify the commissioner of the ADF&G of this intention. Approval must be received from ADF&G before beginning such construction or use.

Hunting, Trapping, and Fishing: These uses, whether for sport or subsistence,are subject to state regulations. The National Park Service has by reference adopted state regulations so that concurrent enforcement can occur within the monument.

Alaska Coastal Management Program: A consistency determination has been prepared pursuant to the Alaska Coastal Management Act of 1977, as amended (see appendix A). Based on the findings of the consistency determination, the National Park Service has determined that the plan is consistent with the Alaska Coastal Management Program.

Marine Protection Research and Sanctuaries Act, Estuary Protection Act, Marine Mammal Protection Act: Projected visitor use levels and forms of human activity within the monument are not expected to significantly impact ecological systems, marine environments, or human health. Proposed actions comply with the Marine Protection Research and Sanctuaries Act of 1972 (16 USC 1451 et seq.). Proposals would not impact estuarine resources or marine mammal populations and are in compliance with the protection and conservation tenets as provided in the Estuary Protection Act (16 USC 1221) and the Marine Mammal Protection Act (16 USC 1361 et seq.).

Cultural Resources

On April 12, 1985, the National Park Service provided copies of the Draft General Management Plan/Environmental Assessment to the Advisory Council on Historic Preservation (ACHP) for their review and comment. On September 19, 1985, the regional director was notified that the document does not qualify for inclusion under the programmatic memorandum of agreement (PMOA) between the ACHP, National Park Service, and the National Conference of State Historic Preservation Officers. The general management plan did not present cultural resource information in sufficient scope and detail to allow for substantive ACHP review and section 106 compliance under the PMOA. Therefore, pursuant to section 106 of the National Historic Preservation Act, as amended in 1980, and until more specific planning documents are developed, the National Park Service will continue to consult with the Alaska State Historic Preservation Office and the ACHP on a case-by-case basis prior to implementing any action under the general management plan that may affect cultural resources.

Antiquities Act, Historic Sites Act, National Historic Preservation Act, Archeological Resources Protection Act: All actions will be in full compliance with appropriate cultural resource laws. All proposals and activities affecting or relating to cultural resources will be developed and executed with the active participation of professional archeologists, historians, anthropologists, and historical architects, in accordance with National Park Service "Management Policies" and "Cultural Resource Management

Guidelines" (National Park Service-28). No undertaking that would result in the destruction or loss of known significant cultural resources is proposed in this plan.

In accordance with the September 1981 amendment to the 1979 programmatic memorandum of agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers, the National Park Service requested the advice and consultation of the Advisory Council and the Alaska State Historic Preservation Officer during the preparation of this plan. A meeting was held in Anchorage in April 1984 with the Alaska State Historic Preservation Officer to discuss coordination and consultation procedures for this plan. A second session, in November 1984, was also held at which time a status report was given to the State Historic Preservation Officer. The Advisory Council was provided a copy of the task directive for this plan. The council and the State Historic Preservation Officer received copies of the draft plan for comment and were invited to attend public meetings.

1982 National Park Service Native American Relationships Policy (derived from American Indian Religious Freedom Act of 1978): A thorough effort has been made to identify all native corporations and local native American groups and individuals who would be interested in participating in this planning effort and who have traditional ties with the monument. The planning team has met with representatives of these groups at various stages of the plan's development. These individuals and groups have been placed on the mailing list and will continue to be consulted, invited to all public meetings, and sent copies of all public information documents for review and comment.

The Museum Act of 1955 (69 Stat. 242; 16 USC 18 f)

Socioeconomic Environment

Concessions Policy Act: If the level of use within the monument increases to the point where commercial use licensees are replaced by concession permits, the concession permits or contracts would be issued in accordance with this act.

Achitectural Barriers Act: All public facilities in the monument and those in Kotzebue will to the extent possible be accessible to the handicapped.

APPENDIX E: MANAGEMENT OBJECTIVES

Cultural Resources:

1. For the purposes of the protection of cultural resources, identify and evaluate the monument's prehistorical, historical, and archeological, resources in a manner consistent with National Park Service policy and legislative and executive requirements.

2. Work toward the establishment of programs for the collection of information and data about the historical and cultural resources so that they are properly managed and preserved.

3. Devise plans so that public visitation, research, commercial fishing, mining, subsistence uses, and other activities do not impair cultural resources or their setting.

4. Assemble cultural resources information, including oral and written materials, to be used in interpretive programs for the enjoyment and education of visitors.

5. Encourage and assist private landowners within the monument and individuals, groups, and native corporations in surrounding communities to protect and preserve cultural resources and the cultural heritage of the region.

