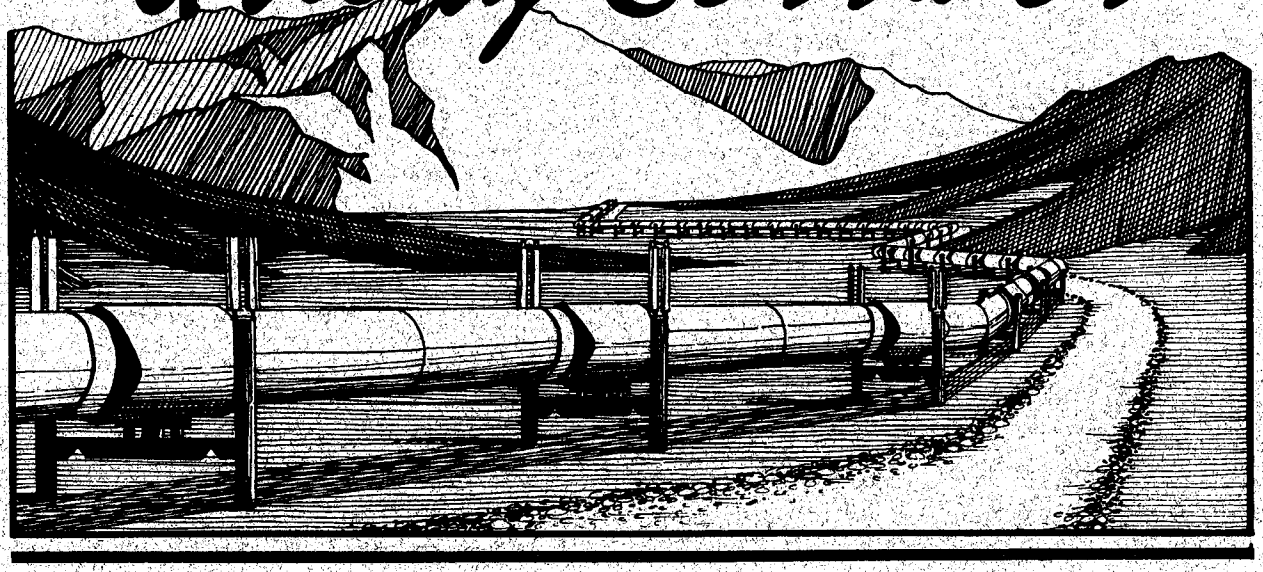
BLM-AK-PT90-002-1610-060

Utility Corridor



Proposed Resource Management Plan and Final Environmental Impact Statement

U.S. Department of the Interior
Bureau of Land Management
Arctic District Office, ALASKA

Dear Reader:

Enclosed for your review and future reference is the Final Environmental Impact Statement (FEIS) for the Utility Corridor Resource Management Plan (RMP). This document presents the proposed management plan, which is a refinement of the preferred alternative presented in the draft RMP/EIS published in August of 1987 and supplemented in April of 1988. The environmental consequences for the proposed management plan are also discussed in this document.

Any person or group who participated in the planning process and has an interest which is or may be adversely affected by the approval of this Utility Corridor FEIS/PRMP may protest any part of this proposed plan with the exception of the wilderness recommendation. Protests shall be in writing and filed with the Alaska State Director, Bureau of Land Management within 30 days of the date the Environmental Protection Agency publishes a notice of receipt of this document in the Federal Register. Protests should be sent to the Director (760), Bureau of Land Management, 1800 C Street NW, Washington, D.C. 20240, prior to the end of the thirty-day protest period and should include the following information:

1. The name, mailing address, telephone number and interest of the person filing the protest.

2. A statement of the issue or issues being protested.

3. A statement of the part or parts of the plan being protested.

4. A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record.

5. A concise statement explaining why the proposed decision is believed to be wrong.

At the end of the thirty-day protest period, the proposed plan, excluding any portion under protest, will become final. Approval will be withheld on any portion of the plan under protest until final action has been completed.

Any significant change to the proposed plan made as a result of a protest will be made available for public review and comment prior to final approval and implementation.

I want to personally thank those of you who have contributed to and participated in the development of this plan. I hope your involvement will continue as we move forward into the implementation and monitoring phases of the Utility Corridor Resource Management Plan and also as we develop RMPs for other BLM lands in Alaska.

Sincerely,

Peter K. Rosenkrance

PROPOSED RESOURCE MANAGEMENT PLAN
and
FINAL ENVIRONMENTAL IMPACT STATEMENT
for the
UTILITY CORRIDOR PLANNING AREA
ARCTIC DISTRICT, ALASKA

Prepared by
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARCTIC DISTRICT

Lester K. Rosenkrance
BLM Alaska State Director

9/27/89
Date

ENVIRONMENTAL IMPACT STATEMENT

Draft ( ) Final (XX)

UTILTY CORRIDOR PLANNING AREA
ARCTIC DISTRICT OFFICE
FAIRBANKS, ALASKA

Lead Agency: U.S. Department of the Interior, Bureau of Land Management

Type of Action: Administrative (XX) Legislative ( )

ABSTRACT

This Final Environmental Impact Statement addresses a Proposed Resource Management Plan (PRMP) for managing 6.1 million acres of public lands as required by Section 202 of the Federal Land Policy and Management Act (FLPMA) of 1976 (Public Law 94-579; 90 Stat. 2743). Alternatives to the proposed plan, incorporating management options ranging from emphasis on resource development to emphasis on environmental protection, are summarized. Environmental consequences of the PRMP are also presented here as well as a summary of consequences resulting from the various alternatives. A complete discussion of the alternatives and consequences is found in the Draft Resource Management Plan and EIS for the Utility Corridor published in August of 1987. The Proposed Resource Management Plan (PRMP) presented here is a refinement of the preferred alternative found in the draft RMP/EIS as supplemented in April of 1988.

This proposed RMP/Final EIS incorporates by reference most of the material presented in the *Utility Corridor Draft Resource Management Plan and Environmental Impact Statement*. Five alternatives incorporating management options ranging from resource development to environmental protection were considered in detail. This document also incorporates by reference the material presented in the supplement and addendum to the Draft RMP/EIS which proposed a modification of the preferred alternative to allow partial revocation of PLO 5150 (the public land order which withdrew lands within the Corridor boundary from all forms of appropriation under public land laws) and open 1.1 million acres of land within the Corridor to state selection.

The Proposed Plan was designed to provide for multiple use of planning area resources while also providing resource protection. An overriding priority of this plan is to preserve the Utility Corridor for the transportation of energy minerals. No action would be allowed if it hampers this primary purpose.

For further information about this environmental impact statement, you may contact:

Tom Dean, Arctic District Manager
Bureau of Land Management Arctic District Office
1150 University Avenue
Fairbanks, Alaska 99709-3844
Telephone: (907) 474-2302 or 474-2301

Summary of Planning Alternatives

The following summary of the Proposed Resource Management Plan (PRMP) and the land use alternatives is organized around the major issues which have directed the planning process. An overriding assumption throughout the design of the PRMP and the alternatives is the primacy of the energy transportation function of the Utility Corridor. No proposed action or set of actions should be interpreted as restricting or limiting the construction of new energy transportation systems within the Utility Corridor. For a more detailed description of each alternative land use refer to the Utility Corridor Draft Resource Management Plan and Environmental Impact Statement published in August of 1987.

No action would be permitted within the area established as a Wilderness Study Area (WSA) that would impair the area's suitability for wilderness until Congress releases those lands from further wilderness consideration. Congress could designate all or none of the lands, but BLM is required to manage them to protect the wilderness characteristics until such time as they are released by Congress.

The Proposed Plan presented here incorporates the changes made to the Preferred Alternative from that presented in the Draft RMP/EIS. Differences between the Proposed Plan and the draft Preferred Alternative are primarily related to state selection opportunities within the Utility Corridor.

Alternative Land Use Goals

Proposed Plan: The PRMP emphasizes a balance of resource uses with an emphasis on development of the recreational opportunities of the area. The management actions for the proposed plan outline a program of intensive management toward the development of these recreational opportunities while providing for energy transportation which is the Corridor's primary purpose.

Alternative A: This alternative is a continuation of current management practices. It is the "no action" alternative for this EIS since it proposes a continuation of the current management situation throughout the planning area.

Alternative B: This alternative represents a program of environmental protection and enhancement. It reflects these goals by seeking to limit actions which could have negative environmental effects on BLM managed lands and on adjacent Conservation System Units (CSUs). The proposed actions also emphasize wilderness recommendations.

Alternative C: Providing economic development opportunities for the planning area is the major goal of this alternative. It opens as much public land as possible to the operation of the mining and mineral leasing laws. It also provides at least as many opportunities for development of recreational facilities as are found in the proposed plan.

Alternative D: All public land orders withdrawing Utility Corridor lands from state selection would be lifted under this alternative. BLM would not take any other major actions and would wait for an appropriate period of time for selections or exchanges in the area to take place. Once a stable pattern of federal land ownership has emerged the BLM would begin a new land use plan to address existing public needs. Interim management would follow the proposed actions described under Alternative A, the "no action" alternative.

Major Planning Issues and Proposed Management Actions

Mineral Development

Proposed Plan: All lands would be opened to mineral location except the area designated as the "inner Corridor," the Jim River and Prospect Creek (upstream to the limit of salmon spawning habitat), the recommended Nigu wilderness area, eight identified mineral licks, and the Kanuti River west of the inner Corridor. All areas would be opened to mineral leasing except designated wilderness areas;

however, restrictive stipulations (e.g., nonsurface occupancy and seasonal restrictions) would be applied along some rivers or in other crucial habitat areas. Throughout most of the area mineral materials (gravel) extraction would be allowed. However, it would be prohibited in the eight identified mineral lick areas, the Kanuti Hot Springs, Nigu-Iteriak, and Sukakpak Mountain ACECs, and in designated wilderness areas. Also, gravel extraction would only be allowed in the Jim River and Prospect Creek streambeds and floodplains, and the Ivishak River ACEC if no other economically feasible locations for material minerals can be found.

Alternative A: The area designated as the outer Corridor would remain open to the mining laws. The Venetie Block, the inner Corridor, and all lands within CAMA would also remain closed to the operation of these laws. All lands in the planning area would remain closed to the development of leasable minerals. Mineral material sales would be allowed at the discretion of the agency throughout the planning area.

Alternative B: Mineral entry and location would be allowed in the planning area except in the inner Corridor, crucial habitat areas, lands adjacent to the Gates of the Arctic National Park and Preserve, recommended wilderness areas and in areas which drain into adjacent conservation system units. The sale of mineral materials would be confined to existing source sites and no sales would take place in the streambed of the Jim River or Prospect Creek. Mineral leasing would be allowed within the planning area except in the inner corridor, crucial habitat areas, lands adjacent to Gates of the Arctic Park and Preserve and recommended wilderness areas.

Alternative C: All lands, including the inner Corridor would be opened to the operation of the mining laws and to the operation of the mineral leasing laws. All areas would be made available for mineral material sale.

Alternative D: This alternative would treat development and other activities within the area in the same manner as alternative A. A new plan would be developed after maximum land selection opportunities defined a new pattern of federal ownership in the area.

Nodes

Proposed Plan: Development nodes would be defined for the Yukon Crossing, Coldfoot, Chandalar and Happy Valley.

Alternative A: BLM would maintain the current five development nodes in the Corridor which are: Yukon Crossing, Prospect, Coldfoot, Chandalar and Pump Station 3.

Alternative B: The development nodes would be limited to the Yukon Crossing, Coldfoot, Chandalar and Happy Valley; no other areas would be considered.

Alternative C: Development along the Dalton Highway would be directed toward the existing development nodes (Yukon Crossing, Prospect, Coldfoot, Chandalar and Happy Valley). However, development activities would be considered in other locations if appropriate.

Alternative D: The same as alternative A.

Land Disposals, Acquisitions and Other Realty Actions

Proposed Plan: Lands identified to be made available for disposal (selection or exchange) in the preferred alternative of the draft plan and under the proposed plan include Corridor lands south of the Yukon River, the remainder of an east-west gas pipeline corridor adjacent to the Arctic National Wildlife Refuge (ANWR), and the Coldfoot node. In addition, lands referred to as: the Prospect unit (approximately 55,000 acres); the Coldfoot unit, which includes the Coldfoot node identified in the draft and an access corridor to the east (approximately 26,000 acres); and the Sagavanirktok unit (approximately 600,000 acres) would be opened to state selection under the proposed plan. All other lands within the Utility Corridor would remain closed to state selection. This alternative would

encourage federal acquisition of the Killik River area for BLM multiple-use management and would encourage the resolution of split-estate ownerships through exchanges where appropriate.

Alternative A: No lands in the planning area would be targeted for disposal through selection or exchange. Public Land Order 5150 (prohibiting State of Alaska selection in the Utility Corridor) would remain in place without alteration. All lands currently opened to state selection would remain open for selection (Venetie Block and CAMA lands outside of the Utility Corridor).

Alternative B: Lands to be made available for disposal (through selection or exchange) include lands south of the Yukon River and the remainder of the east-west gas pipeline corridor near ANWR. Under this alternative the BLM would pursue acquisition of the Killik River area and lands surrounding the Oolamnagavik River to enhance this proposed wilderness area.

Alternative C: The Coldfoot node, lands south of the Yukon River and the remainder of the east-west gas pipeline corridor near ANWR would be made available for disposal (through selection or exchange). Those lands top-filed by the State of Alaska under authority of Sec. 906(e) of ANILCA within the Utility Corridor would be made available for selection. The transportation corridor described by Sec 1431(j) of ANILCA would also be made available for disposal (with the concurrence of the Arctic Slope Regional Corporation).

Alternative D: The entire Utility Corridor would be made available for disposal. A new land use plan would be developed after maximum land selection opportunities defined a new pattern of federal ownership in the area.

Recreation

Proposed Plan: The Utility Corridor would be managed with an emphasis on recreation. Recreational facilities in the Dalton Highway Recreation Management Area (i.e., roughly the lands visible from the Dalton Highway) would be expanded. New waysides, campsites, trailheads and cabin sites would be identified and developed after completion of a Recreation Area Management Plan. This alternative would seek a mix of private investment in recreational facilities through FLPMA leases and federal government supported facilities.

Alternative A: No major recreational facilities would be developed under this alternative. Recreation development plans would be completed and would focus only on a series of rest stops and sanitary facilities within the Dalton Highway Recreation Management Area.

Alternative B: No new recreation development is proposed. Overnight, destination and trailhead facilities would be considered in a recreation management plan with an emphasis on resource protection. Areas needed for access to and from rivers, streams and off-road vehicle trails would be managed as day use areas with long term vehicle parking but no overnight camping.

Alternative C: This alternative would manage the area with an emphasis on recreational development similar to that described for the Proposed plan. Greater emphasis would be placed on private sector involvement (through leases) in the development of new facilities.

Alternative D: Recreational development would mirror alternative A. No new recreational opportunities are likely to occur until a stable land pattern in the Utility Corridor is established after allowing state land selection throughout the area.

Access

Proposed Plan: Lands within the Corridor at Prospect and at Coldfoot that the state is interested in obtaining for access to adjacent state lands would be made available for state selection. The lands at Prospect correspond to lands identified in the draft plan to provide future access toward the Ambler mining district. An ORV use evaluation would be initiated after the approval of this land use plan.

Cooperative agreements will be sought with other federal agencies to evaluate access from the Dalton Highway to Conservation Units adjacent to the Utility Corridor.

Alternative A: No new access routes or corridors are identified under this alternative. BLM will work closely with the State of Alaska on appropriate access to state lands adjacent to the corridor.

Alternative B: An ORV use study would identify areas sensitive to vehicular use and recommend access options which seek to lessen impacts to subsistence users. A transportation corridor toward the Ambler mining district would be identified.

Alternative C: All lands top-filed by the state under Section 906(e) of ANILCA would be made available to the state for selection. This includes lands within the Corridor at Prospect and at Coldfoot that the state is interested in obtaining for access to adjacent state lands. The lands at Prospect correspond to lands identified in the draft plan to provide future access toward the Ambler mining district. An ORV use evaluation would be initiated after the approval of this land use plan for those lands likely to remain under federal management.

Alternative D: ORV use would be managed in the same manner as in Alternative A.

Subsistence

All Alternatives: ANILCA 810 evaluations would be completed for all discretionary actions as required by law.

Wilderness

All Alternatives: No action would be permitted within the area established as a Wilderness Study Area (WSA) that would impair the area's suitability for wilderness until Congress releases those lands from further wilderness consideration. Congress could designate all or none of the lands, but BLM is required to manage them to protect the wilderness characteristics until such time as they are released by Congress.

Proposed Plan: The "upper Nigu block" has been recommended for wilderness designation through the required ANILCA Section 1001 report due to Congress by December 1988. No other lands within CAMA were recommended. All CAMA lands will remain in interim wilderness management until Congress acts on this recommendation.

Alternative A: Because the required ANILCA Section 1001 Report, due to Congress by December 1988, has been completed and submitted to Congress, the Alternative A (current management) wilderness recommendation is the same as for the proposed plan.

Alternative B: All lands in CAMA would be recommended for wilderness designation except those lands within the nonwilderness assessment area (i.e., roughly those lands visible from the Dalton Highway) which were determined unsuitable for wilderness designation in 1980.

Alternative C: No lands in the CAMA would be recommended for wilderness.

Alternative D: This alternative calls for maximum state selection within the Utility Corridor and no new planning proposals until the federal land ownership pattern has been defined. Because the required ANILCA Section 1001 Report, due to Congress by December 1988, has been completed and submitted to Congress, the Alternative D wilderness recommendation is the same as for the proposed plan.

Wildlife

Proposed Plan: Under the proposed plan nine areas would be identified as ACECs for special management attention to protect identified plant and/or wildlife values. An inventory of fisheries and other wildlife resources in the Utility Corridor would be initiated as a result of this PRMP. It is also proposed that after appropriate consultation and coordination with the State of Alaska and other interested parties, sufficient numbers of musk-oxen to support a viable population would be transplanted to BLM lands near Pingaluligit Mountain in the Oolamnagavik block. Implementation of the *Peregrine Falcon Recovery Plan - Alaska Population* (U.S. Fish and Wildlife Service, 1982a) would continue.

Alternative A: No new actions would be proposed for the protection or enhancement of wildlife resources except for the standard implementation of the *Peregrine Falcon Recovery Plan - Alaska Population* **(USDOI, Fish and Wildlife Service, 1982a)** and designation of several ACECs recommended under the previous land use plan.

Alternative B: This alternative would mirror the actions under the proposed plan. In addition, selected mineral licks and peregrine falcon nesting and feeding areas would be closed to mineral entry and location.

Alternative C: No new actions would be taken under this alternative. Alternative A describes the appropriate management proposals.

Alternative D: This alternative would be the same as Alternative A until amendments to the current plan are completed to cover lands remaining in federal ownership.

List of Abbreviations

ACEC	Area of Critical Environmental Concern
ADEC	Alaska Department of Environmental Conservation
ADFG	Alaska Department of Fish and Game
ADGGS	Alaska Department of Geological and Geophysical Survey
ADNR	Alaska Department of Natural Resources
ADOT/PF	Alaska Department of Transportation/ Public Facilities
ANCSA	Alaska Native Claims Settlement Act
ANGTS	Alaska Natural Gas Transportation System
ANILCA	Alaska National Interest Lands Conservation Act
ANWR	Arctic National Wildlife Refuge
ASRC	Arctic Slope Regional Corporation
BLM	Bureau of Land Management
CAMA	Central Arctic Management Area
CFR	Code of Federal Regulations
CPF	Central Production Facility
CSU	Conservation System Unit
CZM	Coastal Zone Management
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
HMP	Habitat Management Plan
IBLA	Interior Board of Land Appeals
MFP	Management Framework Plan
NEPA	National Environmental Policy Act
NPR-A	National Petroleum Reserve-Alaska
NPS	National Park Service
NSB	North Slope Borough
NWPS	National Wilderness Preservation System
ORV	Off-Road Vehicle
PFEIS	Preliminary Final Environmental Impact Statement
PLO	Public Land Order
RAMP	Recreation Area Management Plan
RMP	Resource Management Plan
RNA	Research Natural Area
ROS	Recreation Opportunity Spectrum
R&PP	Recreation and Public Purpose
SMSA	Standard Metropolitan Statistical Area
TAGS	Trans Alaska Gas Pipeline System
TAPS	Trans Alaska Pipeline System
T&E	Threatened and Endangered Species
USDI or DOI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VRM	Visual Resource Management
VUD	Visitor Use Day
WSA	Wilderness Study Area

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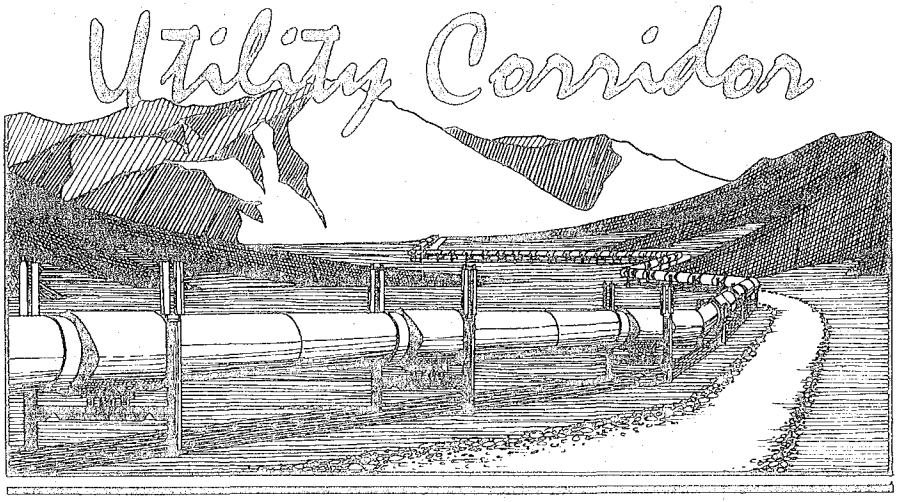
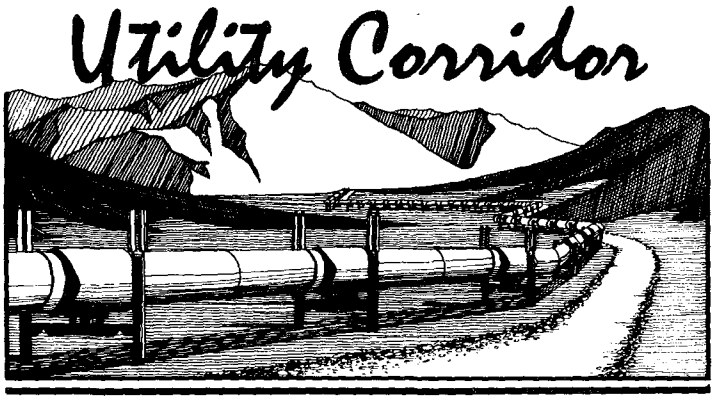


Chapter 1: Introduction



Chapter 1:

INTRODUCTION

Introduction

This Final Environmental Impact Statement (FEIS) is referred to as the Utility Corridor Proposed Resource Management Plan (RMP). The proposed RMP is a land use plan as prescribed by the Federal Lands Policy and Management Act (FLPMA, P.L. 94-579, 43 U.S.C. 1712). This plan addresses lands within: 1) a utility corridor withdrawn by Public Land Order 5150 for the Trans-Alaska Pipeline, 2) an area referred to as the Central Arctic Management Area (CAMA), and 3) an area referred to as the Venetie Block. While the draft RMP/EIS provided full consideration of environmental consequences resulting from a range of land and resource management alternatives, the proposed plan is confined to those actions selected by the Bureau for implementation. Although the proposed plan is based on the preferred alternative published in the draft EIS, it differs in some respects from the preferred alternative, notably as to state selection. The environmental consequences of these changes are treated in Chapter 4.

The text of this document includes five chapters and is similar in organization to the draft RMP/EIS. Chapter 1 describes the planning area and provides background information. Chapter 2 describes management actions to be implemented following the approval of the plan, discusses anticipated activities, and provides a summary of the alternatives presented in the draft RMP/EIS. Chapter 3 provides the resource information presented in the draft RMP/EIS as supplemented and amended with new information or as a result of public comment. Chapter 4 provides impact analyses for the proposed plan and summarizes the consequences of the alternatives as presented in the draft RMP/EIS. Chapter 5 outlines public consultation and coordination and provides responses to public comments.

While discussions of management decisions in this document are organized around the various issues, such as state selection and wilderness recommendations, Appendix N is organized by Bureau program. It is by these programs that the Bureau organizes its work and plans its budget. In order to ensure that the management decisions described in Chapter 2 are fully and effectively implemented, monitored, and evaluated, the various management decisions must be translated into program specific actions. These sets of actions or management plans organized by program (e.g., the lands and realty program) provide the basis for future work load analysis and budgetary planning. Appendix N of this document contains a great deal more detail regarding implementation actions than appears in Chapters 1-4 and need not be read to understand the planning decisions. However, Appendix N will become the basis of program specific management plans for implementation of the various decisions presented in Chapters 1-5.

Background

The Utility Corridor was withdrawn by Public Land Order (PLO) 5150 on December 30, 1971, to protect the route of the Trans-Alaska Pipeline. The PLO withdrew the Corridor from mineral leasing and location, settlement and state and Native selections. A Management Framework Plan (MFP) for the Utility Corridor was completed in 1979 to provide specific guidance for the assumed continued federal management of the area.

Many changes have occurred since the completion of the MFP which affect the management of the Corridor. In 1983, in response to a State of Alaska request, the MFP was amended to allow for disposal of public land within the Corridor under the guidance of FLPMA. Through this amendment Utility Corridor lands between Washington Creek and the Yukon River were opened to state selection.

Lands adjacent to this area were essentially state owned, and land use conflicts were considered minimal or noncontroversial. However, Dinyee Corporation (Stevens Village), protested both the amendment and subsequent state selections on the basis of subsistence related impacts. Dinyee appealed BLM's decision to dismiss their protest concerning state selection. The appeal was decided in favor of BLM, and the opening of the lands to state selection was affirmed (*Dinyee* [Dinyea] *Corporation, 90 IBLA 163, 1986).* The state has since requested that all Utility Corridor lands be made available for state selection. Other circumstances have arisen since the MFP was prepared. 1) The boundaries of the adjacent national conservation system units (CSUs) have solidified. 2) The Dalton Highway was opened for public use by the State of Alaska as far north as Disaster Creek (just north of Coldfoot). 3) New plans have developed for the construction of gas pipelines. 4) There has been increased public interest in recreational opportunities in the Corridor and adjacent lands. Due to these changes and increased public interest in the area it is considered timely to prepare a new plan which addresses all land use issues within the Corridor.

At the same time, a logical extension of the Utility Corridor planning effort includes the adjacent Venetie Block and addresses the Central Arctic Management Area (CAMA) mandates of Section 1001 of the Alaska National Interest Lands Conservation Act (ANILCA). Other than the National Petroleum Reserve in Alaska (NPR-A), the Venetie Block and CAMA are the only large tracts of BLM land within the Arctic District not covered by a land use plan. CAMA includes all Bureau lands, including state and Native selected lands, east of NPR-A and north of 68° N latitude, both within and outside the Utility Corridor. The ANILCA mandates for CAMA include a study of the area's oil and gas resources, wildlife resources, and wilderness values. A report of the findings and recommendations (due to Congress by December of 1988) was submitted to the President and Congress on December 14, 1988 (USDOI, BLM; 1988). The report findings and recommendations were derived through this RMP study process and are consistent with decisions and information presented in this document.

In summary, the Resource Management Plan addresses the following BLM managed lands:

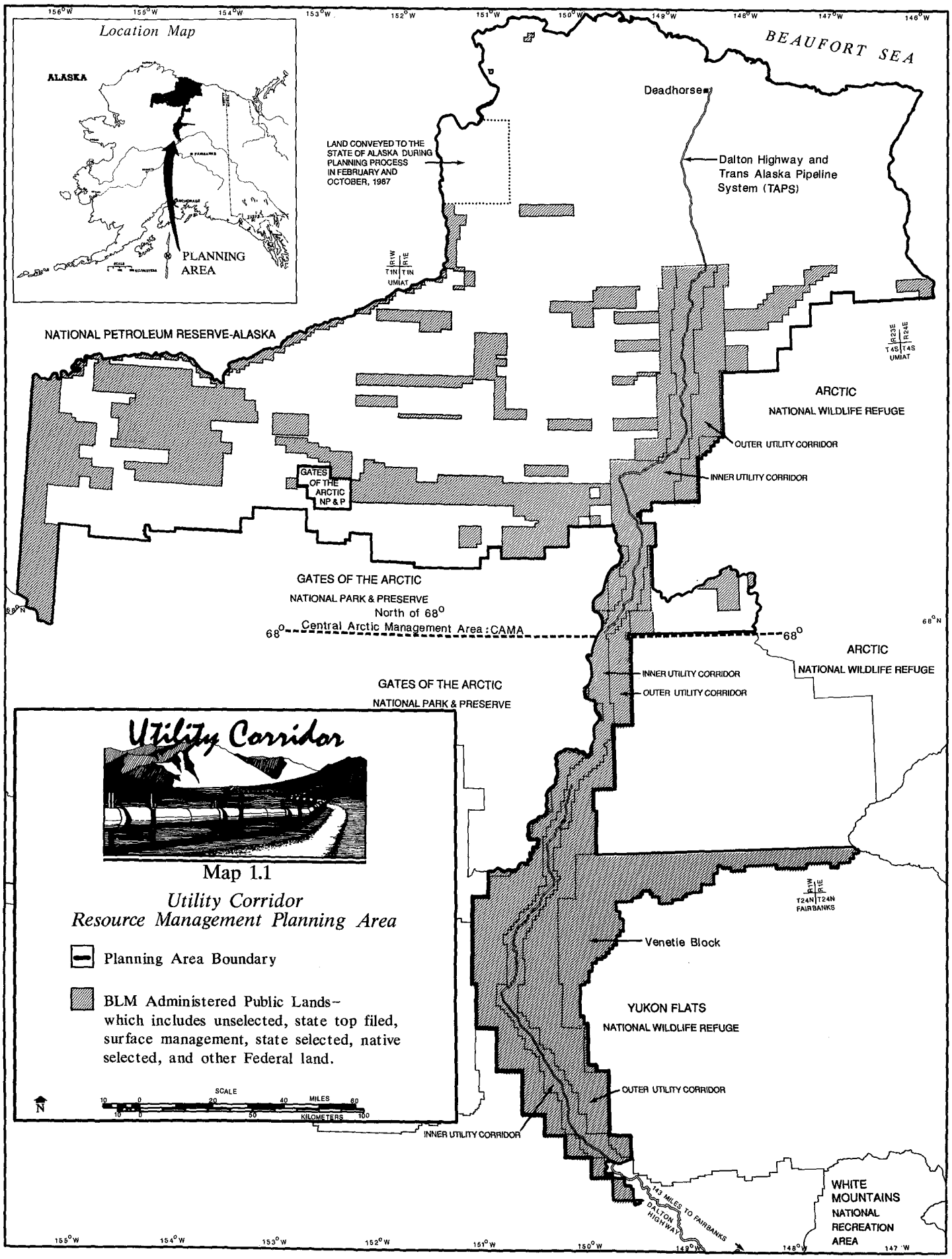
1) the Utility Corridor in federal management north of Fairbanks;
2) the Venetie Block;
3) remaining CAMA lands;
4) other small tracts of land south of 68° N latitude, adjacent to the Utility Corridor.

Supplement to the Draft RMP/EIS

At the outset of this planning process the State of Alaska had expressed interest primarily in selecting Corridor lands within and south of the Brooks Range. This changed to some extent following the publication of the draft RMP/EIS which recommended only small portions of the Corridor be opened for selection. A supplement to the draft RMP/EIS was published in April of 1988 (Appendix J) reflecting the State of Alaska's interest in selecting lands in the Utility Corridor both north and south of the Brooks Range. These new selection interests included the northernmost (from Toolik Lake north) and southernmost (from the Yukon River north to the Arctic Circle) portions of the Utility Corridor. An additional public comment period was established to consider this proposed change to the draft plan.

Environmental Impact Statement

In order to assess the impacts fully, the proposed resource management plan will have on identified resource values, BLM has combined the land use plan with an environmental impact analysis (EIS). A range of alternative land uses was constructed and an impact analysis was completed for each alternative in the draft RMP/EIS published in August of 1987. This Final EIS is designed to meet the requirements of NEPA and the Bureau planning system through a detailed description of the proposed management actions and through an assessment of the environmental impacts resulting from these actions if they differ from the assessment of the preferred alternative in the previously published draft plan.


Location Map
ALASKA
PLANNING AREA
BEAUFORT SEA
Deadhorse
LAND CONVEYED TO THE STATE OF ALASKA DURING PLANNING PROCESS IN FEBRUARY AND OCTOBER, 1987
Dalton Highway and Trans Alaska Pipeline System (TAPS)
NATIONAL PETROLEUM RESERVE-ALASKA
ARCTIC NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
GATES OF THE ARCTIC NP & P
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
North of 68°
Central Arctic Management Area: CAMA
68°
ARCTIC NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
Utility Corridor
Map 1.1
Utility Corridor
Resource Management Planning Area
Planning Area Boundary
BLM Administered Public Lands– which includes unselected, state top filed, surface management, state selected, native selected, and other Federal land.
SCALE
MILES
KILOMETERS
N
Venetie Block
YUKON FLATS NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
143 MILES TO FAIRBANKS
DALTON HIGHWAY
WHITE MOUNTAINS NATIONAL RECREATION AREA

Consistency Review and Protests

Following a consistency review and a formal public protest period, a separate document, the Record of Decision (ROD) will be published. The ROD is the final step, and is not published until the consistency review process is complete and all protests are satisfactory answered. It will implement the management decisions and plans described in this document.

Projected Life of the Plan

BLM land use plans in Alaska are normally written to provide management guidance for a twenty year period. Given the projections for increases in public and private use of the Utility Corridor, the effective life of this plan is expected to be approximately ten years. This shorter time frame also recognizes that potentially major impacts from future large construction projects may require a reevaluation of the management actions described in this document.

Planning Issues

Proposed actions presented in this final RMP/EIS are derived from a basic set of planning issues, which are concerns or controversies about existing and potential land and resource allocations, levels of resource use, production, and protection, and related management practices. These issues and concerns were determined from what BLM managers, the public, industry, other federal agencies, state and local governments, and Native groups saw as concerns, problems, or needs. The public and other interested parties were involved in determining these issues through public meetings, workshops, mailings, and official notices. The final RMP/EIS is designed to address and focus on the specific issues identified through this process. The following major issues will be addressed in this plan. Each issue heading is following by a brief description of the issue and statements outlining specific concerns.

DEVELOPMENT

Development activities are defined here primarily in terms of mineral development and activities related to the support of the transportation of energy minerals.

Specific Concerns:

• Mineral entry and location. This applies to actions related to the application of the Mining Laws of 1872, as amended. Currently, only the outer Corridor is open to the operation of these laws.

• Mineral leasing. This applies to actions related to federal laws allowing the development of leasable mineral resources. Although the applicable mineral leasing laws address a variety of mineral resources, the major issue in the planning area relates to the leasing of areas for oil and gas development. At present, all lands in the planning area are closed to mineral leasing.

• Mineral materials. The primary concern in the planning area is the extraction of sand and gravel for use in road and airport construction and maintenance, pipeline maintenance and support facility construction, future construction of pipelines and related facilities, and construction activities related to economic development in the development nodes. Currently, extraction of mineral material through sale or permit can take place throughout the length of the Utility Corridor.

• Development Nodes. These are areas along the Dalton Highway which were designated through an earlier planning effort as centers for development activity to avoid "strip development" along the highway. No definite boundaries were established for these nodes. This plan will consider the suitability of existing nodes, modify or reestablish node locations as appropriate, and define boundaries for all recommended nodes.

LAND DISPOSALS, ACQUISITIONS AND OTHER REALTY ACTIONS

At present, the Utility Corridor lands are withdrawn by Public Land Order (PLO) 5150 from selection by the State of Alaska. The State of Alaska has requested that this PLO be amended or revised to allow

for state land selections. The plan will address this issue and determine which lands, if any, should be made available for state selection. Also studied will be the potential for changes in land ownership through the land exchange process.

Specific Concerns:

- Revoke or amend public land orders which now close certain public lands to state selection.
- Seek federal acquisition of lands to meet management purposes through the relinquishment of land selections or other exchange agreements.
- Make land available for private ownership through land sales.

RECREATION OPPORTUNITIES

Recent years have seen changes in recreational activity within the Utility Corridor and in areas adjacent to the Corridor. These changes are in part a result of the State of Alaska decision to open the Dalton Highway to the public from the Yukon River to Disaster Creek, approximately 154 miles north of the Yukon River. Also, the Alaska National Interest Lands Conservation Act of 1980 (ANILCA), by creating the various National Park Service lands and Fish and Wildlife Service refuges adjacent to the Utility Corridor, focused increased public interest on the recreational opportunities of the area.

Specific Concerns:

- The Dalton Highway was closed to public use north of the Yukon River when the last plan was completed. Although potential recreational use had been considered during early drafts of that plan, the section was deleted in the final plan at the request of the state. As a result, recreation is not fully considered in the current approved plan.
- The Dalton Highway is now open to public use as far north as Disaster Creek.
- There are few developed BLM recreation facilities north of the Yukon River although the state has some facilities.

ACCESS

Public access has been identified as a major issue. With development and recreational opportunities identified as important issues, it is important that associated access opportunities be highlighted by the planning process. Questions concerning the appropriate type of access and the extent and purpose of access within the Utility Corridor will be addressed in this plan.

Specific concerns:

- Provide access to lands adjacent to the Utility Corridor including conservation system units, state land, and Native owned lands.
- Provide access to mining claims within the planning area and to claims on adjacent lands.
- Provide access for recreation and subsistence activities.
- Plan the use of off-road vehicles (ORVs) in the planning area.

SUBSISTENCE

BLM is required by Title VIII of ANILCA (Section 810) to conduct an evaluation of impacts to subsistence uses and needs in all discretionary action authorized by the agency. Public meetings in rural villages and in Fairbanks revealed the subsistence issue to be a major public concern. Consequently, it will be dealt with as a separate issue within this plan. The plan will also provide a Section 810 evaluation resulting from the proposal.

Specific Concerns:

- Manage impacts on subsistence resources through increased access into the planning area from the Dalton Highway.

- Manage impacts on subsistence resources from an increase in recreational use of the Utility Corridor.

- Manage impacts on subsistence resources resulting from increased economic development in the Utility Corridor.

WILDERNESS

Section 1320 of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA; 94 Stat 2371) gives the Secretary of the Interior discretionary authority to identify and make recommendations to Congress regarding areas in Alaska which he determines are suitable as wilderness and for inclusion in the National Wilderness Preservation System. The Secretary exercised that discretionary authority, and in a memorandum dated March 12, 1981, directed that no further wilderness review, study, or consideration by BLM would be undertaken in Alaska, except in those areas where study was mandated by legislation. No legislative mandate exists for wilderness review or study of planning area lands south of 68° N latitude. However, Section 1001 of ANILCA mandated a wilderness study be completed in planning area lands north of 68° N latitude (i.e., the Central Arctic Management Area or CAMA). Therefore, within the planning area, wilderness resources were studied only within CAMA.

The draft RMP/EIS addressed the wilderness issue in two separate but related ways. First, the draft RMP/EIS contained land use alternatives which included wilderness recommendations. Second, a draft wilderness EIS was published as an appendix to the draft RMP/EIS. This draft wilderness EIS considered CAMA as a wilderness study area (WSA) and dealt with the wilderness decision independently of other resource decisions. In this way, a greater number of wilderness alternatives could be considered and impacts specific to each wilderness alternative could be assessed in greater detail. The final wilderness EIS was published in September of 1988 (*Central Arctic Management Area Wilderness Recommendations and Final EIS*, USDOI, BLM; 1988). BLM's final wilderness recommendation, based on the wilderness EIS, was presented to the President and Congress in December of 1988 (USDOI, BLM; 1988). Therefore, the wilderness recommendation contained in this the final or proposed plan is and must be consistent with that contained in the report to Congress. Interim wilderness management of CAMA to preserve its wilderness values must continue until Congress acts on the wilderness recommendations. Accordingly, until such time as Congress acts, land and resource use decisions contained in this proposed plan which could impact wilderness values will be held in abeyance.

WILDLIFE AND FISHERIES

In many ways, the concerns focusing on wildlife and fisheries are closely related to all other issues addressed by this plan. An increase in development and casual use activities could potentially impact wildlife and fisheries values in the planning area. Access decisions could also affect wildlife and fisheries resources. Accordingly, the plan will address appropriate protection of important wildlife and fisheries habitat.

Significant changes in the wildlife and fisheries program brought about by the development of a national strategy for managing fish and wildlife on public lands, increased public interest and awareness of managing fish and wildlife resources to help perpetuate diversity, and other issues that developed during the formulation of this plan require an increased level of analysis and management needs identification unavailable at time of publication. It will therefore be necessary to gather more specific information and perform more detailed analysis before management options and opportunities can be developed for inclusion in the RMP. Upon completion of the necessary analyses, appropriate planning will occur that will outline specific management objectives for fish and wildlife resources beyond those necessary for basic resource conservation and protection which are included in this plan.

Specific Concerns:

- Manage the potential impact to the anadromous fish habitats of the Jim and South Fork Koyukuk rivers and Prospect Creek from increased mineral material extraction (sand and gravel).

- Manage the potential impact on wildlife from opening the planning area to oil and gas exploration and development.

- Manage the potential effect on terrestrial wildlife habitat and populations resulting from opening additional acreage to mining under U.S mining laws.

Planning Criteria

Planning criteria are a set of rules or guidelines to be followed in the formulation of all proposed management actions and the considerations of potential impacts to resources. These criteria become the planning "sideboards" which focus and direct the entire planning process.

The following planning criteria were used in the development of the final RMP/EIS to identify and resolve the planning issues and conflicts in compliance with laws, regulations, and policy. Consideration was given to plans, policies, and programs of other federal agencies, state and local governments, and Native corporations, and public comments. These criteria were sent to the public for comment in the form of a newsletter published by the Arctic District Office in March of 1986.

GENERAL PLANNING CRITERIA

1. The primary function of the Corridor is the transportation of energy resources; therefore, actions or activities potentially adverse to existing and future energy transportation systems will be avoided.

2. Valid existing rights will be protected throughout the planning area.

3. Subsistence uses and needs will be considered, and adverse impacts will be minimized to the extent practical in accordance with ANILCA Section 810.

4. Land disposals will be considered when in the national interest. Land disposal options will include state selection, and land exchanges, sales, and leases as allowed under FLPMA.

5. Plans and policies of adjacent conservation system units, land owners and local governments will be considered, and RMP decisions will be consistent to the degree reasonably practical.

6. Recreation related needs and uses will be addressed.

7. Development nodes will be assessed regarding their location, size, boundaries, and appropriate uses, their long-range development, state or federal management, and effects on adjacent and nearby lands.

8. Public access needs will be addressed.

9. BLM will provide maximum opportunity for input from other federal agencies, the State of Alaska, adjacent private land owners, local residents and other affected and/or interested parties.

10. ANILCA 1001 requirements for planning area lands north of 68° N latitude (i.e., CAMA) will be addressed. These requirements include:

    a. an assessment of oil and gas potential;
    b. recommendations concerning future use of oil and gas resources, including an evaluation of transportation routes necessary for development;
    c. a review of wilderness characteristics and a recommendation for wilderness designation;

d. a study of and recommendations for protection of wildlife resources.

Note: these requirements have been met, culminating with a report submitted to the President and Congress in December of 1988, *ANILCA Section 1001 Report Findings and Recommendations,* (USDOI, BLM, 1988).

11. At a minimum, wildlife habitat will be managed consistent with the memorandum of understanding between BLM and the Alaska Department of Fish and Game (AK 950-MOU3-11).

12. Identification, designation and protection of special management areas such as research natural areas (RNAs) and areas of critical environmental concern (ACECs) will be considered.

13. Opportunities for mineral exploration and development will be considered which reflect the national need for energy and strategic minerals.

14. The impacts and impact mitigation for development of mineral resources will be described with special emphasis on development of mineral materials, oil and gas resources, and locatable minerals.

15. The BLM will provide necessary access to state owned lands adjacent to the Utility Corridor through standard provisions of FLPMA.

CRITERIA FOR FORMULATION OF ALTERNATIVES

The proposed plan presented in detail in this document and the alternatives presented in the draft RMP/EIS and summarized here focus on resolving potential resource use conflicts and reflect the plan criteria listed above. The alternatives respond to the goals, objectives, and priorities for resource use and management as described for each alternative. Taken together, the alternatives provide a range of choices from emphasizing resource protection to emphasizing resource development. The criteria used to formulate this range of alternatives are listed below. The alternatives provide:

1. for future energy transportation systems;

2. a range of measures for environmental protection;

3. a range of opportunities for the exploration and development of locatable minerals;

4. a range of opportunities for the exploration and development of oil and gas resources and other leasable minerals;

5. a range of opportunities for the development of mineral materials;

6. a range of opportunities for land ownership adjustments through exchanges, selections, or FLPMA sales and leases that would further the national interest;

7. a reevaluation of nodes: locations, boundaries, uses, ownership;

8. a range of recreation opportunities;

9. a range of wilderness recommendations for CAMA;

10. for protection of threatened and endangered species habitat;

11. for protection of crucial habitat for priority wildlife species;

12. for access needs to adjacent lands; and

13. for establishment of special management areas (e.g., RNAs, ACECs).

CRITERIA FOR ESTIMATING EFFECTS OF THE ALTERNATIVES

All alternatives will consider the effects on:

1. energy transportation;
2. water quality;
3. subsistence;
4. threatened and endangered plants and animals;
5. Conservation System Units;
6. visual resources;
7. recreation;
8. cultural resources;
9. existing valid rights;
10. wildlife;
11. social values and economic considerations;
12. access;
13. wilderness (CAMA only);
14. mineral development and the national need for energy and strategic minerals.

BLM Planning Requirements

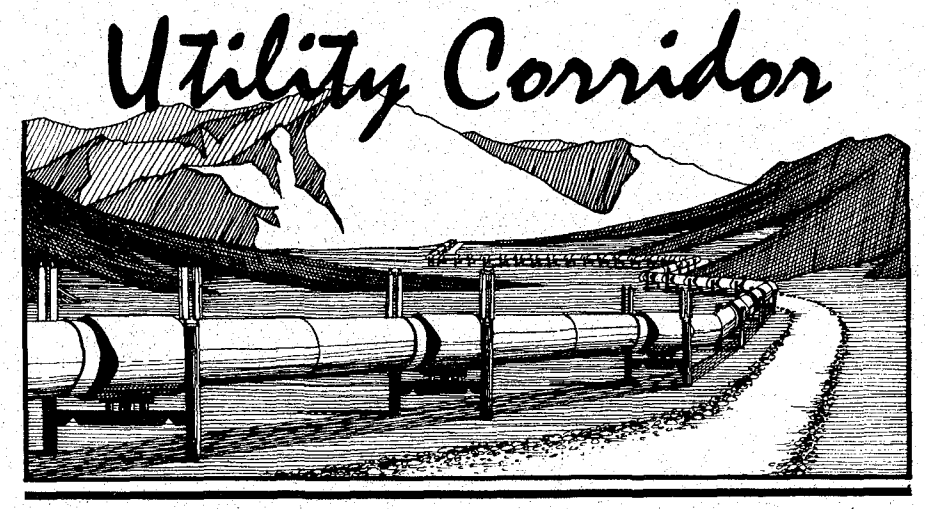
Plans prepared by the BLM must be in conformance with the Bureau's supplemental program guidance manual for resource management planning (BLM Manual 1620). Specific determinations required by this manual and not made in a planning document must meet one or more of the following exceptions:

1. A determination is not required if the resource in question is not present nor potentially present in the planning area and if there is no record of interest in the resources.
2. A determination is not required if the determination in question is identified as optional in the BLM 1620 manual series.
3. A determination is not required if the determination in question has already been made through national or state level policy guidance developed in accordance with the requirements set forth in 43 CFR 1610.1(a) and in the BLM manual section 1611.
4. A determination is not required if management has decided that it would be premature to make the determination in question and that it should be handled through a subsequent plan amendment when and if the need arises.