6. In accordance with the provisions of section 1304 of ANILCA, devise a plan for identifying significant archeological and paleontological sites that are closely associated with and might be added to the monument but are presently outside the monument's boundary.

7. Prepare a scope of collections statement to serve as a guide for the staff of the monument to acquire museum objects.

8. Encourage and support research activities by professionally qualified individuals, groups, and institutions for the identification and evaluation of further cultural resources within the monument and region.

9. Devise programs for compiling information on the cultural patterns--including current subsistence activities--of contemporary Eskimos in the region.

Natural Resources

1. Manage natural resources to perpetuate ecological processes and systems.

2. Collect information and data about the fluctuating population cycles of certain wildlife and their impacts so that managers of the monument have a basis for making decisions that will allow natural forces to interact as freely as possible and thereby determine the shapes and substances of the environment.

3. Consider man, particularly the subsistence user, an integral part of the monument's total ecosystem and encourage his living in harmony with the other parts so as to maintain natural balances.

4. Develop and implement plans to provide for the adequate protection of natural wildlife and their habitats and at the same time accommodate subsistence hunting, trapping, fishing, and gathering as provided by ANILCA.

5. Preserve natural features and ecological relationships essential for the perpetuation of representative natural biotic communities in this arctic environment.

6. Encourage and assist private landowners and users of monument resources to protect the natural feature of the area.

7. Annually update the resources management plan to determine projects and studies necessary to provide information and data needed for the protection of natural resources.

Visitor Use and Interpretation:

1. Study and inventory recreational resources as a basis for providing visitors with informational materials, programs, and services to enhance their opportunities for enjoyable, educational, and safe ways to see and experience the cultural and natural resources without adversely impacting them.

2. Devise plans in accordance with the provisions of ANILCA to accommodate subsistence users, guided by management's concerns about and responsibilities to maintain the quality of wildlife habitat and natural and healthy populations of wildlife.

3. Provide information services and interpretive programs at the headquarters in Kotzebue to enhance visitor opportunities to understand, appreciate, and enjoy resources of the monument. Specifically these services and programs would focus on the interaction of natural processes and the development of Eskimo culture; geological phenomena such as the beach ridges; Cape Krusenstern; glacial and permafrost features; archeological discoveries and the potential for more; and the role of subsistence activities in the ecosystem.

Visitor Protection and Safety:

1. Devise procedures and programs to inform the public about the inherent dangers in this arctic environment and develop safety measures for the purpose of preventing injuries to visitors.

2. Employ and develop a staff of well-trained, well-equipped field personnel to operate effectively in emergencies in both matters of search and rescue and law enforcement.

3. Devise procedures for providing visitors with such safety measures as reports of weather and other conditions, information about visitor contact points and possible shelters, emergency message systems, and that subsistence activities occur in the monument.

4. Work toward accomplishing cooperative agreements with qualified groups or individuals for the purpose of establishing procedures that will provide visitors with maximum protection and safety.

Development of Facilities:

1. Study the feasibility of and need for development of public contact points and or ranger stations to facilitate management and operations and provide for visitor services.

2. Should development be feasible and necessary, undertake projects that blend into the natural and cultural setting and use equipment and materials that conserve energy and other resources and protect the environment.

3. Observe and collect data on visitor uses for the purposes of determining the feasibility of and need for constructing primitive campsites, primitive shelters, and access points.

4. Elicit the cooperation of private landowners in the monument to undertake construction and development that recognize and respect the natural and cultural integrity of the monument and the needs of visitors, and encourage as much as possible that visitor accommodations and bases of operations be developed outside the monument boundary.

Concessions:

1. Identify appropriate levels and types of commercial services feasible for providing visitor services and issue concessions contacts, permits, and commercial use licenses as appropriate to those best able to meet the needs of visitors and protect resources as provided for in ANILCA.

2. Establish programs to collect data on public use and needs and make this information available to potential concessioners so that accommodations and services are the results of public needs and are compatible with proper management of monument resources.

Administration:

1. Provide adequate staff for visitor services and to perpetuate the resources of the monument.

2. Prepare and update planning documents to guide management in making appropriate administrative decisions.

3. Conduct, sponsor, and encourage continuing studies and other information-gathering methods focused on cultural and natural resources

and visitor uses so that management has an increasing data base upon which to make decisions.

4. Locate sites when and where necessary for administrative efficiency, visitor contact, interpretive services, patrol operations, conducting cooperative search-and-rescue missions, and cooperative resources management programs.

5. Study the feasibility of establishing management units or zones for the purpose of streamlining managerial responsibilities regarding visitor services and the use and perpetuation of resources.

6. Meet staffing objectives that take into account the knowledge and skills of cultural resources, local persons, and the physical demands of working under severe environmental conditions.

7. Accomplish and keep current a regional fire management plan in cooperation with federal and state agencies and private landowners.

8. Accommodate legally mandated transportation systems in accordance with ANILCA and other applicable laws.

Cooperative Planning:

1. Develop cooperative management programs with managers of adjoining lands and waters and private landowners within the monument to protect viable populations of wildlife, biotic communities, and/or associations and historical and cultural resources; arrive at a practical means for dealing with refuse and garbage disposal; develop essential services for the protection of human life and the resources of the area; and promote compatible complementary uses of adjacent lands and waters.

2. Work toward arriving at cooperative agreements with native groups and corporations, special interest groups, local governments, state and federal agencies, and the USSR in cultural and natural sciences research and programs.

3. Establish working agreements with private interests, local government, and state and federal agencies for the purpose of developing feasible community and regional plans, and further to involve local native residents and native organizations in developing educational programs to inform visitors about native culture and lifestyles.

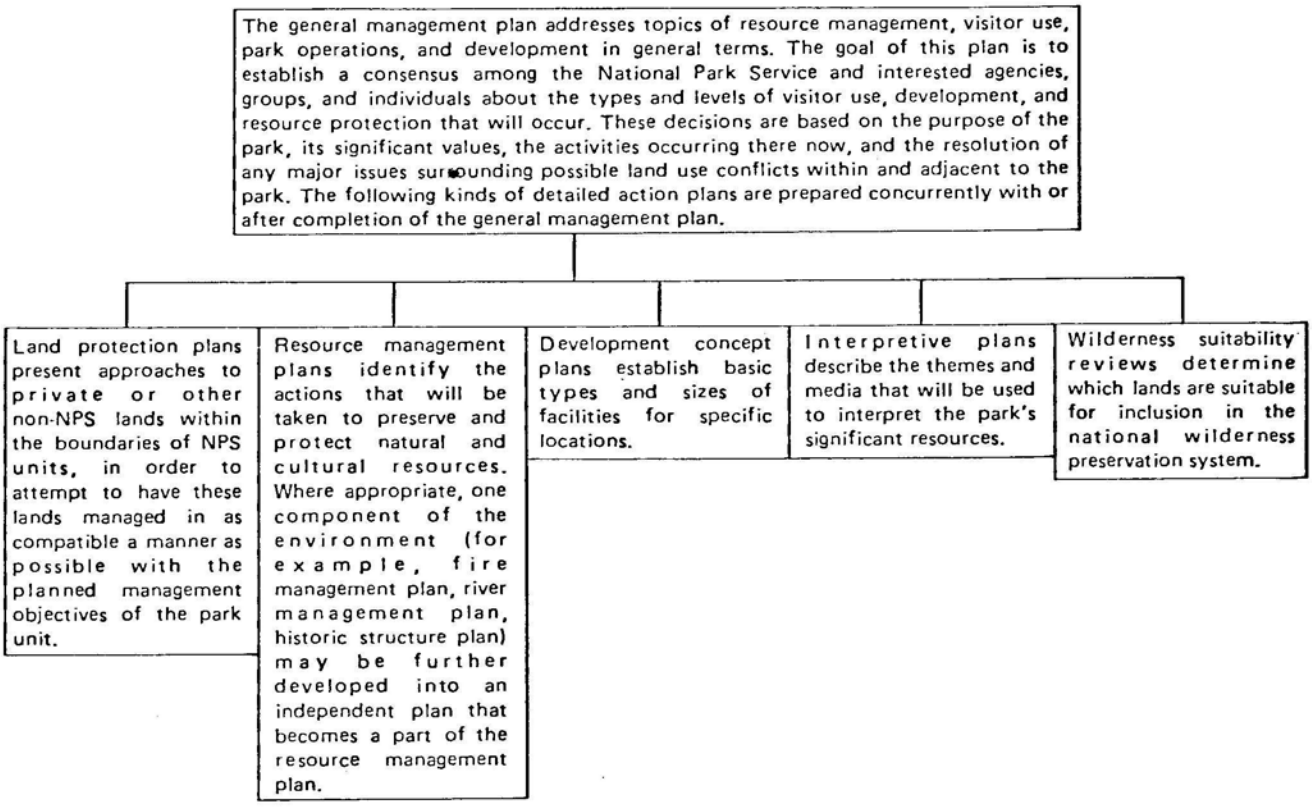