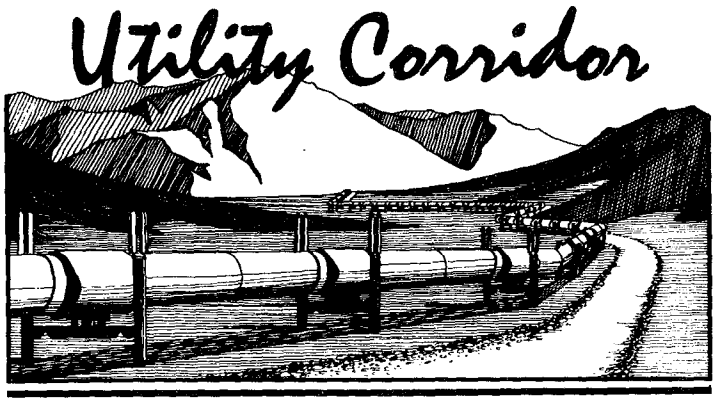
As a practical matter, the program guidance also requires that maps portray the following: 1) areas closed and open to mineral location; 2) areas closed and open to mineral leasing; and 3) areas closed to extraction of mineral materials (BLM Manual 1624.21, 1624.31, 1624.41). The scale of the maps necessary to display the entire planning area (1:1,000,000) makes it difficult to show the exact location of some boundaries. Maps showing boundaries with greater detail are available for review at the Arctic District Office, Fairbanks, Alaska.

A determination was made, pursuant to the program manual (1623.41) which requires that all lands be classified as open, limited, or closed to off-road vehicle (ORV) use. In order to meet manual

requirements, all planning area lands are placed in the "limited" category. However, it is recommended in this proposed plan that additional work be completed to modify this classification where necessary. Sensitive soil conditions and newly established National Parks and Refuges adjacent to the planning area require a more detailed analysis of ORV use than is possible in a general land use plan.



Chapter 2: Proposed Management Actions and Activity Scenarios



Chapter 2:

PROPOSED MANAGEMENT ACTIONS AND ACTIVITY SCENARIOS

Introduction

This chapter is divided into two sections. The first section, "Proposed Management Actions," presents general management proposals or actions for the approximately 6.1 million acres of public land within the Utility Corridor Resource Management Plan (RMP) planning area. These proposed management actions are the result of existing policy and program guidance, as well as three years of study and public input. Section 1 is based on the action statements of the preferred alternative that appeared in the Draft Resource Management Plan and Environmental Impact Statement (RMP/EIS), published in August of 1987. However, the management actions presented here embody the changes made to the Draft RMP/EIS recommendations as a result of public review and comment. Section 2 of this chapter, "Scenarios - Actions and Activities with Potential for Environmental Impact," summarizes important management actions described in Section 1, then describes those activities anticipated to occur and which could result in significant environmental impacts as a result. For example, Section 2 summarizes management proposals relating to oil and gas leasing (e.g., the opening of approximately 5.8 million acres of land to oil and gas leasing) and describes oil and gas activities expected to occur as a result of that management action (e.g., seismic work, exploratory drilling, development). Environmental impacts resulting from these anticipated activities are discussed in Chapter 4, "Environmental Consequences."

Unlike the *Draft Utility Corridor Resource Management Plan and Environmental Impact Statement* (USDOI, BLM, 1987), which presented several alternatives in detail, including a preferred alternative, this document presents only the proposed plan in detail. Other alternatives as presented in the Draft RMP/EIS are summarized in Table 2.7 and are graphically depicted on maps at the end of this chapter. Also, a summary of the various alternatives appears at the beginning of this document. The reader should refer to the Draft RMP/EIS if more detailed information is desired. Moreover, a complete description of the wilderness alternatives considered may be found in the associated *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, BLM; 1988).

More specific procedures, implementation actions, and monitoring and evaluation requirements necessary to implement the proposed management actions presented in this chapter are described in Appendix N. The "Program Management Plan" is organized by Bureau programs and translates planning decisions into specific actions for program leaders and specialists to facilitate plan implementation, work load analysis, and future budgeting. It is not necessary for the reader to study this section but it may be informative. The "Program Management Plan" will become the basis of an implementation plan to be approved after the Record of Decision is signed.

It must also be noted that:

1. No proposed management action presented in this chapter should be interpreted as limiting current or future energy transportation needs in the Utility Corridor. The need for the transportation of energy minerals supersedes all other uses of the Utility Corridor.

2. All planning proposals are subject to valid existing rights.

3. No land use authorizations would be issued for activities on lands validly selected by the state or Native corporations without prior concurrence of the selecting entity [43 CFR 2650.1 (a) (2) (ii) and Alaska National Interest Lands Conservation Act Sec. 906 (k)].

4. Lands validly selected by the State of Alaska are segregated from all appropriations including mineral location under the mining laws [43 CFR 2627.4 (b)].

5. Until Congress acts on the CAMA Wilderness Study Area recommendations (USDOI, BLM, 1988) implementation of the proposed plan north of 68° N latitude, outside the nonwilderness assessment area, is held in abeyance. Interim wilderness management guidelines (USDOI, BLM, 1979) apply to management actions in the WSA until such time as Congress acts.

Section 1: Proposed Management Actions

Cooperative Planning

Through the RMP planning process it became evident that certain important issues could not be satisfactorily resolved and stated objectives could not be completely attained without cooperative state/federal planning.

Proposed Action 1: It is proposed that through the Alaska Land Use Council, a cooperative planning agreement should be established with the State of Alaska and other appropriate parties. The proposed planning agreement would be in accordance with provisions contained in Sec. 1201 of ANILCA and would allow for public participation.

The study zone covered by this planning agreement would correspond to the "Dalton Highway Recreation Management Area." This area includes those Corridor lands which, due to existing access, are most likely to be impacted by public use. The proposed study recognizes that the State of Alaska and BLM share management responsibilities in this area and that management objectives and/or priorities may at times be in conflict or inconsistent. The proposed plan would determine how the state and BLM, working together, could best provide for the public's needs while also protecting natural resources and the subsistence lifestyle of nearby communities.

Considerations: As with other BLM managed lands within the state, use of this area and its resources is controlled by both the State of Alaska and BLM. BLM's responsibilities include but are not limited to: issuance of rights-of-way, permits, and leases; land sales; development of proposed recreational facilities; mineral leasing; mining claim recording; material sales; surface protection; maintenance and protection of wildlife habitat, threatened and endangered species, and cultural resources; and ANILCA 810 (subsistence) evaluations. State responsibilities include but are not limited to: law enforcement, establishing fish and game regulations, maintaining water quality, and highway safety and maintenance. Additionally, the State Legislature has taken actions which show specific interest in this area. For example, public use of the Dalton Highway is currently restricted north of Disaster Creek by legislative decision, and state law prohibits use of ORVs within 5 miles of the Dalton Highway except in conjunction with mineral development. Both of these actions have a direct impact on BLM management of these lands.

Public interest and use of the lands and resources along the Dalton Highway will continue to grow in the future. Appropriate uses should be provided for and valuable resources protected. Regardless of the final pattern of land ownership in the area, national interest and existing federal commitments (e.g., ROWs, leases, mining claims, etc.) assure some degree of federal involvement in management of these lands. Likewise state management responsibilities and interest in the area will not diminish. Given the state/federal interest and commitment to the area, the overlapping management responsibilities, and the anticipated increase in pressure placed on the area's resources, effective and efficient management of these lands will be best achieved by cooperative state/federal planning. Federal land use proposals must be implemented in consideration of the state's management responsibilities and capabilities, and be

consistent with state legislative decisions. Conversely, state decisions and actions relating to use of the Dalton Highway and adjacent lands should take into consideration federal proposals, responsibilities, and capabilities.

Consistent with other Utility Corridor RMP planning decisions the proposed cooperative plan should include but not necessarily be limited to: consideration of appropriate location and maintenance responsibility for sanitation and waste disposal sites; appropriate type and location for recreational facilities and an appropriate schedule for development of these facilities; law enforcement requirements and responsibilities; highway safety requirements and schedule for upgrades to meet expected increases in public use; wildlife and fisheries resources management goals; appropriate restrictions on permitted uses to include fish and game hunting restrictions and other measures to protect subsistence and other wildlife resources; and consideration of appropriate use of ORVs and other access needs. Other appropriate study issues and planning criteria would be determined through the Alaska Land Use Council in development of the planning agreement.

Mineral Resource Development

LOCATABLE MINERALS

All public lands not formally withdrawn or segregated from mineral entry are open for exploration and development of locatable minerals. Exploration and development of locatable minerals on public lands are managed by BLM through the 43 CFR 3809 regulations. These regulations require that the exploration and development of locatable minerals shall occur in such a manner as to prevent unnecessary or undue degradation of the land.

Proposed Action 2: Currently, throughout the planning area there are approximately 1.7 million acres of public land open to locatable mineral development. Under this proposed RMP approximately 4.7 million acres would be open to mineral location. Remaining closed to mineral location would be the inner Corridor, 160 acres surrounding the Kanuti Hot Springs under PLO 399 (hot springs withdrawal, August 20, 1947), and the southern portion of the proposed Nigu-Iteriak ACEC (the recommended Nigu wilderness area). In addition, the floodplains of the Jim River and Prospect Creek downstream from the eastern boundary of the inner Corridor (which is the limit of salmon spawning habitat), 8 identified mineral licks (i.e., natural salt licks, 160 acres each), and the floodplain of the Kanuti River downstream from the western boundary of the inner Corridor, or any wilderness area designated by Congress would be closed to mineral location [see Action 33 (wilderness), Action 37 (wildlife), and Action 52 (ACECs)]. All closures are discretionary, except for the recommended Nigu wilderness area, the Kanuti Hot Springs withdrawal, or any area that Congress may designate as wilderness. The locatable mineral potential of lands open and closed to mineral location under the proposed plan is displayed in Table 2.1. Section 2 contains a description of anticipated activities and maps.

Table 2.1
Areas Proposed Open and Closed to Mineral Location*

	Locatable Mineral Potential			
	High	Moderate	Low	**Total**
Open	178,000	545,000	3,997,000	**4,720,000**
Closed	45,000	341,000	700,000	**1,086,000**

* The figures do not include the approximately 274,000 acres of low potential split estate lands (mineral estate is owned by ASRC) which could be opened to mineral development by ASRC.

MINERAL MATERIALS

Applications for the removal of common variety mineral materials, including sand and gravel, will continue to be approved or disapproved on a case by case basis. Stipulations to protect important surface values will be employed in all permit and sale areas based on an interdisciplinary review of each proposal.

Proposed Action 3: Consistent with the transportation of energy minerals as the primary purpose of the Utility Corridor, mineral material (gravel) permits and sales would be allowed throughout the planning area with safeguards for specific areas. Extraction of gravel from already disturbed sites would be encouraged under the proposed RMP. Any new site would be approved if judged not in conflict with crucial wildlife habitat, other important resource values, recreation opportunities, or the purposes of the proposed ACECs. Of special concern are portions of the streambeds and floodplains of Prospect Creek, the Jim River, and the Ivishak River in proximity to the highway. Because of additional resource values (e.g., recreational fishing, salmon spawning) along these streams in the entire Utility Corridor, extraction of mineral materials through permit or sale would only be approved in the floodplains if it were demonstrated that no other economically feasible sites were available. Closed to mineral material extraction would be the Nigu-Iteriak ACEC and whatever area is designated wilderness by Congress, Kanuti Hot Springs and Sukakpak Mountain ACECs, and the eight identified mineral licks. Seasonal closures or other appropriate restrictions may also be applied to areas crucial to species covered by the Threatened and Endangered Species Act, e.g., the Sagwon Bluffs and Toolik Lake ACECs. See Section 2 for a description of anticipated activities.

MINERAL LEASING

Lands would be made available for oil and gas leasing after this land use plan is approved and the appropriate Public Land Orders are prepared and published. Lands not opened to lease can be surficially explored through the issuance of a permit. Lands opened to lease are opened to full mineral exploration and development subject to stipulations established by the BLM to protect environmental factors identified through appropriate environmental assessments.

Proposed Action 4: Under the proposed RMP all lands, except for split-estate lands (the subsurface estate has been conveyed to ASRC) and the southern portion of proposed the Nigu-Iteriak ACEC (the proposed Nigu wilderness area), would be open to the exploration and development of leasable minerals under federal law. Nonsurface occupancy stipulations would apply to the inner Corridor, the eight identified mineral licks (i.e., natural salt licks), the Ivishak River and Kanuti Hot Springs ACECs, and the streams closed to mineral location, i.e., the floodplains of the Jim River and Prospect Creek downstream from the eastern boundary of the inner Corridor, and the Kanuti River downstream of the western boundary of the inner Corridor. Seasonal closures may also be applied to areas crucial to species covered by the Threatened and Endangered Species Act, e.g., the Sagwon Bluffs ACEC.

Currently, there are no lands (0 acres) open to mineral leasing within the planning area. Under the proposed RMP there will be a total of approximately 5.8 million acres open to lease. The oil and gas potential of lands open and closed to mineral leasing is displayed in Table 2.2.

COAL LEASING

Proposed Action 5: No coal leasing or development interest was identified through the issue identification process or during the alternative formulation process. Therefore, the coal screening process, including the application of unsuitability criteria, has not been conducted for this proposed RMP. This does not imply that coal exploration, leasing, and development are incompatible with this proposed plan. If an application for a coal lease is received sometime in the future, an appropriate land use and environmental analysis, including the coal screening process, will be conducted to determine whether or not the applied for coal areas are acceptable for development and for leasing consideration. The plan would be amended as necessary.

Table 2.2
Areas Proposed Opened and Closed to Mineral Lease*

	Oil and Gas Potential					
	High/D***	High/C***	Moderate	Low	No	**Total***
Open	2,472,000	150,000	281,000	649,000	1,165,000	**4,717,000**
Open with NSO**	434,000	0	35,000	324,000		**1,048,000**

* The figures do not include the approximately 274,000 acres of High/D potential split estate lands (mineral estate is owned by ASRC) which could be opened to mineral development by ASRC.
** NSO: Nonsurface Occupancy. More areas may be subject to this stipulation as more is learned about crucial habitat in the planning area.
***See Appendix F for definitions.

Realty Actions

LAND DISPOSALS THROUGH STATE SELECTION, SALE, AND EXCHANGE

Disposals

The Congress has declared that it is the policy of the United States that the public lands be retained in federal ownership, unless, as a result of land use planning, it is determined that disposal of a particular parcel will serve the national interest. Lands not determined to meet disposal criteria in the RMP cannot be subsequently considered for disposal unless the RMP is amended.

The following factors are usually considered in arriving at land disposal determinations: manageability, existing laws and authorities, suitability for management by other agencies, need for disposal, resource conditions, land ownership patterns, impacts of disposal, trespass, and physical attributes. Additionally, some lands-related decisions are usually deferred to activity planning, such as exchange agreements, land sale plans, and subsequent phases of case processing including, but not limited to, land reports and related environmental assessments, specific examinations for resource values, appraisals, and mineral reports. These are usually required before a lands-related RMP decision can be cleared for implementation.

State Selections

The Statehood Act of July 7, 1958, and other related Acts, granted or confirmed to the State of Alaska a total land entitlement of more than 105 million acres. The state may select only lands that are vacant, unappropriated, and unreserved at the time of selection (43 CFR 2627). The State has until January 4, 1994, in which to exercise its selection rights. At present, the Utility Corridor lands are withdrawn by Public Land Order (PLO) No. 5150 from selection by the State of Alaska. Under the proposed plan approximately 0.7 million acres of land within the Utility Corridor would be opened to state selection.

Sales

The BLM has authority under Sec. 203 of the Federal Land Policy and Management Act (FLPMA) of October 21, 1976, and 43 CFR 2710 to sell public lands at fair market value where, as a result of land use planning (Bureau Motion), it is determined that the sale of such tract meets any or all of the following disposal criteria. Method of sales include noncompetitive, competitive, and modified competitive bidding procedures. Qualified conveyees include U.S. citizens 18 years of age or older, corporations, associations, partnerships, States and political subdivisions authorized to hold property. All sales are at the

discretion of the BLM authorized officer and must meet any or all of the following disposal criteria [43 CFR 2710.0-3 (a)]:

1. Such tract was acquired for a specific purpose and the tract is no longer required for that or any other federal purpose; or

2. Disposal of such tract shall serve important public objectives, including but not limited to expansion of communities and economic development which cannot be achieved prudently or feasibly on lands other than public lands and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values which would be served by maintaining such tract in federal ownership; or

3. Such tract, because of its location or other characteristics, is difficult and uneconomic to manage as part of the public lands and is not suitable for management by another federal department or agency.

The Wiseman land sale area, described as Lots 1 to 17, inclusive, and Lots 19 to 26, inclusive, of U.S. Survey No. 5276, containing 25.86 acres has been identified for disposal. These lots, because of their location or other characteristics, are difficult and uneconomical to manage as part of the public lands and are not suitable for management by another department or agency.

No other lands were identified for disposal by FLPMA sale. A plan amendment would be required for disposal of a tract, pursuant to Sec. 203, that has not been identified in this RMP.

R&PP Sales

The Recreation and Public Purposes Act of June 14, 1926, as amended, and 43 CFR 2740 provide for the transfer of certain public lands to states, or their political subdivisions, and to non-profit corporations and associations for recreational and public purposes under specified conditions, and upon being "classified" as suitable for such uses. A notice of realty action, published in the Federal Register and local newspapers and mailed to interested parties, will serve as a classification of public lands as suitable or unsuitable for conveyance. Public purpose means for the purpose of providing facilities or services for the benefit of the public in connection with, but not limited to, public health, safety or welfare. All patents under the act, except those issued for sanitary landfills, shall provide that title shall revert upon violation of any patent provision. The R&PP Amendment Act of 1988 authorizes the BLM, upon promulgating regulations, to convey public lands for the express purpose of solid waste disposal or for any other purpose which may result in the disposal, placement, or release of any hazardous substance with special provisions relating to the reversion to the U. S.

It is difficult to predict the lands which may be needed to accommodate public purpose needs, thus, it will be necessary to consider each "petition for classification" application on a case by case basis. Lands may be needed in Wiseman, Coldfoot, and Yukon Crossing/7-Mile area for schools, churches, or local government service facilities. The BLM will strive to accommodate these future public needs in these areas to the fullest extent possible.

Land Exchanges

BLM-Alaska will strive to process mutually benefitting, public interest land exchanges in a timely and efficient manner through continually maintaining and streamlining its land use planning, appraisal, and exchange processes. The exchange authorities in Alaska are unique from other states, except FLPMA, and include 1) Sec. 22(f) of the Alaska Native Claims Settlement Act, as amended; 43 U.S.C. 1621; 2) Sec. 1302(c), (h), and (i) of the Alaska National Interest Lands Conservation Act, 16 U.S.C. 3192(h); and 3) Sec. 206 of the Federal Land Policy and Management Act, 43 U.S.C. 1716. There are good opportunities to improve service to the public and secure better utilization and protection of the public lands through private and interagency land exchanges. Land management problems encountered in this plan include split estates, a checker board pattern of federal and private ownership, and isolated parcels of federal lands.

Under the proposed RMP approximately 274,000 acres were identified for disposal by exchange or sale. These disposals would eliminate a fragmented land pattern that is difficult and inefficient to manage. Also, consolidation of surface and subsurface estates would eliminate problems in managing split estate land.

Airport Grants

The Airport and Airway Improvement Act of September 3, 1982, and the regulations found in 43 CFR 2640 provide for the issuance of conveyance documents for lands or interests in lands, under the jurisdiction of the Department of Interior, to public agencies for use as airports and airways. Each conveyance shall contain appropriate covenants and reservations requested by the Federal Aviation Administration (FAA), and those deemed necessary by BLM for land and resource protection. As a condition to each conveyance, the property interest conveyed shall revert to the U.S. in the event the lands are not developed for airport or airway purposes or are used in a manner inconsistent with the terms of the conveyance.

Acquisitions

Methods used to acquire legally sufficient rights to meet resource management needs include negotiated purchase, donation, exchange, and condemnation. Procedures used in the acquisition process are found in BLM Manual 2100 and Handbook 2101-1. Acquisition of lands and interests in lands will be done to improve management, and to protect, develop, maintain, and use resources.

BLM would act to acquire easements or lands if and when the need is identified in activity plans or project proposals. These would be considered on a case by case basis and assessed through a site-specific NEPA document and land report prepared when an action is initiated. Lands identified for possible acquisition under the RMP alternatives are shown on the "Proposed Plan" map sheet 1 of 4; a legal description of these lands is provided in Part 2 of Appendix N. Cost effective alternatives will be pursued and only the minimum interest necessary to meet management objectives would be acquired when using the federal portion of the Land and Water Conservation Fund (LWCF). A plan amendment would be required to acquire tracts not identified in the RMP.

Proposed Action 6: Following the public comment period for the draft RMP/EIS, the State of Alaska and the BLM discussed options regarding state selection in the Utility Corridor. The draft RMP/EIS proposed opening small tracts of land for selection and recommended that the majority of corridor lands remain in federal ownership. During these discussions between the State Department of Natural Resources and BLM personnel, it was mutually agreed that it would be in the best public interest to seek ways to increase consolidation of land ownership throughout the state. Consolidation of ownership would reduce the scattered nature of land holdings for both the federal and state governments. It was understood by all parties that such consolidation would lead to more effective and efficient land and resource management.

The first step in achieving this goal of greater consolidation was to identify areas in the state where the need for consolidation existed. Two areas were identified for consideration: the Utility Corridor planning area including adjacent lands, and the "Clearwater Block" (a mixed management area south of the Alaska Range between the Richardson and Parks Highways). It was believed that the first steps toward greater consolidation of ownership could properly be taken in these two regions. Since a draft RMP/EIS had already been published for the Corridor, a supplement to the draft document proposing consolidation of ownership involving planning area lands was issued. Consolidation in the Corridor region was to be achieved by opening 1.1 million acres of Corridor land to state selection. The publication of this state and federal proposal was accompanied by a 45 day public comment period. Meetings to discuss the supplement were held in Barrow, Stevens Village, Fairbanks and Anchorage. (The supplement is republished as Appendix J).

The proposal presented in the supplement to the draft RMP/EIS received a great deal of comment. After consideration of these comments and after extensive consultation with the State of Alaska it was decided that approximately 0.7 million acres of land within the Corridor would be opened to state selection. These lands are located in four different areas or units, (folded map 1). These units are: 1) the Corridor lands south of the Yukon River, originally described in the preferred alternative of the draft

RMP (approximately 25,000 acres), 2) the Prospect unit (approximately 55,000 acres) which corresponds closely to the "Ambler Mining District Transportation Corridor" defined in the draft RMP as well as lands occupied by the nearby State of Alaska highway maintenance camp and state maintained public airstrip (Map 2.1), 3) the Coldfoot unit, which includes the node described in the draft RMP as well as a transportation corridor to the east (a total of approximately 26,000 acres; Map 2.2), and 4) the Sagavanirktok unit, described in the supplement to the draft RMP (Appendix J) as Corridor lands located north of Toolik Lake (approximately 600,000 acres). See Section 2 for a description of anticipated activities. Dropped from further consideration for state selection were the approximately 600,000 acres of Corridor lands just north of the Yukon River, referred to by many commenters as the "Stevens Village Block."

Proposed Action 7: As stated under Proposed Action 7, modification of PLO 5150 to allow state selection at Coldfoot would occur under the proposed plan. If lands within this node were indeed selected and conveyed to the State of Alaska, four sites totaling approximately 15 acres would be retained by BLM for use by federal agencies including BLM, the National Park Service and the U.S.

Fish and Wildlife Service to facilitate their management responsibilities within the area. If the Prospect Unit is conveyed to the state, BLM would retain a small portion for an administrative site. Furthermore, if the lands within the Happy Valley node are conveyed to the state, a site (or sites) would be retained by BLM if considered necessary or appropriate for BLM to fulfill its management function within the area.

Proposed Action 8: In addition, the draft RMP identified lands for possible sale within the Coldfoot and Yukon Crossing nodes. As a result of public comments, under the proposed plan these lands would not be made available for sale. Should the Coldfoot node be transferred to the State of Alaska, this would become a state issue. Sale of lands within five miles of the Dalton Highway is currently prohibited under state law.

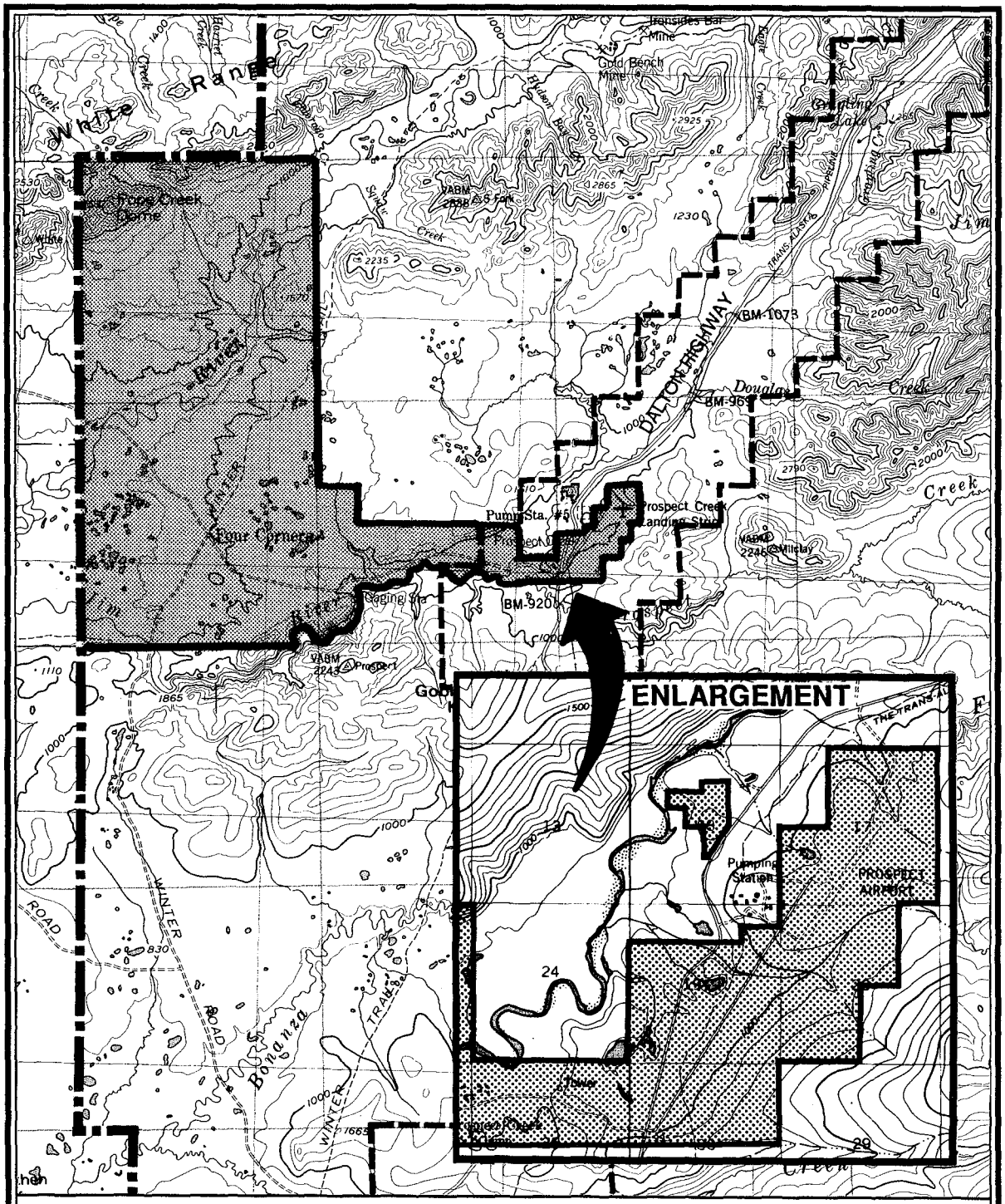
Proposed Action 9: Consistent with the draft RMP, Public Land Order 5150, as amended by PLO 5182, would be further amended to allow state selection in the remainder of the Gas Arctic east-west energy transportation corridor adjacent to the Arctic Wildlife Refuge. This area is approximately 30,000 acres in size and involves land in Tps. 1 S., Rs. 24 and 25 E., Umiat Meridian.

Proposed Action 10: Disposal of small tracts of public land would be encouraged just west of the upper reaches of the Middle Fork Chandalar River through exchange with or selection by the State of Alaska.

Proposed Action 11: To consolidate federal land ownership, the relinquishment of state selections on four isolated tracts of land (totaling approximately 15,000 acres) located south of the Brooks Range between the Utility Corridor and adjacent Conservation System Units would be requested. Also, should the state choose not to select the "Sagavanirktok Unit," relinquishment of an isolated tract of land (approximately 12,000 acres) north of the Brooks Range located between the Utility Corridor and the Arctic National Wildlife Refuge would be requested.

Proposed Action 12: The proposed RMP encourages exchanges with appropriate land owners to provide for federal ownership of a corridor surrounding the Killik River. This corridor would be a multiple-use management area focusing on protection of the riverine environment connecting the Gates of the Arctic National Park with the Colville River. Also, the proposed plan encourages the acquisition of lands for multiple-use management on the western and eastern sides of the Oolamnagavik block to consolidate federal land ownership.

Proposed Action 13: The proposed RMP encourages the acquisition of the approximately 274,000 acres of subsurface estates from the Arctic Slope Regional Corporation (ASRC) or the disposal of the corresponding 274,000 acres of surface estates to ASRC to end the "split-estate" conditions in CAMA and to increase land consolidation.



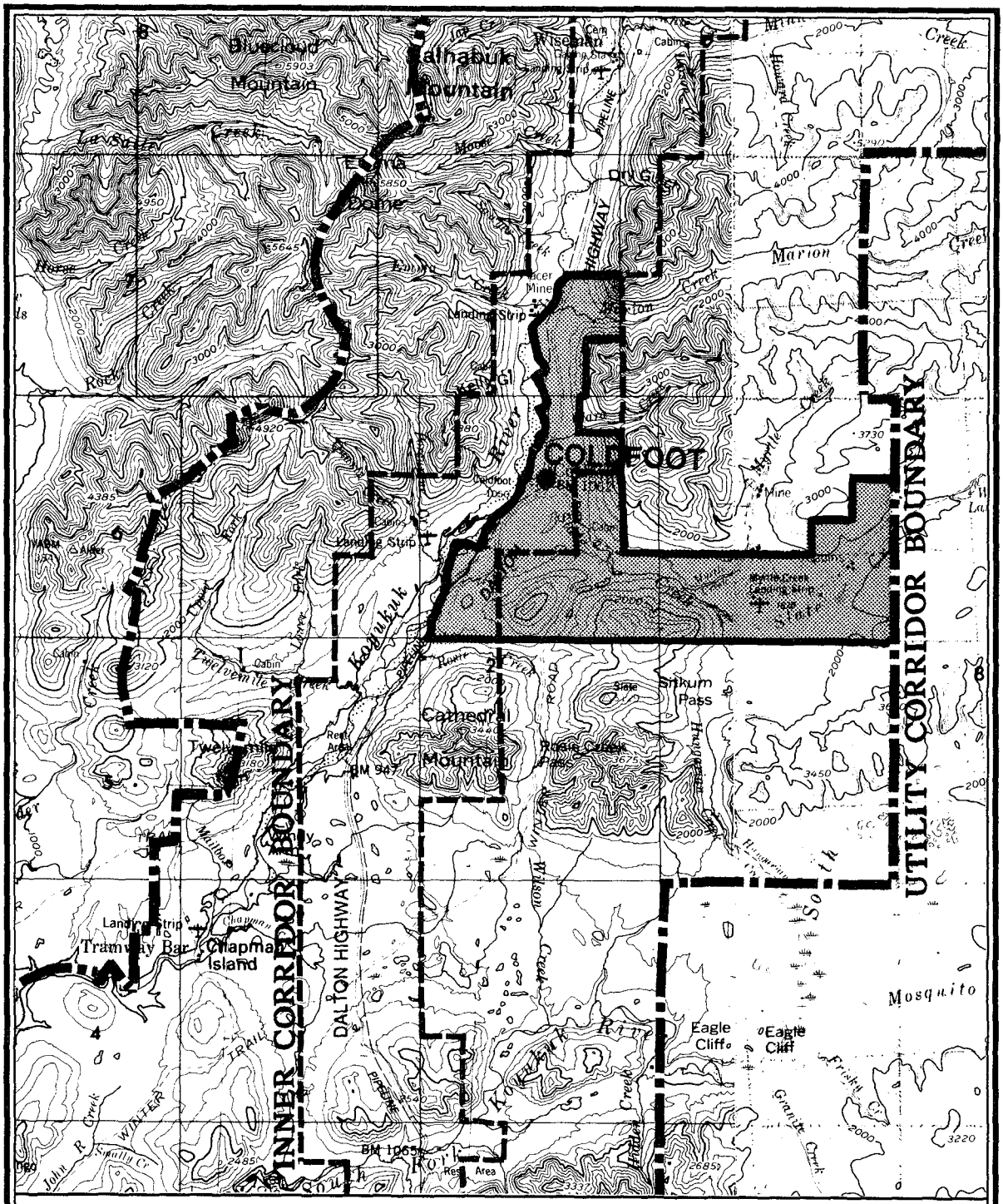
BOUNDARY MAP
Map sheet Bettles

Scale in Miles
0 5

Within Tps. 22, 23 and 24 N
Rs. 14, 15 and 16 W.
Fairbanks Meridian

PROSPECT UNIT
STATE SELECTION AREA

Map 2.1



BOUNDARY MAP
Map sheet Bettles
and Chandalar

Scale in Miles
0 5

Within Tps. 28 and 29 N.,
Rs. 11 and 12 W.
Fairbanks Meridian

COLDFOOT UNIT
STATE SELECTION AREA

Map 2.2

Proposed Action 14: The proposed RMP would resolve unauthorized occupancies in Wiseman by selling lots to the owners of cabins. PLO 6727 was issued to modify PLO 5150 and to classify the lands for sale. These are long standing unauthorized occupancies that must be resolved. The affected lands have been determined suitable for disposal, and BLM is expecting to sell surveyed lots in Wiseman to the cabin owners in accordance with the Federal Land Policy Management Act (FLPMA) and the existing land use plan (i.e., the MFP).

Proposed Action 15: The BLM proposes making lands available for disposal to qualified applicants under the R&PP Act to accommodate future public purpose needs in Wiseman, Coldfoot, and Yukon Crossing/7-Mile area. Additional lands may be needed in these areas in the future to accommodate public facilities such as schools, churches or local governmental service facilities.

Proposed Action 16: The draft RMP recommended the transfer of approximately 48,000 acres of BLM managed lands located within the boundaries of the Arctic National Wildlife Refuge (ANWR) to the U.S. Fish and Wildlife Service. These lands were withdrawn by Public Land Order 6607 and were remnants of a gas pipeline corridor no longer receiving active consideration. Congress made these lands part of ANWR and placed them under the management of the U.S. Fish and Wildlife Service on August 18, 1988 (P.L. 100-395).

DEVELOPMENT NODES

Proposed Action 17: Nodes under the proposed plan would be defined as those areas where BLM would encourage all use and development related to road traffic to take place. BLM would designate and manage four areas as development nodes under the proposed RMP: Yukon Crossing, Coldfoot, Chandalar, and Happy Valley (Maps 2.3-2.6). Coldfoot and Happy Valley, which are included in areas to be opened to state selection, would be managed as nodes until such time as the lands were conveyed to the state. The areas around Prospect and Pump Station 3, designated as nodes in the previous land use plan, would no longer be designated or managed as nodes while the lands are under federal management. Governmental units and energy transportation facilities would be allowed to locate outside the nodes if the needs or purposes of the facility were better met outside the node boundaries. Commercial activities not directly related to road traffic (e.g., horse corral or grazing areas) would be considered for permit approval in areas outside the nodes. Such activities would be screened from the Dalton Highway, where appropriate, by vegetation and distance.

The proposed RMP would continue the current policy of allowing the location of state road maintenance camps at the Yukon Crossing (7-Mile), Coldfoot, Chandalar Shelf, and Slope Mountain (all now in place). The lands now occupied by the Alaska Department of Transportation and Public Facilities (AK DOT/PF) Jim River maintenance camp would be opened to state selection under the proposed plan. Also see the "Commercial Development" description in Section 2.

The following is a brief description of each node:

Yukon Crossing Node (7,050 acres)

The boundary of the Yukon Crossing node would encompass all existing facilities and activities in the Yukon Crossing area. The boundary extends from the service facility near the bridge to the road maintenance camp at 7-Mile. The node has been defined to include the 7-Mile area because of the existing State of Alaska highway maintenance camp, the existing airstrip, and the potential reopening of the school at that site.

In the long term, if growth at the Yukon Crossing area warrants, the existing airstrip should be closed and a new airstrip constructed along the northeast/southwest trending ridge in Sec. 1, T. 12 N., R. 11 W., Sec. 6, T. 12 N., R. 10 W.; and Secs. 31 and 32, T. 13 N., R. 10 W. Fairbanks Meridian. The state has applied for an airport lease on this site.

Commercial activities related to road traffic would remain in the current area close to the Yukon River bridge. Due to the size of this node BLM should be able to accommodate any proposed road related activity that can meet the usual permit stipulations. The recommendation presented in the preferred alternative of the draft RMP to offer homesite areas for sale has been dropped from this proposed plan.

Coldfoot Node (7,000 acres)

The boundaries of Coldfoot would encompass the current activities centered in T. 28 N., R. 12 W., Secs. 15 and 16, Fairbanks Meridian, and would extend about five miles north to an area beyond Marion Creek in T. 29 N., R. 13 W., Fairbanks Meridian.

The proposed Coldfoot node is large enough to enable BLM (or the state) to accommodate any anticipated road related activity. If demand for facility expansion should occur that can not be accommodated in Secs. 15 and 16 along the Dalton Highway and above the Slate Creek floodplain, consideration would be given to permitting actions north of Slate Creek in Sec. 10. The floodplain boundary of Clara Creek would require mapping before an area in Sec. 10 could be identified. If lands within this node are conveyed to the state, five sites totaling approximately 20 acres would be retained by BLM for use by federal agencies including BLM, the National Park Service and the U.S. Fish and Wildlife Service to facilitate their management responsibilities within the area.

The recommendation presented in the preferred alternative of the draft RMP to offer homesite areas for sale has been dropped from this proposed plan.

Chandalar Shelf Node (1,700 acres)

Currently located within the Chandalar Shelf node boundaries are a BLM administration site, an existing state held airport lease, and a State of Alaska highway maintenance camp. No commercial activities are now located within the node, but interest has been expressed in developing a service facility and lodge. The boundary has been drawn to focus development along the Dalton Highway and around the airstrip. No homesite development is proposed. BLM could accommodate anticipated road related uses in this node along with the current government and energy transport activities.

Happy Valley Node (1,600 acres)

The boundary of the Happy Valley node encompasses the areas permitted to several guides/outfitters and the governmental units clustered along the airstrip. No homesite development would be offered at this node. If the lands within this node are conveyed to the state, a site (or sites) would be retained by BLM as necessary or appropriate to fulfill its management function within the area.

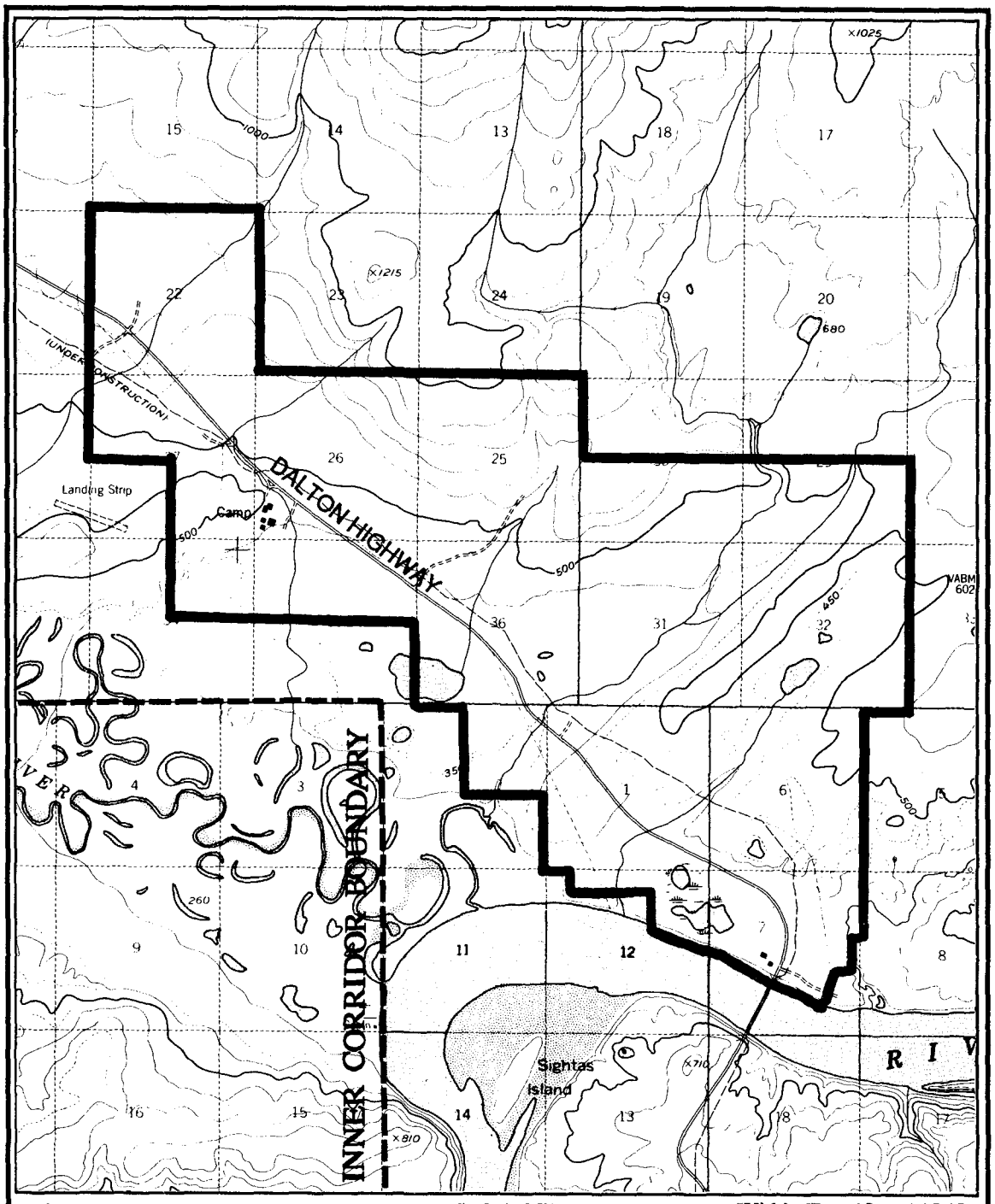
CHANGES TO UTILITY CORRIDOR BOUNDARIES

Proposed Action 18: The proposed RMP would modify the boundary of the inner Corridor to conform better to current and future needs for energy transportation. The inner Corridor was designated before the final alignments of the current highway and pipelines were determined in order to minimize conflicts with new mining claims. Now that these alignments are in place the boundary of the inner Corridor should be modified. Appendix N provides a precise description of proposed changes in this boundary. PLO 5150 would be modified to conform with these proposed changes.

LAND-USE AUTHORIZATIONS

Land use authorizations shall be issued only at fair market value and only for those uses that conform with BLM plans, policy, objectives, and resource management programs. In determining the informational and procedural requirements, the BLM will consider the duration of the anticipated use, its impact on the public lands and resources, and the investment required by the proposed use. The primary authorizations anticipated are leases, permits, and rights-of-way. Each proposal or application is considered on a case-by-case basis and either authorized or rejected based on findings.

No land use authorization is required under the regulations for casual use of the public lands. Casual use can be defined as any short term non-commercial activity which does not cause appreciable damage or disturbance to the public lands, their resources or improvements, and which is not prohibited by closure of lands to such activities.