APPENDIX F: NATIONAL PARK SERVICE PLANNING PROCESS

ANILCA REQUIREMENTS

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

NPS PLANNING DOCUMENTS

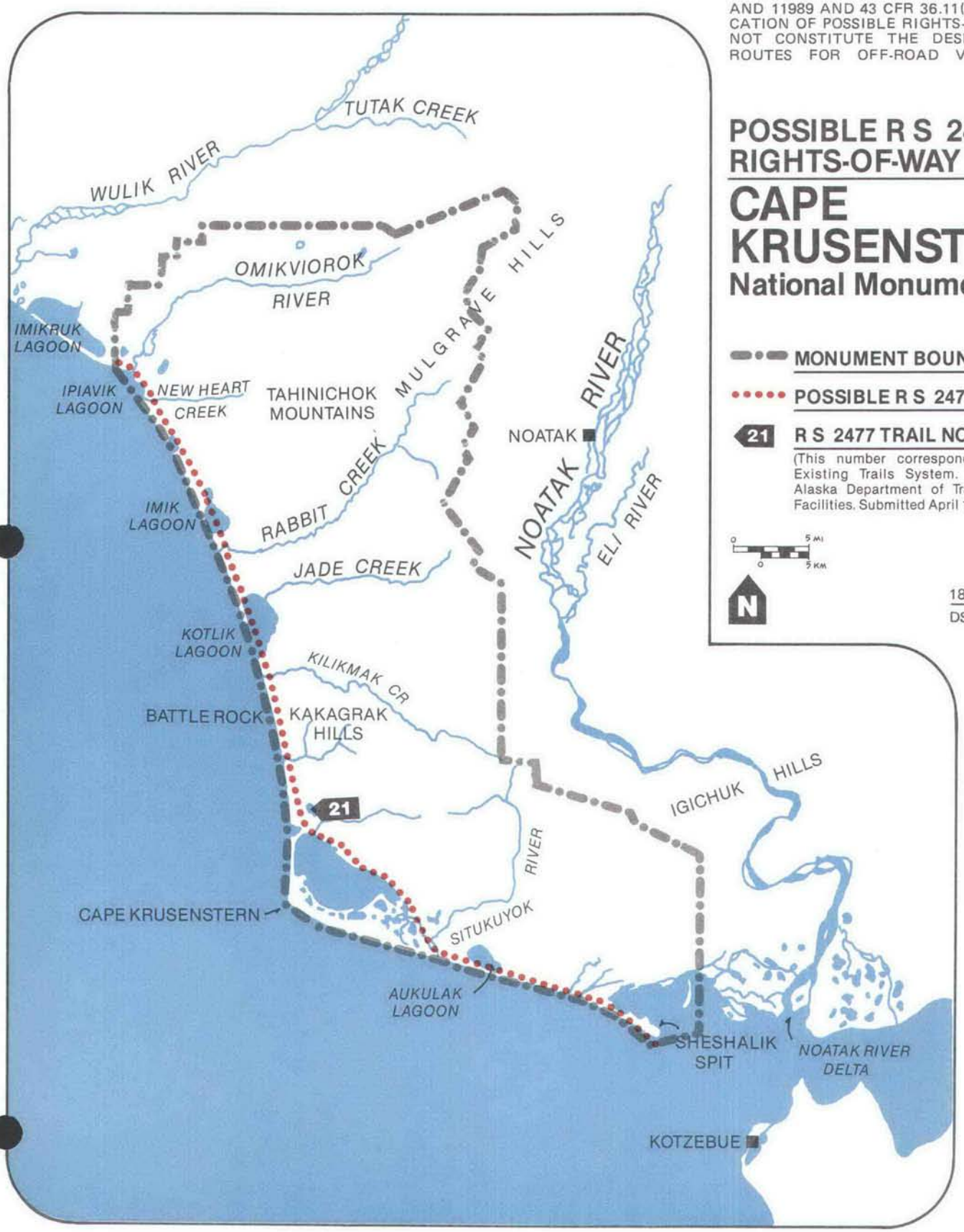
The National Park Service planning process for each park (preserve, monument, or other unit of the system) involves a number of stages, progressing from the formulation of broad objectives, through decisions about what general management direction should be followed to achieve the objectives, to formulation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



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

APPENDIX G: POSSIBLE RS 2477 RIGHTS-OF-WAY

THIS MAP DOES NOT ESTABLISH THE VALIDITY OF THESE POTENTIAL RIGHTS-OF-WAY AND DOES NOT PROVIDE THE PUBLIC THE RIGHT TO TRAVEL OVER THEM. THIS MAP HAS BEEN PROVIDED BY THE STATE TO ILLUSTRATE RIGHTS-OF-WAY THAT THE STATE HAS IDENTIFIED AND CONTENDS MAY BE VALID UNDER RS 2477. THE USE OF OFF-ROAD VEHICLES IN LOCATIONS OTHER THAN ESTABLISHED ROADS OR DESIGNATED ROUTES IN UNITS OF THE NATIONAL PARK SYSTEM IS PROHIBITED (E.O. 11644 AND 11989 AND 43 CFR 36.11(g)). IDENTIFICATION OF POSSIBLE RIGHTS-OF-WAY DOES NOT CONSTITUTE THE DESIGNATION OF ROUTES FOR OFF-ROAD VEHICLE USE.