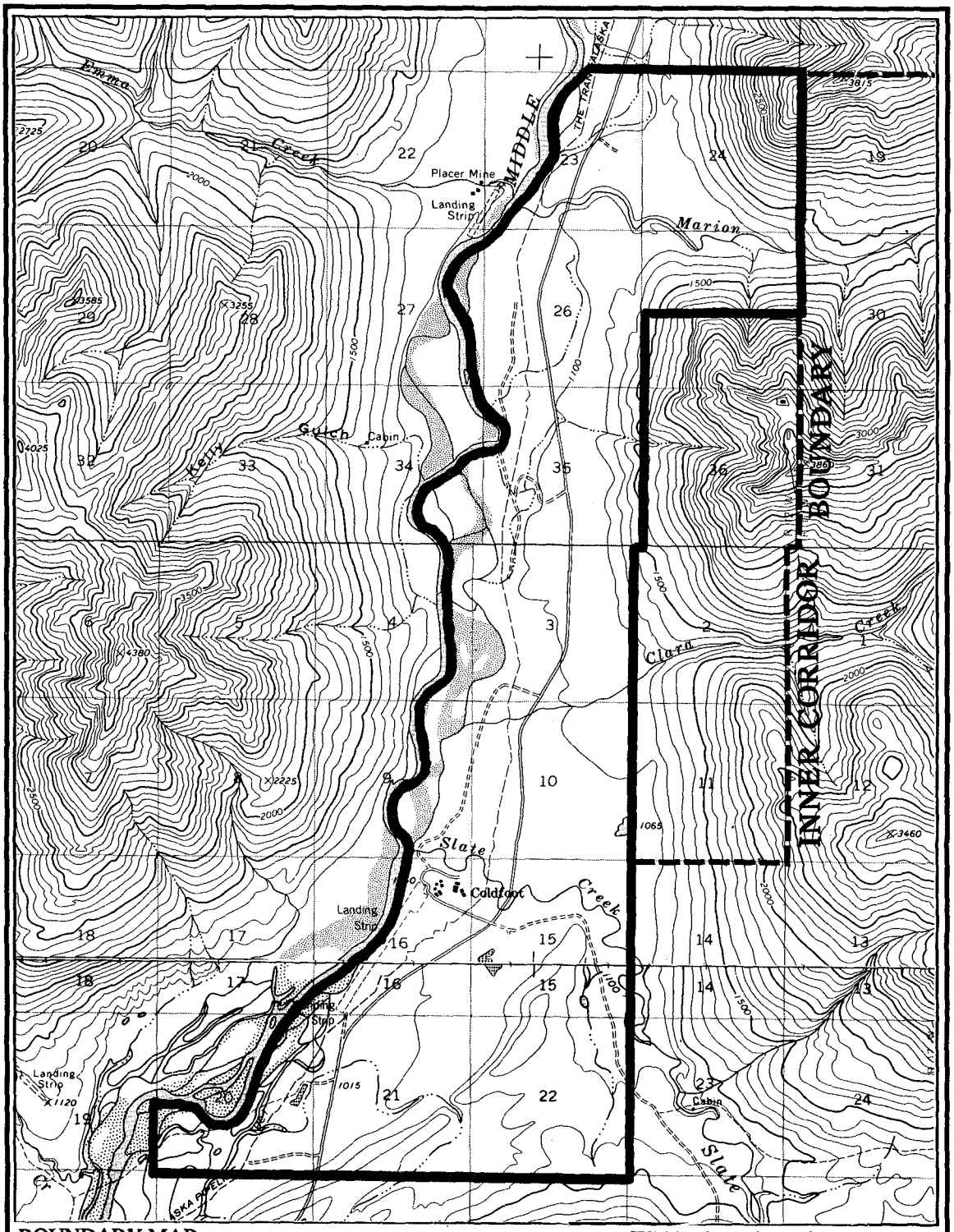
BOUNDARY MAP
Map sheet Livengood D-6

Scale in Miles
0 1 2

Within Tps. 12 and 13 N., Rs. 10 and 11 W.
Fairbanks Meridian

YUKON CROSSING DEVELOPMENT NODE

Map 2.3



BOUNDARY MAP
Map sheets Wiseman A1 and B1

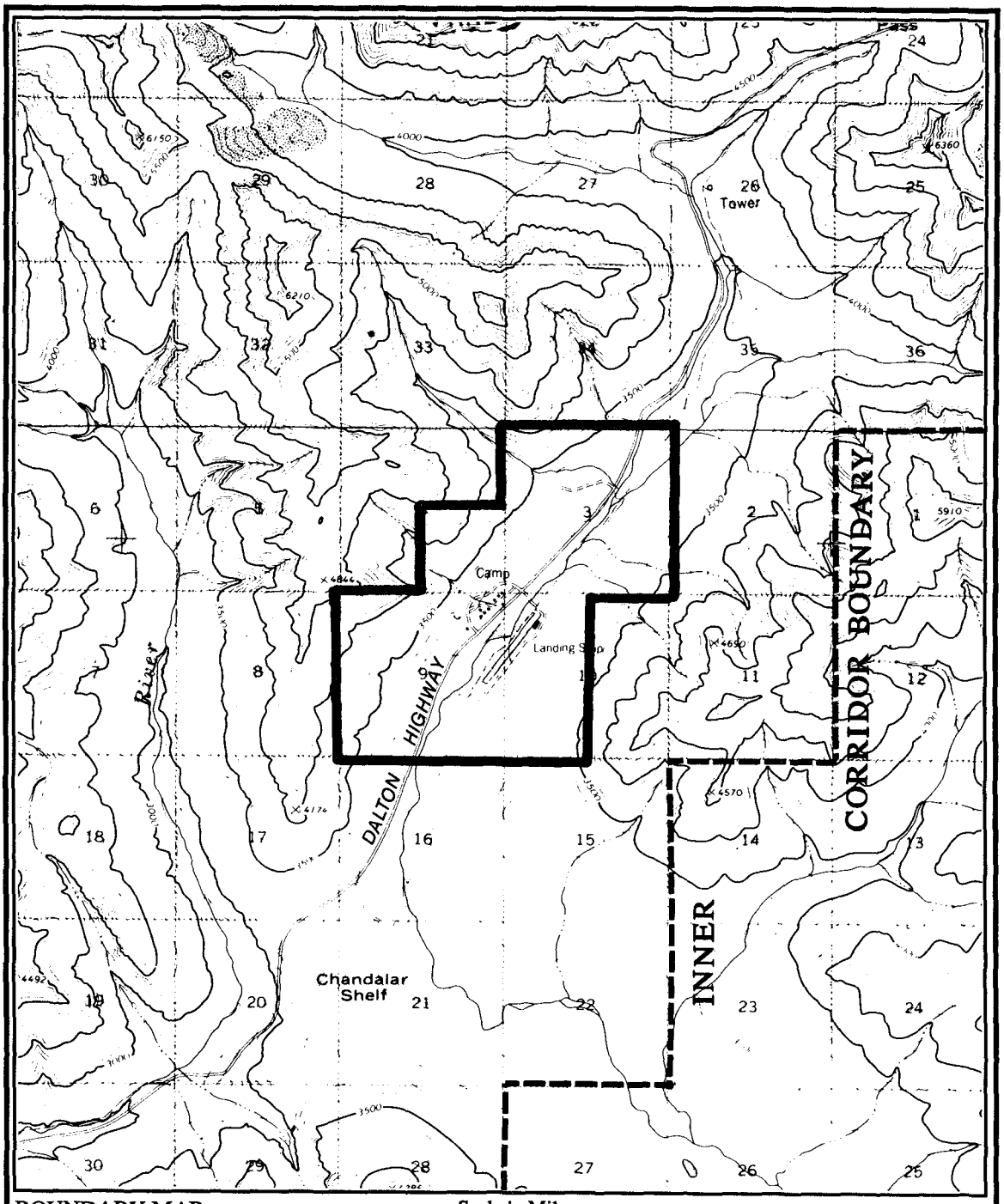
Within Tps. 28 and 29 N., R12 W.
Fairbanks Meridian

Scale in Miles

0 1 2

COLDFOOT DEVELOPMENT NODE

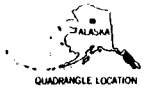
Map 2.4



BOUNDARY MAP
Map sheet Phillip Smith Mtns. A-5

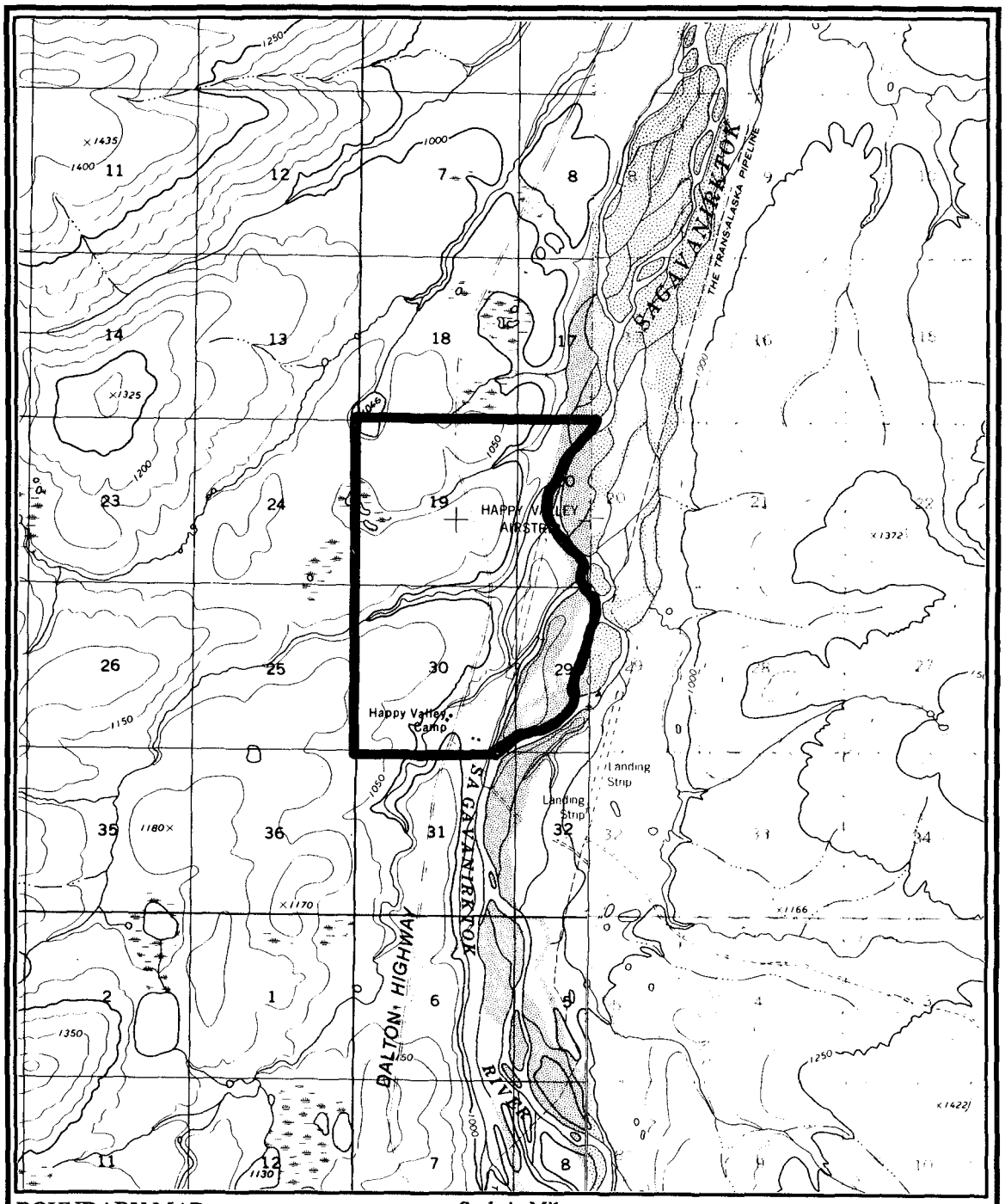
Scale in Miles

Within T. 16 S., R. 11 E.
Umiat Meridian



CHANDALAR SHELF DEVELOPMENT NODE

Map 2.5



BOUNDARY MAP
Map sheets Sagavanirktok A-3 and A-4

Scale in Miles

Within T. 3 S., R. 14 E.
Umiat Meridian

HAPPY VALLEY DEVELOPMENT NODE

Map 2.6

Rights-of-Way

Title V of the Federal Land Policy and Management Act (FLPMA) of October 21, 1976, provides for the issuance of right-of-way grants to authorize rights-of-way upon, under, or through public lands for construction, operation, maintenance and termination of a project. The regulations found in 43 CFR 2800 and 2880 govern the issuance, amendments, and renewals of rights-of-way grants for necessary transportation, other systems, or facilities which require authorization including: roads, trails, pipelines, communications sites, power distribution and transmission lines, and such other necessary transportation, other systems or facilities which are in the public interest.

The authorized officer may designate right-of-way corridors across any public lands in order to minimize adverse environmental impacts and the proliferation of separate rights-of-way. The designation of corridors shall not preclude the granting of separate rights-of-way when it is determined confinement to a corridor is not appropriate. Designation criteria include existing land use plans, environmental impacts, physical effects and constraints, economic efficiency, national security risks, potential health and safety hazards, engineering and technological compatibility, and social and economic impacts on land users and adjacent owners. This RMP addresses rights-of-way corridors to the fullest extent possible and include: 1) the Trans-Alaska Pipeline Utility Corridor, 2) the Ambler Mining District/Dalton Highway access corridor [Sec. 201(4)(b) ANILCA] and, 3) the 1431 (j) corridor [Sec. 1431(j) ANILCA]. It is not possible to identify exclusion and avoidance areas at this time.

Section 28 of the Mineral Leasing Act of 1920, as amended, and the regulations found in 43 CFR 2880 provide for the issuance of rights-of-way for oil and natural gas pipelines and related facilities.

FLPMA Leases

Public land must be retained and managed under the BLM's multiple-use programs, unless the Bureau's inventory and land use planning procedures reveal that the public lands have location or site values making them highly suitable for habitation, cultivation, or development. Land use authorizations are issued under this section only if other authority is not available. Federal departments and agencies cannot be authorized to use public lands under this authority.

The regulations found in 43 CFR 2920 provide that any person, corporation, partnership, association, or official state or local government legally qualified to hold interest in lands may initiate a proposal for a lease which contains the proposed uses and activities, environmental impacts, benefits, development costs, period or term of use, health and safety risks, facilities and improvements, along with site plans and sketches. There are many requirements which any proponent should know, such as cost reimbursement, rental, BLM policies, objectives, and resource management programs.

A lease conveys a possessory interest and is revocable only in accordance with its terms. Leases are used to authorize land uses involving substantial construction, development, and the investment of large amounts of capital which must be amortized over time.

FLPMA Permits

The authority for permits are found in 43 CFR 2920. Permits do not grant a possessory interest in lands and are used to authorize specific land uses that do not normally exceed three years in length and involve little or no land improvements. Occupancy permits may be issued to temporarily resolve cases of occupancy trespass pending ultimate abatement of the trespass.

R&PP Leases

The Recreation and Public Purposes Act of June 14, 1926, as amended, and 43 CFR 2912 provide for the lease of public lands to qualified parties for public or recreation purposes. Reference above R&PP sales (CFR 2740) previously discussed under "Disposals." Lease terms are not to exceed 20 years to non-profit associations or corporations and 25 years for federal, state, and local governmental entities. Reasonable rental is charged except leases to governmental entities for

recreational or historic-monument purposes shall be made at no charge. Leases are not transferrable unless proposed to a qualified party and approved by the BLM District Manager. Lands must be classified for lease prior to approval. It is possible to require development under a lease prior to disposition by a patent.

Airport Leases

The Act of May 24, 1928, as amended (49 U.S.C. Appendix 211-213), and the regulations found in 43 CFR 2911 provide for the issuance of leases not to exceed twenty years for public airports on contiguous, unreserved, and unappropriated public lands, not to exceed 2,560 acres. A filing fee and rental payments are required. Qualified lessees include any individual who is a U.S. citizen, corporations, and state and governmental agencies. Public airport means an airport open to use by all persons without prior permission of the operator. The lessee shall submit to the ratings and requirements of the Federal Aviation Administration.

Cooperative Agreements

Section 307 (b) of FLPMA provides that the BLM may enter into cooperative agreements with other federal agencies involving the management, protection, development, and sale of public lands. The current policy on use of public lands by a federal agency under a cooperative agreement is that the determination of use compatibility-similarity-relationship is being strictly applied. Only those uses which are clearly and directly similar or related may be covered in cooperative agreements, especially if the agency uses would involve facilities or other improvements.

Realty Trespass

Realty trespass is defined as unauthorized use, occupancy, or development of the public lands for any purpose where authorization must be obtained under the regulations found in 43 CFR 2800 and 2920. This definition is derived from section 303(g) of FLPMA. The Bureau's realty trespass regulations, in general, provide that anyone determined to be in trespass shall be notified of such trespass and shall be liable to the U.S. for:

1) The administrative costs incurred by the U.S. as a consequence of such trespass;

2) The fair market value rental of the lands (i.e. land rent) for the current year and past years of trespass;

3) Rehabilitating and stabilizing the land or costs incurred by the U.S. in performing said work;

4) If a trespass is willful, repeated or not resolved in a timely manner, the trespasser may also be subject to trespass penalties of:

   a. An amount equal to twice the rental value if nonwillful; and

   b. An amount equal to three times the rental value if willful.

5) The Bureau may also deny a land use authorization or sale of the lands to a knowing and willful trespasser.

No long term authorizations shall be issued for any trespass occurring in any designated area of critical environmental concern.

Proposed Action 19: Under this proposed RMP opportunities for FLPMA leases on federal lands would be considered where environmentally feasible and compatible with management objectives. Previously disturbed sites would be considered prior to allowing uses on undisturbed sites, giving first priority to locations within development nodes. Where the proposed uses or site requirements would not be compatible within a development node, leases would be considered outside of a node.

Proposed Action 20: The proposed RMP would allow for leases with restrictions within the Kanuti Hot Springs ACEC. However, no lease would be allowed within the immediate area or "thawbulb" of the springs (an area roughly corresponding to the meadow which surrounds the hot water pools). Undeveloped hot springs on federal land are few in number, and little is known about the resource value of this particular hot spring. Additional inventory work is recommended to define more accurately the area needed under ACEC protection and to aid in the design of lease stipulations intended to protect this resource. If changes in the ACEC boundary or use restrictions result from this inventory work, they would be addressed in a plan amendment (also see proposed action 51).

Proposed Action 21: This proposed RMP would make lands available to federal and state agencies and research organizations for needed administrative and support facilities where environmentally feasible and compatible with management objectives. Again, previously disturbed sites would be considered prior to allowing uses on undisturbed sites.

Proposed Action 22: Lands would be made available within the Utility Corridor where needed to accommodate public solid waste disposal sites operated by appropriate governmental agencies or private operators. The environmental feasibility of site location and methods of disposal would be a primary consideration. Previously disturbed sites would be considered prior to allowing uses in new areas.

Proposed Action 23: Until Congress acts on BLM's wilderness recommendations, planning area lands north of 68° N latitude (i.e., CAMA) must be managed to protect their wilderness values in accordance with BLM's "Interim Management Policy and Guidelines for Lands Under Wilderness Review" (USDOI, BLM, 1979). Therefore, only those lands within the Dalton Highway "viewshed," which were determined nonwilderness in character in 1980 (U.S. Department of Interior, BLM, 1980), would be available for utility and transportation systems. Other impacting activities outside the Dalton Highway viewshed would also be prohibited until Congress acts on the wilderness recommendation. For example, oil and gas development, mining, road construction, etc., would all be prohibited on federal CAMA lands until Congress acts. These restrictions do not apply to planning area lands south of 68° N latitude.

Access

Other than lands adjacent to the Dalton Highway, most of the lands in the planning area are remote and reached using traditional means of transportation, including travel by foot, dogsled, snowmachine, boat, and aircraft. Many remote airstrips exist in the planning area. Access by all-terrain vehicles may be occurring on and off established roads and trails.

As a matter of policy, access to state or private inheld lands will not be denied. Rights-of-way across the public lands are generally granted under Title V of FLPMA and 43 CFR 2800 and will be issued to promote maximum utilization of existing right-of-way routes, including joint use where possible. The condition of other resources must be considered when processing applications for legal access. These resource conditions may necessitate restrictions or conditions to be met in authorizing lands actions or result in their rejection.

Access to the public lands is protected by the reservation of public use easements across (private) Native corporation lands under the authority of Section 17(b) of ANCSA. Additionally, BLM has the authority to acquire easements if they are needed to support use of the public lands.

The State of Alaska may directly accept a congressionally granted right-of-way under the authority of Revised Statute 2477 (RS 2477) if a road were constructed prior to the lands being reserved on December 14, 1968. This proposed RMP encourages all affected agencies to work cooperatively with the State of Alaska to identify all right-of-way claims made pursuant to RS 2477 on public lands for administrative purposes only. The validity of such claims would be determined in a court of competent jurisdiction.

Proposed Action 24: To facilitate issuance of rights-of-way from the Ambler Mining District to the Dalton Highway in accordance with the provisions of Sec. 201(4)(b-e) of ANILCA, the draft RMP recommended designation of a transportation corridor near Prospect/Pump Station 5 (Map 2.1).

Because the State of Alaska expressed a strong interest in obtaining these lands to develop access to state and Native lands to the west of the Utility Corridor, the area identified in the draft RMP as the "Ambler Mining District Transportation Corridor" will be opened to state selection under this proposed RMP (see proposed action 6).

Proposed Action 25: Under the proposed RMP, to facilitate state access to state lands to the east of Coldfoot, an "access corridor" from the Coldfoot node to the east would be opened to state selection (see proposed action 6).

Proposed Action 26: Elsewhere, the proposed RMP would allow appropriate access to state/private lands from the Utility Corridor although no specific routes are defined. Appropriate locations for rights-of-way from the Dalton Highway should be determined through cooperative planning. Specific definitions of rights-of-way would await the filing of rights-of-way applications by the State of Alaska.

Proposed Action 27: The proposed RMP encourages the Bureau to join with the National Park Service, the U.S. Fish and Wildlife Service and the State of Alaska to evaluate current and projected ORV use in the corridor and possible routes of access to state land and to the boundaries of conservation units adjacent to the Corridor. This ORV evaluation proposal is also mentioned under "Recreation Resources" below and is an issue appropriate for consideration through proposed cooperative planning (see proposed action 1).

Recreation and Visual Resources

RECREATION MANAGEMENT AREAS (RMAS)

Proposed Action 28: In response to recent and projected increases in public use of the Dalton Highway, the proposed RMP would establish Recreation Management Areas (RMAs). These RMAs will allow for more focused planning and managing, according to Bureau priorities. There would be no conflict with the primary purposes of the Utility Corridor. Table 2.3 lists campgrounds, concessions and lodges, undeveloped pull-outs with interpretive facilities, trailheads, and off-road vehicle use areas that would be considered in each of the RMAs. This table also describes the Visual Resource Management (VRM) classes and the Recreation Opportunity Spectrum (ROS) ascribed to each RMA (Appendices G and H). Map 2.7 displays the RMAs' geographic boundaries.

The following RMAs would be designated under the proposed RMP:

Dalton Highway Recreation Management Area
(approximately 1,100,000 acres)

This area generally corresponds to the inner Utility Corridor and includes those lands within the Corridor adjacent to existing roadways. The primary recreational uses would include road related sight-seeing, overnight lodging and developed camping, interpretative services, and fishing. The primary Recreation Opportunity Spectrum (ROS) classes for this area would be Roaded Modified and Roaded Natural. A Rural classification will apply to areas surrounding nodes (see Appendix G for a description of these classes). Recreation facility development, information signs, interpretive facilities, and the presence of seasonal staff will involve intensive management presence in this area.

In order to protect the on-going and future research work near Toolik Lake, a campground would not be established at the previously considered campground sites on the shores of the lake (see draft RMP). In addition, no recreation use cabins will be constructed on or near Toolik Lake. An interpretive site at Galbraith Lake or at the junction of Dalton Highway and the access road to the Toolik Lake research facilities would describe the purpose and importance of the research activities in the area.

Though recreation facility development is being considered north of 68° N latitude (see Table 2.3), no overnight campground facilities would be constructed unless the state makes the decision to allow general public travel north of this line. Guides and outfitters would be allowed use of the Galbraith

Lake area, but no surface disturbing activities or development (e.g., fuel storage or equipment storage facilities) would be allowed.

Dalton Corridor Recreation Management Area
(approximately 2,350,000 acres)

This area corresponds to the remainder of the Utility Corridor, the Venetie block and several tracts of land (approximately 125,000 acres) near or adjacent to the Corridor and the Venetie Block. Primary recreational uses would include hunting, fishing, backpacking and snowmobiling. The area generally falls under Primitive-Traditional (PT) ROS classification. There would be no new recreational facility development in this area.

Colville-Oolamnagavik Extensive Recreation Management Area
(approximately 600,000 acres)

In this recreation management area, primitive and semi-primitive recreation experiences would be emphasized. Land acquisitions are proposed in order to provide coherent natural boundaries to this block of land to ease management. The primary uses of this area would be hunting, fishing, backpacking, and river floating. No development of recreational facilities would take place.

CAMA Extensive Recreation Management Area
(approximately 1,870,000 acres)

In this recreation management area, primitive and semi-primitive recreation experiences would be emphasized. The primary recreational uses would be hunting, fishing and backpacking. No recreational facility development would take place.

Nigu Wilderness and Iteriak ACEC Recreation Management Area
(approximately 160,000 acres)

The proposed plan would create a special management area through the designation of the upper Nigu area as wilderness and the Nigu-Iteriak as an ACEC. The primary recreational uses of these areas would include kayaking, rafting, backpacking and fishing.

Proposed Action 29: The proposed RMP recommends that a Recreation Area Management Plan be completed on each of these RMAs to aid in the implementation of recreation facility development. Highest priority would be given to the Dalton Highway Recreation Management Area. See Section 2 for anticipated activities.

OFF-ROAD VEHICLES (ORVS)

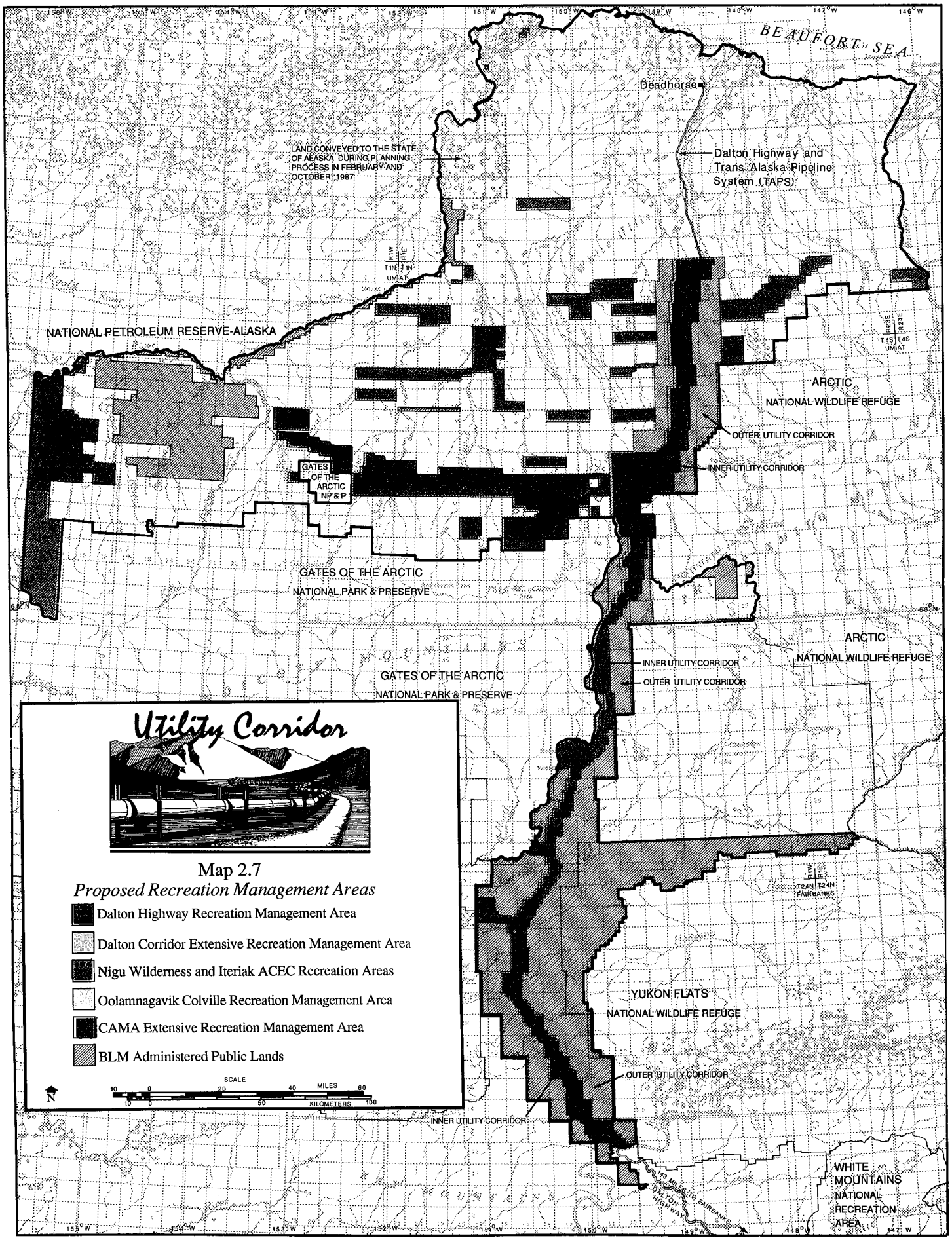
At present, state law prohibits ORVs within five miles of the Dalton Highway right-of-way except when being used in conjunction with mineral development (Alaska Statute 19.40.210, as amended). Federal recreation program regulations prohibit operation of an ORV in violation of state laws and regulations which relate to ORV use, standards, registration, operation and inspection [43 CFR 8341.1(d)]. Consequently no noncommercial casual (recreational) or commercial recreational ORV use (e.g., use by guides and outfitters) can be authorized or permitted by BLM within five miles of the Dalton Highway right-of-way. Therefore, recommendations under this proposed RMP relating to allowable recreational uses of ORVs will not apply within five miles either side of the Dalton Highway; nor will ORV access points identified in this plan be developed at this time. The recreational ORV policy stated in this proposed RMP will be held in abeyance until such time as 1) the state and BLM reach an acceptable agreement on suitable ORV use in the restricted area, 2) state law changes, or 3) federal regulations change.

Proposed Action 30: BLM regulations require that all lands within a planning area be classified as opened, closed or limited to ORV use (BLM Manual 1623.41). This proposed RMP classifies the entire planning area as "limited." See Table 2.3 and Appendix I for further information regarding restrictions on ORV use within the planning area.

Table 2.3
Recreation Facility Development to be Considered in the Recreation Area Management Plan for ORV Use and ROS Classes[1]

Recreation Management Areas[2]	Campground and Cabins	Concessions and Lodges	Information/ Interpretive Sites	Access/ Trailheads	ORV Use Types	ROS Classes[3]	VRM Classes[3]
Dalton Highway	Yukon River Camp, Bonanza Cr./Prospect Cr. Camp, S. Fork Koyukuk, Arctic Circle Camp, Coldfoot Cabin, Marion Creek Camp, Minnie Cr. Cabin, Martha Cr. Cabin, Galbraith Lake Camp	Yukon Crossing Node, Coldfoot Node, Chandalar Shelf Node, Happy Valley Node	Yukon River, Finger Rocks, Arctic Circle, Chandalar/ Atigun, Galbraith Lake	Ray River, Jim River, Grayling Lake, Atigun River, Sagavanirktok, Sukakpak Mt.	Limited Type 2*	RN, RM, R, SPNM	IV
Dalton Corridor	None	With FLPMA lease	None	None	Limited Type 2	PT, SPM	III
Oolamnagavik-Colville	None	None	None	None	Limited Type 2	PT, SPM	III
CAMA	None	None	None	None	Limited Type 2	PT, SPM	IV
Nigu Wilderness and Iteriak ACEC	None	None	None	None	Limited Type 4	PT	I III

1 Specific locations of facilities will be determined in the proposed Recreation Activity Management Plan. The areas described here are general areas suggested for consideration.
2 Refer to map of recreation management areas
3 Refer to Appendices H and I for a description of the Off-Road Vehicle (ORV) and Visual Resource Management (VRM) classes. See Appendix G for a description of Recreation Opportunity Spectrum (ROS) classes.
* This is BLM's proposal. State statute further restricts use of ORVs in much of this area; see definition for limited Type 1 in Appendix I and introductory statement under "Off-Road Vehicles."


BEAUFORT SEA
Deadhorse
LAND CONVEYED TO THE STATE OF ALASKA DURING PLANNING PROCESS IN FEBRUARY AND OCTOBER, 1987
Dalton Highway and Trans. Alaska Pipeline System (TAPS)
NATIONAL PETROLEUM RESERVE-ALASKA
ARCTIC NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
GATES OF THE ARCTIC NP & P
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
ARCTIC NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
YUKON FLATS NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
WHITE MOUNTAINS NATIONAL RECREATION AREA
Utility Corridor
Map 2.7
Proposed Recreation Management Areas
Dalton Highway Recreation Management Area
Dalton Corridor Extensive Recreation Management Area
Nigu Wilderness and Iteriak ACEC Recreation Areas
Oolamnagavik Colville Recreation Management Area
CAMA Extensive Recreation Management Area
BLM Administered Public Lands
N
SCALE
MILES
KILOMETERS

Within the constraints of the surface management regulations (43 CFR 3809), mitigating measures to avoid or minimize possible adverse effects resulting from a proposed action would be developed through the environmental assessment (NEPA) process.

Proposed Action 34: The proposed RMP would recommend a systematic monitoring program to assess impacts of human uses on fisheries resources. Initial inventories will establish comparable baseline data that can be used to develop an aquatic habitat management plan if significant fisheries habitat improvements or protections are required in the future.

Proposed Action 35: With the assistance of the Alaska Department of Fish and Game, and the U.S. Fish and Wildlife Service, the Bureau would transplant sufficient numbers of muskoxen to support a viable population on BLM management lands near Pingaluligit Mountain in the Oolamnagavik Block.

Proposed Action 36: A habitat management plan (HMP) for the Colville River area is proposed. The Colville River has been identified as a nationally important area for raptors, including the peregrine falcon. The HMP would focus management of peregrine falcons in accordance with the *Peregrine Falcon Recovery Plan - Alaska Population* (USFWS 1982) and other raptor species concentrated in the area. Other species which will be emphasized will include important big game species and fisheries. Management opetions and stipulations would be developed before the area is classified for competitive or noncompetitive mineral leasing.

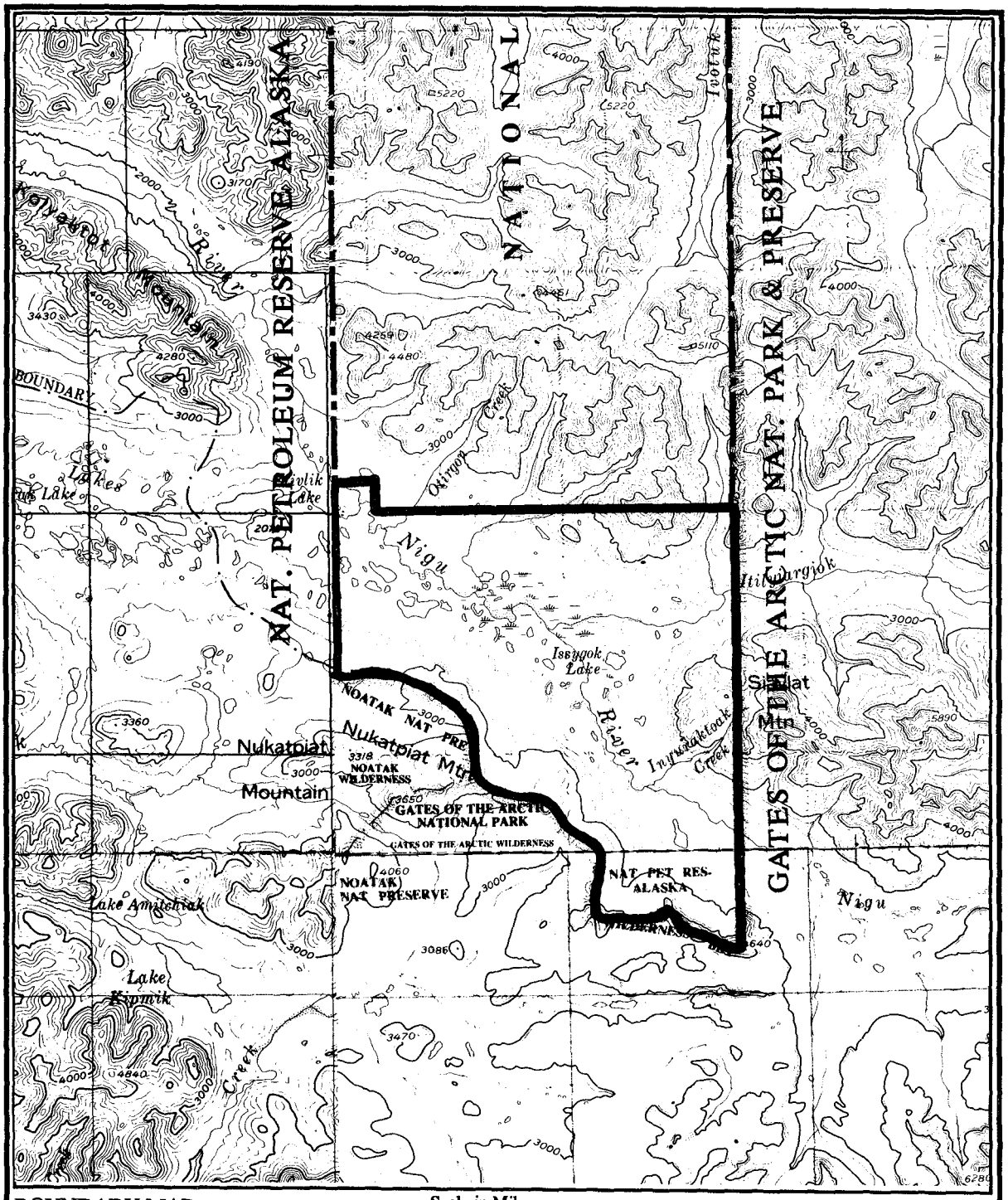
Proposed Action 37: Restrictions on mineral entry and location would be placed on areas of high wildlife (terrestrial and aquatic) resource values, including withdrawal of eight mineral licks (160 acres each), portions of the floodplains of the Jim and Kanuti rivers and Prospect Creek, and the southern portion of the proposed Nigu-Iteriak ACEC from mineral location (Proposed Action 2). Except for the Nigu-Iteriak ACEC, which would be closed to mineral leasing, the above areas are open to leasing only with no surface occupancy stipulations (Proposed Action 4). In addition, the Jim River and Ivishak River ACECs would be designated for protection of fisheries habitat, and six ACECs would be designated for the protection of crucial Dall's sheep habitat. Six mineral licks are within ACECs (see Action 52). The other identified mineral licks are shown on Map 2.9. Also, see the "Mineral Resource Development" section of this chapter, the foldout maps of the proposed plan, and Appendix N.

Proposed Action 38: Habitat improvement for moose and other species would occur under this proposed RMP through implementation of the Alaska Interagency Fire Management Plans (AIFMP). Additionally, prescribed burns may be used to reestablish or improve habitat.

Threatened and Endangered Species

Proposed Action 39: Management practices for peregrine falcon, a threatened species in CAMA and an endangered species in the southern half of the planning area, would include 1) implementation of monitoring activities to obtain information to enhance population recovery, 2) implementation of the protection measures recommended by the *Peregrine Falcon Recovery Plan - Alaska Population* (U.S. Fish and Wildlife Service 1982), 3) enhancement of populations to a point of recovery that allows peregrine falcons to be removed from threatened and endangered species lists, and 4) proposed designation of Sagwon Bluffs ACEC for the protection of peregrine falcons.

Proposed Action 40: No federally listed nor federally proposed threatened or endangered (T&E) plant species are known to occur in the planning area. However, BLM policy requires that plants designated as "sensitive" (Murray 1980) be accorded the full protection of the Endangered Species Act of 1973, as amended. The sensitive plant *Montia bostockii* is present in the Toolik Lake ACEC, and *Erigeron muirii* is present in the Sagwon Bluffs ACEC (Also see Action 52). The Endangered Species Act requires protection of T&E habitat from actions that would modify or destroy them. All actions that might affect these plants or their habitats would be examined through the environmental assessment process. Stipulations to assure their protection would be included in permits and leases.



BOUNDARY MAP
Map sheets Killik River, Survey Pass, Ambler River, and Howard Pass.

Scale in Miles
0 5

Within Tps. 30, 31, 32 N., Rs. 13 and 14 E.
Kateel River Meridian

PROPOSED ACTION

RECOMMENDED WILDERNESS AREA
41,000 ACRES

Map 2.8

Proposed Action 31: Although the limitations on BLM actions regarding ORVs described in the preface to this section continue at the time of this document's publication, changes in state policy may occur. Given the possibility of a change, the plan proposes an off-road vehicle use evaluation for Corridor lands to be conducted by the Bureau in cooperation with the State of Alaska, the U.S. Fish and Wildlife Service and the National Park Service. This evaluation should be an element of the cooperative planning effort discussed under proposed action 1, and would address current ORV uses in the Corridor and recreational access to lands (both federal and state) adjacent to the Corridor. At a minimum, results of this evaluation should determine the extent of ORV use in the Corridor and specify the need, if any, to reclassify lands to prohibit or allow (with or without restrictions) their use in specific areas. Reclassification of lands for ORV use after the use evaluation, if necessary, will be through a plan amendment.

VISUAL RESOURCE MANAGEMENT

Proposed Action 32: Because the Utility Corridor was withdrawn and dedicated to long-term utility and transportation needs by PLO 5150 in 1971, utility and energy transportation functions supersede all other considerations within this portion of the planning area. Management must allow for activities which could require major modification of the existing landscape. Therefore, inner Corridor lands would be managed per class IV visual resource management (VRM) objectives (Appendix H). However, to the extent feasible, every attempt would be made to minimize the visual impacts of authorized activities, especially in Class A scenery areas. Special attention would be given to the protection of visual resources within the Galbraith Lake and Sukakpak Mountain ACECs. See Table 2.3 for VRM management classifications outside the Dalton Highway Corridor.

Wilderness Resources

There are currently no areas within the planning area designated as wilderness. Sections 1001 and 1004 of the Alaska National Interest Lands Conservation Act (ANILCA) directed the Bureau to conduct an interdisciplinary study and to make recommendations on the wilderness values of an area north of 68° N latitude, east of the western boundary of NPR-A, excluding lands within ANWR and other conservation system units. This area is within the Utility Corridor planning area and is now referred to as the Central Arctic Management Area (CAMA). In accordance with the Secretary of the Interior memorandum dated March 12, 1981, CAMA is the only region considered in this proposed RMP for wilderness recommendation. Separate study documents consider the wilderness values of CAMA in detail. These documents are: (a) *Utility Corridor Draft Resource Management Plan and Environmental Impact Statement with the Central Arctic Management Area Wilderness Study Supplement* (USDOI, BLM; 1987); (b) *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, BLM; 1988) and; (c) *ANILCA Section 1001 Report Findings and Recommendations* (USDOI, BLM; 1988).

Proposed Action 33: The upper Nigu River area (approximately 41,000 acres) is recommended for wilderness designation (Map 2.8). This recommendation was submitted to the President and Congress through the *ANILCA Section 1001 Report Findings and Recommendations* (USDOI, BLM; 1988) on December 14, 1988. Only Congress can make the final decision on wilderness designation or nondesignation of these lands.

Wildlife Resources (Terrestrial and Aquatic)

The wildlife habitat management program defined by this proposed RMP emphasizes habitat protection, maintenance and improvement. Monitoring information would be used to formulate measures to avoid or mitigate possible adverse effects on wildlife from land use activities. The wildlife habitat program would be implemented in cooperation with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service - Endangered Species Office.

Habitat protection in the planning area would emphasize protection of crucial habitats. Crucial habitat is habitat which is absolutely necessary to maintain viable populations of fish, wildlife, or plants during certain seasons of the year or specific reproduction periods (BLM Manual 6780).

Within the constraints of the surface management regulations (43 CFR 3809), mitigating measures to avoid or minimize possible adverse effects resulting from a proposed action would be developed through the environmental assessment (NEPA) process.

Proposed Action 34: The proposed RMP would recommend a systematic monitoring program to assess impacts of human uses on fisheries resources. Initial inventories will establish comparable baseline data that can be used to develop an aquatic habitat management plan if significant fisheries habitat improvements or protections are required in the future.

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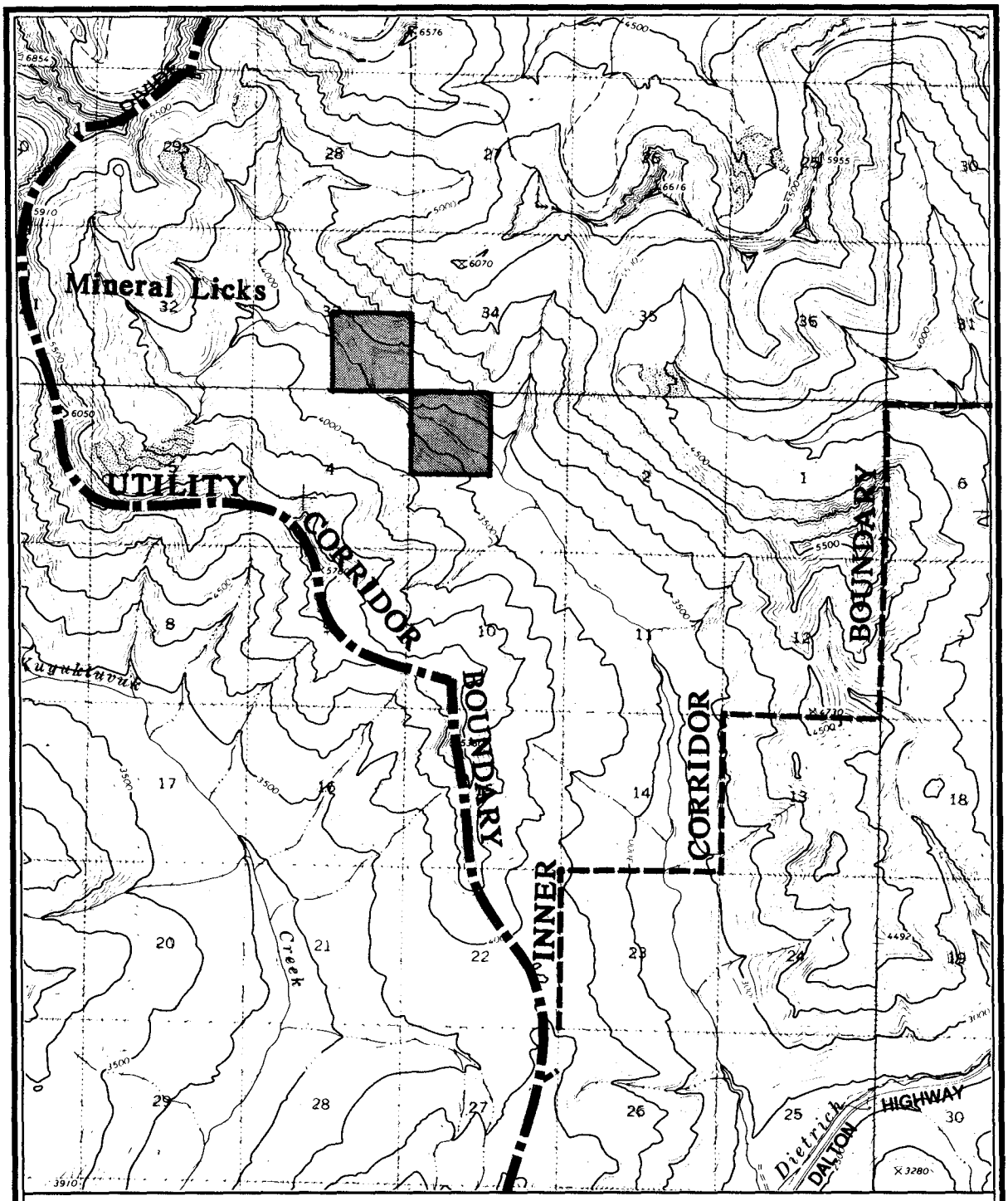


BOUNDARY MAP
Map sheet Philip
Smith Mtns. A-5

Scale in Miles
0 1 2

Within Tps. 15
and 16 S., R. 10 E
Umiat Meridian

QUADRANGLE LOCATION

ENDICOTT MOUNTAIN MINERAL LICK SITES

Map 2.9

Subsistence Resources

Procedural requirements mandated by Section 810 of the Alaska National Interest Lands Act (ANILCA) would be followed for all authorized actions. All actions would be evaluated on a case by case basis. The Section 810 evaluation on specific actions may be delayed if it is determined that additional information is needed to make such an evaluation. In the event that a proposed action is judged to restrict subsistence uses and needs significantly, the action may be denied. If such an action is approved, the Bureau would proceed to fulfill the responsibilities outlined in ANILCA. Also, the cooperative planning effort discussed under proposed action 1 would consider impacts on subsistence from land use proposals.

Proposed Action 41: The proposed RMP would withdraw lands from mineral entry and location to protect subsistence resource values. The Kanuti and Jim rivers and the Prospect Creek withdrawals from mineral location and mineral materials extraction, if possible, serve to protect salmon spawning areas (Also see the Mineral Resources Section.). Protection of these spawning areas would aid in protecting fishery resources used by downstream rural subsistence based communities. Additional subsistence resource protection is provided through the withdrawal of known mineral lick (i.e., natural salt lick) sites from mineral location and by the establishment of ACECs around sheep lambing areas.

Proposed Action 42: The proposed ORV use evaluation and study would fully consider the effects on subsistence resources resulting from any changes in land classification for off-road vehicle use. BLM will work closely with the State of Alaska and other federal agencies during the ORV evaluation period to appropriately design stipulations for the protection of subsistence resources.

Proposed Action 43: Local use of forest products for subsistence purposes would be allowed on a free of charge basis if demand does not exceed supply. In those areas where the supply of forest products is limited, a fee may be charged.

Forestry Resources

There are no indications that commercial harvesting of timber would occur in the planning area during the life of this plan.

Proposed Action 44: The proposed RMP would allow commercial harvest of timber resources in the Utility Corridor for salvage purposes, such as after clearing operations along rights-of-way, or of fire-killed timber.

Proposed Action 45: The proposed RMP would permit use of timber resources, such as firewood and house logs, on a case by case basis. Should future monitoring indicate any intensive use areas (i.e., where demand may be exceeding supply), a forestry management activity plan would be initiated.

Grazing

Proposed Action 46: Under current management, grazing permits are not allowed. The proposed RMP would continue this policy. Any horse grazing north of the Yukon River is currently associated with pack trips for recreational purposes. These activities can be accommodated under a temporary use permit.

Soil, Water, Air and Vegetation Resources

Proposed Action 47: The Bureau would require mitigation for all activities which may result in accelerated soil erosion or in water or air pollution. Vegetative cover diversity and condition would be

maintained. Off-road vehicles would be restricted to soils with low erosion hazard or to winter use with snow cover adequate to prevent disturbance of the vegetative cover. In all cases, BLM will adhere to water quality standards established by the Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation.

Proposed Action 48: Floodplains and wetlands would be managed in accordance with Executive Order (E.0.) 11988 and E.0. 11990 to assure continued hydrological functions.

Proposed Action 49: Little is known about the resource values of the Kanuti Hot Springs, but there are few undeveloped hot springs on federal land. Recent investigation of the area did indicate the range extension of several plant species. The area would be designated as an ACEC under the proposed plan and no leases would be allowed within the immediate area of the springs or "thawbulb" (an area roughly corresponding to a meadow which surrounds the hot water pools). Additional inventory work is recommended to define the area needed under ACEC protection more accurately, and to aid in the design of lease stipulations intended to protect this resource. If changes in the ACEC boundary or use restrictions result from such an inventory, they would be addressed in a plan amendment (also see proposed action 23).

Species management plans for *Montia bostockii* in the Toolik Lake ACEC and *Erigeron muirii* in the Sagwon Bluffs ACEC would be initiated. Additional plans would be written and implemented if these species are found in other areas, or if other threatened, endangered, or sensitive plants are located (also see proposed action 40).

Fire Management

Proposed Action 50: Fire will be managed according to the standards and procedures outlined in the appropriate Alaska Interagency Fire Management Plan. Five fire plans cover the planning area: Arctic, Kobuk, Upper Yukon-Tanana, Seward-Koyukuk, and Tanana-Minchumina (USDOI, BLM, AFS). Areas of critical, full, modified, and limited suppression are defined in the Fire Management Plans and are shown in Appendix N. A major focus of fire suppression in the Utility Corridor would be the protection of the facilities needed for the transport of energy minerals.