POSSIBLE R S 2477 RIGHTS-OF-WAY

CAPE KRUSENSTERN
National Monument

MONUMENT BOUNDARY

POSSIBLE R S 2477 TRAIL

21 R S 2477 TRAIL NO.

(This number corresponds to the Alaska Existing Trails System. Source: State of Alaska Department of Transportation/Public Facilities. Submitted April 1974.)

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APPENDIX H: LAND PROTECTION PLAN, METHODS OF ACQUISITION

Primary methods of acquisition of fee-simple and less-than-fee interests in lands are donation, purchase, exchange, and relinquishment. Discussion of these methods follows:

Donation: Landowners may want to donate their land or specific interests in their land to achieve conservation objectives. Tax benefits of a donation could also be an important incentive to some people. Donations of fee-simple title are deductible from taxable income. Easement donations also may provide deductions from taxable income but are subject to certain Internal Revenue Service requirements to qualify as a charitable contribution.

Landowners are encouraged to consult qualified tax advisors to discuss the detailed advantages of donations. National Park Service representatives may be able to provide some general examples of tax advantages but cannot provide tax advice or commitments of what deductions would be allowed by the Internal Revenue Service.

Exchange: Land or interests in land may be acquired by exchange. The land to be exchanged must be located in Alaska and must be of approximately equal value. Any small differences in value may be resolved by making cash payments. However, exchanges may be made for other-than-equal value if the secretary determine it is in the public interest (section 1302(h) of PL 96-487).

The National Park Service will also consider other federal lands within the authorized boundary as potential exchange land to consolidate National Park Service management.

The National Park Service will also work with the Bureau of Land Management and the General Services Administration to determine if any additional federal land may be available for exchange purposes.

Purchase: Acquisition by purchase requires funds to be appropriated by Congress or donated from private sources. Funding for purchases depends primarily on future appropriations. Potential donations of funds or purchases by individuals or organizations interested in holding land for conservation purposes would be encouraged.

Relinquishment: State and native corporation land applications may be relinquished resulting in retention of the lands in fee ownership by the National Park Service.

APPENDIX I: INDEX FOR NONFEDERAL INTERESTS IN LAND
(based on 8/22/84 ADP printout)

Native Allotments

Parcel	Applicant/Owner	Serial #	Acres	Priority Group
1	Sours, Belle	FF012408	75.00	3
2A	Harris, Henry S. Sr.	FF013097	18.00	3
2B	Harris, Henry S. Sr.	FF013097	60.00	1
3A	Hess, Wilson A.	FF013099	(157.00)	3
3B	Hess, Wilson A.	FF013099		3
4A	Uhl, Carrie K.	FF013101	(100.00)	3
4B	Uhl, Carrie K.	FF013101		3
5	Gallahorn, Richard Sr.	FF013126	18.00	3
6	Harris, Nereus Sr.	FF013306	17.90	3
7A	Wilson, Dora L.	FF013307	6.00	3
7B	Wilson, Dora L.	FF013307	120.00	1
8C	Mills, Levy A. Sr.	FF013332	80.00	3
9	Williams, David S.	FF013452	20.00	3
10	Williams, May S.	FF013453	8.00	3
11	Towksjhea, Julian	FF013622	80.00	2
12	Booth, Elwood E.	FF013757	80.00	4
13	Stalker, Alfred	FF013782	79.99	4
14	Kenworth, Walter B.	FF013826	160.00	3
15	Swan, Milton N.	FF013916	80.00	2
16	Adams, Tillman E.	FF014241	80.00	2
17	Barr, Samuel P.	FF014242	160.00	4
18	Wesley, Bruce N.	FF014248	80.00	2
19A	Gallahorn, Hannah	FF014656	20.00	3
20	Mitchell, Thomas O.	FF015011	160.00	1
21C	Adams, Ruth S.	FF015042	(80.00)	2
21D	Adams,Ruth S.	FF015042		2
22A	Haviland, Lydia M.	FF016062	88.00	1
22B	Haviland, Lydia M.	FF016062		1
23	Williams,Frank	FF016063	160.00	1
24	Flood, Hazel	FF016342	142.00	3
25	Greene, Frank P.	FF016456	105.00	3
26	Unassigned			
27	Sheldon, Percy	FF016472	160.00	1
28	Thomas, Elmer W. Jr.	FF016474	160.00	1
29	Thomas, Mable	FF016475	160.00	1
30	Stalker, John	FF016521	160.00	4
31B	Shiedt, Enoch E.	FF017438	80.00	3
32	Clark, Norman J.	FF017547	160.00	3
33	Gallahorn, Lester	FF017549	160.00	1
34	Greene, Catherine	FF017550	160.00	1
35	Harris, Albert A.	FF017551	160.00	1
36	Harris, Sarah J.	FF017552	160.00	1
37	Jones, Blanche R.	FF017554	90.00	1
38	Jones, Frankie N.	FF017555	160.00	1

Native Allotments

Parcel	Applicant/Owner	Serial #	Acres	Priority Group
39A	Jones, James L.	FF017556	40.00	1
39B	Jones, James L.	FF017556	80.00	3
40	Joule, Reginald L.	FF017557	160.00	3
41	Kennedy, George	FF017559	160.00	3
42	Mitchell, Clifford	FF017561	160.00	3
43A	Schaefer, Robert J.	FF017563	(160.00)	3
43B	Schaefer, Robert J.	FF017563		3
44A	Sheldon, Doug Sr.	FF017564	(160.00)	1
44B	Sheldon, Doug Sr.	FF017564		1
45	Sheldon, Frank	FF017565	80.00	3
46A	Snyder, Daniel Sr.	FF017566	(120.00)	1
46B	Snyder, Daniel Sr.	FF017566		1
47	Stalker, Daniel C. Sr.	FF017567	160.00	4
48	Stalker, Dora D.	FF017568	160.00	4
49	Stalker, Jacob A. Sr.	FF017569	160.00	4
50	Stalker, Lucy	FF017570	160.00	4
51A	Williams, Elmmer J. Sr.	FF017573	(160.00)	1
51B	Williams, Elmer J. Sr.	FF017573		1
51C	Williams, Elmer J. Sr.	FF017573		1
52A	Wright, Roger K.	FF017575	80.00	3
52B	Wright, Roger K.	FF017575	80.00	1
53	Adams, Herbert	FF017576	40.00	1
54	Foster, Herbert	FF017580	160.00	1
55	Fox, Rhoda Forslunch	FF017581	160.00	1
56	Gallahorn, Jessie	FF017582	45.00	1
57	Green, Charles	FF017583	160.00	3
58A	Green, Amos S.	FF017584	80.00	3
58B	Green, Amos S.	FF017584	80.00	1
59A	Hess, Bertha	FF017588	80.00	3
60	Hunnicutt, Daniel B.	FF017589	160.00	3
61	Mendenhall, Mary Ann	FF017592	160.00	1
62	Russell, Homer E.	FF017595	80.00	4
63	Schaefer, Roswell L. Sr.	FF017596	160.00	3
64	Unassigned			
65	Armstrong, Elmer Sr.	FF017621	40.00	4
66A	Shiedt, Mida G.	FF017629	80.00	3
67	William, Russell O. Sr.	FF017682	160.00	3
68	Ferguson, Carrie M.	FF017727	43.00	3
69	Stalker, Marie	FF017732	160.00	4
70	Stalker, Ross E. Sr.	FF017733	160.00	4
71	Mills, Kenneth A.	FF017999	40.00	1
72	Mendenhll, Collins	FF018494	40.00	3
73	Unassigned			
74	Adams, Russell	FF018645	160.00	2
75	Williams, Whittier Jr.	FF019181	160.00	1
76	Mendenhall, Fannie P.	FF013100	86.00	3
77	Mendenhall, William	FF016343	35.00	3
78A	Hess, Delbert	FF017553	(160.00)	3

Native Allotments

Parcel	Applicant/Owner	Serial #	Acres	Priority Group
78B	Hess, Delbert	FF017553		3
79	Keats, Perry	FF017558	160.00	1
80	Barger, Gladys L.	FF017577	65.00	3
81A	Williams, Samuel T.	FF017605	(160.00)	1
81B	Williams, Samuel T.	FF017605		1
82	Stalker, Clara	FF018563	160.00	3
83	Christiansen, Virginia	FF021749	40.00	1
84	Schaeffer, Mildred	FF082012	160.00	3
85	Smith, Ella	FF083937	160.00	4
122	Schaeffer, Mabel	FF016469	80.00	3
123	Outwater, Enos	FF018377	80.00	3

Cemetery/Historical Sites

86	NANA	FF021237	625	3
87*	NANA	FF021238	240	1
88*	NANA	FF021239	1,405	1
89	NANA	FF021240	405	1
90	NANA	FF021241	490	1
91*	NANA	FF021242	105	4
92	NANA	FF021243	10	4
93*	NANA	FF021244	545	4
94	NANA	FF021245	55	4
95	NANA	FF021246	195	2
96	NANA	FF022274	10	4
97	NANA	FF022275	10	4
98*	NANA	FF022276	10	4
99	NANA	FF022277	405	4
100	NANA	FF022278	1,280	2
101	NANA	FF022279	10	2
102*	NANA	FF022297	105	4
103*	NANA	FF022299	20	1
104	NANA	FF022300	640	2
105	NANA	FF022303	10	1

*Overlapping applications. Net acreage applied for is 5,589.