Cultural Resources

Proposed Action 51: Cultural resources would continue to be inventoried and evaluated as part of project or activity planning. Such evaluation would consider the significance of the proposed project and the sensitivity of cultural resources in the affected area. Stipulations would be attached as appropriate to assure compatibility of projects with management objectives for cultural resources. In addition, the southern portion of the Nigu-Iteriak ACEC would be closed to surface-disturbing activities, in large part because of the cultural resources in the area. The proposed Galbraith Lake and Ivishak River ACECs contain cultural resources eligible for nomination to the National Register of Historic Places.

Areas of Critical Environmental Concern (ACECs)

The objectives of designating an ACEC are to identify and manage areas within the public lands where special management attention is required to protect: (1) important historic, cultural and scenic values, fish and wildlife resources, and other natural systems and processes; and (2) protect human life and property from natural hazards.

Development activities, when wisely planned and properly managed, can take place in these areas without either unduly risking human life or safety or causing permanent damage to historic, cultural or scenic values, or natural systems or processes. Thus, a particular ACEC designation may provide for a range of multiple-use activities. These may include specified kinds and degrees

of development and commodity production activities, provided that important environmental resources and human property or lives within that area are not damaged or endangered.

In the proposed plan there are no ACECs recommended for designation which would preclude the collection of baseline resource data nor would any proposed ACEC be managed in a way which would hamper existing or future energy transportation systems. Furthermore, mining activities with approved plans of operation would be allowed within ACECs.

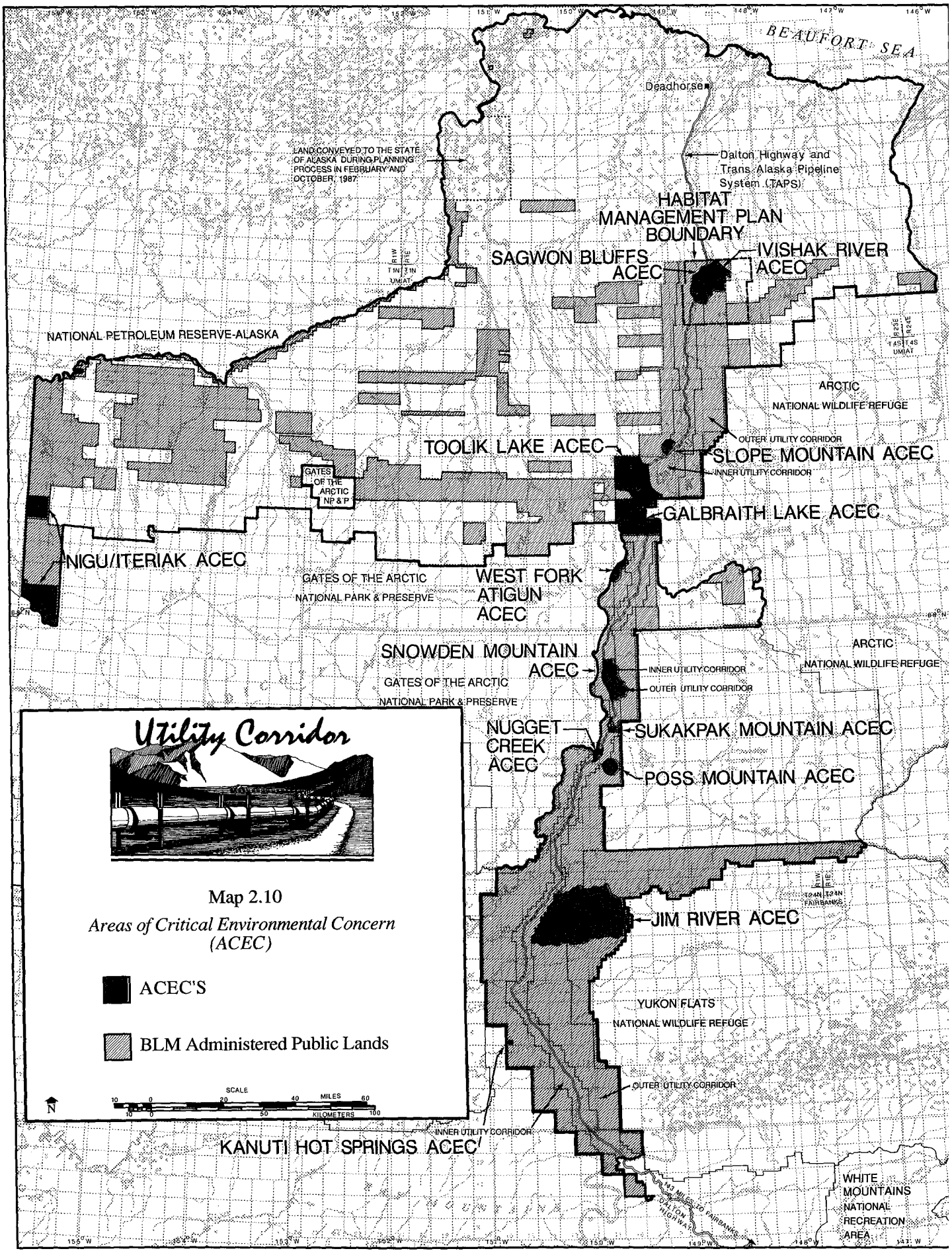
Proposed Action 52: Under current management, there are no ACECs within the planning area. The proposed RMP would designate 13 ACECs (Map 2.10). One ACEC, Toolik Lake, would also be classified as a Research Natural Area (RNA), to protect the on-going and future research activities in that area.

Due to the nature of on-going research activities and future projections of research needs, and as a result of comments received, the Toolik Lake RNA has been enlarged from that shown in the draft RMP/EIS. Portions of the watersheds of the Kuparuk and the Itigaknit rivers define this RNA. The Dalton Highway and energy transmission rights-of-way (TAPS, TAGS and ANGTS) cross the RNA. The U.S. Department of Energy, the National Science Foundation, and the University of Alaska are committed to long-term ecological research within the RNA. The Bureau fully supports these research efforts and views them as vitally important to a more complete understanding of arctic biosystems. Such research is a direct benefit to effective land and resource management systems by aiding in the design and implementation of stipulatory controls on authorized activities in the fragile arctic environment. The successful future of multiple resource management in the arctic largely depends on the success of these research efforts.

Detailed descriptions of each ACEC including size, location, importance, relevance and allowable uses follow Map 2.10. The ACECs designated under this proposed RMP are shown in Table 2.4.

Table 2.4
Proposed Areas of Critical Environmental Concern

	ACEC	Size (in Acres)	Resources
1.	Galbraith Lake	56,000	Cultural, rare/sensitive plants, scenic values, lambing areas.
2.	Ivishak River	3,800	Fishery, cultural resources
3.	Jim River	200,000	Fishery, recreation, cultural
4.	Kanuti Hot Springs	40	Hot spring
5.	Nigu-Iteriak	64,000	Geology, cultural resources
6.	Nugget Creek	3,300	Lambing areas, mineral lick
7.	Poss Mountain	8,000	Lambing areas, mineral lick
8.	Sagwon Bluffs	42,200	Peregrine falcons,
9.	Slope Mountain	5,100	Lambing areas, mineral lick, cultural
10.	Snowden Mountain	28,000	Lambing areas, mineral lick
11.	Sukakpak Mountain	3,500	Scenic, geology
12.	Toolik Lake RNA	82,800	Research activities, cultural
13.	West Fork Atigun River	8,500	Lambing areas, mineral lick
	Total	**505,240**	


BEAUFORT SEA
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LAND CONVEYED TO THE STATE OF ALASKA DURING PLANNING PROCESS IN FEBRUARY AND OCTOBER, 1987
Dalton Highway and Trans Alaska Pipeline System (TAPS)
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SAGWON BLUFFS ACEC
IVISHAK RIVER ACEC
NATIONAL PETROLEUM RESERVE-ALASKA
ARCTIC NATIONAL WILDLIFE REFUGE
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TOOLIK LAKE ACEC
SLOPE MOUNTAIN ACEC
INNER UTILITY CORRIDOR
GATES OF THE ARCTIC NP & P
GALBRAITH LAKE ACEC
NIGU/ITERIAK ACEC
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
WEST FORK ATIGUN ACEC
SNOWDEN MOUNTAIN ACEC
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
ARCTIC NATIONAL WILDLIFE REFUGE
NUGGET CREEK ACEC
SUKAKPAK MOUNTAIN ACEC
POSS MOUNTAIN ACEC
JIM RIVER ACEC
YUKON FLATS NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
KANUTI HOT SPRINGS ACEC
WHITE MOUNTAINS NATIONAL RECREATION AREA
Utility Corridor
Map 2.10
Areas of Critical Environmental Concern (ACEC)
ACEC'S
BLM Administered Public Lands
SCALE
MILES
KILOMETERS
N

Galbraith Lake ACEC

Location

Galbraith Lake; Quad: Phillip Smith Mountain

Size

56,000 acres

Management Objective

To protect historical and archeological sites, critical wildlife habitat, paleontological and geological sites, scenic values, and possibly, rare and sensitive plants.

Importance

This area has the highest concentration of historic and prehistoric cultural resources of any region yet inventoried along the Utility Corridor. Three of these sites have been nominated to the National Register of Historic Places, with more potentially eligible. The area provides crucial lambing areas and mineral licks for Dall's sheep. Located on the northern side of the Brooks Range, north of Atigun Pass, the scenic value is high. The geology and paleontology are remarkable and are accessible via the Dalton Highway. In the probable event of rare and sensitive plants found in the area, BLM policy requires that such plants be accorded the full protection of the Endangered Species Act of 1973, as amended.

Relevance

The area contains the former Alyeska camp pad, a large improved airstrip with facilities, and an operating Pump Station. These are an inducement for further developments which could adversely impact the important resources noted above. The area has been recommended as an Ecological Reserve by the Joint Federal-State Land Use Planning Commission and for entry into the Registry of Natural Landmarks by the USGS and National Park Service.

Management Practices and Allowable Uses

1. Protect habitats crucial to species considered threatened, endangered, candidate or sensitive (including plants) by U. S. Fish and Wildlife Service or the State of Alaska.

2. This area is currently withdrawn from mineral location and entry as part of the inner Corridor. No mineral withdrawal specific to mineral licks is necessary at this time.

3. Nonsurface occupancy restrictions would apply to mineral leasing because of the location of the ACEC within the inner Corridor.

4. Require plans of operation with protective stipulations and mitigation measures to all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

5. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

6. Aircraft associated with all BLM-authorized land use activities shall be required to fly a minimum of 2,000 feet above ground level (AGL) from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice.

7. Given the primary purpose of the Utility Corridor, every effort will be made to minimize visual impacts.

8. All recreational facilities will be consistent with the Dalton Highway Recreation Area Management Plan (RAMP), and will minimize disturbance to protected resources within the ACEC.

9. Allow the development of public campground facilities if the Dalton Highway is opened to public travel.

10. Establish cooperative agreements for cultural resource research and excavation.

11. Use by guides and outfitters will be allowed; no surface disturbing activities are permitted.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Review plans of operation to ensure protective stipulations and mitigation measures in all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

3. Design wayside near lake to accommodate summer tour bus travel. Include displays or signs explaining features of the area. Emphasize resource importance and protection.

4. Inventory ACEC to identify any additional crucial habitats.

5. If the inner Corridor boundary should change, it will be necessary to prepare, publish, and implement a withdrawal from mineral location and entry under the 1872 mining law for each known mineral lick known or identified in future inventories.

6. If the inner Corridor boundary should change, apply nonsurface occupancy stipulations for mineral leasing to identified mineral licks, to threatened, endangered, or sensitive plant or animal habitat, and to protect other resources as appropriate.

7. Conduct class I and II cultural resource inventories for those areas that have not been surveyed. Require a class III cultural resource inventory for all ground disturbing actions. Nominate significant cultural resource sites to the National Register of Historic Places, and develop activity plans for each.

8. Prepare a detailed management activity plan for the Galbraith Lake ACEC in conjunction with the Toolik Lake Research Natural Area Plan.

9. Prepare a cultural resource management plan for the National Register Sites within the ACEC.

10. Record geological resources, and prepare a geologic map of the area at 1:24,000 scale.

11. Prepare a 1610.00 serialized case file.

Supporting Programs

Lands, Recreation, Minerals, Wildlife, Cultural

Monitoring and Evaluation

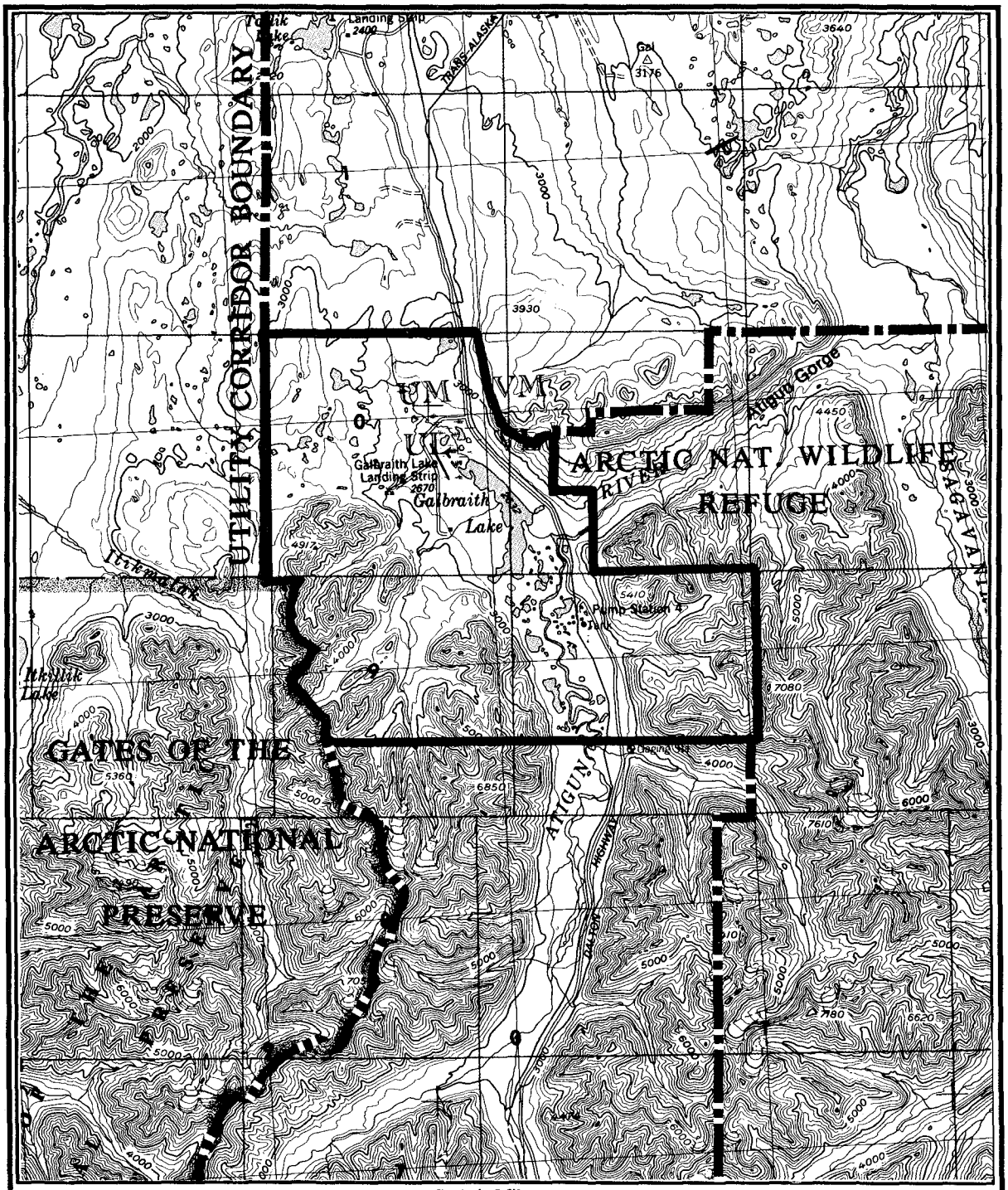
1. Crucial Dall's sheep habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle.

2. Crucial plant habitats and population size will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle.

3. Annually inspect cultural resource properties on the National Register of Historic Places.

4. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.

5. Identify significance and evaluate use of cultural resources in consultation with the State Historic Preservation Officer.



BOUNDARY MAP
Map sheet Phillip Smith Mtns.

Scale in Miles

0 5

Within Tps. 11 and 12 S., Rs. 11 and 12 E.
Umiat Meridian

GALBRAITH LAKE AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.11

Ivishak River ACEC

Location

Ivishak River between Sagavanirktok and Echooka Rivers (8 mi); Quad: Sagavanirktok B-3

Size

3,800 acres

Management Objective

To protect and/or enhance the fisheries resources and to protect the known archeological resources.

Importance

The lower Ivishak contains the highest concentration of overwintering arctic char in the Central Arctic Area. Thousands of fish, apparently that spawn in other rivers, concentrate here every winter. A removal of habitat in this area would impact char populations in rivers outside the Ivishak system.

The "Sag-Ivishak" site (SAG-004) is the only stratified Inupiat archeological site known within the planning area and one of the very few known at all.

Relevance

The proximity of the lower Ivishak River to the Dalton Highway and future pipeline routes increases the potential demand for stream and floodplain gravel, posing a threat to the resources in the area.

Management Practices and Allowable Uses

1. New mineral materials sites throughout the ACEC would be approved only if no other economically feasible sites are available.

2. Temporary and casual use permits may be allowed.

3. Protect habitats crucial to species considered threatened, endangered, candidate or sensitive (including plants) by U. S. Fish and Wildlife Service or the State of Alaska.

4. Protect fisheries habitats and populations, including char spawning areas, overwintering habitat, and nursery/rearing habitat.

5. Protect habitat crucial to raptors, especially peregrine falcons.

6. Plans of operation with protective stipulations and mitigation measures will be applied to all surface disturbing activities to avoid unduly disturbing aquatic, riparian, and threatened, endangered, or candidate species, including plants. Nonsurface occupancy stipulations apply to oil and gas leasing activity.

7. All recreational facilities will be consistent with the Dalton Highway Recreation Activity Management Plan (RAMP), and will minimize disturbance to protected resources within the ACEC.

8. Establish cooperative agreements for cultural resource research and excavation.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Prepare an ACEC activity plan within one year of designation if the lands have not been transferred to the state.

3. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials sales or permits.

4. Conduct class I and II cultural resource inventories for those areas that have not been surveyed. Require a class III cultural resource inventory for all ground disturbing actions. Nominate significant cultural resource sites to the National Register of Historic Places, and develop an activity plan for each.

5. Inventory ACEC to record fish populations and habitats, and aquatic and riparian resources. Identify any crucial habitats for future management actions.

6. Inventory ACEC to record and delineate raptor habitats, including that of the endangered peregrine falcon. Identify any crucial habitats for future management actions.

7. Inventory ACEC to record areas inhabited by threatened, endangered, or candidate plant species. Identify crucial habitats for future management actions.

8. Prepare a 1610.00 serialized case file.

Supporting Programs

Minerals, Recreation, Cultural, Lands, Wildlife

Monitoring and Evaluation

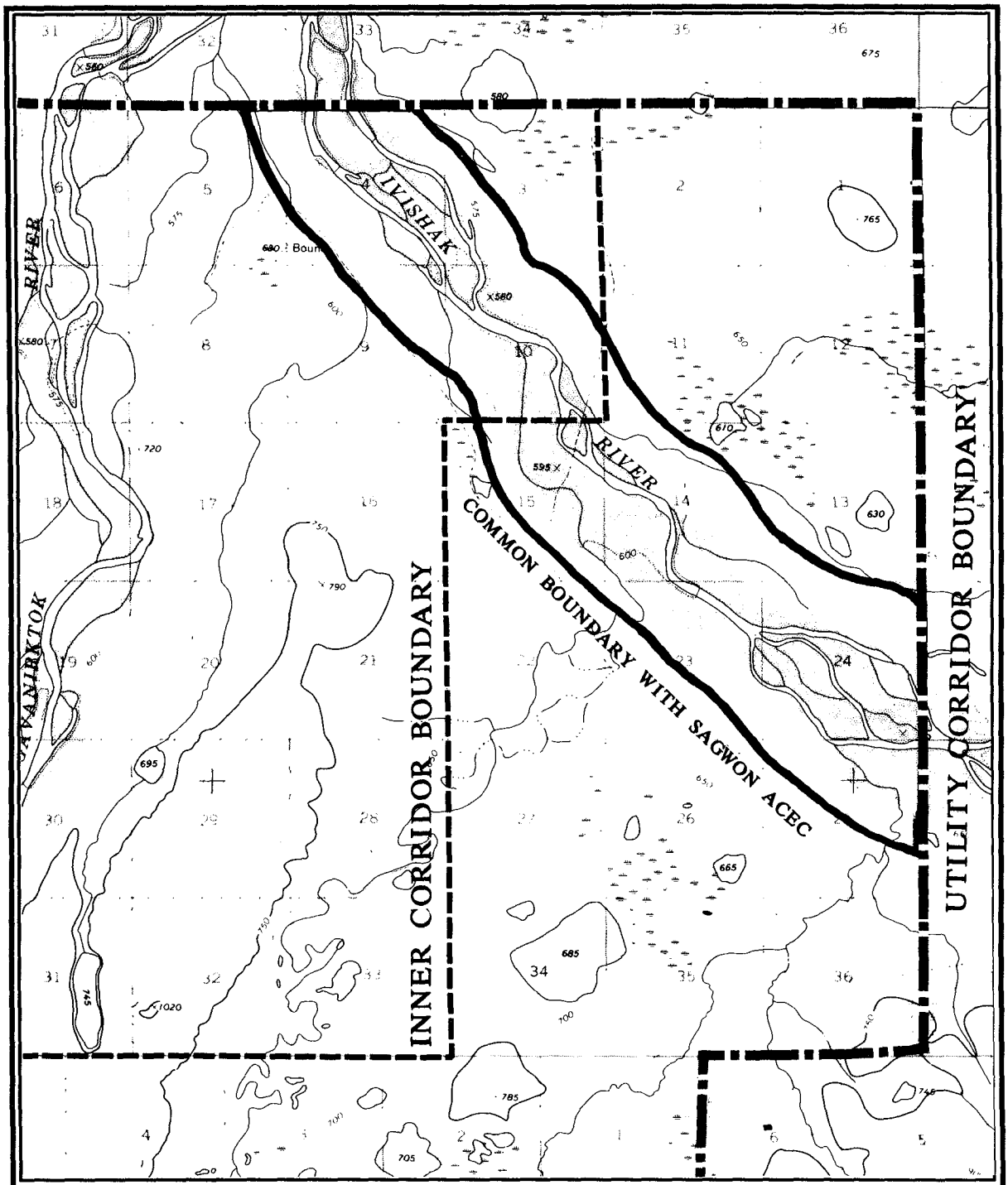
1. Crucial fishery, raptor, and plant habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle. If disturbance to crucial habitat is noted, monitoring will occur annually.

2. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.

3. Annually inspect cultural resource properties on the National Register of Historic Places.

4. Identify significant and evaluate use of cultural resources in consultation with the State Historic Preservation Officer.

5. Reevaluate monitoring and evaluation guidelines listed above in accordance with the ACEC activity plan recommendations.



BOUNDARY MAP
Map sheet Sagavanirktok B-3

Scale in Miles
0 1 2

Within T. 1 N., R. 15 E.
Umiat Meridian

IVISHAK RIVER AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.12

Jim River ACEC

Location

Jim River drainage; (east upstream) of inner Corridor. Quad: Bettles D-1, D-2, D-3; Beaver D-6

Size

200,000 acres

Management Objectives

Protect and/or enhance chum and king salmon spawning areas, overwintering habitat for resident and anadromous species, and sport fishing. Monitor and protect raptor habitat, and protect scenic, recreation, and archeological resources.

Importance

Fisheries. The Jim River has the most concentrated chum and king salmon spawning in the upper Koyukuk region. Fish produced here are important to downstream subsistence and commercial users. The river is important not only for the spawning and overwintering of their eggs and fry but as habitat for resident species. The river is one of the most heavily utilized recreation streams in the planning area, and the sport fishing quality is excellent from a regional perspective.

Archeology. The river valley contains a rich concentration of prehistoric Athapaskan sites. At least three are of National Register quality.

Scenic values. The valley, along the Utility Corridor, is rated as Class A scenic quality or "Outstanding scenery." These resources are distinctive and have special worth because it is the only place with relatively easy road access by the public.

Raptors. One of the few known peregrine nesting sites south of the Brooks Range is located near the lower part of this ACEC. Several other raptor species are also known.

Relevance

The Jim River/Prospect Creek area contains a number of current and potential developments which pose a threat to the continued viability of the high quality anadromous fishery, and to the other resources. These developments include: placer mining, DOT/PF camp, Bettles road, Dalton Highway with 5 bridge crossings, demand for riparian timber, demand for construction gravel, future pipeline construction, and community development.

Management Practices and Allowable Uses

1. Protect fisheries habitats and populations, including salmon spawning areas, overwintering habitat, and nursery/rearing habitat.

2. Require plans of operation with protective stipulations and apply mitigation measures to all surface disturbing activities to avoid unduly affecting aquatic and riparian habitat or threatened, endangered, or candidate species (including plants and peregrine falcons), or affecting any other protected resource.

3. Seasonal use and surface occupancy restrictions, including oil and gas leasing, may be identified once inventory and monitoring studies have been conducted.

4. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

5. Protect habitat crucial to threatened and endangered species, especially peregrine falcons.

6. New mineral material sites would be approved within the floodplain only if no other economically feasible sites are available.

Program Activities

1. Prepare a base map of appropriate scale.

2. Include on base map all significant ACEC features as they are located, and any restricted use areas as they are defined, including the Jim River and Prospect Creek floodplains

3. Prepare an activity plan for the Jim River ACEC.

4. Inventory ACEC to record aquatic and riparian resources, recreation areas, threatened, endangered, sensitive, or candidate plant and peregrine falcon location, and geologic resources. Identify any additional crucial habitats.

5. Conduct class I and II cultural resource inventories for those areas that have not been surveyed. Require a class III cultural resource inventory for all ground disturbing actions. Nominate significant cultural resource sites to the National Register of Historic Places, and develop activity plans for each.

6. Inventory visual resources in the ACEC.

7. Enhance fisheries populations and habitats, including spawning areas, nursery/rearing and overwintering habitat, and fish passage.

8. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities.

9. Prepare handouts, brochures, reports or display signs to present geologic information to the public.

10. Prepare a 1610.00 serialized case file.

Supporting Programs

Recreation, Wildlife, Minerals, Lands, Cultural

Monitoring and Evaluation

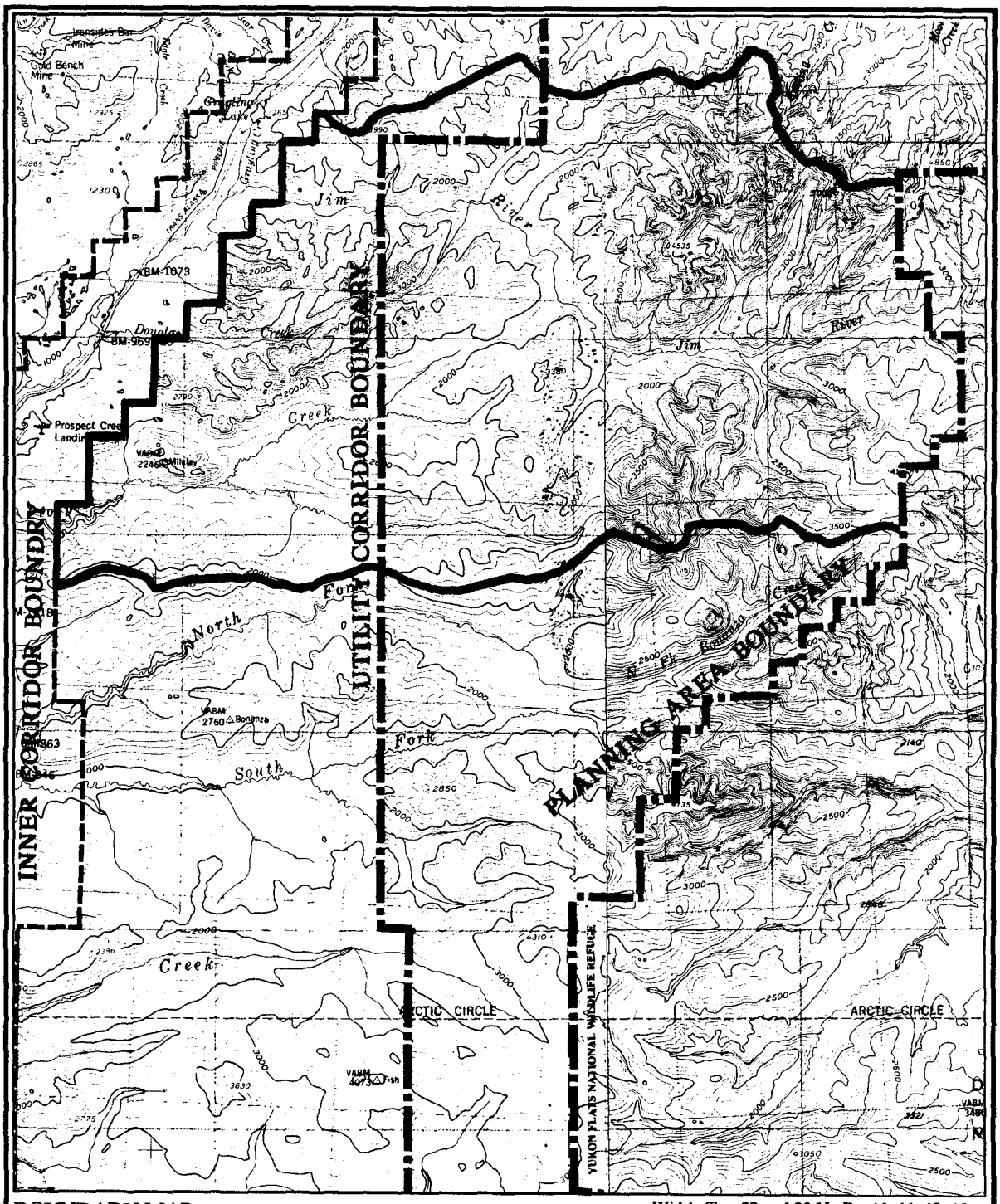
1. Crucial riparian and aquatic habitats will be monitored annually. Once baseline data are collected, monitoring will occur on a three to five year cycle, unless disturbance is noted.

2. Identify significance and evaluate use of cultural resources in consultation with the State Historic Preservation Officer.

3. Annually inspect cultural resource properties on the National Register of Historic Places.

4. Annually monitor permitted actions, including water quality sampling, and cooperative agreements to assure compliance with protective stipulations and mitigative measures.

5. Evaluation of habitat improvement projects will be conducted after completion of each project.



BOUNDARY MAP
Map sheets Bettles and Beaver

Scale in Miles

5 0 5

Within Tps. 22 and 23 N., Rs. 10, 11, 12, 13, 14 W.
Tps. 24 and 25 N., Rs. 10, 11, 12, 13 W.
Fairbanks Meridian

QUADRANGLE LOCATION

JIM RIVER AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.13

Kanuti Hot Springs ACEC

Location

Caribou Mountain; T. 18 N., R. 15 W., Sec 31; Quad: Bettles B-2

Size

40 acres

Management Objective

To protect the hot springs and the associated meadow habitat.

Importance

Kanuti Hot Springs is the only hot spring known to occur on BLM-administered land within the planning area. It is located approximately five miles southwest of Caribou Mountain along the Kanuti River. The spring temperature has been reported by some sources to be about 150°F and to have a strong sulphur dioxide odor. However, in December of 1988, BLM personnel measured the spring temperature at 125°F in the main outlet and 73°F in the lesser outlet.

Relevance

The springs are about 8 miles west of and accessible from the Dalton Highway. There is an immediate need for special management attention in order to protect this undeveloped spring, since hot springs in Alaska's interior are usually developed.

Management Practices and Allowable Uses

1. Restrict leasing and development to actions which would not directly affect the hot springs, any identified crucial wildlife habitat, and rare, endangered or listed plant species.

2. The ACEC would be closed to mineral entry. Also closed would be the surrounding lands (a total of approximately 160 acres) under PLO 399 of August 20, 1947, which withdrew from entry and all forms of appropriation all hot springs in Alaska.

3. Nonsurface occupancy stipulations apply for mineral leasing within the ACEC.

4. Maintain water quality of spring area and adhere to EPA and state water quality standards.

5. All surface disturbing activities having any affect on the resources within the ACEC will require plans of operation and appropriate mitigation to eliminate or minimize any adverse impacts.

6. The Kanuti Hot Springs ACEC would be closed to gravel extraction.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Baseline data gathering will be completed in FY89 to determine the spring's importance to area wildlife. A report will be prepared by FY90.

3. Prepare an activity plan for this ACEC with an emphasis on allowable FLPMA lease areas for development. Emphasis in this plan will be to protect the integrity of the hot spring and its potentially significant plant ecology. No development will be allowed at the springs or in the adjacent meadow.

4. Require a class III cultural resource inventory for all ground disturbing actions.

5. Inventory and record the presence of any threatened and endangered or listed plant species.

6. Prepare a 1610.00 serialized case file.

Supporting Programs

Lands, Minerals, Wildlife, Soil/Water/Air/Vegetation.

Monitoring and Evaluation

1. Seasonally monitor any FLPMA lease activities.

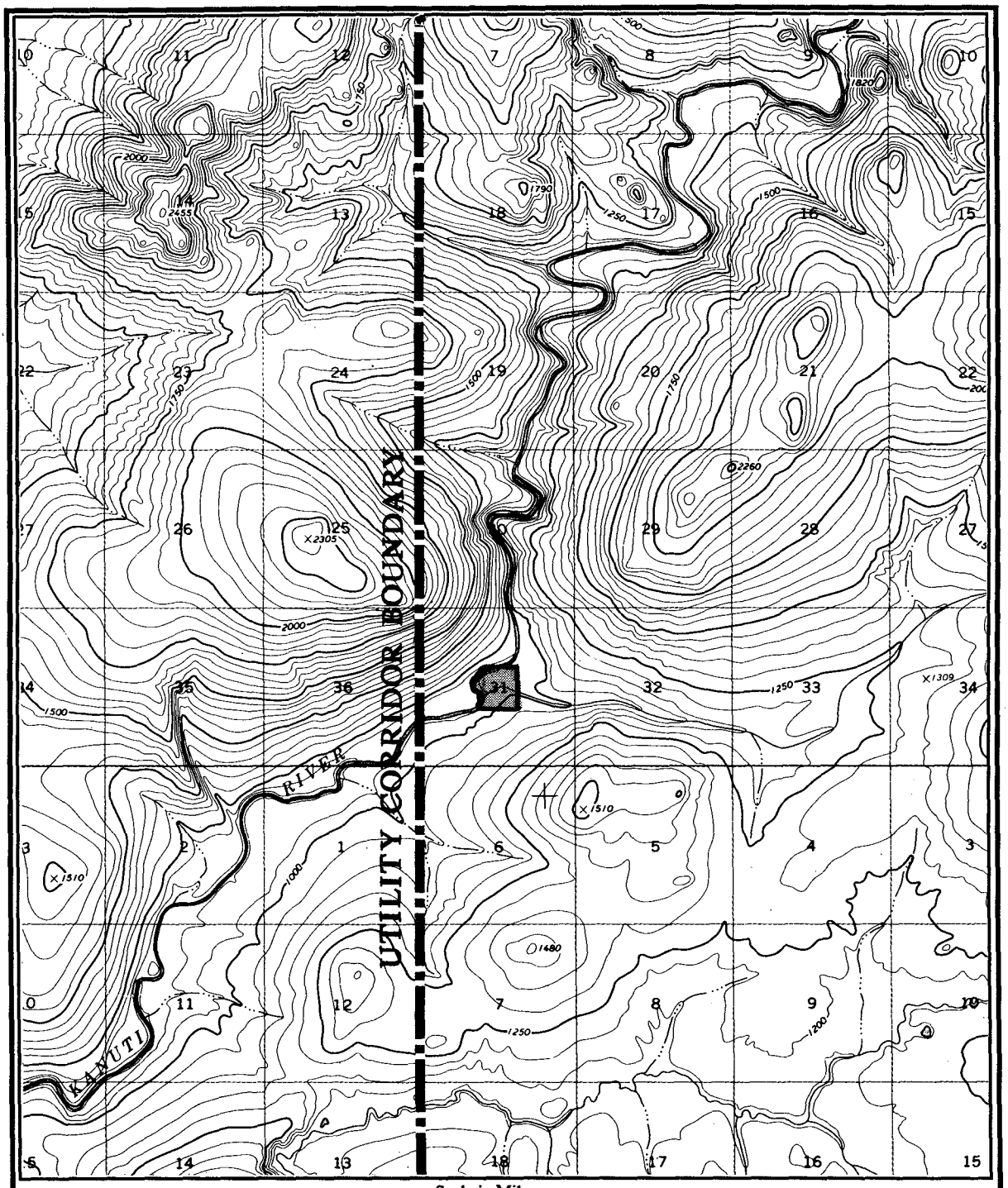
2. Annually monitor surface disturbance activities to prevent impacts to springs and the water quality of Kanuti River.

3. Sample water seasonally prior to and during FLPMA lease activities or mining operations.

4. Annually inspect cultural resource properties on the National Register of Historic Places.

5. Identify significance and evaluate use of cultural resources in consultation with the State Historic Preservation Officer.

6. Adhere to monitoring recommendations made in the activity plan.



BOUNDARY MAP
Map Sheet Bettles B-2

Scale in Miles

Within T. 18 N., R. 15 W. sec. 31
Fairbanks Meridian

KANUTI HOT SPRINGS AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.14

Nigu-Iteriak ACEC

Location

Upper Nigu River and middle Iteriak Creek; Quad: Killik River A-5, B-5

Size

64,000 acres

Management Objective

To protect the unique geological, cultural, and scenic resources of the area.

Importance

This ACEC consists of two separate areas about 19 miles apart: the upper Nigu River and the middle reaches of Iteriak Creek. Cultural resource values are similar to those in the NPR-A, e.g., National Register Districts at Etivluk, Liberator, Betty, Swayback, Tukuto, and Kinyiksukvik Lakes, and include two potentially eligible National Register sites.

The area has been recently glaciated and shows many features not present on other BLM lands associated with these events, such as ice-cored kame terraces and a collapsed pingo. Wildlife values are also high in the ACEC.

Relevance

The area is adjacent to both the Gates of the Arctic National Park and the Noatak National Preserve, and is an extension of the special management situation that prevails within that system. The two areas are both part of the Etivluk River drainage, and both are bounded on the west by the National Petroleum Reserve - Alaska (NPR-A). A management plan is expected for the NPR-A; if ACECs can be designated under existing legislation for NPR-A, these areas could become a contiguous ACEC management area albeit designated under two plans.

Management Practices and Allowable Uses

1. The upper Nigu section has been recommended for wilderness designation in the *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, BLM; 1988) and the *Alaska National Interest Lands Conservation Act Section 1001 Report* (USDOI, BLM; 1988) that has been completed and submitted to Congress. If Congress should designate this area as wilderness it would be managed in accordance with Wilderness Management Policy. Until such time, both areas will be managed to protect their wilderness values in accordance with interim wilderness management policy and guidelines.

2. Regardless of Congressional action, the upper Nigu section would remain closed to mineral location, mineral materials extraction, and mineral leasing; the Iteriak section would be opened to mineral development (entry and leasing), but closed to mineral materials extraction.

3. Require plans of operation for any mining activities in the northern section.

4. Only ORV use for subsistence purposes would be allowed.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Prepare an activity plan for the ACEC.

3. Require a class III cultural resources inventory for all ground disturbing actions in the northern section.

4. If the Mesa Site is determined eligible to the National Register of Historic Places, prepare a cultural resources management plan for the site.

5. Inventory geologic resources of the area, and prepare a geologic map at 1:24,000.

6. Prepare a 1610.00 serialized case file.

Supporting Programs

Recreation, Lands, Minerals, Subsistence, Wildlife, Cultural

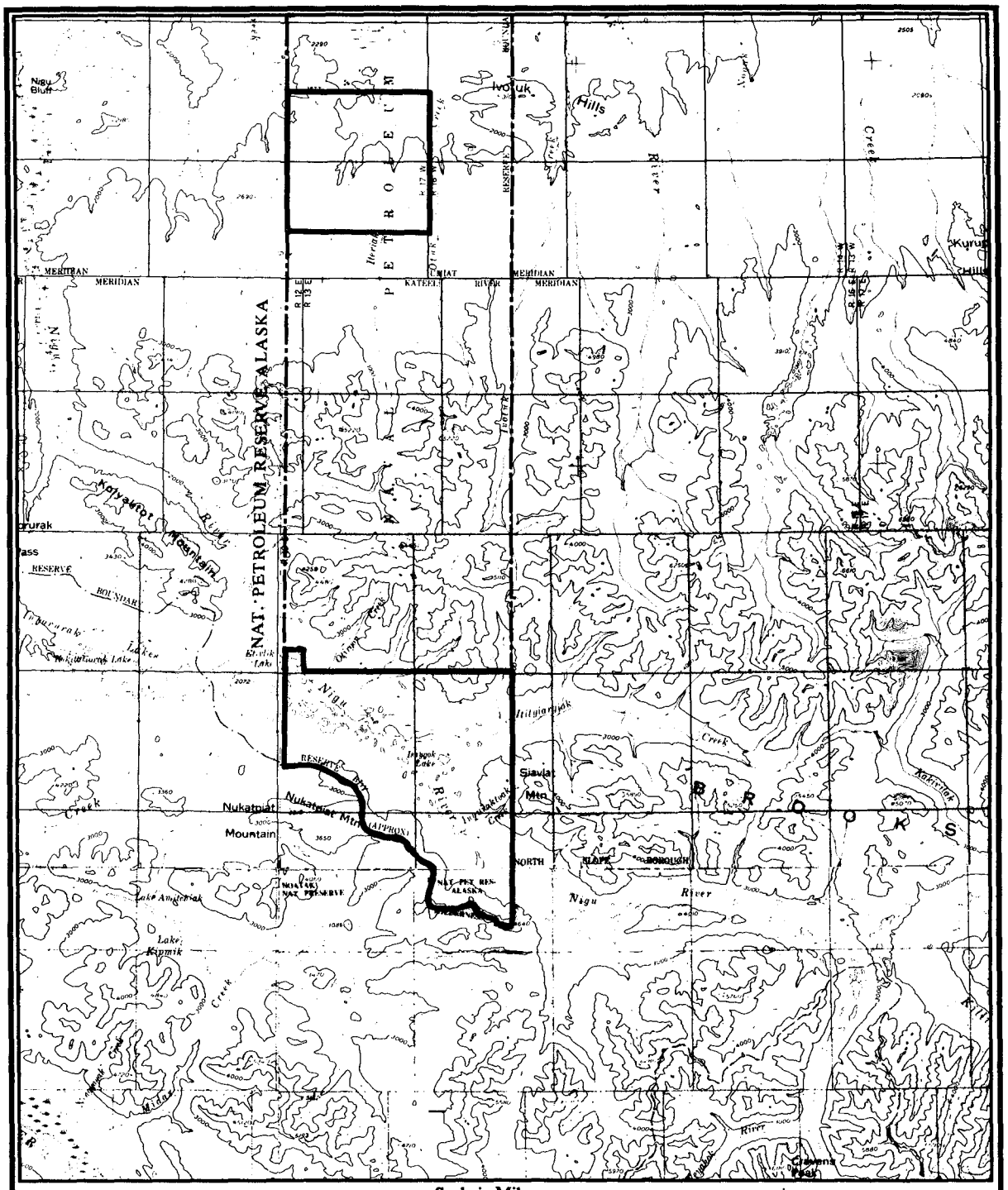
Monitoring and Evaluation

1. Seasonally monitor activities in the area.

2. Sample water quality in Iteriak watershed if mining or leasing activities occur.

3. Annually inspect cultural resource properties on the National Register of Historic Places.

4. Identify significance and evaluate use of cultural resources in consultation with the State Historic Preservation Officer.



BOUNDARY MAP
Map sheets Killik River, Howard Pass, Ambler River, and Survey Pass

Scale in Miles

5 0 5 10

Within Tps. 11 and 12 S., R. 17 W. Umiat Meridian and Tps. 30, 31 32 N., Rs. 13 and 14E. Kateel River Meridian

NIGU-ITERIAK RIVERS AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.15

Nugget Creek ACEC

Location

Opposite Nugget Creek T. 31 N., R. 11 W.; Quad: Chandalar B-6, C-6

Size

3,300 acres

Management Objective

To protect mineral licks and lambing habitat for Dall's sheep.

Importance

Ewes traditionally return to the same habitat each spring to bear their offspring. Dall's sheep use natural licks to replace important skeletal minerals. Destructive activities or excessive human disturbance may eliminate these important habitats necessary to sustain a viable sheep population.

Relevance

A growing number of hunters use the Dalton Highway for easy access to hunt Dall's sheep; therefore, BLM needs to protect this crucial habitat to sustain a viable sheep population. Areas such as this ACEC should be earmarked for attention since a number of potentially disturbing activities (e.g., increases in traffic and recreation activity, future pipeline construction) may occur within the life of this plan.

Management Practices and Allowable Uses

1. Mineral lick sites (160 acre parcels), would be closed to mineral entry and location under the 1872 mining law, to surface occupancy by BLM-authorized land activities, and to mineral materials extraction. Nonsurface occupancy stipulations would apply to mineral leasing.

2. Only allow mineral materials extraction with stipulations to prevent disturbance of Dall's sheep habitat or access.

3. Plans of operation with protective stipulations and mitigation measures would be applied to all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

4. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

5. Aircraft associated with all BLM-authorized land use activities shall be required to fly a minimum of 2,000 feet above ground level (AGL) from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Conduct field exam of known mineral licks to establish metes and bounds description; record on map of appropriate scale. Write legal descriptions.

3. Prepare, publish, and implement a withdrawal from mineral entry and location under the 1872 mining law for each mineral lick (160 acres) currently known or those identified in future inventories.

4. Inventory ACEC to identify any additional crucial habitats.

5. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials sales or permits.

6. Record geologic features and prepare geologic map of the area at 1:24,000 scale.

7. Prepare a 1610.00 serialized case file.

Supporting Programs

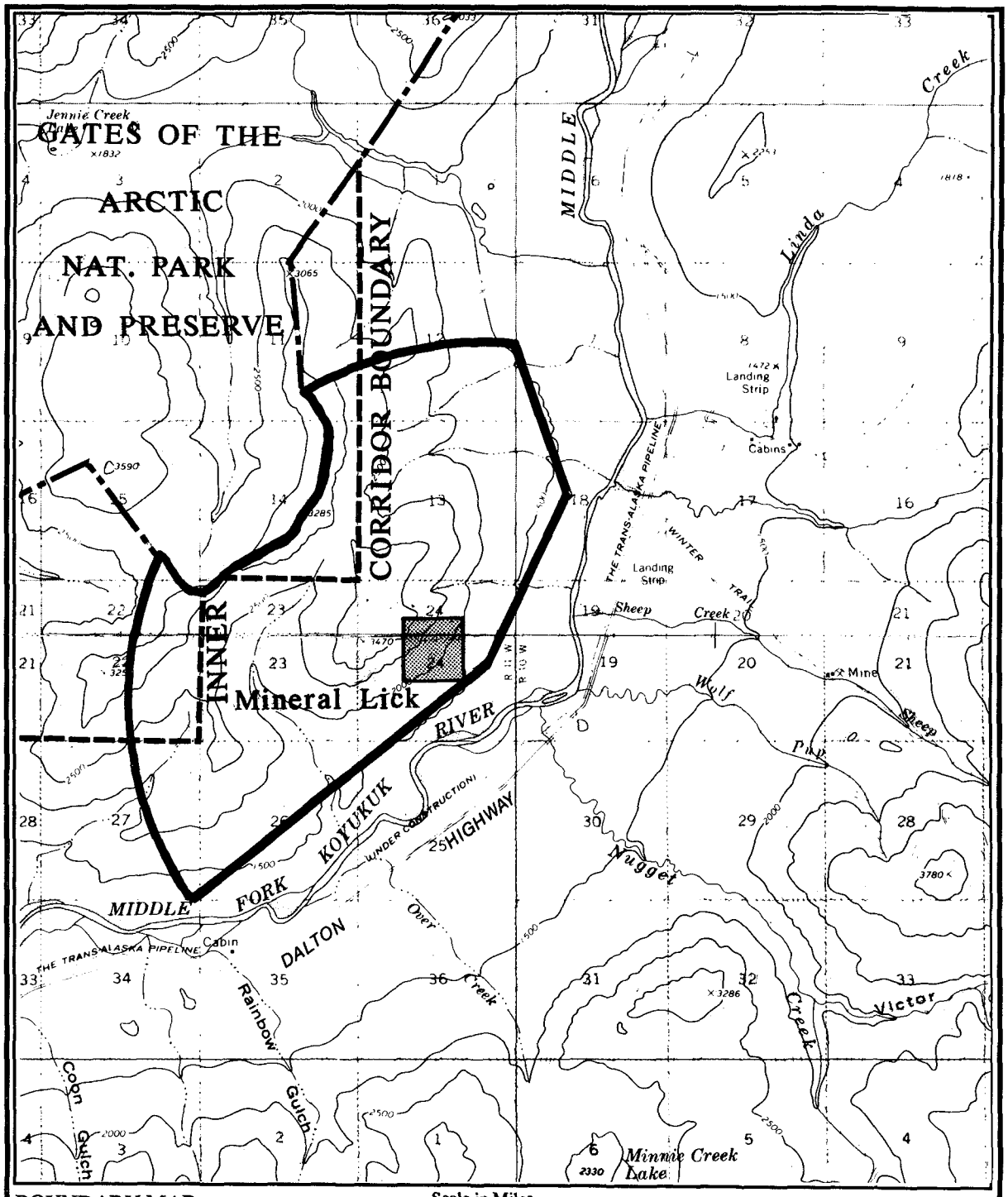
Minerals, Wildlife

Monitoring and Evaluation

1. Crucial Dall's sheep habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle.

2. Evaluate all mining plans to insure that mineral licks and access to them are protected through appropriate stipulations.

3. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.



BOUNDARY MAP
Map Sheets Chandalar
B-6 and C-6

Scale in Miles

0 1 2

Within Tps. 31 N., Rs. 10 and 11 W.
Fairbanks Meridian

NUGGET CREEK AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.16

Poss Mountain ACEC

Location

Poss Mountain (east of Wiseman) T, 30 N., R. 10 W., Sec 3; Quad: Chandalar B-6

Size

8,000 acres

Management Objective

To protect lambing habitat for Dall's sheep and known mineral lick sites.

Importance

Ewes traditionally return to the same habitat each spring to bear their offspring. Dall's sheep use natural licks to replace important skeletal minerals. Destruction of the licks and excessive human disturbance may eliminate these important habitat features that are necessary to sustain viable sheep populations.

Relevance

A growing number of hunters use the Dalton Highway for easy access to hunt Dall's sheep; therefore, BLM needs to protect this crucial habitat to sustain a viable sheep population. Although this area is farther from the Dalton Highway than the Nugget Creek ACEC, the area should be earmarked for attention since a number of potentially disturbing activities near this habitat (principally mining) may occur within the life of this plan.

Management Practices and Allowable Uses

1. Mineral lick sites (160 acre parcels), would be closed to mineral entry and location under the 1872 mining law, to surface occupancy by BLM-authorized land activities, and to mineral materials extraction. Nonsurface occupancy stipulations would apply to mineral leasing.

2. Only allow mineral materials sales with stipulations to prevent disturbance of Dall's sheep habitat or access.

3. Plans of operation with protective stipulations and mitigation measures would be applied to all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

4. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

5. Aircraft associated with all BLM-authorized land use activities shall be required to fly a minimum of 2,000 feet above ground level (AGL) from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Conduct field exam of known mineral licks to establish metes and bounds description; record on map of appropriate scale. Write legal descriptions.

3. Prepare, publish, and implement a withdrawal from mineral entry and location under the 1872 mining law for each mineral lick (160 acres) currently known or those identified in future inventories.

4. Inventory ACEC to identify any additional crucial habitats.

5. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials sales or permits.

6. Record geologic features and prepare geologic map of the area at 1:24,000 scale.

7. Prepare a 1610.00 serialized case file.

Supporting Programs

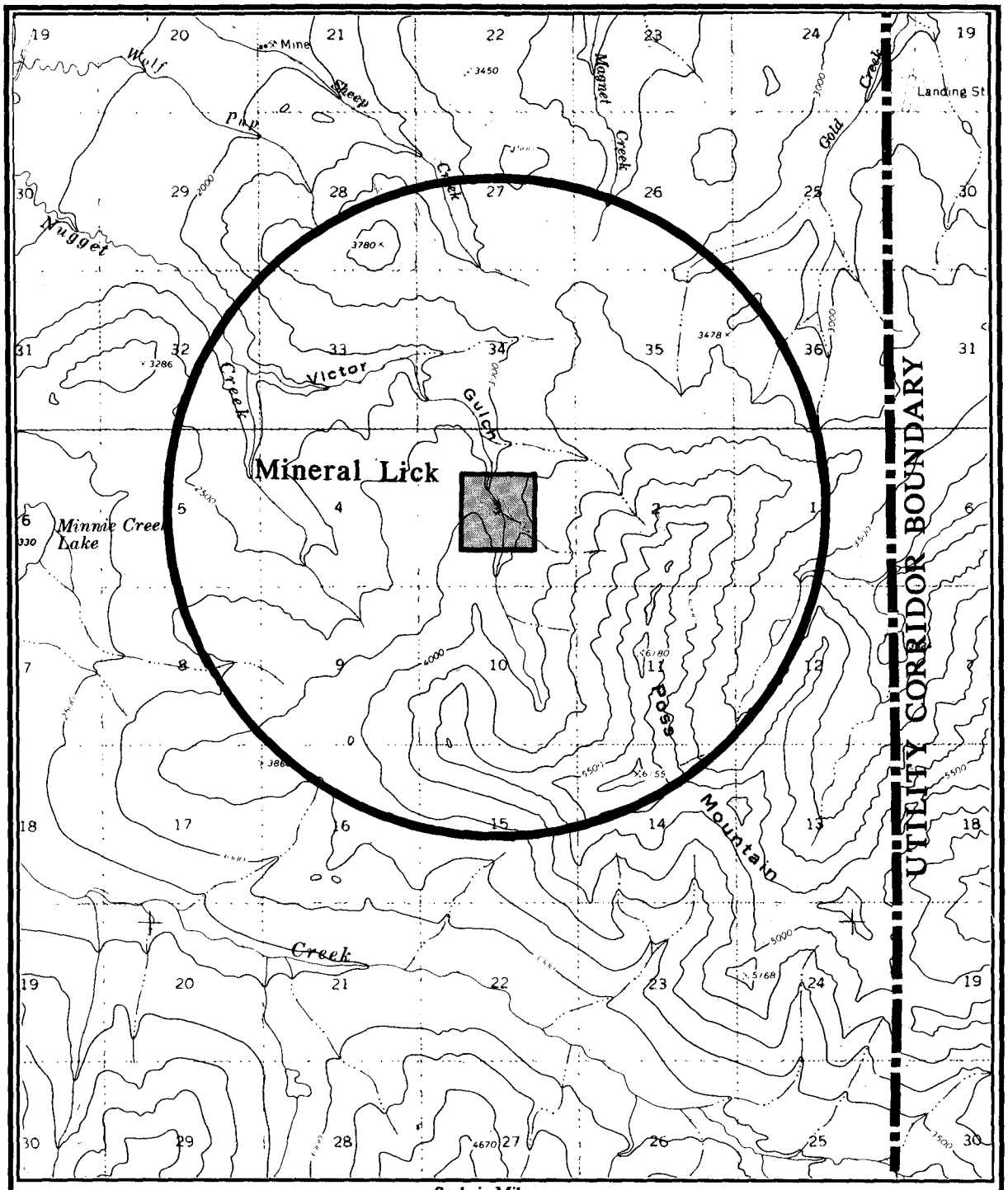
Minerals, Wildlife

Monitoring and Evaluation

1. Crucial Dall's sheep habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle.

2. Evaluate all mining plans to insure that mineral licks and access to them are protected through appropriate stipulations.

3. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.



BOUNDARY MAP
Map sheet Chandalar B-6

Scale in Miles
0 1 2

Within Tps. 30 and 31 N., R. 10 W.
Fairbanks Meridian

POSS MOUNTAIN AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.17

Sagwon Bluffs ACEC

Location

Sagwon Bluffs. Quad: Sagavanirktok B-3

Size

42,200 acres

Management Objectives

To protect threatened raptor habitat: peregrine, also gyrfalcon, rough-legged hawk. To protect riparian habitat: caribou, moose, grizzly bear. To protect the farthest north known Athapaskan archeological sites. To protect sensitive and rare plants.

Importance

Approximately 20 percent of the known nesting pairs of arctic peregrine falcons (T & E species) occur along the Sagavanirktok River; nesting sites are protected under the Endangered Species Act. Protection of important hunting habitat in this ACEC provides additional safeguards for the peregrine falcon. A sensitive plant species *(Erigeron muirii)* is also present.

Relevance

Close proximity to the Dalton Highway allows for scientific research by university and other groups. However, this convenient access also presents potential human impact unrelated to research activities, such as the rights-of-way for pipelines. This ACEC is currently included under the Sagwon Bluffs Habitat Management Plan, approved in 1979.

Management Practices and Allowable Uses

1. Protect habitats crucial to species considered threatened, endangered, candidate or sensitive (e.g., *Erigeron muirii)* by U. S. Fish and Wildlife Service or the State of Alaska.

2. All BLM-authorized land use activities shall follow the protective measures for peregrine falcons identified in the *Peregrine Falcon Recovery Plan* (September 1982).

   a. Within one mile of nest sites:
      1) Require aircraft to maintain minimum altitudes of 1,500 feet above nest level from April 15 through August 31.
      2) Prohibit all ground level activity from April 15 through August 31 except on existing thoroughfares.
      3) Prohibit habitat alterations or the construction of permanent facilities.
   b. Within two miles of nest sites:
      1) Prohibit activities having high noise levels from April 15 through August 31.
      2) Prohibit permanent facilities that have high noise levels, sustained human activity, or alter limited, high quality habitat (e.g. ponds, lakes, wetlands and riparian habitats).
   c. Within 15 miles of nest sites:
      1) Prohibit alteration of limited, high quality habitat which could detrimentally and significantly reduce prey availability. Of particular concern are ponds, lakes, wetlands and riparian habitats.
      2) Prohibit use of pesticides. The only exception may be limited non-aerial application of approved non-persistent insecticides at supply bases.

3. Nonsurface occupancy stipulations would be applied to plant habitat *(Erigeron muirii)* locations.

4. Plans of operation with protective stipulations and mitigation measures will be applied to all surface disturbing activities to avoid unduly disturbing peregrine falcons and their habitats, or affecting any other protected resource.

5. Establish cooperative agreements for cultural resource research and excavation.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Continue implementation of the 1982 *Peregrine Falcon Recovery Plan - Alaska Population*, which outlines the protective actions necessary for the recovery of this species.

3. Inventory ACEC to delineate crucial habitats for peregrine falcon and other listed and candidate species. Identify any crucial habitats for future management actions.

4. For threatened and endangered candidate plant species *(Erigeron muirii)* BLM will develop a species management plan that includes habitat and population management objectives, and strategies necessary to meet those objectives.

5. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials extraction.

6. Conduct class I and II cultural resource inventories for those areas that have not been surveyed. Require a class III cultural resource inventory for all ground disturbing actions. Nominate significant cultural resource sites to the National Register of Historic Places, and develop activity plans for each.

7. Prepare a geologic map of the area at 1:24,000 scale.

8. Require plans of operation for all mining activity in the outer corridor before any ground disturbing activity begins.

9. Prepare a 1610.00 serialized case file.

Supporting Programs

Wildlife, Minerals, Cultural Resources, Soil/Water/Air/Vegetation.

Monitoring and Evaluation

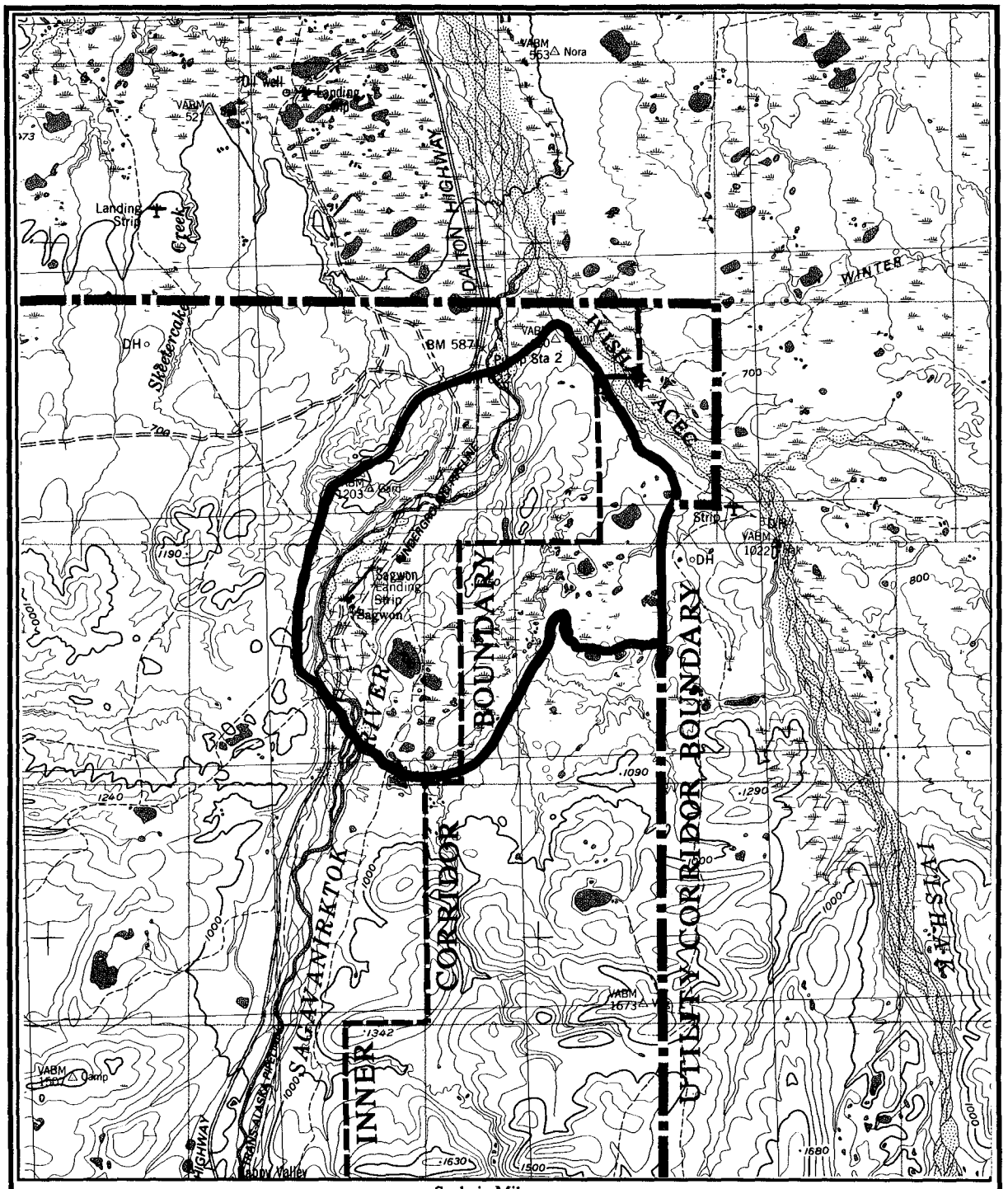
1. Crucial habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle. If disturbance to crucial habitat is noted, monitoring will occur annually.

2. Annually monitor populations and habitat of *Erigeron muirii* to determine if management objectives are being met.

3. Annually inspect cultural resource properties on the National Register of Historic Places.

4. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.

5. Identify significance and evaluate use of cultural resources in consultation with the State Historic Preservation Officer.



BOUNDARY MAP
Map sheet Sagavanirktok

Scale in Miles

0 5

Within Tps. 1 S. & 1 N.,
Rs. 14 and 15 E.
Umiat Meridian

SAGWON BLUFFS AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.18

Slope Mountain ACEC

Location

Slope Mountain. T. 8 S., R. 13 E.; Quad: Phillip Smith Mt.; C-4.D-4

Size

5,100 acres

Management Objective

To protect mineral lick sites and lambing habitat for Dall's sheep. To protect cultural resources.

Importance

Ewes traditionally return to the same habitat each spring to bear their offspring. Dall's sheep use natural licks to replace important skeletal minerals. Destructive activities or excessive human disturbance may eliminate these important habitats necessary to sustain a viable sheep population.

As late as the early 1980s, a known arctic peregrine falcon (a threatened species) nesting site was present on Slope Mountain. Therefore, the area is considered high potential for future nesting sites and warrants protection.

Relevance

A growing number of hunters use the Dalton Highway for easy access to hunt Dall's sheep; therefore, BLM needs to protect this crucial habitat to sustain a viable sheep population. Areas such as this ACEC should be designated for attention since a number of potentially disturbing activities (e.g., increases in traffic and recreation activity, future pipeline construction) may occur within the life of this plan. Such activities may also potentially affect cultural resources.

Management Practices and Allowable Uses

1. Mineral lick sites (160 acre parcels), would be closed to mineral entry and location under the 1872 mining law, to surface occupancy by BLM-authorized land activities, and to mineral materials extraction. Nonsurface occupancy stipulations would apply to mineral leasing.

2. Only allow mineral materials extraction with stipulations to prevent disturbance of Dall's sheep habitat or access.

3. Plans of operation with protective stipulations and mitigation measures would be applied to all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

4. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

5. Aircraft associated with all BLM-authorized land use activities shall be required to fly a minimum of 2,000 feet above ground level (AGL) from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice.

6. Protective measures for peregrine falcons within the ACEC will be those measures identified in the *Peregrine Falcon Recovery Plan* (September 1982). See Appendix K.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Conduct field exam of known mineral licks to establish metes and bounds description; record on map of appropriate scale. Write legal descriptions.

3. Prepare, publish, and implement a withdrawal from mineral entry and location under the 1872 mining law for each mineral lick (160 acres) currently known or those identified in future inventories.

4. Inventory ACEC to identify any additional crucial habitats and potential peregrine falcon nest sites.

5. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials sales or permits.

6. If peregrine falcons return to the area, protective measures will be those identified on page 51 of the *Peregrine Falcon Recovery Plan* (September 1982).

7. Record geologic features and prepare geologic map of the area at 1:24,000 scale.

8. Require a Class III cultural resources inventory for all ground disturbing actions.

9. Prepare a 1610.00 serialized case file.

Supporting Programs

Minerals, Wildlife

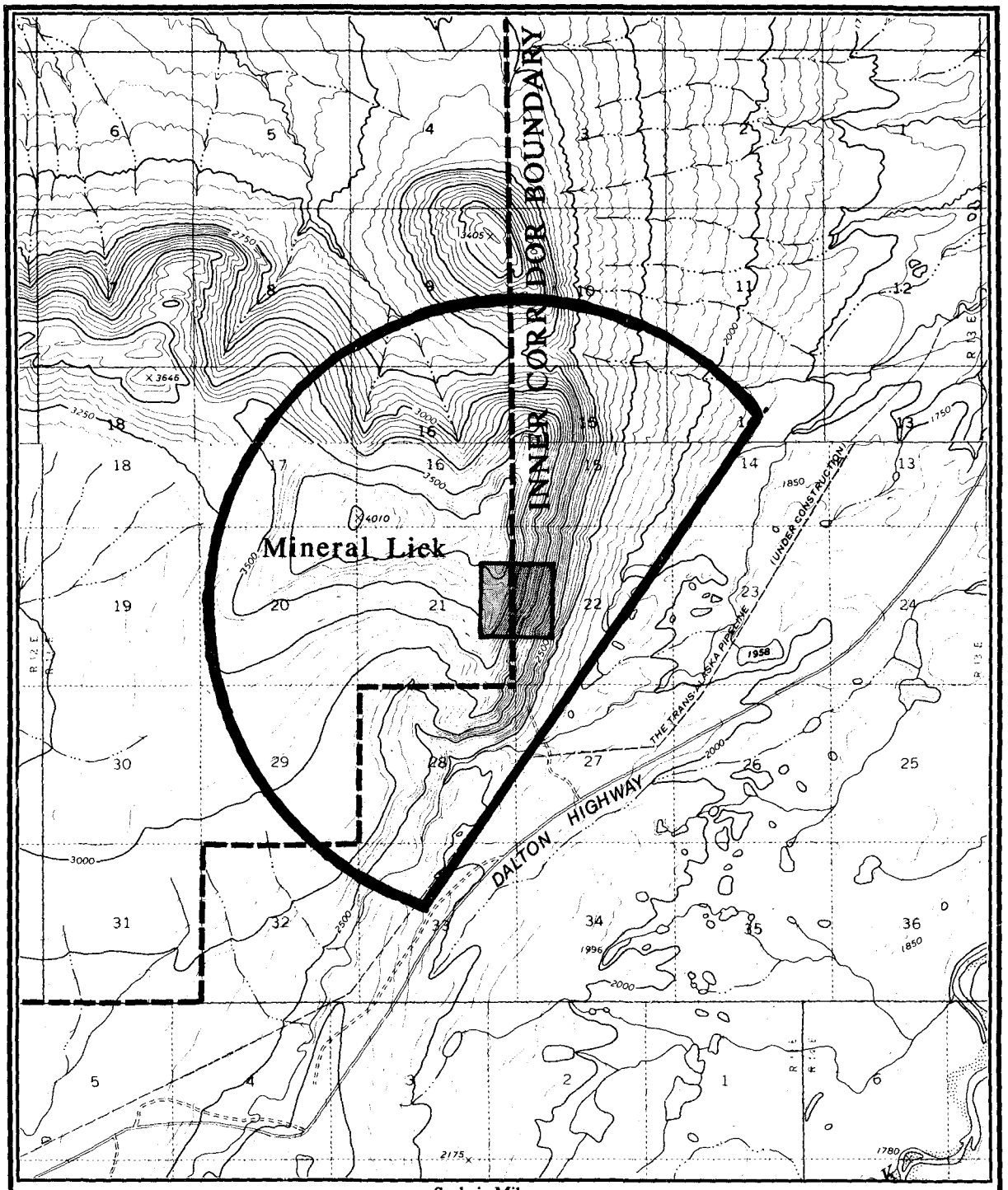
Monitoring and Evaluation

1. Crucial habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle. If disturbance to crucial habitat is noted, monitoring will occur annually.

2. Monitor area for peregrine falcon occupancy and use within the ACEC to determine population trends and critical use periods.

3. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.

4. Identify significance and evaluate use of cultural resources in consultation with the State Historic Preservation.



BOUNDARY MAP
Map sheets Phillip Smith Mtns C-4 and D-4

Scale in Miles
0 1 2

Within T. 8 S., R. 13 E.
Umiat Meridian

SLOPE MOUNTAIN AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.19

Snowden Mountain ACEC

Location

Snowden Mountain.; Mile 217 Dalton Highway; T. 34 N., R. 9 W., Sec. 6; Quad: Chandalar D-6

Size

28,000 acres

Management Objective

To protect Dall's sheep habitat and mineral lick sites. To protect the unique geologic exposures and associated paleontology.

Importance

The area contains excellent exposures of Devonian and lower Paleozoic rocks: Devonian corals and Cambrian trilobites. Dall's sheep use natural licks to replace important skeletal minerals, and ewes traditionally return to the same habitat each spring to bear their offspring. Destructive activities or excessive human disturbance may eliminate these important habitats necessary to sustain a viable sheep population.

Relevance

Close proximity to public access allows for scientific research by university and other groups, but, because of this easy access, this area needs additional management protection. This proximity and the relatively high locatable mineral potential in the outer Corridor warrant additional protection of sheep access to lick sites.

Management Practices and Allowable Uses

1. Mineral lick sites (160 acre parcels), would be closed to mineral entry and location under the 1872 mining law, to surface occupancy by BLM-authorized land activities, and to mineral materials extraction. Nonsurface occupancy stipulations would apply to mineral leasing.

2. Only allow mineral materials extraction with stipulations to prevent disturbance of Dall's sheep habitat or access.

3. Plans of operation with protective stipulations and mitigation measures would be applied to all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

4. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

5. Aircraft associated with all BLM-authorized land use activities shall be required to fly a minimum of 2,000 feet above ground level (AGL) from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice.

6. All recreational facilities would be consistent with the Dalton Highway Recreation Activity Management Plan (RAMP), and will minimize disturbance to protected resources within the ACEC.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Conduct field exam of known mineral licks to establish metes and bounds description; record on map of appropriate scale. Write legal descriptions.

3. Prepare, publish, and implement a withdrawal from mineral entry and location under the 1872 mining law for each mineral lick (160 acres) currently known or those identified in future inventories.

4. Inventory ACEC to identify any additional crucial sheep habitats, unique geological features, and paleontological locations.

5. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials sales or permits.

6. Design displays or signs explaining features of the area. Emphasize resource importance and protection. Prepare brochures about significant features.

7. Record geologic features and prepare geologic map of the area at 1:24,000 scale.

8. Prepare a 1610.00 serialized case file.

Supporting Programs

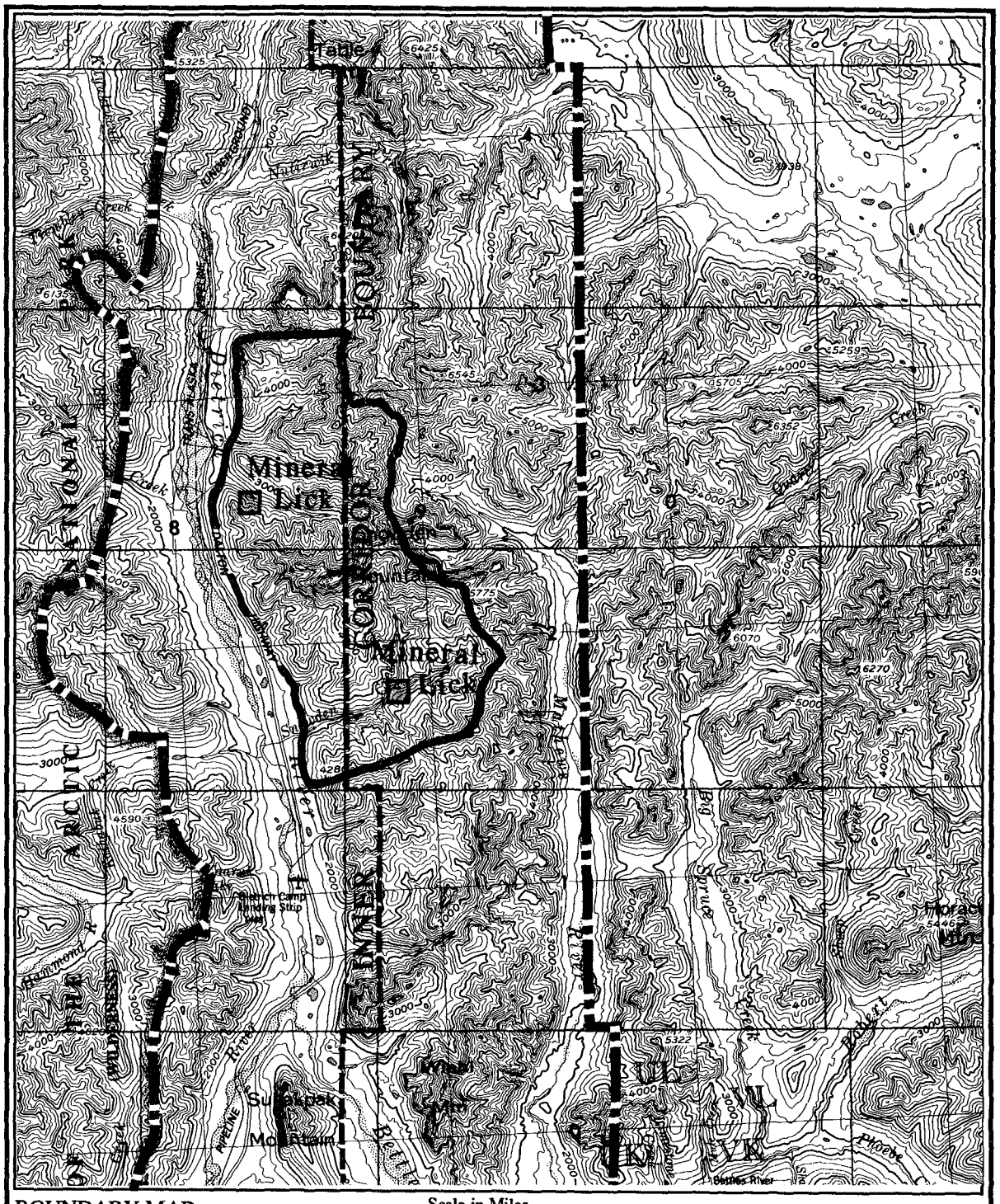
Recreation, Minerals, Wildlife

Monitoring and Evaluation

1. Crucial habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle. If disturbance to crucial habitat is noted, monitoring will occur annually.

2. Annually evaluate all mining plans to insure that mineral licks and access to them are protected through appropriate stipulations.

3. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.



BOUNDARY MAP
Map sheet Chandalar

Scale in Miles

0 5

Within Tps. 34 and 35 N.,
Rs. 9 and 10 W.
Fairbanks Meridian

SNOWDEN MOUNTAIN AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.20

Sukakpak Mountain ACEC

Location

Sukakpak Mt. T. 32 N., R. 10 W., Sec 10; Quad: Chandalar C-6

Size

3,500 acres

Management Objective

To protect unique geologic structures, folds, and faults; view of geologic process of mountain building and erosional forces. Rare plant species are also present. Sukakpak Mountain offers one of the more outstanding scenic views along the Dalton Highway.

Importance

This is an excellent location for public viewing of the geology of the Brooks Range, including geologic formations and erosional processes. A rare plant species (*Orthotrichum diminutivum)* is found on the slopes of the mountain.

Relevance

This area is accessible to the public via the Dalton Highway and is a readily available source of mineral materials. Access to the base of the mountain exists via a material source access road. Material sales on the mountain's slopes are now discouraged in order to ensure the scenic qualities of the area. The RMP's emphasis on recreation in the Utility Corridor identifies Sukakpak Mountain as having an outstanding opportunity for the development of a trailhead for day hikes.

Management Practices and Allowable Uses

1. Mineral materials extraction would not be allowed on the slopes of Sukakpak Mountain.
2. Mineral location will not be allowed in this ACEC. (This area is located within the inner Corridor.)
3. Nonsurface occupancy stipulations would be applied to mineral leasing in the ACEC. (The area is located within the inner Corridor.)
4. All recreational facilities would be consistent with the Dalton Highway Recreation Activity Management Plan (RAMP).
5. Recreational opportunities of the area will be emphasized by trail development.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.
2. Develop a trailhead with informational and regulatory signs.
3. Inventory ACEC to record geologic resources. Prepare handouts, brochures, and reports to present geologic information to the public.
4. Prepare geologic map of the area at 1:24,000 scale
5. Inventory visual resources in the ACEC.

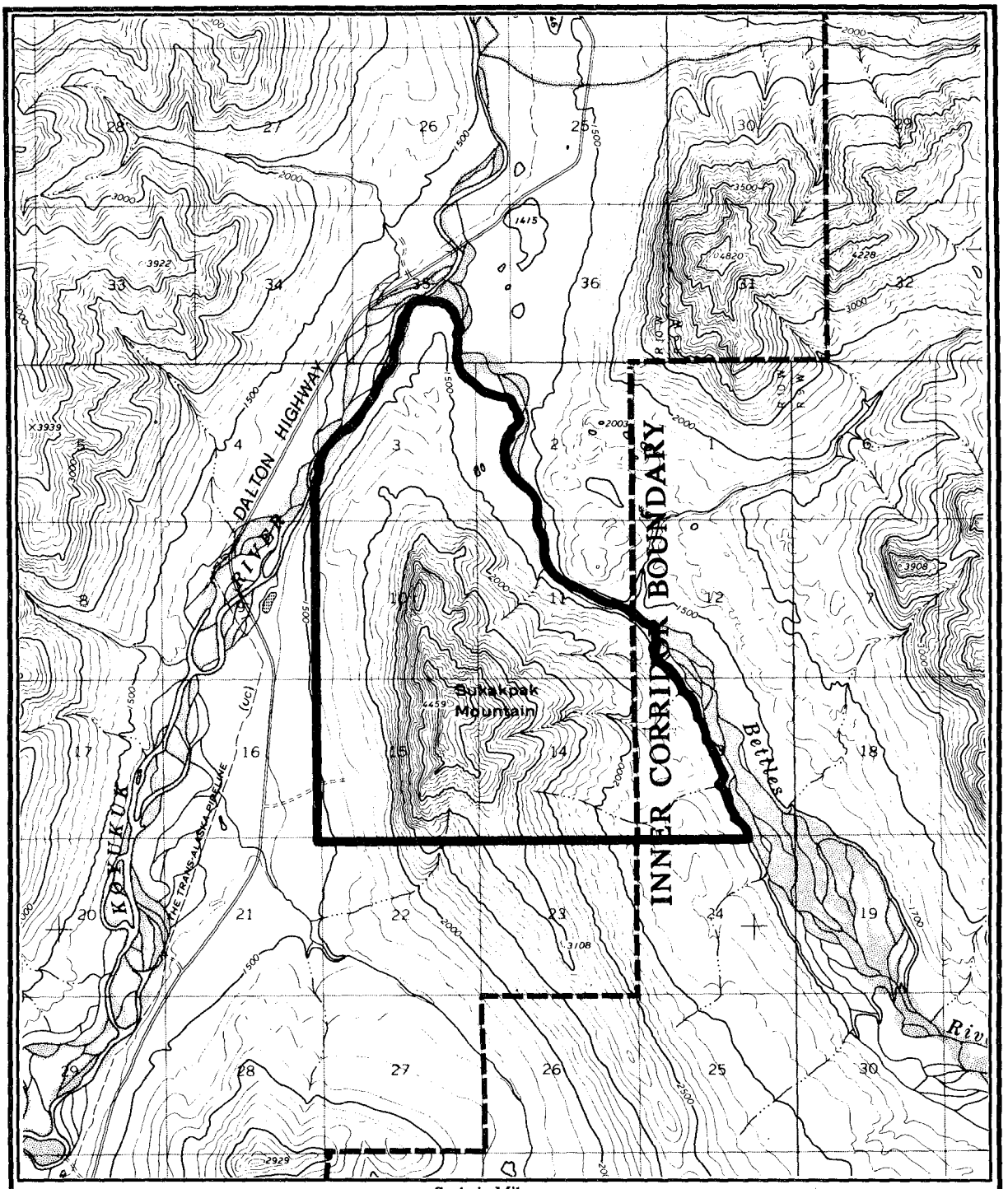
6. Prepare a 1610.00 serialized case file.

Supporting Programs

Minerals, Soil/Water/Air/Vegetation, Recreation

Monitoring and Evaluation

1. Use of trails in the ACEC would be monitored on a yearly basis.
2. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.



BOUNDARY MAP
Map sheet Chandalar C-6

Scale in Miles

Within Tps. 32 and 33 N., R. 10 W.
Fairbanks Meridian

SUKAKPAK MOUNTAIN AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.21

Toolik Lake ACEC / Research Natural Area

Location

Quad: Phillip Smith Mountain C-5.

Size

82,800 acres

Management Objective

To protect a natural lake and tundra biome extensively used for arctic natural resources research.

Importance

A large number of research projects have been based in and around this lake area. These research projects have produced and are producing extremely valuable information concerning the resources of public lands on the North Slope. Only through carefully planned and detailed research findings will it be possible to design land use and resource management strategies which will adequately protect environmental values in the face of resource development. Additionally, a sensitive plant species, *Montia bostockii,* is located in the Toolik Lake ACEC.

Relevance

Energy transportation is the primary function of the Corridor lands which comprise this Research Natural Area. However, because of the vital importance of the data produced by ongoing research, the area needs to be protected to the extent possible.

Management Practices and Allowable Uses

1. Protect habitats crucial to species considered threatened, endangered, candidate or sensitive (e.g., *Montia bostockii)* by U. S. Fish and Wildlife Service or the State of Alaska.

2. All authorized actions would be reviewed to avoid conflict with ongoing research projects in the area.

3. Mineral location will not be allowed in this ACEC. (The area is located within the inner Corridor.)

4. Nonsurface occupancy stipulations would be applied to mineral leasing. (The area is located within the inner Corridor.) Nonsurface occupancy stipulations would be applied to plant habitat *(Montia bostockii)* locations.

5. No recreational camping would be permitted within this Research Natural Area. No public use campgrounds would be developed at Toolik Lake.

6. ORV access for research activities would be allowed through permit.

7. Guiding operations would not be authorized at Toolik Lake.

8. The sale of mineral materials would be confined to already disturbed sites. New sites would be considered only if no other economically feasible alternatives are available.

9. No lands within the RNA would be made available for disposal (state selection, exchange, or sale).

10. Prepare a detailed management activity plan for the Toolik Lake Research Natural Area Plan, including the Galbraith Lake ACEC.

11. Prepare a species management activity plan for the sensitive plant species, *Montia bostockii.*

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features, location of ongoing research activities, and any restricted use areas as they are defined.

2. Evaluation and consideration of proposed authorized actions, including solid waste sites, within the RNA would be coordinated with the University of Alaska to avoid conflicts with ongoing research.

3. Prepare and implement an activity plan to address management of all resources in the Toolik Lake RNA emphasizing maintaining both the energy transportation function of the corridor and the integrity of ongoing research.

4. Prepare a 1610.00 serialized case file.

5. Inventory ACEC to delineate crucial habitats for *Montia bostockii* for future management actions.

6. For threatened and endangered candidate plant species, *(Montia bostockii)*, BLM will develop a species management plan that includes habitat and population management objectives, and strategies necessary to meet those objectives.

Supporting Programs

Wildlife, Minerals, Soil/Air/Water/Vegetation.

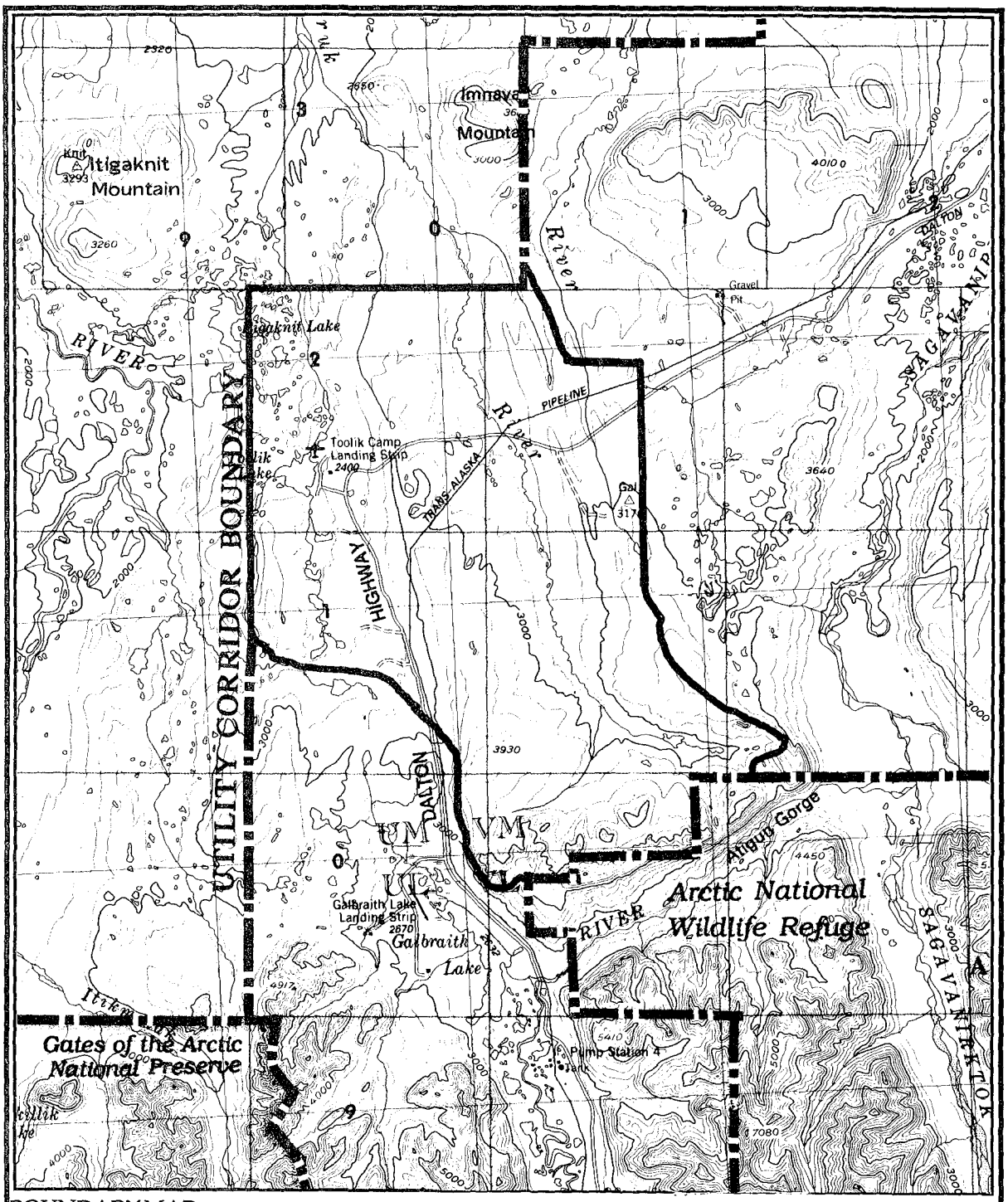
Monitoring and Evaluation

1. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.

2. Annually monitor populations and habitat of *Montia bostockii* to determine if management objectives are being met.

3. Obtain copies of published research results.

4. Annually coordinate with the University of Alaska to review research activity plans. Incorporate appropriate information on existing RNA base map.



BOUNDARY MAP

Scale in Miles

0 5 10

Within Tps. 9,10.11S., RS. 11,12,AND 13S. Umiat Meridian

TOOLIK LAKE AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.22

West Fork Atigun ACEC

Location

West Fork Atigun River. T. 13,14 S.; R. 10,11 E.; Quad: Phillip Smith Mt. A-5, B-5

Size

8,500 acres

Management Objective

To protect mineral licks and lambing habitat for Dall's sheep.

Importance

Ewes traditionally return to the same habitat each spring to bear their offspring. Dall's sheep use natural licks to replace important skeletal minerals. Destructive activities or excessive human disturbance may eliminate these important habitats necessary to sustain a viable sheep population.

Relevance

A growing number of hunters use the Dalton Highway for easy access to hunt Dall's sheep; therefore, BLM needs to protect this crucial habitat to sustain a viable sheep population. Areas such as this ACEC should be earmarked for attention since a number of potentially disturbing activities (e.g., increases in traffic and recreation activity, future pipeline construction) may occur within the life of this plan.

Management Practices and Allowable Uses

1. Mineral lick sites (160 acre parcels), would be closed to mineral entry and location under the 1872 mining law, to surface occupancy by BLM-authorized land activities, and to mineral materials extraction. Nonsurface occupancy stipulations would apply to mineral leasing.

2. Only allow mineral materials extraction with stipulations to prevent disturbance of Dall's sheep habitat or access.

3. Plans of operation with protective stipulations and mitigation measures would be applied to all surface disturbing activities to avoid restricting sheep movement, unduly disturbing sheep habitat, or affecting any other protected resource.

4. All BLM-authorized camps and support facilities located within the confines of the ACEC, including cabins and tent frames, shall be temporary and must be removed after their purpose has been accomplished.

5. Aircraft associated with all BLM-authorized land use activities shall be required to fly a minimum of 2,000 feet above ground level (AGL) from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice.

Program Activities

1. Prepare a base map of appropriate scale. Include all significant ACEC features as they are located, and any restricted use areas as they are defined.

2. Conduct field exam of known mineral licks to establish metes and bounds description; record on map of appropriate scale. Write legal descriptions.

3. Prepare, publish, and implement a withdrawal from mineral entry and location under the 1872 mining law for each mineral lick (160 acres) currently known or those identified in future inventories.

4. Inventory ACEC to identify any additional crucial habitats.

5. Develop appropriate stipulations and mitigative measures to protect crucial habitat and/or resources during multiple use activities, including mineral materials sales or permits.

6. Record geologic features and prepare geologic map of the area at 1:24,000 scale.

7. Prepare a 1610.00 serialized case file.

Supporting Programs

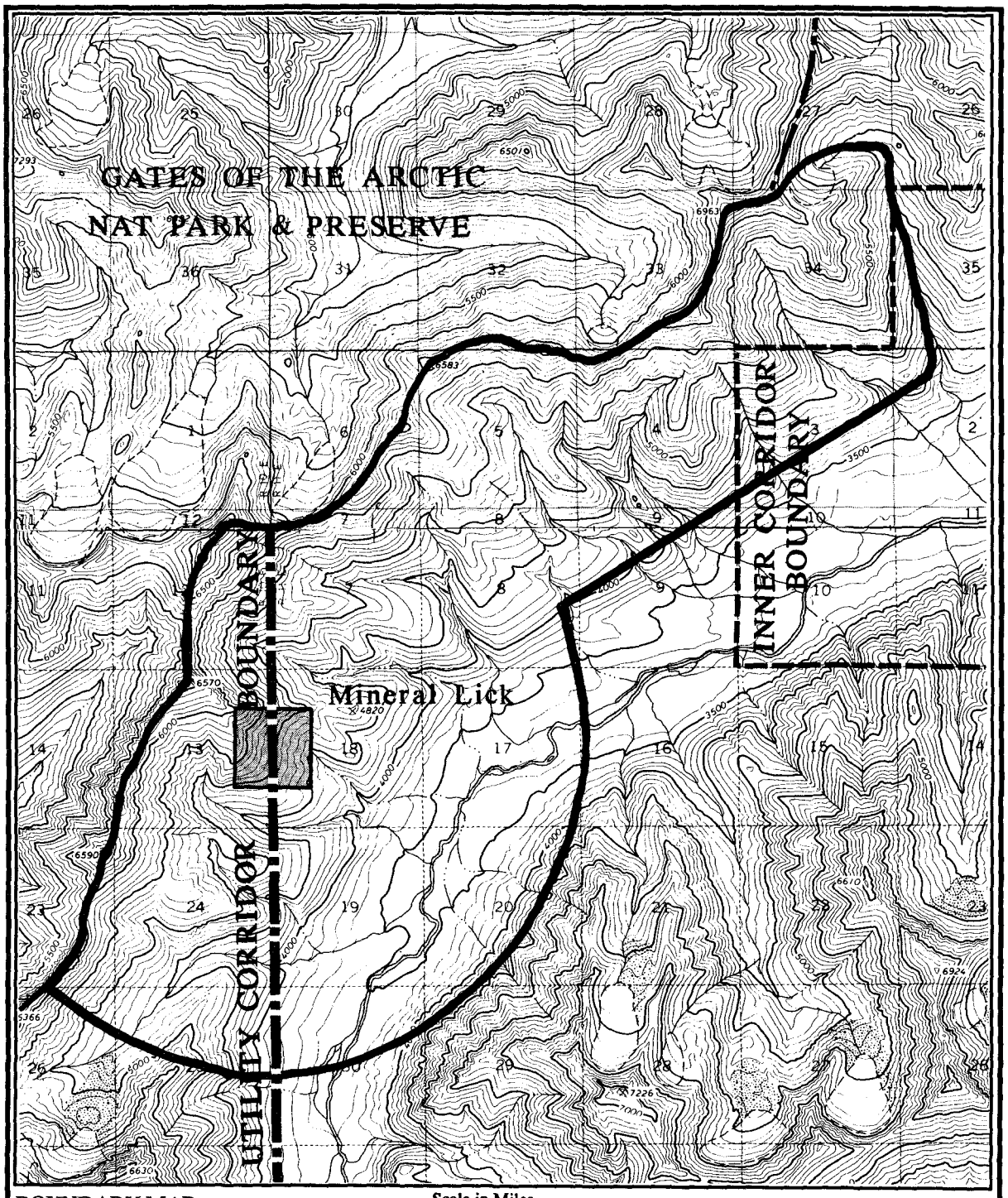
Minerals, Wildlife

Monitoring and Evaluation

1. Crucial Dall's sheep habitats and use periods will be monitored. Once baseline data are collected, monitoring will occur on a three to five year cycle.

2. Evaluate all mining plans to insure that mineral licks and access to them are protected through appropriate stipulations.

3. Annually monitor permitted actions and cooperative agreements to assure compliance with protective stipulations and mitigative measures.