Native Regional Corporation

106		915420	10,624	3
107	NANA	FF1915441	7,871	3
108	NANA	FF1915428	17,120	2
109	NANA	FF1915429	21,523	2
110	NANA	FF1915432	809	2
111	NANA	FF1915434	19,729	2
112	NANA	FF2187026	22,833	2

Native Allotments

Parcel	Applicant/Owner	Serial #	Acres	Priority Group
113	NANA	FF 032014	5,760	2
114	Kivalina	FF014876B	3,653	2
115	Kivalina	FF014876C	2,662	2
116	Kivalina	FF014876B2	32,470	2
117	Kotzebue	FF014880N	88	3
118	Kotzebue	FF014880O	3,531	3
119	Kotzebue	FF014880B2	37,895	3
120	Noatak	FF014907B2	102,618	2

Navigable Waters/Submerged Lands

121	State of Alaska (Kotzebue Sound)	NA	10,095	NA

APPENDIX J: DEFINITION OF TRADITIONAL

In applying the provisions of ANILCA as related to "means of surface transportation traditionally employed" (section 811) and "the use of snowmachines . . ., motorboats, airplanes, and nonmotoried surface transportation methods for traditional activities" (section 1110), the National Park Service has relied on the following definitions of "tradition(al)" from Webster's Third New International Dictionary of the English Language (unabridged), 1976:

> 2. The process of handing down information, opinions, beliefs, and customs by word of mouth or by example: transmission of knowledge and institution through successive generations without written instruction . . .
>
> 3. An inherited or estalished way of thinking, feeling, or doing; a cultural feature (as an attitude, belief, custom, institution) preserved or evolved from the past; usage or custom rooted in the past (as of a family or nation); as a (1) a doctrine or practice or a body of doctrine and practice preserved by oral transmission (2) a belief or practice or the totality of beliefs and practices not derived directly from the Bible . . .
>
> 5.a. Cultural continuity embodied in a massive complex of evolving social attitudes, beliefs, conventions, and institutions rooted in the experience of the past and exerting an orienting and normative influence on the present. b. the residual elements of past artistic styles or periods.

The National Park Service recognizes that it would be valuable to pursue, with those affected, the refinement of this definition in the context of the legislative history. In the interim the National Park Service will continue to use this definition in applying the above-referenced provisions of ANILCA. In order to qualify under ANILCA, a "traditional means" or "traditional activity" has to have been an established cultural pattern, per these definitions, prior to 1978 when the unit was established.

APPENDIX K: FINDING OF NO SIGNIFICANT IMPACT

The National Park Service is proposing to implement the final general plan and land protection plan for Cape Krusenstern National Monument. The general management plan is intended to guide the management of the monument for a period of 10 years and addresses all the major topics of management, including resources, management, general public use, subsistence, access, and development. The land protection plan is reviewed, and revised as necessary, every two years, and presents proposals for the nonfederal land within and near the monument.

A Draft General Management Plan/Land Protection Plan/Wilderness Suitability Review/Environmental Assessment was distributed to the public in the spring of 1985, and comments were accepted until the end of August. A subsequent revised draft was distributed for 60-day public comment period in December of 1985.

The environmental assessment analyzed the impacts of two alternative management strategies for the monument, including the impacts on wildlife, vegetation, cultural resources, monument operations, and the local economy. It was determined that the proposal will cause no adverse impacts on the public health, public safety, or rare or endangered species. No highly uncertain or controversial impacts, or significant cumulative effects, were identified. Any negative environmental effects will be minor and temporary. The proposal will result in positive effects upon natural and cultural resources within the monument as a result of natural resource research and monitoring and through cultural resource identification and protection. Complete evaluation of impacts resulting from the proposal and alternatives can be found in the Draft General Management Plan/Land Protection Plan/Wilderness Suitability Review/Environmental Assessment (March 1985).

Based on the environmental analysis and public and agency comment on the proposed plans, I have determined that the proposed federal action will not significantly affect the quality of the human environment, and therefore an environmental impact statement will not be prepared.