BOUNDARY MAP
Map sheet Phillip Smith Mtns. B-6

Scale in Miles
0 1 2

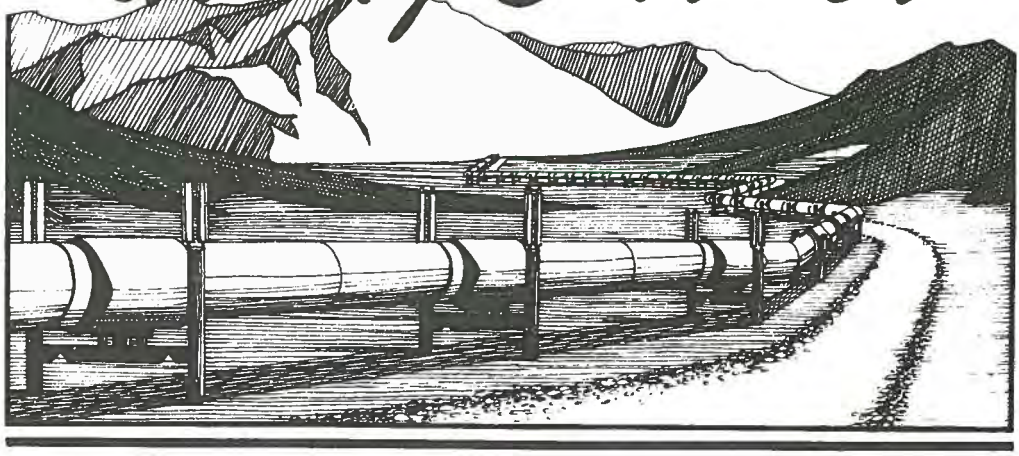
Within T. 13 S., R 11 E.
Tps. 14 S., Rs. 10 and 11 E.
Umiat Meridian

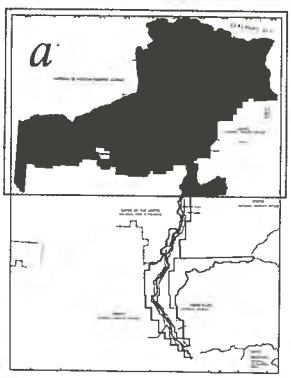
WEST FORK ATIGUN AREA OF CRITICAL ENVIRONMENTAL CONCERN

Map 2.23

Proposed Plan Maps

Utility Corridor





Proposed Plan

1 of 4

LEGEND

- Development Node
- Open to Mineral Entry and Location
- Open to Oil and Gas Leasing
- Areas of Critical Environmental Concern ACEC
- Wilderness Recommendation (closed to mineral activity)
- Proposed Killik River Corridor Acquisition
- Proposed Oolamnagavik Consolidation Acquisition
- BLM Surface Management Only
- Mineral Licks Closed to Mineral Location
- BLM Administered Public Lands

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SCALE

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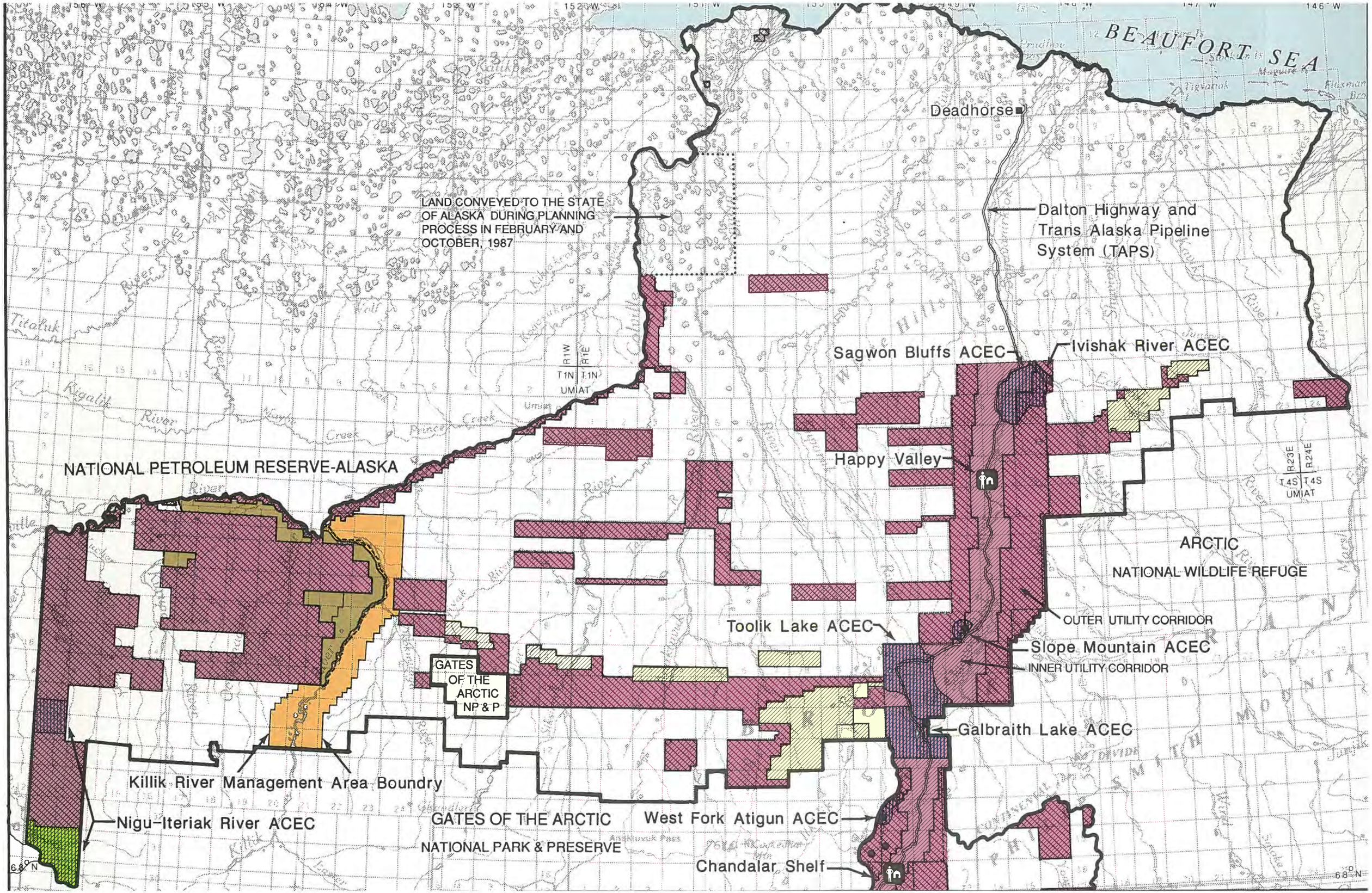
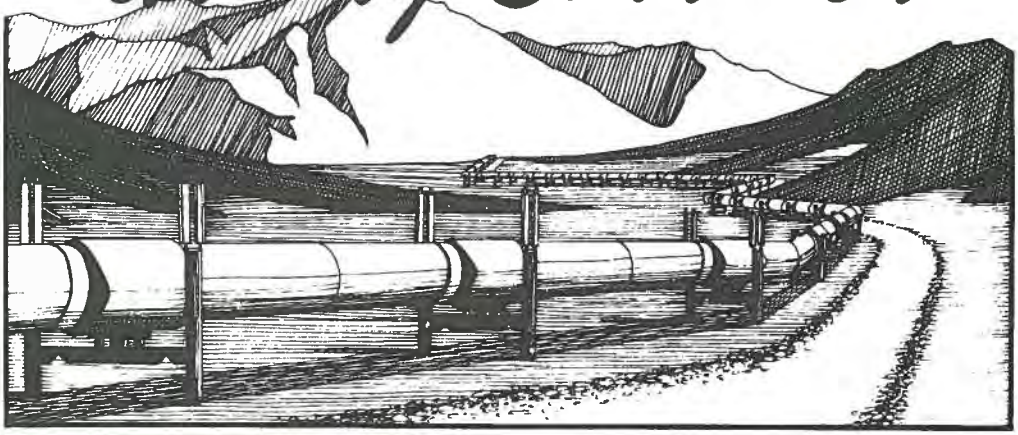
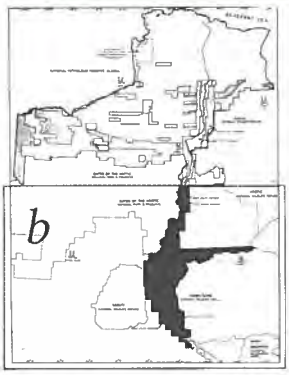
10 0 50 KILOMETERS 100


BEAUFORT SEA
Deadhorse
LAND CONVEYED TO THE STATE OF ALASKA DURING PLANNING PROCESS IN FEBRUARY AND OCTOBER, 1987
Dalton Highway and Trans Alaska Pipeline System (TAPS)
Sagwon Bluffs ACEC
Ivishak River ACEC
Happy Valley
NATIONAL PETROLEUM RESERVE-ALASKA
ARCTIC
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
Toolik Lake ACEC
Slope Mountain ACEC
INNER UTILITY CORRIDOR
GATES OF THE ARCTIC NP & P
Galbraith Lake ACEC
Killik River Management Area Boundry
Nigu-Iteriak River ACEC
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
West Fork Atigun ACEC
Chandalar Shelf
R1W R1E
T1N T1N
UMIAT
R23E R24E
T4S T4S
UMIAT
68° N

Utility Corridor





Proposed Plan

2 of 4

LEGEND

- Development Node
- Open to Mineral Entry and Location
- Open to Oil and Gas Leasing
- Areas of Critical Environmental Concern ACEC
- Mineral Licks Closed to Mineral Location
- BLM Administered Public Lands

N

SCALE

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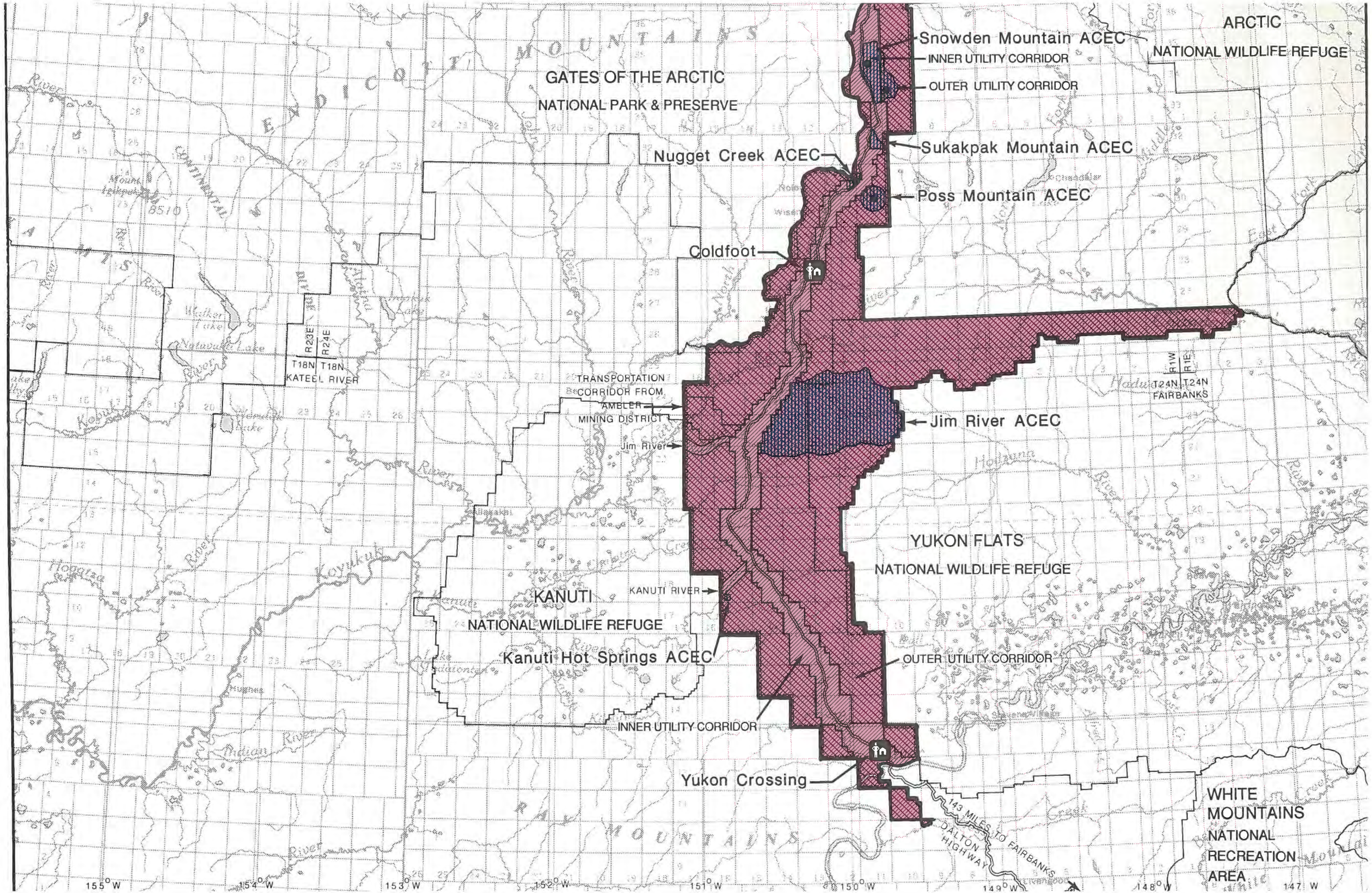
Snowden Mountain ACEC
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
ARCTIC
NATIONAL WILDLIFE REFUGE
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
Sukakpak Mountain ACEC
Nugget Creek ACEC
Poss Mountain ACEC
Coldfoot
R23E
R24E
T18N
T18N
KATEEL RIVER
TRANSPORTATION
CORRIDOR FROM
AMBLER
MINING DISTRICT
Jim River
Jim River ACEC
R1W
R1E
T24N
T24N
FAIRBANKS
YUKON FLATS
NATIONAL WILDLIFE REFUGE
KANUTI
NATIONAL WILDLIFE REFUGE
KANUTI RIVER
Kanuti Hot Springs ACEC
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
Yukon Crossing
143 MILES TO FAIRBANKS
DALTON HIGHWAY
WHITE
MOUNTAINS
NATIONAL
RECREATION
AREA
155° W
154° W
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152° W
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150° W
149° W
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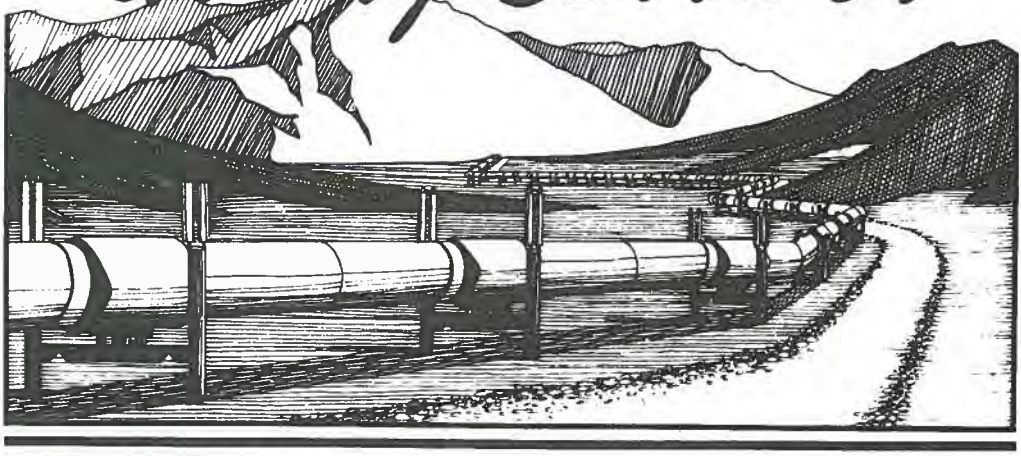
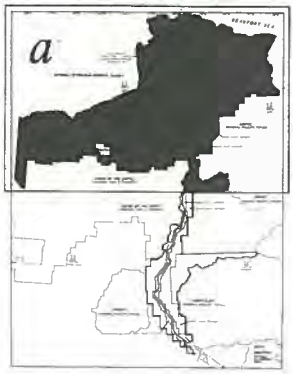
147 W

Utility Corridor





Proposed Plan

3 of 4

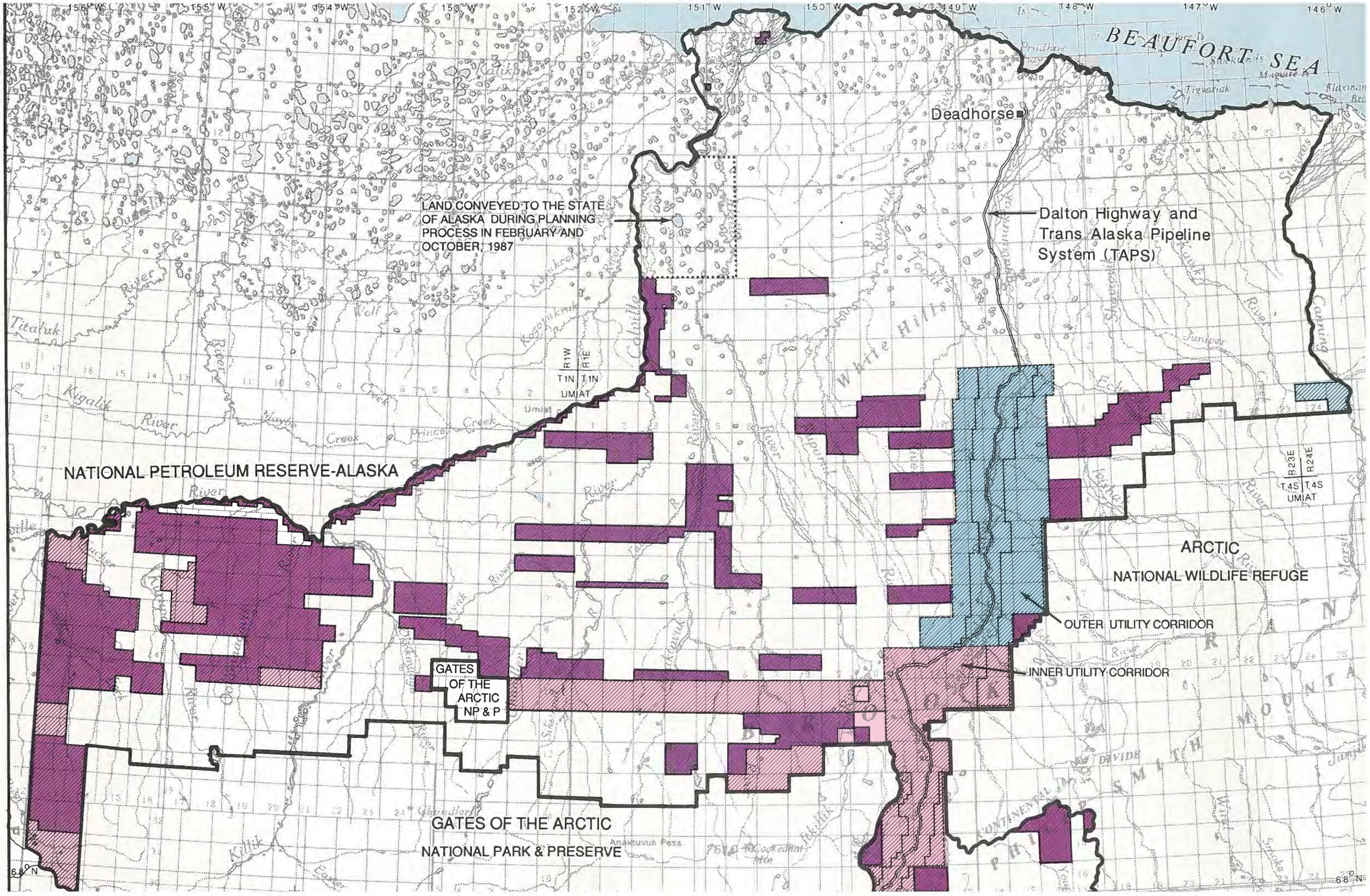
LEGEND

- Areas to be Opened for State Selection
- Areas Presently Open for State Selection
- Areas to Remain Closed to State Selection
- BLM Administered Public Lands

N

SCALE

10 0 20 40 MILES 60


BEAUFORT SEA
Deadhorse
LAND CONVEYED TO THE STATE OF ALASKA DURING PLANNING PROCESS IN FEBRUARY AND OCTOBER, 1987
Dalton Highway and Trans Alaska Pipeline System (TAPS)
NATIONAL PETROLEUM RESERVE-ALASKA
ARCTIC
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
GATES OF THE ARCTIC NP & P
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
R1W
R1E
T1N
T1N
UMIAT
R23E
R24E
T4S
T4S
UMIAT
156°W
155°W
154°W
153°W
152°W
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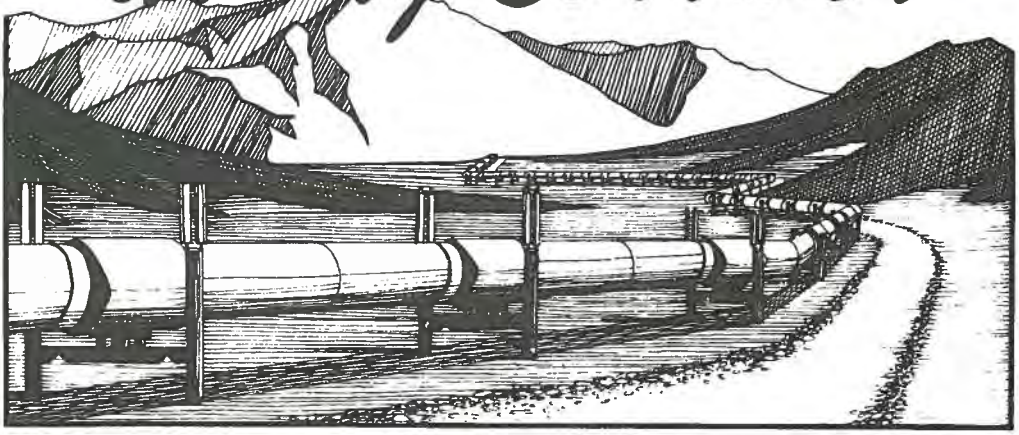
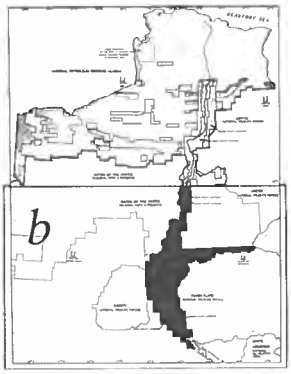
150°W
149°W
148°W
147°W
146°W
68°N

Utility Corridor





Proposed Plan

4 of 4

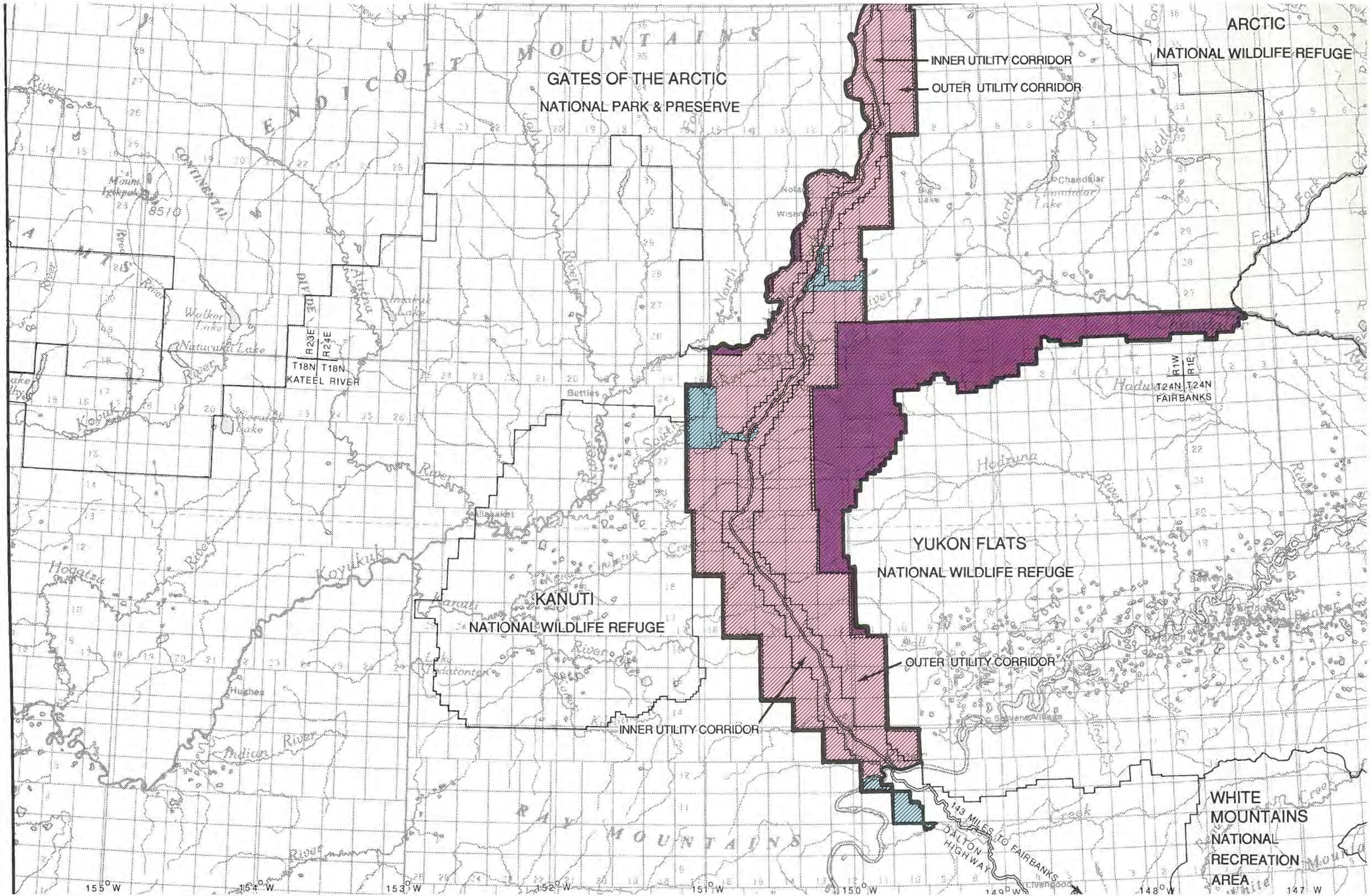
LEGEND

- Areas to be Opened for State Selection
- Areas Presently Open for State Selection
- Areas to Remain Closed to State Selection
- BLM Administered Public Lands

N

SCALE

10 0 20 40 MILES 60


ARCTIC
NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
ELDICOTT MOUNTAINS
R23E
R24E
T18N
T18N
KATEEL RIVER
R1W
R1E
T24N
T24N
FAIRBANKS
YUKON FLATS
NATIONAL WILDLIFE REFUGE
KANUTI
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
143 MILES TO FAIRBANKS
DALTON HIGHWAY
WHITE MOUNTAINS
NATIONAL
RECREATION
AREA
155° W
154° W
153° W
152° W
151° W
150° W
149° W
148° W
147° W

Section 2:
Scenarios- Actions and Activities with Potential for Environmental Impact

Section 2: Scenarios - Actions and Activities with Potential for Environmental Impact

In development of the activity scenarios and for purposes of analysis, certain assumptions have been made. These include:

1. BLM will have sufficient funding and work force to implement the management plan as described.

2. Many lands within the planning area have been selected by the State of Alaska and/or by Native Corporations to fulfill land entitlements granted by the Statehood Act and the Alaska Native Claims Settlement Act (ANCSA). Many more lands are or could be available for selection by the state and may be selected in the future. For a variety of reasons (e.g., overselections, relinquishments), lands selected are not necessarily conveyed to the selecting entity. Consequently, it is not possible to know which lands within the planning area will remain in federal ownership. Therefore, for purposes of analysis, the selection status of most planning area lands will not be considered (see item 3 below). Only for those lands within the Utility Corridor withdrawal being made available to state selection under the proposed plan will future selection and conveyance to the state be specifically addressed.

3. On lands validly selected by the State of Alaska or by (ANCSA) Native Corporations, certain activities which would be authorized under the proposed plan require prior concurrence of the selecting entity. Additionally, valid state selections segregate lands, otherwise available, from all appropriation including mineral location. To consider fully the potential consequences of plan proposals on the approximately 3.5 million acres of lands within the planning area either currently selected, available for selection, or proposed to be opened to selection, it has been assumed that identified activities would occur regardless of selection status (see item 2 above).

4. Where BLM retains the surface estate but not the subsurface, federal mining and leasing authorities do not apply. However, mineral exploration and development activities will not be prohibited on split estate lands. BLM will be responsible for mitigating surface impacts on these lands.

5. On planning area lands north of 68° N latitude (i.e., CAMA) and outside of the Dalton Highway "viewshed," implementation of the proposed plan must be held in abeyance until Congress has reached a decision on wilderness designation or nondesignation. Until such time as Congress acts, BLM must manage CAMA to protect its wilderness character. However, rather than base the impact assessment on an interim wilderness management scenario, it will be assumed that the proposed plan would be implemented.

Locatable Mineral Exploration and Development

MANAGEMENT ACTIONS

Under the proposed plan, approximately 1.7 million acres of federal land would remain open to development of locatable minerals (e.g., gold and silver) under U.S. mining laws. Approximately 3.0 million additional acres of federal land, now closed, would be opened to development of locatable minerals. Presumably, the approximately 274,000 acres of split-estate lands within the planning area to which Arctic Slope Regional Corporation (ASRC) owns the mineral estate would also be available to hardrock mineral development under provisions set forth by ASRC. Thus, approximately 5.0 million acres of land within the planning area would be available to locatable mineral development.

Approximately 1.1 million acres within the planning area would remain closed to locatable mineral development. Most of these lands are within the inner Corridor and have been closed since 1971.

Located within the closed areas are approximately 200 existing mining claims, which would not be affected as a result of the continued closures.

ANTICIPATED ACTIVITIES

Of the approximately 5.0 million acres of planning area lands to be available for hardrock mineral development (including existing claims), the probability of development actually occurring during the life of this plan is likely only within the approximately 233,000 acres of high potential placer gold lands south of the Brooks Range continental divide and north of the Arctic Circle. North of the Brooks Range, development of potentially occurring, but as yet undiscovered hardrock minerals (primarily lead-zinc and related minerals), during the life of this plan is unlikely due to the area's remoteness, lack of access, and the availability of substantial lead-zinc deposits elsewhere in the state (e.g., Red Dog in western Alaska).

Exploration

Before development of a mineral deposit occurs, a company or individual will normally collect field samples. In a typical placer operation, many "pan" samples are collected from creeks. Where panning or geochemical sampling indicates a promising area, further testing of the placer deposit can be accomplished by digging sample holes or trenches, by hand or with earth moving equipment. Holes are normally dug perpendicular to the course of a stream channel, across the "pay zone." Placer sampling may also be done by means of a churn or rotary type drill.

Exploration of a lode deposit begins with a geological mapping effort. Rock samples and pan concentrates are collected on a regular grid pattern. Mineral concentrations above normal usually result in further exploration, in which a portable rotary drill collects additional samples at depth. Drills can be moved from one location to another by tractor-pulled skids, on all-terrain vehicles, or lifted in and out of areas of difficult access by helicopters. Drilling is usually done in a grid pattern to establish the quality and quantity of the deposit. If it is determined that the deposit can be developed economically using sound mining practices, mining operations are developed through engineering studies, financing is obtained, and the mine is brought into production. In Alaska, it may take 10 to 20 years to develop a mine after exploration.

Placer Mining Operations

It is anticipated that 36 placer operations will be active during the life of this plan (i.e., the next ten years), an increase of three operations from current management (USDOI, BLM, 1987). Because most of these mines are currently operating, for purposes of analysis we will assume all 36 operations to begin within one year of plan implementation.

A typical placer operation will employ three to five people and disturb about four to five acres per year. Operations that disturb more than five acres per year require that a plan of operations be submitted and approved by BLM before mining begins.

Placer mining operations may involve hydraulic, mechanical, or drift mining techniques. A mining operation can be divided into several steps: stripping, processing, and tailing disposal/reclamation. Overburden is generally removed by bulldozers or draglines although hydraulic monitors may be used. The amount of overburden removed in stripping operations varies from 1 to 10 feet or approximately 1,600 to 16,000 cubic yards per acre stripped.

Pay gravels are loosened by a bulldozer and pushed into a pile for feeding onto a sorting device (grizzly). Normally, mining operations process from 10 to 1,000 cubic yards of gold bearing gravels per day throughout the nearly 100-day season and use from 100 to 3,000 gallons of water per minute to wash the gravels. Typically, between 50 and 90 percent of the water used in the processing system is recycled from the settling ponds, and the rest is made up from streams diverted around the operation. Coarse tailings are removed from the processing area by bulldozer or loader and stacked for later reshaping or used to build settling ponds.

Generally, properly constructed ponds are capable of settling all the settleable solids and most of the suspended solids as required by the Environmental Protection Agency (EPA) and Alaska Department

of Environmental Conservation (DEC). Ponds are not capable of removing all the turbidity that is created during the processing phase. Additional treatment of the mine water through the use of flocculants, ground filtration systems, totally recycling of all mine waters, redesigning the processing plant, or a combination of the above is necessary to reduce turbidity to meet current standards. Generally, these techniques have not proven to be wholly effective.

Over the course of 3 to 5 years, most of a 20 acre claim is likely to be disturbed as a result of building construction, stripping, processing, and tailings disposal, and must undergo reclamation. Reclamation efforts to recontour the land and revegetate the surface cannot completely restore the land to its natural state. The remainder of a claim would either not be disturbed, due to the terrain or lack of values, or would receive only incidental disturbance (e.g., foot traffic or one time vehicle passes). Impacts from this disturbance would be of a short term nature.

As a claim is mined it would be expected that additional claims would be worked on the same stream. Over the 10 year life of this plan it will be assumed that three claims per operation would be worked along a stream. Total onsite disturbance per operation over the 10 year life of this plan would be approximately 40 acres, with a total disturbance over 10 years on the anticipated 36 "typical" operations of approximately 1,440 acres. Allowing for one new large scale operation, disturbing approximately 100 acres annually for about four years before ceasing operations, total onsite disturbance from placer operations would be about 1,800 acres during the life of the plan.

The coarse tailings not used for other mining purposes remain after the area is mined out and are reshaped to a natural contour. Topsoil, required to be saved, is spread over the reshaped ground to promote vegetation by natural species. Reclamation of disturbed areas is required annually on all areas not needed for ongoing operations. Because reclamation is ongoing and begins by the second year of operations, maximum *unreclaimed* acreage resulting from anticipated activities, excluding access roads, would be approximately 280 acres. At the end of 10 years most disturbed areas (approximately 85%) will have been reclaimed and be in various stages of recovery to a natural state.

In addition to the onsite disturbance, an access road of approximately 5 miles in length and 15 feet in width would be expected for each operation. Equipment and supplies would be brought in over frozen ground during the winter. The roadbed (including turnouts) would occupy approximately 9 acres. Road improvement would usually be done as required using available mine tailings. Due to the 1) soft wet soils, 2) inhospitable environment, 3) low speeds and volume of traffic, and 4) closure of BLM lands to summer recreational ORV activity, incidental disturbance adjacent to the road from dust, garbage and off-road "exploring" would be limited to less than an acre. Therefore, total disturbance along and adjacent to a five mile road would be expected to be less than 10 acres. Total disturbance due to access roads for the anticipated 36 operations would be about 360 acres and would remain essentially constant for the ten year life of the plan.

Thus, assuming that all anticipated mining operations would begin within one year of plan implementation, mining over the life of this plan would result in a total *reclaimed* onsite disturbance of 1,800 acres. In addition, new road disturbance would occur on approximately 360 acres; road extensions to new claims would go over previously disturbed areas. Assuming all operations to begin in year one, maximum *unreclaimed* disturbance at any one time would total about 640 acres (i.e., 280 acres onsite and 360 acres of roads).

Lode Deposit Operation

Several lode prospects are known to occur within the Corridor portion of the planning area. Most appear to be small in size but more exploration is necessary to delineate the actual size of the ore zones. It is anticipated that a 100 ton per day mine operating four months per year (for a seven year mine life) will be developed within the Corridor area in the next five years.

Operations that disturb more than five acres per year, including access roads, must file plans of operation with BLM prior to beginning on-the-ground activities. It is assumed that a new lode development would file a plan for approval prior to beginning operations. Lode mining operations may be of two types, open pit and underground. The underground method is the most likely method of development during the life of this plan.

Lode mining operations can be divided into site preparation, mining and milling, and tailings/surface reclamation. Generally, in a small underground mine, surface disturbance occupies about two acres excluding the access road. The mine portal and associated ventilation shafts occupy minimal area, usually less than one acre. The milling of ore from an underground mine generally involves grinding the ore, processing the ground rock, concentrating the ore and refining the metal from the concentrations. In this scenario, the mill will process 100 tons per day. The amount of water used in the mine and in the mill is 50 and 2000 gallons per minute respectively. Water is generally taken from local streams or a well drilled for this purpose.

The disposal of tailings from a 100 ton per day mine will consist of two main products: waste rock that was not processed in the mill and finely ground material from the mill. The waste rock will be deposited on a surface site usually located on a hill slope or in a nearby valley. Because underground mining is selective, minimal waste rock is mined. It is assumed that only 100 tons of waste rock per day will require a disposal site with eventual reclamation. Over the life of the mine, this amount would cover approximately 1/3 of an acre ten feet deep.

Mill tailings will require a much larger area for disposal. This material is generally placed in settling ponds, allowed to drain, then reclaimed when the impoundment is full. Ninety percent of the water is recycled to the mill for reuse. The tailing ponds are usually located on stable soils within valleys. The amount of land necessary for a tailing pond to handle the tailings over the life of the operation is estimated at one acre for a pond 100 feet wide, 300 feet long and 10 feet deep. When the mining operation has ended, these tailing sites are stabilized and placed in such a condition to allow natural revegetation.

Access to a typical lode mine is by four wheel drive vehicle over improved gravel roads averaging about three miles in length and 25 feet in width. Improved roads are required due to the heavy machinery usually used in underground mining and in milling operations. Access roads are anticipated to occupy a total of approximately nine acres. In total, surface disturbance from an anticipated lode mine operation would be approximately 14 acres.

Mineral Material Extraction

MANAGEMENT ACTIONS

Mineral material (gravel) sales would be allowed throughout the planning area with certain safeguards for specific areas (e.g., within the Jim River and Prospect Creek floodplains and the Ivishak River ACEC). As a result of plan implementation, the quantity of gravel resources required would not change from the current situation, although in some cases sources of materials may be shifted to protect identified resources. Extraction of gravel from already disturbed sites rather than from new sites would be encouraged.

ANTICIPATED ACTIVITIES

Extraction of mineral materials for the maintenance of existing transportation systems and related facilities is anticipated to be the major use of gravel resources during the life of this plan. Mineral materials needed for new construction would also be made available as required. Impacts from gravel extraction related to major new construction would be addressed in a required EIS specific to the proposal. Extraction of sand and gravel resources needed during the life of this plan will likely be confined to that portion of the planning area within the Utility Corridor along the Dalton Highway. At the present time there are approximately 60 existing material sites within the Utility Corridor between the Yukon River and Pump Station 2.

A typical site layout may be divided into stripping, excavation and reclamation operations. Exploration generally identifies areas that contain suitable rock for construction needs. The site may have little or no organic material that must be stripped from the site and saved for future reclamation, or the site may have from one to six feet of material. This material is pushed to one side and saved.

A bulldozer is used to strip the overburden and to break up the consolidated material. Bulldozers can generally dig to a depth of 10 to 12 feet. If the material is deeper, drills are used to create holes that are loaded with explosives and detonated, fracturing the material. The material is loaded into dump trucks by front end loaders or backhoe excavators. The trucks then haul the material to the location where it is needed.

The sides of the resulting pit are generally sloped to a 3:1 slope or flatter. The floor of the pit is leveled to prevent the accumulation of water which may become a hazard to animal and human life. The saved topsoil and organic material is then spread over the side slopes and access roads to allow reestablishment of natural vegetation and to prevent erosion.

Mineral material sites are generally located as close as possible to the location where the material is to be used. Most of these sites are located no more than 3/4 mile from the Dalton Highway. Under the proposed plan, gravel extraction will be limited to existing sites where possible, but it would be prohibited in the eight identified mineral lick areas, the Kanuti Hot Springs, Nigu-Iteriak, and Sukakpak Mountain ACECs, and in designated wilderness areas. Extraction would be allowed in the Jim River and Prospect Creek floodplains, and the Ivishak River ACEC only if no other economically feasible locations for material minerals can be found.

Leasable Mineral Exploration and Development

MANAGEMENT ACTIONS

As a result of plan implementation approximately 5.8 million acres of land would be opened to the exploration and development of leasable minerals (e.g., oil and gas) under federal law. Development activities would not be prohibited on the approximately 274,000 acres of split-estate lands within the planning area to which Arctic Slope Regional Corporation (ASRC) owns the mineral estate. Presumably, this split-estate land would be opened to oil and gas development through provisions set forth by ASRC. Remaining closed to exploration and development would be the Nigu-Iteriak ACEC (the recommended 41,000 acre Nigu wilderness area). Hence, approximately 6 million acres of land within the planning area would be available for oil and gas leasing and development (federal or ASRC) as a result of the proposed plan.

ANTICIPATED ACTIVITIES

No oil and gas leases currently exist on any planning area lands. Presumably, all high potential lands would be leased in the future, and additional geophysical and exploratory work would take place. Therefore, it is anticipated that approximately 3,330,000 acres of planning area lands, all north of 68° N latitude (i.e., within CAMA) and considered to have high potential for oil and gas occurrence, would be leased. It is not anticipated that any lands south of 68° N latitude would be leased.

Leasing on the 3,330,000 acres of high potential lands within CAMA could result in several phases of development: geological and geophysical (principally seismic) exploration, exploratory drilling, development drilling, and construction of all-season roads, oil transmission pipelines and production facilities. During the life of this plan no development drilling, production facilities or associated road/pipeline construction is expected to occur. However, because leasing likely to occur during the life of this plan could result in these activities taking place, the following scenarios and analyses consider such activity.

Geological and Geophysical Exploration

Additional geological surveys or studies during the snow free months would be expected to occur on most CAMA lands outside the recommended wilderness area. These surveys are brief: the investigators arrive by helicopter, study and measure geological sections, and perhaps take a few "grab samples" of rock, remaining on the ground for a few hours at most. Noise from the helicopter during arrival and departure would be the principal effect.

Geophysical (seismic) exploration would be expected over most of CAMA outside the recommended wilderness area. Seismic survey activity within CAMA has occurred in the past. Such activity is dependent on several interrelated factors and has been episodic in nature. In 1987 (the only seismic work in the last 5 years), approximately 500 miles of seismic lines were explored on CAMA lands. Future seismic examinations on the 3,330,000 acres of high potential lands would be expected to occur with an average of 500 miles of line annually.

To minimize surface disturbance, seismic surveys would be conducted during the winter months, usually between December 1 and June 1, when the ground is frozen to a depth of approximately 12 inches and adequate snow cover exists, approximately six inches. Seismic data would be obtained utilizing the vibroseis technique. This technique employs the use of a special vehicle that vibrates on top of the ground, sending sound waves into the ground where they are reflected to receiving stations. Seismic trains are generally routed through terrain where it is easiest to move equipment, minimizing potential for surface damage, although the route may not provide the shortest travel distance. Gently sloping banks would be selected for entry and exit to all stream crossings, reducing equipment strain and averting bank damage which could lead to erosion and stream siltation. This is especially important on CAMA lands that lie on the flatter topographic relief areas of the foothills and coastal plain, but where stream banks are steep along many drainages.

Seismic trains use about 2,000 gallons of water daily for domestic purposes. Where available, crews obtain water from lakes that do not freeze to the bottom. When such lakes are not available, a small snow or ice melter is used to obtain domestic water supplies. Brief and transitory effects of local noise and air pollution result from equipment operation. Minor fuel spills could also occur.

No ice roads or airstrips would be constructed to support seismic operations. Light, fixed-wing aircraft would be used for resupply and would land on 2,000 foot-long ice airstrips scraped on the nearest lake or pond. Occasionally, ski-equipped aircraft that can land on the snow-covered tundra would be used if there are no lakes nearby.

Exploratory Drilling

Under the proposed plan, based on past drilling activity on nonfederal lands adjacent to CAMA, it is estimated that about 30 exploratory wells would be drilled over a 30-year period on CAMA lands. Exploratory drilling is a large scale operation that requires heavy construction equipment to prepare the well site and an airstrip large enough for Hercules C-130 aircraft. Activities associated with exploratory drilling would be confined to a localized area and allowed only during the winter (usually between November 15 and May 15) with at least 12 inches of frozen ground and 6 inches of snow cover. Construction equipment needed for initial site preparation would be brought in overland by low ground pressure vehicles. The airstrip would usually be located on a nearby frozen lake. If this was not possible it would be constructed over level tundra by applying layers of water over the snow cover with specially designed trucks until a minimum ice thickness of 12 inches was obtained. The drilling rig and the ancillary equipment are massive, requiring between 110 to 180 C-130 loads depending on the size of the rig. Roads between the airstrip and well site would be routed over frozen lakes or constructed ice roads. Drilling rigs must be set on a firm foundation, usually on pilings not susceptible to differential settlement; recently a drilling rig was successfully placed on an ice pad. Most exploratory drilling operations could be completed in one season. If an operation could not be completed in one season, operations would be suspended until the subsequent winter, when ice roads, airstrips, and other construction areas would be reconstructed to the extent necessary.

A typical drilling pad would be approximately 600 by 700 feet, covering about 10 acres. Within the pad would be the drilling rig, camp facilities for 50 to 75 people, support equipment, and drilling supplies. Also located within the pad adjacent to the well would be a reserve pit 10 to 20 feet deep, about 200 feet wide, and 300 to 400 feet long. This pit would contain used drilling muds and cuttings and would also be used to contain fluids in the event of a "blowout."

Preferably a suitable lake for an airstrip could be located near the drill site; otherwise water would need to be hauled or piped to the site. As much as 15 million gallons of water may be needed for one exploration well. Approximately 7 to 8 million gallons of water would be required for construction of an ice airstrip over the tundra. Approximately 2 million gallons of water would be

required for actual drilling operations and domestic use. Ice road construction and maintenance would require approximately 1.5 million gallons of water per mile (USDOI, USFWS; 1987).

After the drilling operation was completed and the well abandoned, dismantlement of the drilling rig and camp would begin immediately. Removal or securing of the equipment for movement to the next well site would be completed within several weeks. During the following summer final cleanup of remaining debris would be accomplished and rehabilitation checked.

After a discovery from exploration drilling, several other wells would be drilled in a similar manner. These wells would determine the size and characteristics of the reservoir. If the results of this drilling indicate economic recovery was possible, production would occur.

Production and Development

The following description of production and development activities is broken into two parts. The first part is a general description of the type and nature of activities associated with oil and gas development and production on the north slope. The second part applies information contained in Part One and describes the anticipated activities specific to the proposed plan.

Part One: General Description

If an economic field were discovered in CAMA, development and production activities would begin on a year-round basis. Proposed plans for the production and transportation facilities would be developed during the economic study of the discovery and submitted to local, state, and federal agencies for approval. After completing the required review process, the plans would either be approved or denied, pending further information, studies, and/or modifications. Once approved, the construction of permanent production facilities, drilling/production pads, air support facilities, roads, and pipelines would begin. The first activity would be a temporary camp to support workers constructing the permanent pads, connecting roads, airport facilities, and a main road between a staging area and the producing field. Selection of the staging area depends on the location of the field, economic and environmental factors, and lease stipulations. Once the main road was completed, the permanent camp and production facilities would be transported to the field and assembled onsite. Depending upon the size of the field and the reservoir characteristics, the expected life of the field would be from fifteen to thirty years.

Table 2.5 summarizes the total acres of direct (primary) disturbance and gravel required for hypothetical small and large development projects. Drilling and production pads and gravel pits (assuming 10' pits) used in the small-scale scenario (8,000 acre development field) would disturb a total of approximately 400 acres. Under the larger scenario (23,000 acre development field) pads and pits would disturb a total of approximately 1,000 acres. Once the hydrocarbons are depleted from the prospect, the wells would be plugged and abandoned; the facilities would be removed, and the disturbed surface would be reclaimed in compliance with federal regulations.

The central production facility (CPF) would be the headquarters and primary operations center for the production activities of the field. Although one CPF is anticipated in the smaller scenario and two in the larger scenario, surface and subsurface conditions may require more to process the oil and gas adequately. Gravel pads needed to support housing and production modules would be five feet thick and cover 40 to 60 surface acres. Necessary modules would be built on pilings to ensure foundation integrity for the life of the project. Gravel needed for the construction of the production facility pad would probably be mined near the field.

Production facilities include the equipment necessary to process the crude oil into salable oil and usable gas and to transport it to the Trans-Alaska Pipeline System (TAPS). This process begins by separating the production fluid into oil, gas, and water. Oil would be dehydrated and piped to TAPS. Produced gas would most likely be dehydrated and compressed for use at the production facility or reinjected into the subsurface to maintain field pressure, unless the proposed gas pipeline from Prudhoe Bay to a port facility in southcentral Alaska is in place at the time when some gas could be sold and transported to market. Produced water is pumped to injection wells for enhanced recovery of the oil or for disposal.

Drilling rigs and support modules would be the first pieces of equipment located on drilling and production pads. As wells were completed, wellheads, pipelines, and the production manifold would be put in place. The size of these pads depends on the number of wells drilled and the distance between wellheads. In the smaller scenario, four pads are shown to cover 10-15 acres.

Table 2.5
Acres and Gravel Requirements for Hypothetical Prospects at Depths of 7,500 and 15,000 Feet.

Prospect Area*	Depth of Field	Description	Acres Disturbed	Gravel Needs**
8,000 acres	7,500 ft.			
		Central Production Facility (1)	50	440,000
		Drilling/Production Pads (4)	40	240,000
		Airstrip and Facilities (1)	35	300,000
		Roads and Pipelines (30.3 miles)	152	1,212,000
		Gravel pit(s) at 10' depth	136	
		Total	**413**	**2,192,000**
23,000 Acres	15,000 ft.			
		Central Production Facility (2)	100	880,000
		Drilling/Production Pads (5)	90	240,000
		Airstrip and Facilities (1)	35	300,000
		Roads and Pipelines (90.5 miles)	450	3,620,000
		Gravel Pit(s) at 10' depth	312	
		Total	**987**	**5,040,000**

* Total surface area of prospect
** In cubic yards.

The larger scenario requires five pads covering 15-20 acres. All pads would be at least five feet thick, requiring 60,000 to 100,000 cubic yards of gravel.

Depending on proposed depth and subsurface conditions, production wells would take 10-60 days to drill and complete. Most production wells are directionally drilled from the pads to various locations within the hydrocarbon reservoir. This procedure allows maximum depletion of the reservoir and minimizes the surface acreage disturbed. Unusable drilling muds and cuttings would be stored in reserve pits located on the pad. Figure 2.1 provides a visual display of a typical north slope directional drilling procedure located on a drill pad. As many as 20 to 30 well heads could be placed on a ten acre drill pad and 25 to 35 on a fifteen acre drill pad. Figure 2.2 provides a hypothetical development layout.

Production from each well would be piped to the production manifold where it would be metered and piped to the central production facility. Gathering lines would run from each production pad to the central production facility. One line transports the crude oil to the facility and a parallel set of lines would transport the gas and water from the facility to the production pads for fuel, injection, or disposal. These pipelines would be buried if possible, but are usually placed on steel vertical support members (VSMs). Pipe diameters range from three to twelve inches. Pipelines would most likely be placed parallel to the roads.

The main production pipeline leaving a field would be 16-24 inches in diameter and would be placed on five foot elevated VSMs. Construction would likely occur during the winter to reduce surface disturbance. The pipeline would run parallel to the road connecting the field directly to TAPS or other nearby producing fields. If fields within CAMA are developed before fields on adjacent lands, the most economical and shortest route to TAPS would maximize use of federal lands to the extent possible.

Airstrips would be permanent and maintained year-round for the lifetime of the project. Minimum length of the airstrip would be 6,000 feet, minimum width 150 feet. Twenty acres of surface would be covered by the airstrip itself, and another 10 to 15 acres would be required for the taxiway, apron, and support facilities. Approximately 250,000 to 300,000 cubic yards of gravel would be required to construct this pad.

Housing modules include sleeping and eating quarters, a food storage area, and recreation and sanitation facilities. The modules are designed to accommodate 150-300 workers. Adjoining offices house administration, engineering, communications, and other support services.

Water for domestic use would be obtained from local lakes or water-filled pits (abandoned gravel source areas). Insulated tanks could store a sufficient amount of potable water for human consumption. Sewage treatment and incinerator facilities would eliminate most of the human waste and trash. Items which could not be burned would be transported to an approved disposal site.

Fuel storage would hold diesel and other refined petroleum products necessary for operating equipment. The area would be diked to contain any spills which may occur. Electricity could be provided by a diesel powered generation plant.

Roads would connect all of the above facilities. They would be built with a crown width of 35 feet and would be five feet thick. Each mile of road would cover five acres of surface and require 40,000 cubic yards of gravel. Total road mileage varies between projects, depending on the size and surface features of each prospect.

As more oil fields are developed under arctic conditions, engineers will design improved and less expensive methods of pad construction, drilling procedures, refining processes, and transportation systems. This will not only reduce the described surface acreage disturbed, but it will also improve the economics, and promote development of the arctic's smaller oil fields.

Part Two: Proposed Plan Oil/Gas Development Scenario

Development of oil and gas resources on Alaska's north slope is difficult and costly due to the area's harsh climate, remoteness, and lack of existing infrastructure. Development of smaller discoveries may not be economically feasible unless located near the existing Trans-Alaska Pipeline system (TAPS). In western CAMA, due to the distance from TAPS, development would probably be contingent on a major discovery or several smaller discoveries in the same vicinity. If such development occurred, other relatively small and otherwise undevelopable discoveries could also be developed along the route of a main production pipeline between the field and TAPS. Hence, discoveries adjacent to federal CAMA lands on state, Native, and federal lands (NPR-A) could facilitate or allow development of otherwise undevelopable oil and gas resources on federal CAMA lands. Conversely, development on federal CAMA lands could facilitate development on adjacent nonfederal lands. Because development of oil and gas resources within the entire region is interrelated, a reasonable oil and gas production scenario for BLM managed lands north of 68° N latitude must consider adjacent state, Native, and federal (e.g., NPR-A) lands.

Although no actual oil and gas production is anticipated to occur during the life of this plan (i.e., the next 10 years), there is a moderate potential that, as a result of the proposed plan and subsequent oil and gas leasing, production activities affecting federal lands within CAMA would occur at some point in the future. The probability of development actually occurring can not be accurately projected without extensive analysis. However, comparing CAMA with the Arctic National Wildlife Refuge (ANWR), located just east of CAMA, allows us to put the likelihood of finding economically recoverable oil into perspective. There is a 19% chance that economically recoverable oil occurs in the ANWR 1002 area. This area is the "Nation's best single opportunity to increase significantly domestic oil production. It is rated by geologists as the most outstanding petroleum exploration target in the onshore United States" (USDOI, USFWS, 1987, p. VII). Therefore, it is concluded that the likelihood of discovering economically recoverable oil in CAMA is less than 19%.

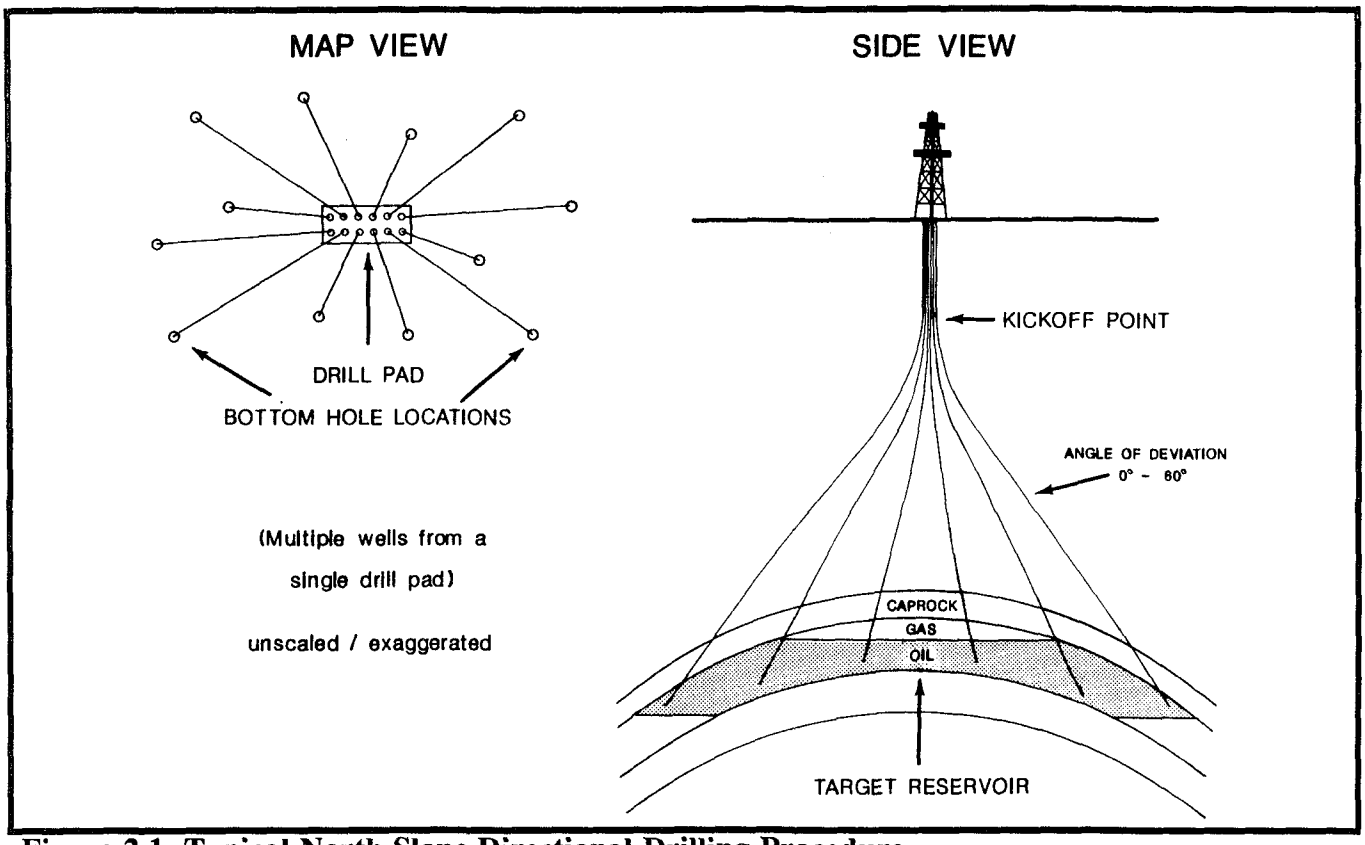


Figure 2.1 Typical North Slope Directional Drilling Procedure

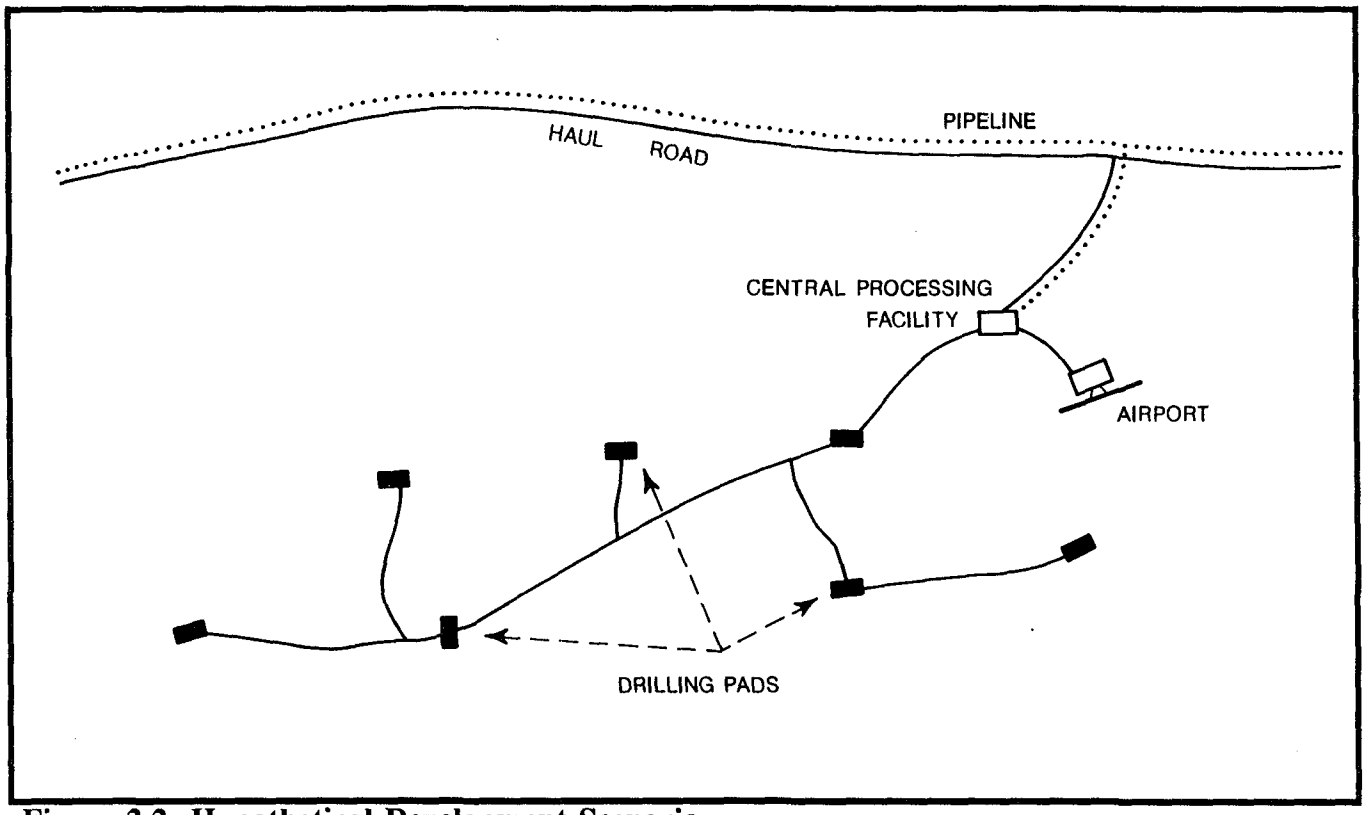


Figure 2.2 Hypothetical Development Scenario

Should it occur, oil and gas development impacting CAMA lands is equally likely to take place along three different "corridors" which correspond to hypothetical pipeline routes (Map 2.5). For purposes of analysis, it is assumed that all three of these pipeline routes and associated development would occur as a result of the proposed plan. Impacts to CAMA lands would be the result of exploration, field development, and associated pipeline construction across CAMA to TAPS.

The following pipeline routes and associated development are not intended to represent specific alignments; rather, they display routes in only the most general sense. Specific alignments and alternatives to these alignments will have to await a more detailed study of route terrain, soils, and vegetative and biological resources. These alternatives will be considered as part of a detailed environmental impact statement submitted with any routing proposal before any federal rights-of-way are granted.

Furthermore, each of the pipeline routes described below reflect assumptions concerning the sequence or pattern of oil discovery in the region. They also reflect the known or potential oil reserves within CAMA or on lands adjacent to CAMA. Hypothetical alternatives to these pipeline routes could exist under different assumptions for patterns of discovery and development. The development scenario and hypothetical pipeline routes described here are limited strictly to known hydrocarbon resource potential and to the assumption that oil development will occur first in the northernmost sections of CAMA and much later in the southern and western sections. The only exception to this would be development within the Utility Corridor itself, which could be economic, even with lower proven reserves, due to nearness to the existing TAPS.

Route A (and associated development:) Route A represents a pipeline for transportation of oil produced in the National Petroleum Reserve-Alaska (NPR-A) and would connect with TAPS at or near pump station 2. It reflects the possibility for development of potential discoveries in the northern half of the imbricate fold belt. The nearby Umiat field, containing 70-100 million barrels of oil, adds to the likelihood of this route. NPR-A is estimated to contain as much as 5.9 billion barrels of oil and 11.3 trillion cubic feet of natural gas.

This anticipated pipeline would cross approximately 24 miles of federal CAMA lands and 60 miles of private (ASRC) and state lands. No associated oil field development is anticipated to occur on federal lands within CAMA. The main field(s) will be within NPR-A and a smaller discovery(s), developable once the infrastructure is in place, would most likely occur on state land. Temporary construction camps would likely be located on state land, within NPR-A, or on existing pads near the Dalton Highway within the Utility Corridor. Therefore, direct "primary" surface disturbance of federal CAMA lands would be limited to approximately 120 acres from the actual construction and placement of the pipeline and roads, and approximately 60 acres from the excavation of necessary gravel pits. Direct "secondary" surface disturbance, primarily the result of dust and gravel spray along roads, is expected to be limited to 100 feet either side of roads, affecting approximately 582 acres. Total direct primary surface disturbance of federal CAMA lands under Route A development would be approximately 180 acres; total direct secondary disturbance would be approximately 580 acres (Table 2.6).

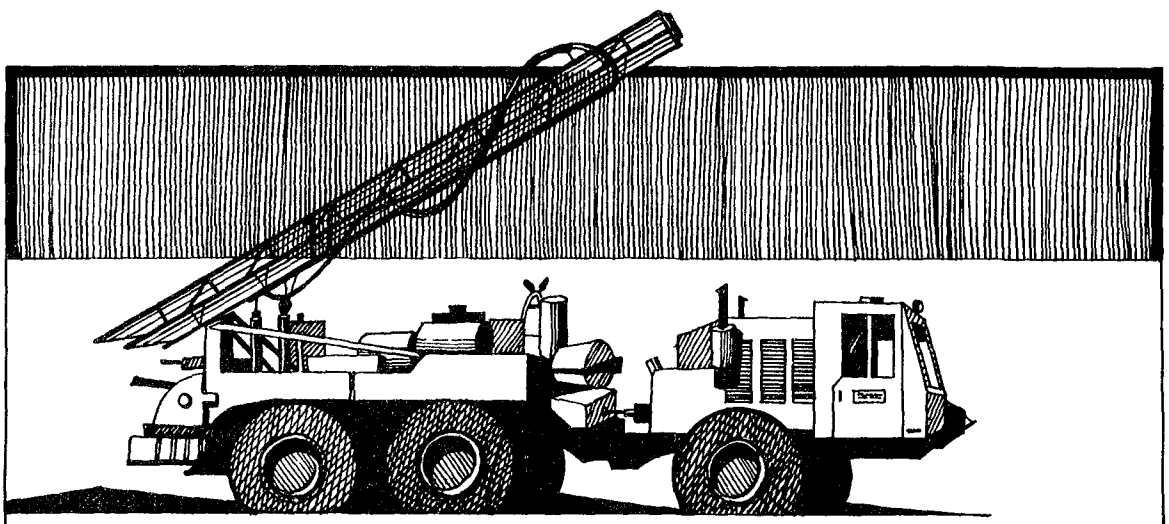
Route B (and associated development): Route B reflects the probable need for oil transportation from potential discoveries in the southern half of the imbricate fold and thrust belt plays within CAMA as well as from NPR-A to TAPS.

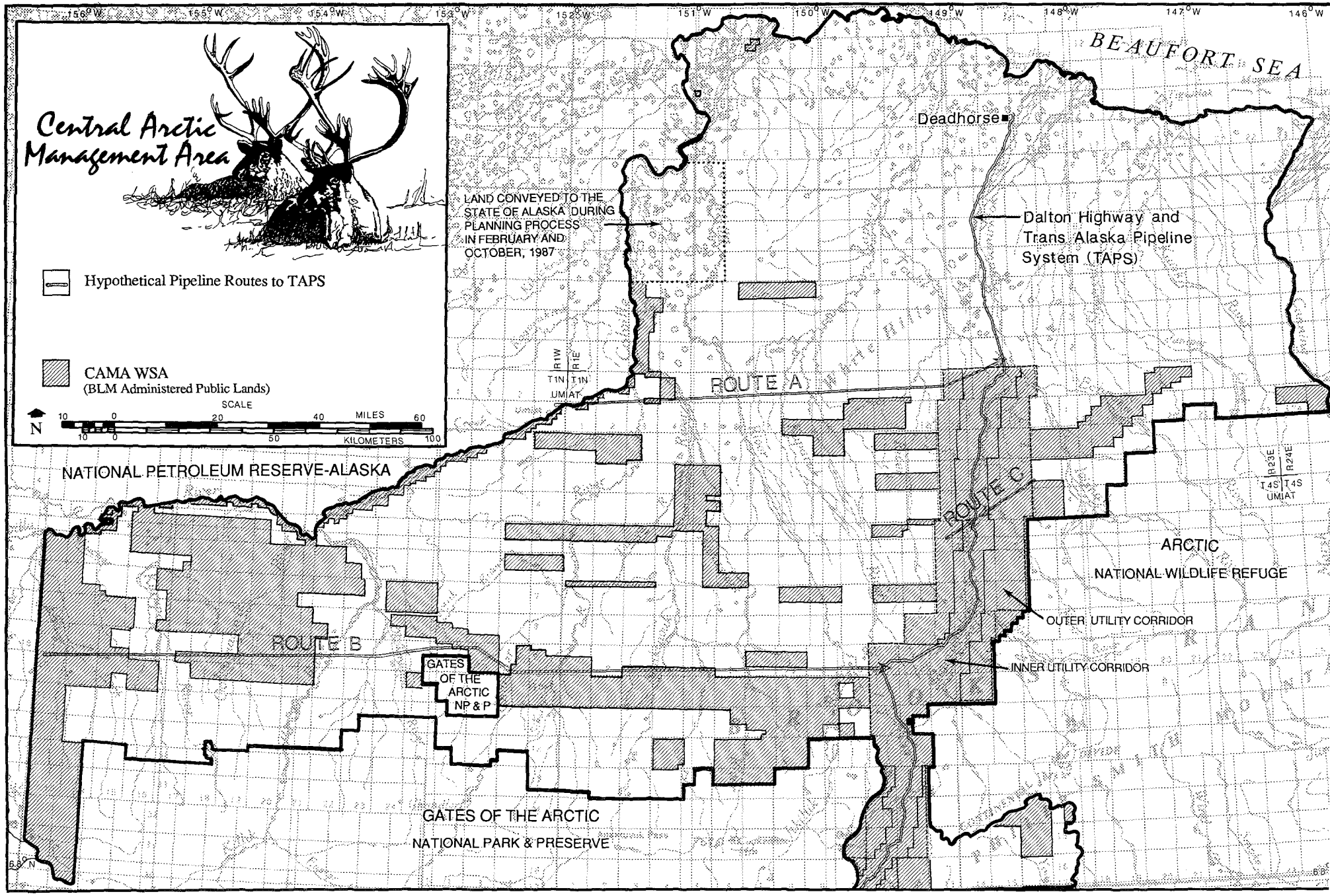
The anticipated pipeline would cross approximately 124 miles of federal CAMA lands and about 43 miles of state and private (ASRC) land. Oil field development associated with this pipeline is also anticipated to occur outside of NPR-A on federal CAMA and adjacent lands. The main field(s) would be within NPR-A or the western portion of CAMA. It will be assumed for purposes of this document that a large field would be developed on federal lands in the extreme western portion of the planning area. Smaller discoveries, developable once the infrastructure is in place, would be located on state or private land along the pipeline route to TAPS. A portion of the pipelines and access roads needed to transfer oil from these smaller fields to TAPS would also cross approximately 6 miles of federal lands. Direct "primary" surface disturbance to federal CAMA lands would be approximately 675 acres from the construction of facilities at a large oil development project and approximately 650 acres from the construction of feeder lines and the

main Route B pipeline/road to TAPS. It is also anticipated that along the main pipeline route in CAMA, at least one pump station requiring approximately 40 acres (350,000 cu. yds of gravel), and one temporary construction camp and airstrip requiring approximately 80 acres (540,000 cu. yds of gravel) would be needed on federal lands, resulting in approximately 690 acres of primary surface disturbance from excavation of gravel pits (assuming a 10 foot depth). Secondary surface disturbance, primarily the result of dust and gravel spray along roads, is expected to be limited to 100 feet either side of roads, affecting approximately 5,370 acres of land. Total direct primary surface disturbance of federal CAMA lands under Route B development would be approximately 2,135 acres; total direct secondary surface disturbance would be approximately 5,370 acres (Table 2.6).

Route C (and associated development): Route C reflects the potential need for the transportation of fluid minerals to the Trans-Alaska Pipeline (TAPS) from within the Utility Corridor. Proximity to TAPS would greatly reduce construction and transportation costs for discoveries in this area.

The anticipated pipeline(s) would be entirely within the Utility Corridor, and include two sections of pipeline/road located on either side of TAPS. These two sections of pipeline would connect with TAPS at the same approximate location to reduce costs and future maintenance. For ease of analysis and description these two sections will be considered a single pipeline of approximately 20 miles in length, and associated with two small development fields within the Corridor. Direct primary surface disturbance to planning area lands would be approximately 554 acres from the construction of facilities at the two development projects and approximately 100 acres of surface disturbance from the construction of the main Route C pipeline/road to TAPS. Approximately 322 acres of primary surface disturbance would result from excavation of gravel pits (assuming a 10 foot depth). Due to the proximity of the TAPS and the Dalton Highway, pump stations and construction camps would either be located within the development fields or on existing pads and disturbed sites adjacent to the Dalton Highway. It is also possible that much of the gravel necessary for this project would come from existing sites along the Dalton Highway. Direct secondary surface disturbance of approximately 1,940 acres would occur along the main pipeline/road as well as within the development fields. Secondary surface disturbance, primarily the result of dust and gravel spray along roads, is expected to be limited to 100 feet either side of roads, affecting approximately 1,940 acres of land. Total direct primary surface disturbance of planning area lands under Route C development would be approximately 976 acres; total secondary surface disturbance would be approximately 1,940 acres (Table 2.6).





Map 2.25 Proposed Action: Hypothetical Pipeline Routes

Table 2.6
Disturbance to CAMA Lands Resulting from the Proposed Action

		Pipeline Routes			
Activity	**Units**	**Route A**	**Route B**	**Route C**	**Totals**
Primary Disturbance from the main pipeline to TAPS and feeder lines	Miles	24 (84)*	130 (167)*	20 (20)*	174 (271)*
	Acres	120	650	100	870
Primary disturbance within the development fields, camps, pump stations, etc (excluding gravel pits)	Acres	0	800	550	1,350
Total Gravel Needs	Cubic Yards	960,000	11,130,000	5,184,000	17,274,000
Gravel Pit(s) Size (Primary Disturbance)	Acres	60	690	322	1,070
Total Secondary Disturbance**	Acres	580	5,370	1,940	7,890
Total Area of Surface Disturbance including Secondary Disturbance	Acres	760	7,510	2,910	11,180

* Figures in parentheses represent total length of main pipeline to TAPS; these figures include those portions of the pipeline on federal CAMA and nonfederal (i.e., state and private) lands.
** Secondary disturbance is defined here as gravel spray areas: 100' either side of service roads.

Summary: Under the proposed action, based on the assumptions and development scenarios described above, the following surface disturbance to federal CAMA lands will occur from oil and gas development:

Acres of direct primary disturbance		3,290 acres
Development fields/pump stations, etc.	1,350 acres	
Main pipelines/roads (i.e., routes A,B,C)	870 acres	
Gravel Pits	1,070 acres	
Acres of direct secondary disturbance		7,890 acres
Total surface disturbance		11,180 acres

Land Disposals through State Selection

MANAGEMENT ACTIONS

In total, the proposed plan allows for approximately 0.7 million acres of land within the Corridor to be opened to state selection. These lands are located in four separate areas or units: 1) the Corridor lands south of the Yukon River, originally described in the preferred alternative of the draft RMP (approximately 25,000 acres), 2) the Sagavanirktok unit, described in the supplement to the draft RMP as Corridor lands located north of Toolik Lake (approximately 600,000 acres), 3) the Coldfoot unit, which

includes the node described in the draft RMP as well as a transportation corridor to the east (a total of approximately 26,000 acres), and 4) the Prospect unit (approximately 55,000 acres).

ANTICIPATED ACTIVITIES

Under state management, activities which could result in significant environmental impacts to Corridor lands and resources would depend largely on the management priorities established by the state through their land-use planning process. While state management priorities cannot be predicted with certainty, priorities established after a public planning process would likely be similar to those established by BLM under this proposed plan: 1) the energy transportation function of the Corridor is primary; 2) subsistence and other important resources must be protected; 3) further recreational planning and development is important, and 4) mineral development should be allowed to occur.

Because the management priorities established by the state are expected to be similar to those established by the BLM, the activities anticipated to occur would also remain essentially unchanged. The major impacting activities as described in this document and in the draft plan would be: locatable mineral exploration and development, and oil and gas exploration and development. Other potentially impacting activities would be related to recreational activities and commercial development within the nodal areas.

The following activity scenarios are specific to the four areas within the Corridor being opened to state selection. BLM is unaware of any specific development proposals the State of Alaska may have for any of these areas. However, as stated, state management of these areas is not expected to differ substantially from proposed federal management. Consequently, the following discussion describes development activities which in most cases are as likely to occur under federal management as under state management.

Lands South of the Yukon River

The Corridor lands south of the Yukon River are isolated from other BLM managed lands (see foldout map of Proposed Plan). No improved overland access to these lands exists and no development is reasonably foreseeable under either federal or state management.

Prospect Unit

Access Development: Conveyance of the Prospect unit (Figure 2.1) to the State of Alaska is in conformance with the state's and village of Bettles' expressed need for the development of all-weather overland access from the Dalton Highway. The nature and extent of the Prospect unit reflects the need for additional planning and study on the part of the state to determine an appropriate route for such access. Consequently, the exact alignment of the anticipated all-weather road cannot be determined at this time.

BLM identified this same area in the draft plan (USDOI, BLM, 1987) as the appropriate location for the "Ambler Mining District Transportation Corridor." The corridor was identified to facilitate BLM's responsibility under ANILCA Sec. 201 (4)(b) to provide a right-of-way from the Ambler Mining District (AMD) to the Dalton Highway. This area was selected for the corridor because of its location relative to both the AMD and Dalton Highway, the existence of a winter trail to Bettles in the general direction of the AMD, the existence of a 100 foot wide right-of-way extending from the Dalton Highway to a point approximately 2.2 miles to the west granted to the state in 1984 (F-79198) and, as stated earlier, the expressed interest of the state and village of Bettles to improve existing overland access to Bettles. Consequently, development of all-weather overland access from the Dalton Highway to the west is anticipated to occur in the future, but it is no more or less likely to occur as a result of state management.

Development Node Activity: Located within the Prospect unit is an area that had been identified by BLM through an earlier planning process as a development node. This previously identified node encompassed the intersection of the Dalton Highway with the winter trail to Bettles, a now dismantled Alyeska construction camp, the State of Alaska's Jim River Highway Maintenance Camp, Pump Station 5, and a state maintained airstrip.

Depending on management priorities set by the state through its planning processes, state management of this area may differ from proposed federal management. Federal planning proposals emphasized protection and promotion of recreational opportunities and resources. Consequently, under the latest federal planning recommendations, designation of this area as a development node for roadside commercial service facilities was to be dropped. Federal planning proposals do call for a campground in the area, probably at or near the site of the former Alyeska construction camp. Regardless of management priorities established under state or federal planning, increased activity in the area is likely to occur.

Under state management, this area is likely to remain open to development of roadside commercial service facilities. Increased local mining, tourist traffic and/or the development of an all-weather road from the Dalton Highway would likely lead to increased interest in and the development of such services near the Dalton Highway.

Pipeline Construction and Maintenance: On-going road maintenance as well as future pipeline construction would continue the need for locally obtained gravel. Continued use of existing gravel sources are likely to be expanded. Gravel sources within the Jim River floodplain have been addressed by both the BLM and the State of Alaska. The state has indicated (letter to BLM, November, 1987: page 9) that it is "reasonable and appropriate" to exclude gravel extraction from the streambed in areas of fish spawning. In addition, the state has indicated that appropriate mitigation measures should be applied to any gravel extraction within the floodplain of the Jim River.

Mining: At this time there are approximately 25 federal mining claims but no active mining operations within the Prospect unit. After transfer of these lands to the state, a federal mining claimant may refile his claim under state mining laws. However, this is not required and it is not anticipated to occur. Therefore, administration of these claims and enforcement of surface protection regulations on active operations will remain a federal responsibility. Therefore, administration of these claims and enforcement of surface protection regulations would remain a federal responsibility. It is not anticipated that the number of claims or active mining operations would change as a result of state ownership.

Coldfoot Unit

Development Node Activity: Coldfoot currently provides a truck stop/service area for commercial vehicles serving Prudhoe Bay. This area also features a motel and restaurant serving the increasing number of visitors travelling the Dalton Highway (primarily in conjunction with bus tours). Also located at Coldfoot is a State of Alaska Highway Maintenance Camp, a state maintained airstrip, administrative sites for several federal agencies including BLM, and a multi-agency visitor's center.

Future development within the Coldfoot unit (Map 2.2) would likely be focused within the area that was identified as a node under federal management plans. Anticipated development in the nodal area would include emphasizing increased recreation opportunities and expanding the road related service facilities. Also possible within the node is development of the initial portion of a transportation route from the Dalton Highway to state owned lands east of the Utility Corridor.

Recreation: An increasing number of tourists are travelling the Dalton Highway as far north as the state allows (currently just north of Coldfoot). Most of this activity occurs in the summer, with most of these visitors (approximately 4000 visitors) reaching Coldfoot in conjunction with bus tours. Another approximately 3800 visitors reach Coldfoot during the summer season using privately owned vehicles (see Chapter 3). This use of the area is expected to increase and result in an expansion of tourist services at Coldfoot as well as development of a public campground, possibly near Marion Creek. Increases in motel and restaurant services and in the presence of federal and state agency management personnel is also likely. Increases in recreational use of the area would occur regardless of federal or state ownership.

Access Development: A major purpose in allowing state selection of the Coldfoot unit is to address the state's expressed need for contiguous land ownership and future access between the Dalton Highway and state owned lands to the east. To date, no development or formal planning for

improved access or road construction in the area has occurred, and none is anticipated in the near future. Currently unimproved access to mining operations east of Coldfoot does exist.

Mining: There are approximately 100 federal mining claims and two active mining operations located within the Coldfoot unit. After transfer of these lands to the state, a federal mining claimant may refile his claim under state mining laws. However, this is not required and it is not anticipated to occur. Therefore, administration of these claims and enforcement of surface protection regulations on active operations will remain a federal responsibility. Also, because the area is essentially "claimed-up," it is not anticipated that either the number of claims or active operations will significantly change as a result of state ownership.

Sagavanirktok River Unit

Pipeline Construction and Maintenance: Activities associated with maintenance of the Dalton Highway and Trans-Alaska Pipeline (TAPS), including gravel extraction, will continue to occur within this unit. It is also reasonable to assume that activities associated with new construction would occur within this unit in the future. Two federal rights-of-way have already been issued for future pipeline construction through this unit: the Alaska Natural Gas Transportation System (ANGTS) and the Trans-Alaska Gas Pipeline System (TAGS). Stipulations and mitigation measures addressing the specific rights-of-way will be maintained regardless of land transfer actions.

Hypothetical pipeline and road construction to access potential oil and gas resources within, and to the west of, this unit, were discussed in the preceding "Leasable Mineral Exploration and Development" section. These potential pipeline routes are highly speculative in nature and are unlikely to occur in the near future. It should be noted that the probability of actual development would not differ under state or federal ownership. For a description of development activities associated with these pipelines see the oil and gas development scenario above.

Development Node Activity: Located within the Sagavanirktok unit (see foldout map of Proposed Plan) is the Happy Valley node. It is expected that the state will continue to consider this area a development node. The major use of Happy Valley has been as a support base for guides and outfitters, nine of whom are currently operating from this area. Some expansion of current activities would be expected to occur under federal ownership, and is also expected to occur under state management. The number of guide/outfitter operations at Happy Valley is not anticipated to exceed fifteen.

Recreation: Recreational opportunities in the Sagavanirktok unit are relatively limited and largely controlled by the State of Alaska (even under federal management). The State of Alaska currently restricts noncommercial use of the Dalton Highway north of Disaster Creek (located south of the Sagavanirktok Unit) and prohibits hunting and recreational ORV use within five miles (on either side) of the Dalton Highway. Currently the major recreational use of the area is sightseeing from the Dalton Highway (bus tours), which is increasing and expected to reach about 5000 annual visitor use days (VUDs) in the next five years. Bus tour activity within this area is not anticipated to be affected as a result of state ownership. Should the state open the highway to the general public (which could occur even under federal management), the major recreational use of this area is expected to be as an access route to the final destination points of the Arctic Ocean and Prudhoe Bay. Due to the area's remoteness, the treeless and relatively flat terrain, and the harsh arctic environment, other recreational activities are not expected to increase substantially. State ownership of this area is not expected to have an effect on anticipated recreational activity.

Recreation

MANAGEMENT ACTIONS

Under the proposed plan, enhancement of recreation opportunities within the Dalton Highway Recreation Management Area (i.e., roughly those lands visible from the Dalton Highway) south of the state road closure would occur after completion of a recreation area management plan (RAMP). Likely developments along the road would be campgrounds, undeveloped pull-outs with interpretive facilities,

and trailheads. North of the road closure, development of recreational facilities would be dependent on state action regarding permitted public use of the road. Outside the Dalton Highway Recreation Management Area, BLM management would emphasize primitive-traditional recreational opportunities.

Under the proposed plan an area along the upper Nigu River (approximately 41,000 acres) would be designated as wilderness. The final decision on this wilderness proposal must be made by Congress (see *Central Arctic Management Area Wilderness Recommendations and EIS*, USDOI, BLM; 1988).

ANTICIPATED ACTIVITIES

If campground and facility improvements are developed they would be placed in existing disturbed areas where possible. Campgrounds would be small, not exceeding 10-15 acres. Facilities might include vault toilets, trash receptacles or dumpsters, a recreation/interpretive information display, and possibly a recreational vehicle dump station. Other roadside developed recreation sites will provide for the health, safety, visitor information, or access needs of the public. Depending upon the location, the sites may have highway pull-off areas, interpretive displays, sanitation facilities or public land access facilities. Highway pull-off areas would be managed by the Alaska Department of Transportation/ Public Facilities, while visitor service facilities would be managed by BLM cooperatively with the state. Trailheads and boat launches, if developed, would be managed for day use only and would provide for long-term parkiung of vehicles off the main highway as near as possible to the facility. Additional facilities might include vault toilets.

Outside of the proposed Nigu wilderness area where it would be prohibited, BLM policy throughout the planning area restricts use of ORVs to periods of frozen ground and adequate snow cover (except by permit). All recreational ORV use and rifle hunting is prohibited within 5 miles of the Dalton Highway by state law. (Note: BLM's recreational regulations require adherence to state laws pertaining to ORVs if more stringent than BLM policy).

As a result of the proposed plan, current recreational use of the planning area would remain focused along and adjacent to the Dalton Highway. In the near future, use would continue to be sightseeing from the Dalton Highway between May and September. Much of this now occurs in conjunction with bus tours (about 4,000 annual visitors) with an additional 3,000 to 4,000 visitors reaching the area by private vehicle. Visitation by bus tour groups would be largely unaffected by state/federal recreational proposals or by state decisions on public use of the Dalton Highway. Annual visitation by bus tour groups is expected to reach 5,000 annual visitors in the near future. With implementation of recreational development plans, and should the state open the Dalton Highway to the public north of Disaster Creek, visitation by individuals unaffiliated with tour activities would be expected to increase. However, most recreational use of the area will continue to be sightseeing and car-camping along the highway between May and September. Other activities within 5 miles of the Dalton highway would be hiking and fishing in conjunction with car-camping, bow hunting, rafting, kayaking or canoeing, and recreational mineral collection.

Recreational use of the planning area away from the highway is anticipated to remain light and highly dispersed. Sport hunting with some river floating would remain the primary recreational activity occurring in remote areas. Access away from the Dalton Highway is almost exclusively by small aircraft using gravel bars as airstrips.

Commercial Development

MANAGEMENT ACTIONS

Under the proposed plan four areas were identified as appropriate for road related commercial development. These four areas are: Yukon Crossing, Coldfoot, Chandalar Shelf, and Happy Valley (see Figures 2.3 to 2.6). Under the proposed plan Coldfoot and Happy Valley would be transferred to the State of Alaska. "The state supports BLM's proposal for a limited number of 'development nodes' within the corridor" (letter to BLM, November, 1987: page 7). Therefore, it is expected that under state management Coldfoot and Happy Valley would continue to serve as development nodes. In addition, it is expected that the Prospect area would serve as a node under proposed state management.

Prospect was originally identified by BLM as a development node in 1979 (USDOI, BLM, 1979), but was excluded as a node under the proposed plan.

ANTICIPATED ACTIVITIES

Currently there are food, fuel, lodging and emergency road services available at Yukon Crossing and Coldfoot. No commercial facilities currently exist at Prospect, Chandalar Shelf, or Happy Valley. Future commercial development in the nodes is primarily dependent on the demand for goods and services from recreational and commercial users of the Dalton Highway. Commercial traffic is primarily dependent on oil development and production activities on the North Slope. Recreational traffic north of Disaster Creek is largely dependent on bus tour activity and state action regarding permitted public use of the Dalton Highway. Given the current road closure and nature of bus tour operations, it is not anticipated that the demand for goods and services would significantly increase at either Chandalar Shelf or Happy Valley in the near future. Because more recreational use of the Corridor south of Disaster Creek is anticipated to occur, some expansion of existing services may occur at Yukon Crossing and Coldfoot. However, the need for expansion of existing facilities at these locations is also tempered by recent decreases in commercial traffic to Prudhoe Bay. Future development at Prospect is difficult to predict and is dependent on several factors including recreational/commercial traffic in the area and state management intentions. See the above discussions on development node activities under the section entitled "Land Disposals through State Selection."

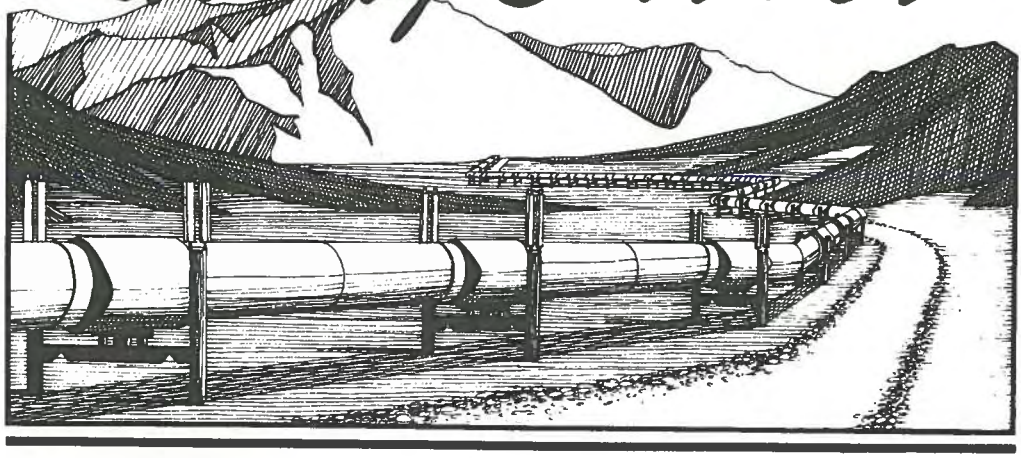
Alternative Maps A, B, C, and D

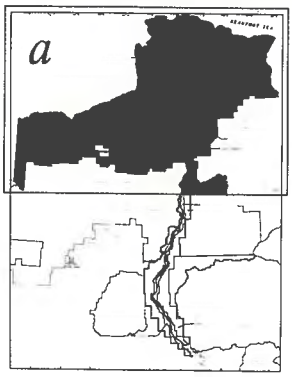
Errata

1. Maps for Alternatives A, B, and C should show the Dalton Highway ending approximately 15 miles further south. The highway actually ends at Deadhorse (not shown).

2. The map of Alternative B, sheet 2, should show Kanuti Hot Springs ACEC one township to the north, within T. 18 N., R. 15 W., Fairbanks Meridian.