Regional Director, Alaska Region

11/26/86
Date

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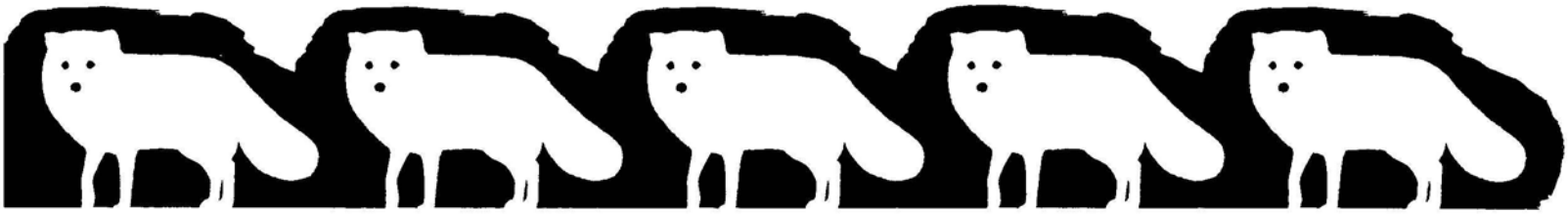

PLANNING TEAM, CONSULTANTS, & CONTRIBUTORS

PLANNING TEAM MEMBERS, CONSULTANTS, AND CONTRIBUTORS

Planning Team Members

Sanford P. Rabinowitch, Team Captain, Outdoor Recreation Planner/Landscape Architect, Alaska Regional Office (NPS-ARO)

C. Mack Shaver, Superintendent, Northwest Areas, Alaska, NPS

Jonathan B. Halpern, Ecologist, DSC Project Coordinator, Denver Service Center (NPS-DSC)

Kenneth Schoenberg, Archeologist, NPS-ARO

Vaughn L. Baker, Outdoor Recreation Planner, NPS-ARO

Ray Bane, Anthropologist, Northwest areas and Gates of the Arctic National Park and Preserve, NPS

Everett Gibbs, Editor, NPS-ARP

Keith Hoofnagle, Visual Information Specialist, NPS-ARO

Consultants

Linda Nebel, Chief of Planning, NPS-ARO

Chuck Gilbert, Outdoor Recreation Planner, NPS-ARO

Jack Mosby, Outdoor Recreation Planner, NPS-ARO

Lou Waller, Subsistence Specialist, NPS-ARO

C. Davis, Regional Archeologist, NPS-ARO

Debbie Sturdevant, Student Intern, NPS-ARO

David Jervis, Chief Environmental Compliance Division, NPS (Washington, D.C.)

Gerard A. Verstraete, Environmental Compliance Division, NPS (Washington, D.C.)

Cynthia deFranceaux, Program Analyst, Park Planning and Special Studies Division, NPS (Washington, D.C.)

Contributors

The following individuals provided information and or assistance in the formulation of this draft plan.

Don Artgetsinger, Senior Vice President, NANA (Anchorage)

Walter Sampson, Lands Manager, NANA (Kotzebue)

Pat Pourchot, (former) Vice President, NANA (Anchorage)

Willy Goodwin, Lands Manager KIC (Kotzebue)

Bert Adams, City Manager, Kivalina

Dave Weingartner, Planner, Maniilaq Coastal Resource Service Area (Kotzebue)

Matt Conover, (former) Development Director, Maniilaq Association (Kotzebue)

Dave Cline, Alaska Director Audubon Society (Anchorage)

Carl Postman, Resources Development Council (Anchorage)

Richard Stern, Regional Supervisor Alaska Dept. Fish and Game, Subsistence Division (Nome)

Eileen Norbert, Anthropologist, Alaska Department of Fish and Game, Subsistence Division (Kotzebue)

Judith Bittner, State Historic Preservation Officer (Anchorage)

Timothy Smith, Assistant State Historic Preservation Officer (Anchorage)

Stan Leaphart, Executive Director Citizens Advisory Committee on Federal Areas (Fairbanks)

John Issacs, Consultant to Maniilaq CRSA (Anchorage)

Carol Delahaute, City Planner, City of Kotzebue (Kotzebue)

Sally Gibert, CSU Coordinator, State of Alaska (Anchorage)

Bill Beatty, Chief of Planning, Alaska Department of Natural Resources, Division of Land and Water Management (Anchorage)

Randy Cowart, Planner, Alaska Department of Natural Resources, Division of Land and Water Management (Anchorage)

David Hansen, Consultant to Alaska Federation of Natives (Anchorage).

Robert Babson, Attorney/Advisor, U.S. Department of the Interior, Solicitor's Office (Anchorage)

Chris Bockman, Attorney/Advisor, U.S. Department of the Interior, Solicitor's Office (Anchorage)

Keith Goltz, Attorney/Advisor, U.S. Department of the Interior, Solicitor's Office (Anchorage)

M. Francis Neville, Assistant Attorney General, State of Alaska (Anchorage)

Michael Frank, Assistant Attorney General, State of Alaska (Anchorage)

Typists

Lynda Ehrhart, Planning Secretary, NPS-ARO

Irene Gallegos, Planning Section Secretary, NPS-ARP

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

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