Utility Corridor





Alternative A

(present management)

1 of 4

LEGEND

- Development Node
- Recreation Site
- Areas of Critical Environmental Concern ACEC
- Open to Mineral Entry and Location
  All other BLM lands in planning area closed to mineral entry and leasing
- BLM Administered Public Lands

N

SCALE

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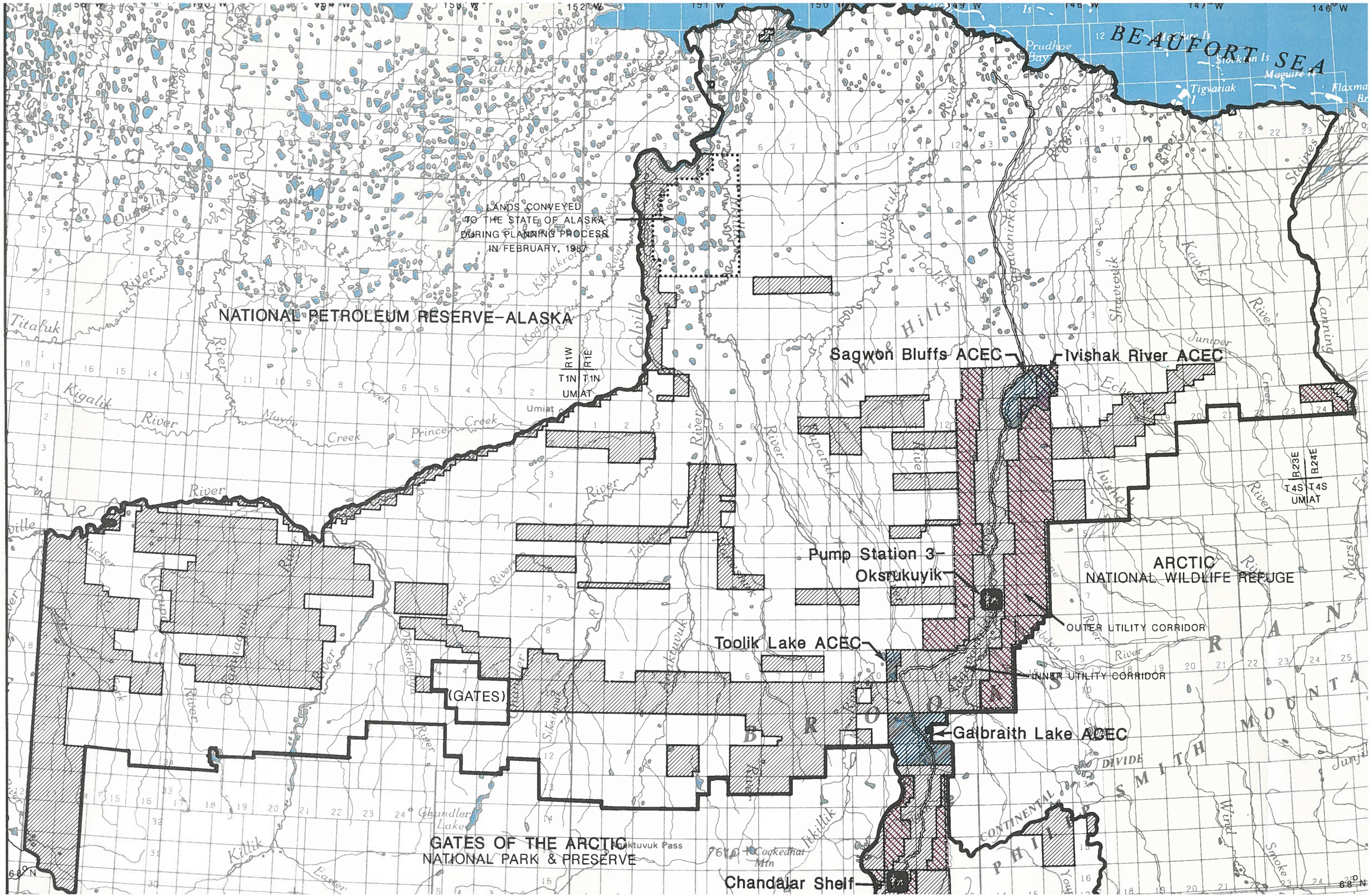
BEAUFORT SEA
Prudhoe Bay
Stockton Is
Maguire Is
Tigvariak I
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TO THE STATE OF ALASKA
DURING PLANNING PROCESS
IN FEBRUARY, 1987
NATIONAL PETROLEUM RESERVE–ALASKA
R1W
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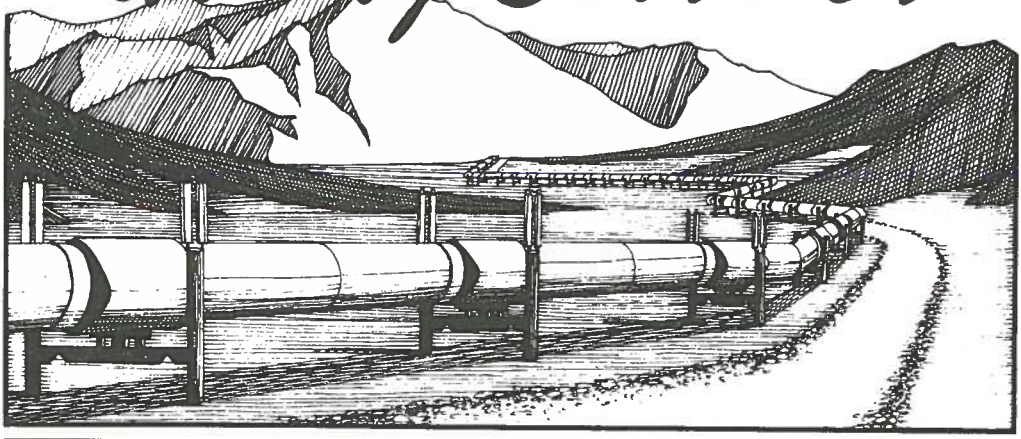
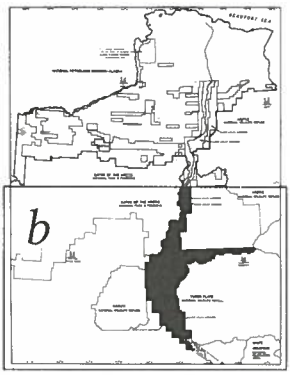
UMIAT
Umiat
Sagwon Bluffs ACEC
Ivishak River ACEC
R23E
R24E
T4S
T4S
UMIAT
Pump Station 3–
Okstrukuyik
ARCTIC
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
Toolik Lake ACEC
(GATES)
Galbraith Lake ACEC
BROOKS RANGE
PHILIP SMITH MOUNTAINS
CONTINENTAL DIVIDE
Chandler Lake
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
Chandalar Shelf
68°N
68°N

Utility Corridor





Alternative A
(present management)

2 of 4

LEGEND

- Development Node
- Recreation Site
- Areas of Critical Environmental Concern ACEC
- Open to Mineral Entry and Location
  All other BLM lands in planning area closed to mineral entry and leasing
- BLM Administered Public Lands

N

SCALE

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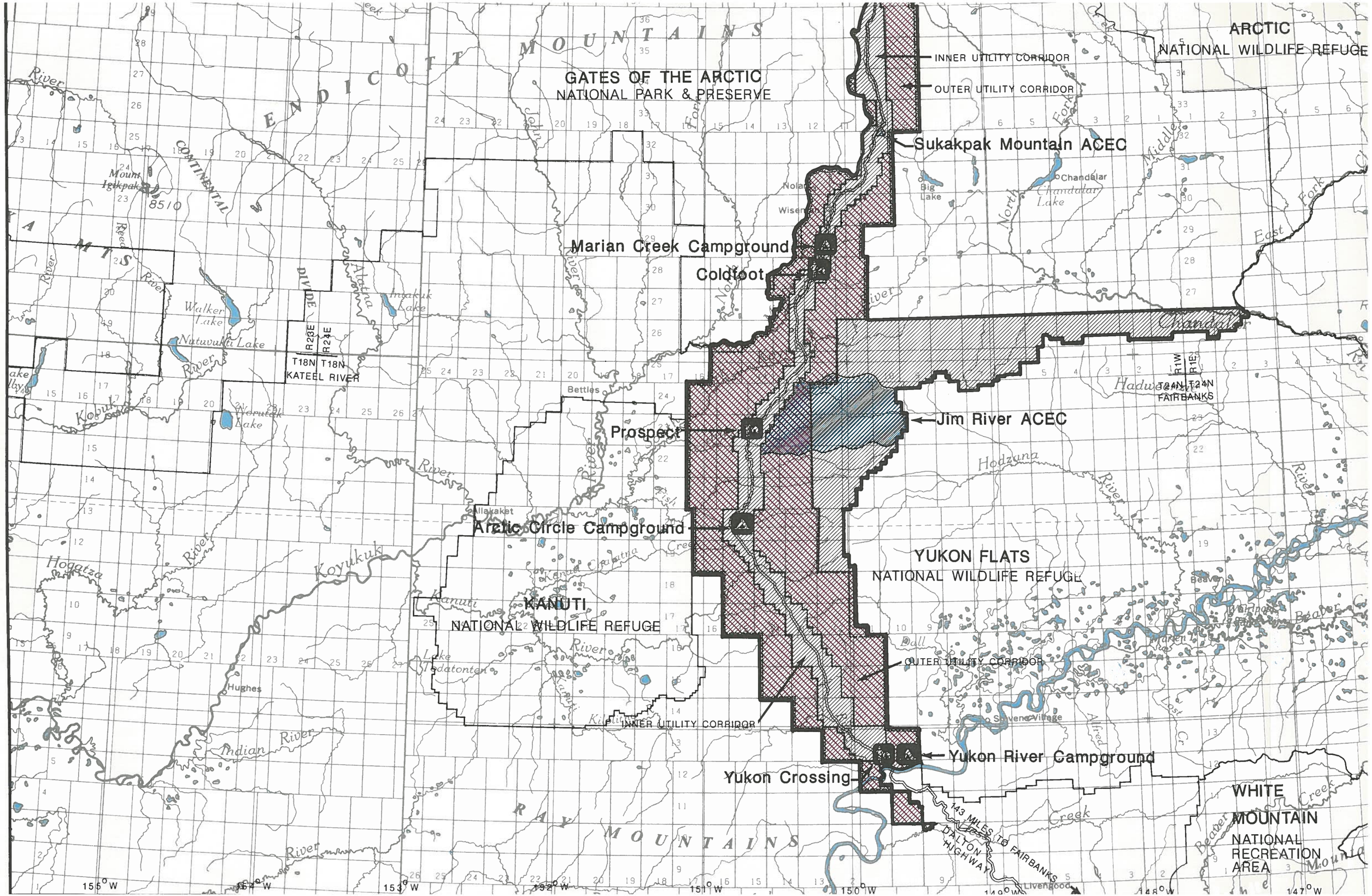
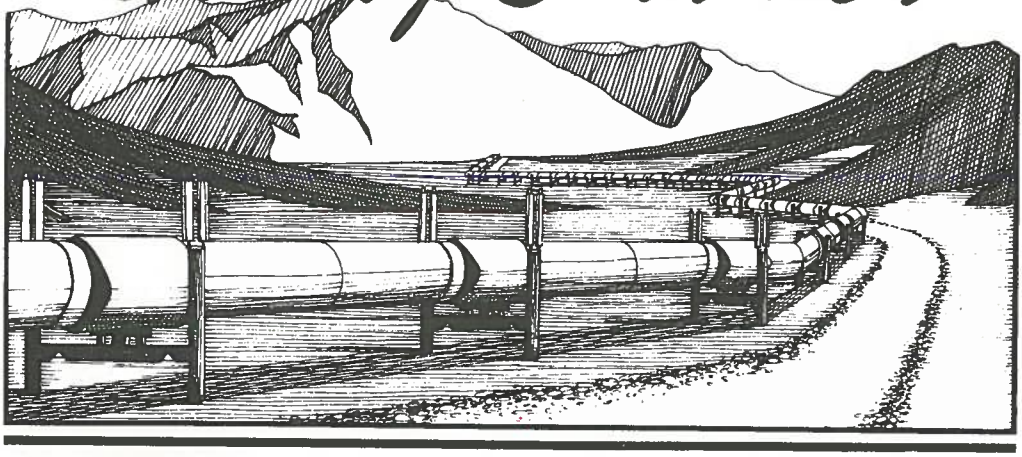
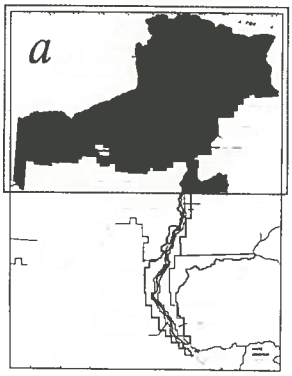

ARCTIC
NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
ENDICOTT MOUNTAINS
Sukakpak Mountain ACEC
Marian Creek Campground
Coldfoot
Jim River ACEC
Prospect
Arctic Circle Campground
YUKON FLATS
NATIONAL WILDLIFE REFUGE
KANUTI
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
Yukon River Campground
Yukon Crossing
RAY MOUNTAINS
143 MILES TO FAIRBANKS
DALTON HIGHWAY
WHITE
MOUNTAIN
NATIONAL
RECREATION
AREA
Chandalar
Hadweenzic
Hodzana
Koyukuk
Hogatza
Indian River
Hughes
Allakaket
Bettles
Wiseman
Nolan
Big Lake
Chandalar Lake
Walker Lake
Nutuvukti Lake
Ingakuk Lake
Worutuk Lake
Mount Igikpak
8510
T18N T18N
R23E R24E
KATEEL RIVER
T24N T24N
R1W R1E
FAIRBANKS
Steven Village
Beaver
Livengood
155° W
154° W
153° W
152° W
151° W
150° W
149° W
148° W
147° W

Utility Corridor





Alternative A
(present management)

3 of 4

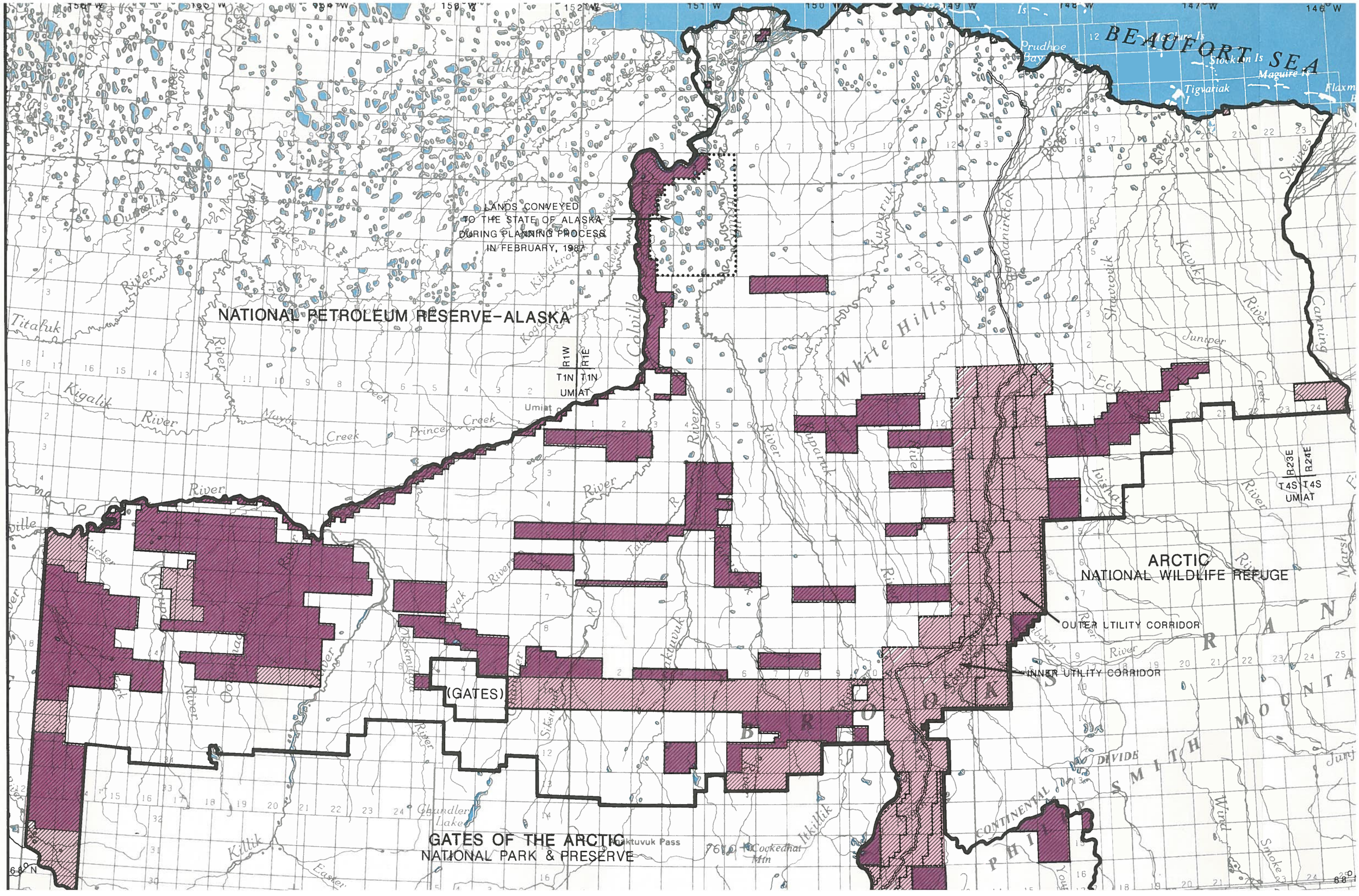
LEGEND

- Areas Presently Open for State Selection
- Areas Presently Not Open for Selection
- BLM Administered Public Lands

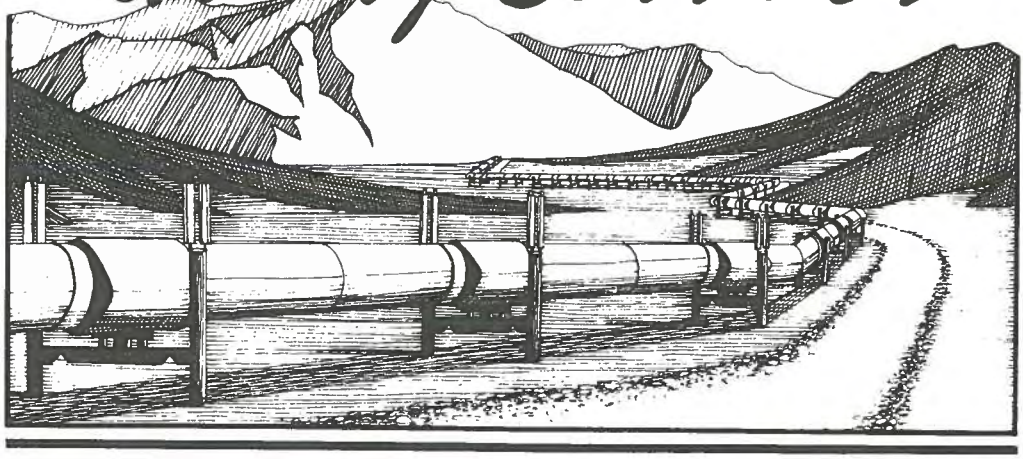
N

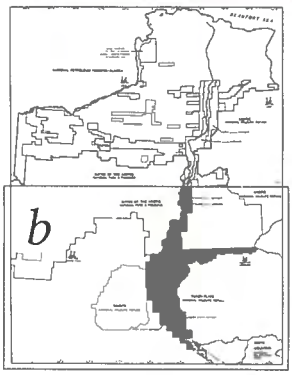
SCALE

10 0 20 40 MILES 60


BEAUFORT SEA
Prudhoe Bay
Stockton Is
Maguire Is
Tigvariak I
Flaxman
LANDS CONVEYED
TO THE STATE OF ALASKA
DURING PLANNING PROCESS
IN FEBRUARY, 1987
NATIONAL PETROLEUM RESERVE–ALASKA
R1W
R1E
T1N
T1N
UMIAT
Umiat
Colville
Kalikpik
Titaluk
Kigalik
River
Maybe Creek
Prince Creek
Kuparuk
Toolik
White Hills
Sagavanirktok
Shaviovik
Kavik
Juniper Creek
Ekt
Canning
Staines
R23E
R24E
T4S
T4S
UMIAT
ARCTIC
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
(GATES)
BROOKS RANGE
SMITH MOUNTAIN
CONTINENTAL DIVIDE
Gundlers Lake
Killik
Easter
Itkillik
Cockedna Mtn
Wind
Smoke
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE

Utility Corridor





Alternative A
(present management)

4 of 4

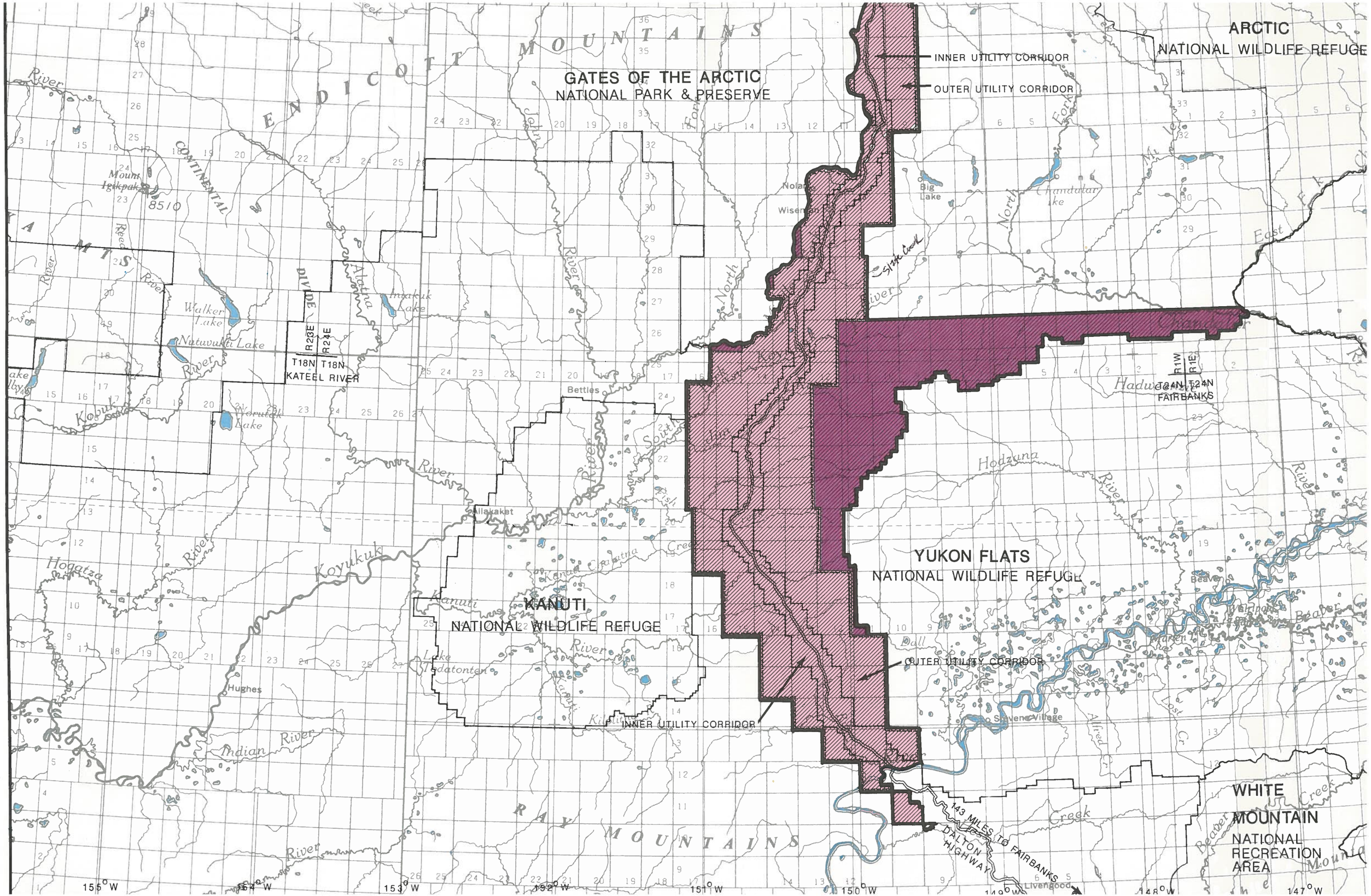
LEGEND

- Areas Presently Open for State Selection
- Areas Presently Not Open for Selection
- BLM Administered Public Lands

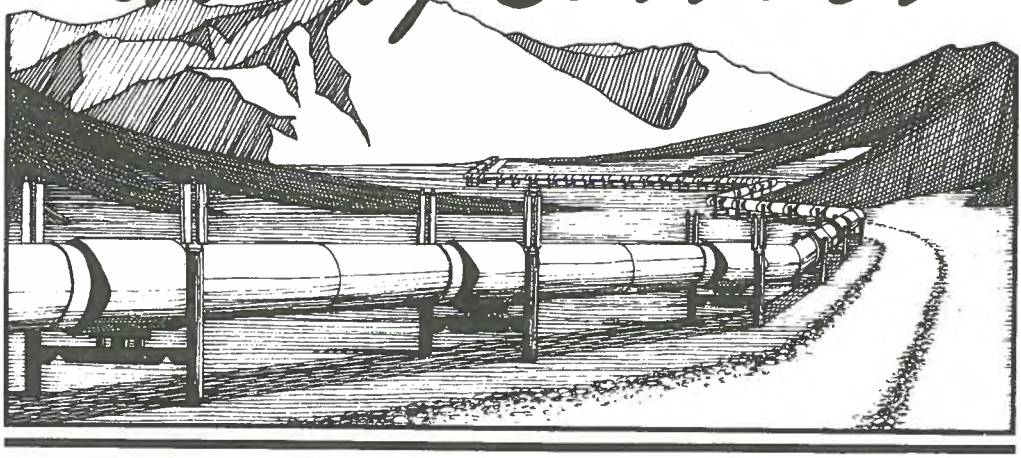
SCALE

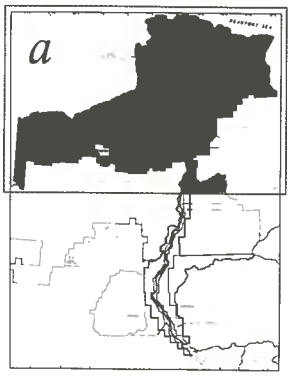
10 0 20 40 MILES 60

N


ARCTIC
NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
ENDICOTT MOUNTAINS
CONTINENTAL DIVIDE
Mount Igikpak
8510
Walker Lake
Nutuvukti Lake
Inaktuk Lake
Woruto Lake
Alatna
Kobuk
Koyukuk
Hogatza
Indian River
Hughes
Alatna
Allakaket
Bettles
Nolan
Wiseman
Big Lake
Chandalar Lake
Chandalar
Hadwin Ridge
Hodzana
Beaver
Stevens Village
Livengood
T18N T18N
R23E R24E
KATEEL RIVER
T24N T24N
R1W R1E
FAIRBANKS
KANUTI
NATIONAL WILDLIFE REFUGE
YUKON FLATS
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
143 MILES TO FAIRBANKS
DALTON HIGHWAY
RAY MOUNTAINS
WHITE MOUNTAIN
NATIONAL RECREATION AREA
155° W
154° W
153° W
152° W
151° W
150° W
149° W
148° W
147° W

Utility Corridor





Alternative B

1 of 4

LEGEND

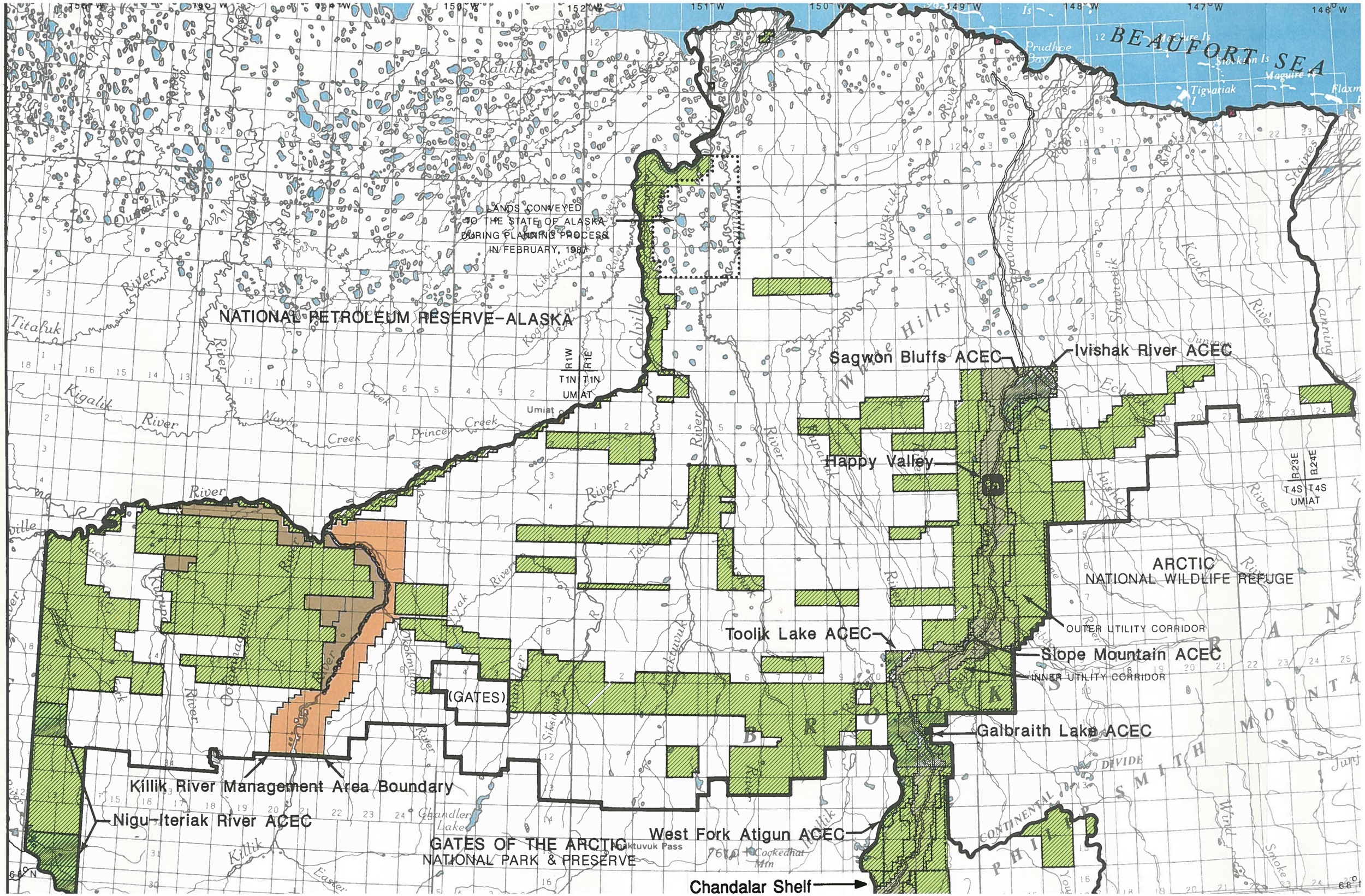
- Development Node
- Proposed Killik River Corridor Acquisition
- Proposed Oolamnagavik Consolidation Acquisition
- Areas of Critical Environmental Concern ACEC
- Wilderness Recommendation (closed to mineral activity)
- Nonwilderness Assessment Area
- Military Withdrawals
- BLM Administered Public Lands

N

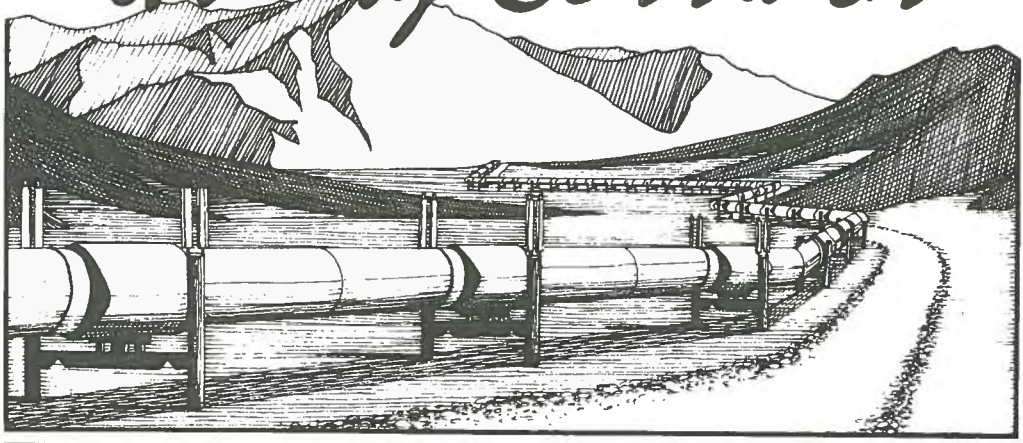
SCALE

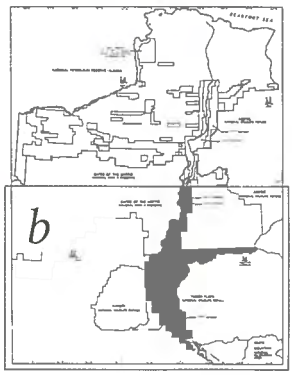
10 0 20 40 MILES 60

10 0 50 100


BEAUFORT SEA
Prudhoe Bay
LANDS CONVEYED TO THE STATE OF ALASKA DURING PLANNING PROCESS IN FEBRUARY, 1987
NATIONAL PETROLEUM RESERVE-ALASKA
R1W R1E T1N T1N UMIAT
Umiat
White Hills
Sagwon Bluffs ACEC
Ivishak River ACEC
Happy Valley
R23E R24E T4S T4S UMIAT
ARCTIC NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
Toolik Lake ACEC
Slope Mountain ACEC
INNER UTILITY CORRIDOR
Galbraith Lake ACEC
(GATES)
BROOKS
PHILIP SMITH MOUNTAINS
CONTINENTAL DIVIDE
Killik River Management Area Boundary
Nigu-Iteriak River ACEC
West Fork Atigun ACEC
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE
Anaktuvuk Pass
Chandler Lake
Chandalar Shelf
151° W
150° W
149° W
148° W
147° W
146° W
152° W
153° W
68° N
Colville
Kuparuk
Toolik
Sagavanirktok
Ivishak
Kavik
Canning
Itkillik
Anaktuvuk
Killik
Kigalik
Titaluk
Maybe Creek
Prince Creek
Kikiakrorak

Utility Corridor





Alternative B

2 of 4

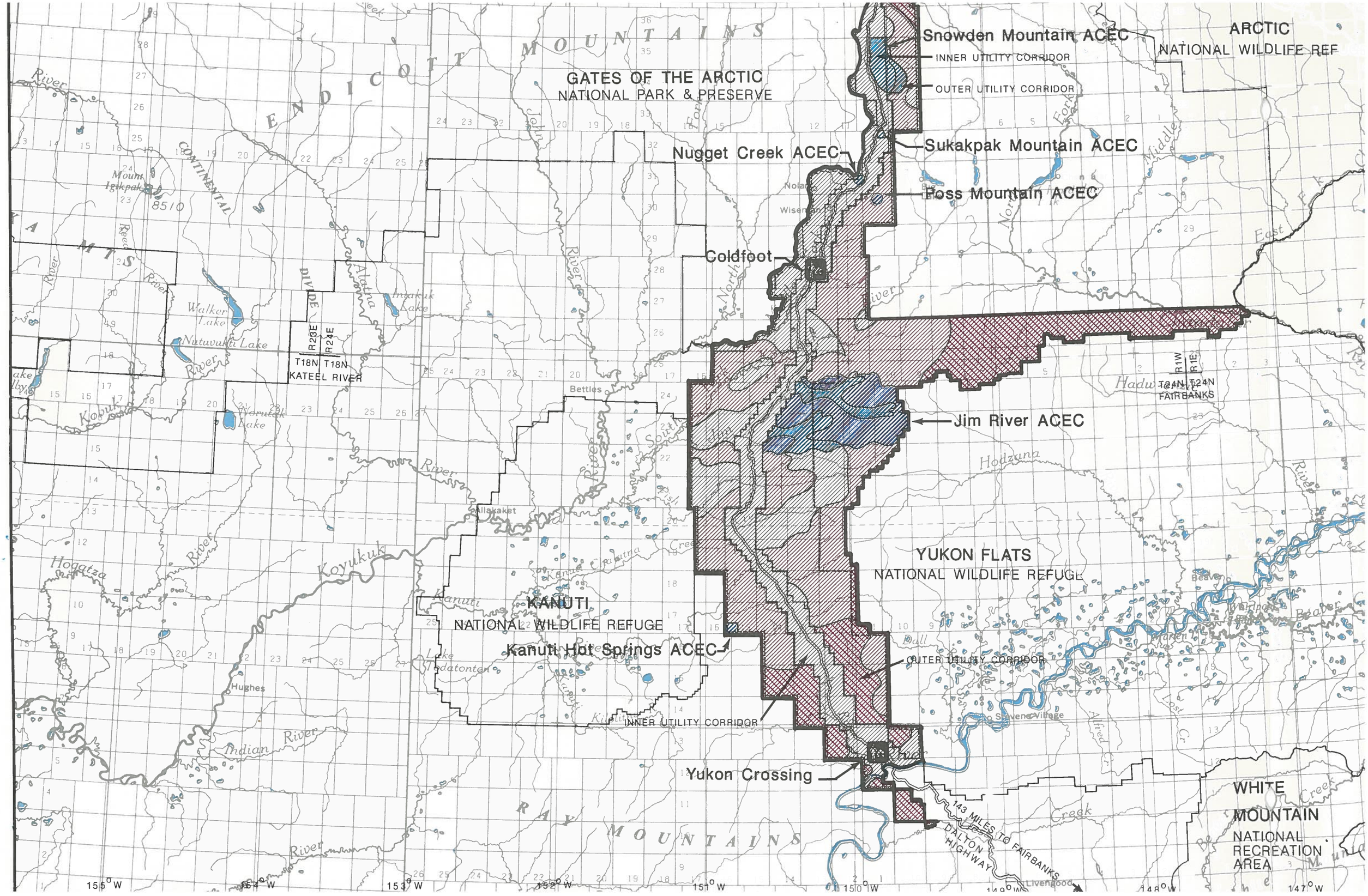
LEGEND

- Development Node
- Open to Mineral Entry and Location
- Open to Oil and Gas Leasing
- Areas of Critical Environmental Concern ACEC
- BLM Administered Public Lands

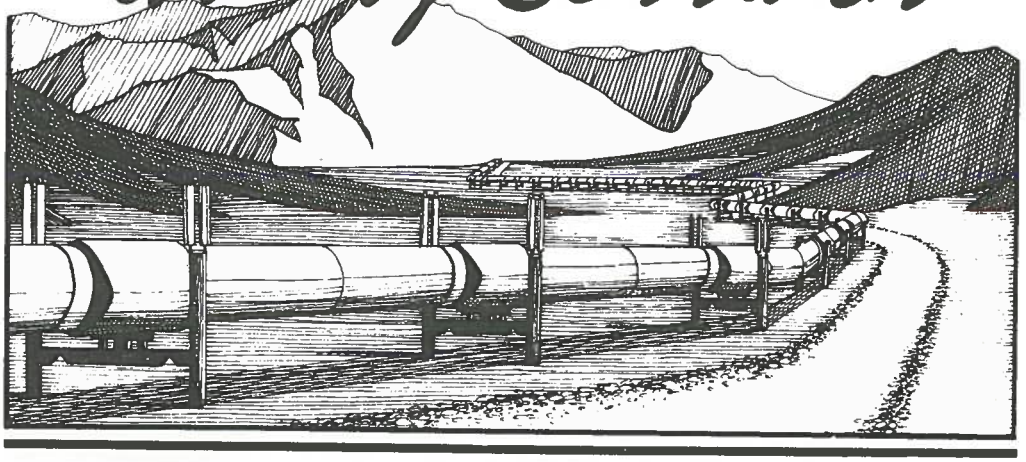
SCALE

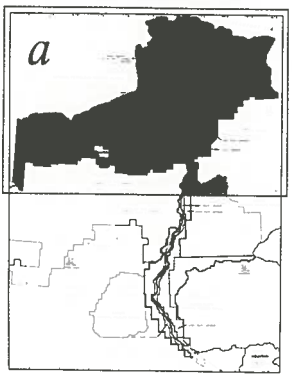
N

10 0 20 40 MILES 60


Snowden Mountain ACEC
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
ARCTIC
NATIONAL WILDLIFE REF
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
Sukakpak Mountain ACEC
Nugget Creek ACEC
Poss Mountain ACEC
Coldfoot
Jim River ACEC
YUKON FLATS
NATIONAL WILDLIFE REFUGE
KANUTI
NATIONAL WILDLIFE REFUGE
Kanuti Hot Springs ACEC
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
Yukon Crossing
143 MILES TO FAIRBANKS
DALTON HIGHWAY
WHITE
MOUNTAIN
NATIONAL
RECREATION
AREA
ENDICOTT MOUNTAINS
RAY MOUNTAINS
Mount Igikpak
8510
Walker Lake
Nutuvukti Lake
Inakuk Lake
Koyukuk
Hogatza
Indian River
Hughes
Bettles
Allakaket
Hodzuna
Beaver
Livengood
T18N
T18N
R23E
R24E
KATEEL RIVER
T24N
T24N
R1W
R1E
FAIRBANKS
155° W
154° W
153° W
152° W
151° W
150° W
149° W
148° W
147° W

Utility Corridor





Alternative B

3 of 4

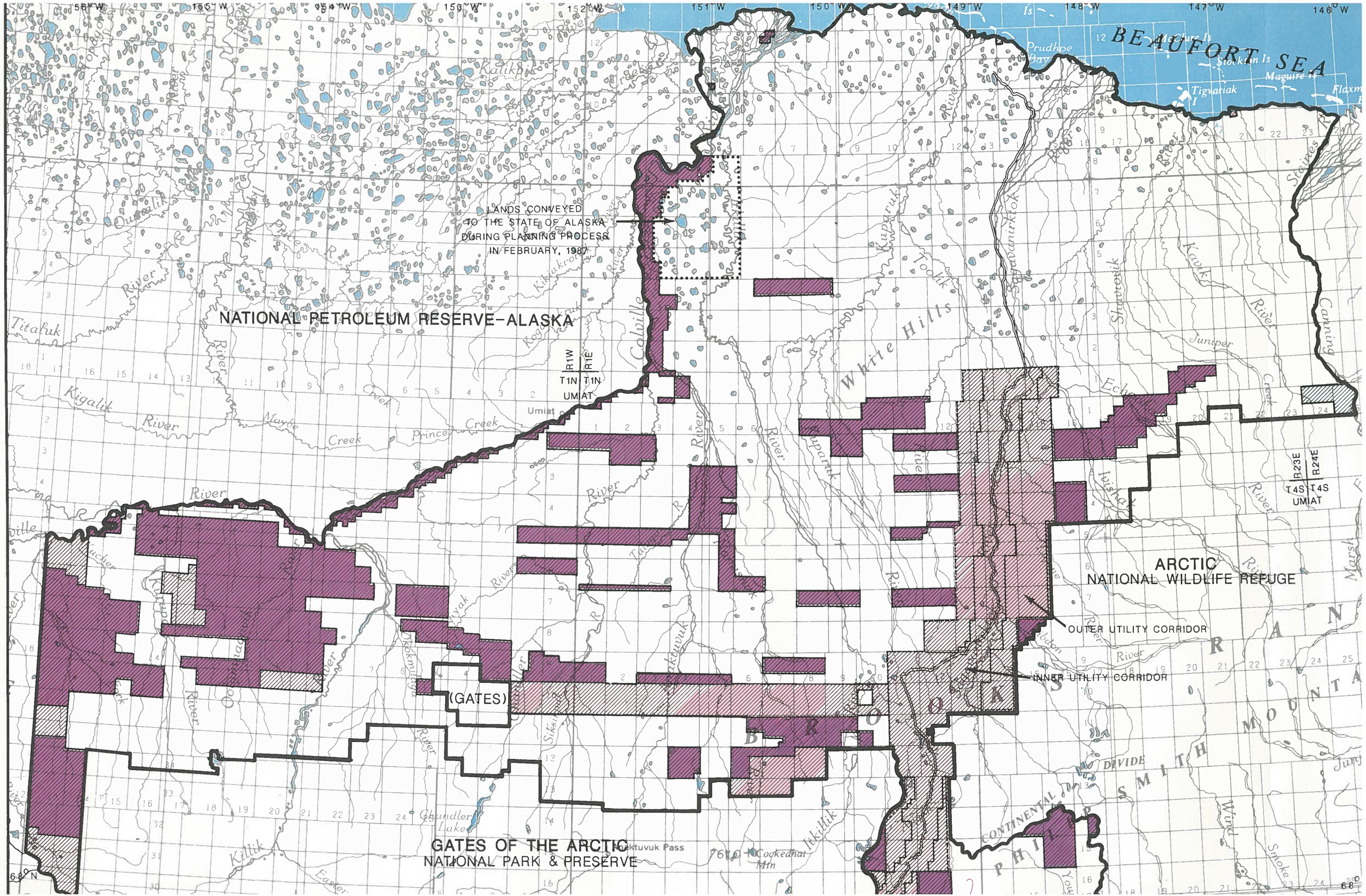
LEGEND

- Areas to be Opened for State Selection or Other Forms of Disposal
- Areas Presently Open for State Selection
- Areas to Remain Closed to State Selection
- BLM Administered Public Lands

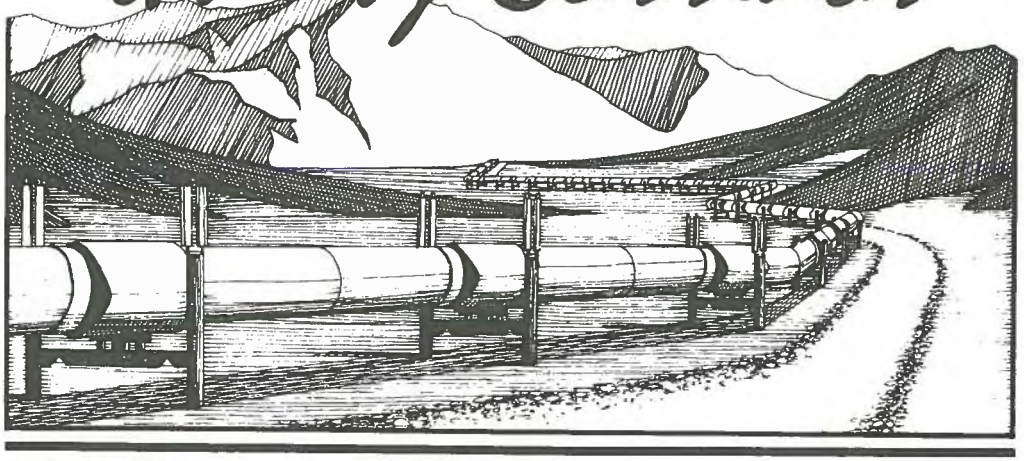
N

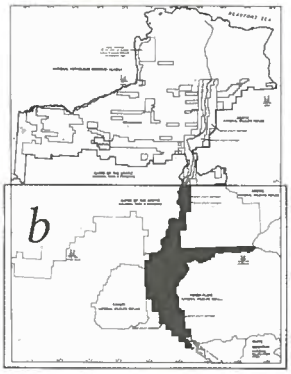
SCALE

10 0 20 40 MILES 60


BEAUFORT SEA
Prudhoe Bay
Stockton Is
Maguire Is
Tigvariak
Flaxman
LANDS CONVEYED
TO THE STATE OF ALASKA
DURING PLANNING PROCESS
IN FEBRUARY, 1987
NATIONAL PETROLEUM RESERVE–ALASKA
Colville
Kalikpik
Ublutuoch
Titaluk
Kigalik
Umiat
Maybe Creek
Prince Creek
Kikiakrorak
Kogosukruk
Kuparuk
Tolugak
Sagavanirktok
White Hills
Shaviovik
Kavik
Juniper
Echooka
Canning
Staines
Ivishak
Tamayariak
Killik
Easter
Chandler Lake
Anaktuvuk
Ikkillik
Cookedna Mtn
Anaktuvuk Pass
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
(GATES)
BROOKS RANGE
PHILIP SMITH MOUNTAINS
CONTINENTAL DIVIDE
ARCTIC
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
R1W
R1E
T1N
T1N
UMIAT
R23E
R24E
T4S
T4S
UMIAT
156°W
155°W
154°W
153°W
152°W
151°W
150°W
149°W
148°W
147°W
146°W
68°N
68°

Utility Corridor





Alternative B

4 of 4

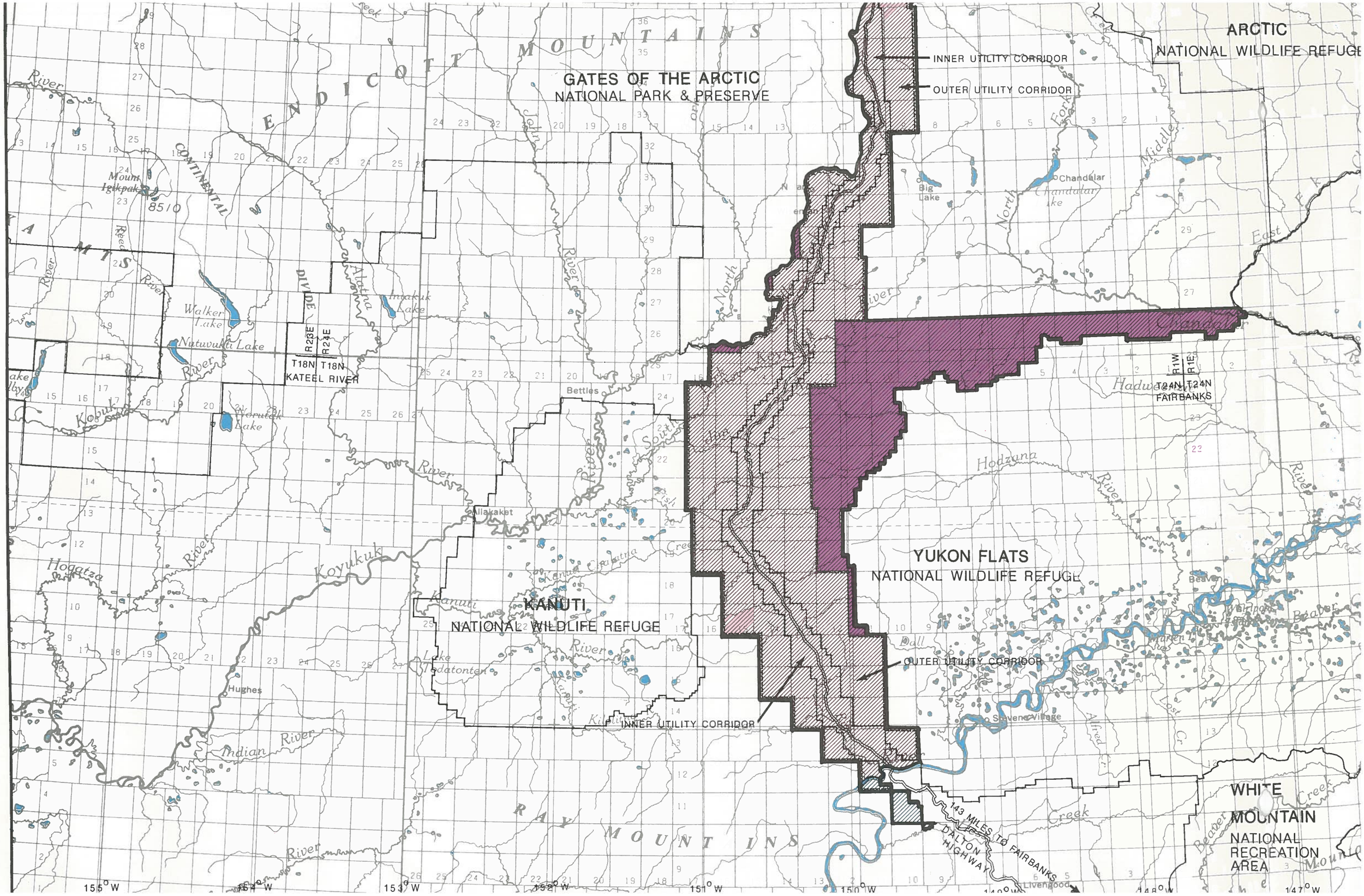
LEGEND

- Areas to be Opened for State Selection or Other Forms of Disposal
- Areas Presently Open for State Selection
- Areas to Remain Closed to State Selection
- BLM Administered Public Lands

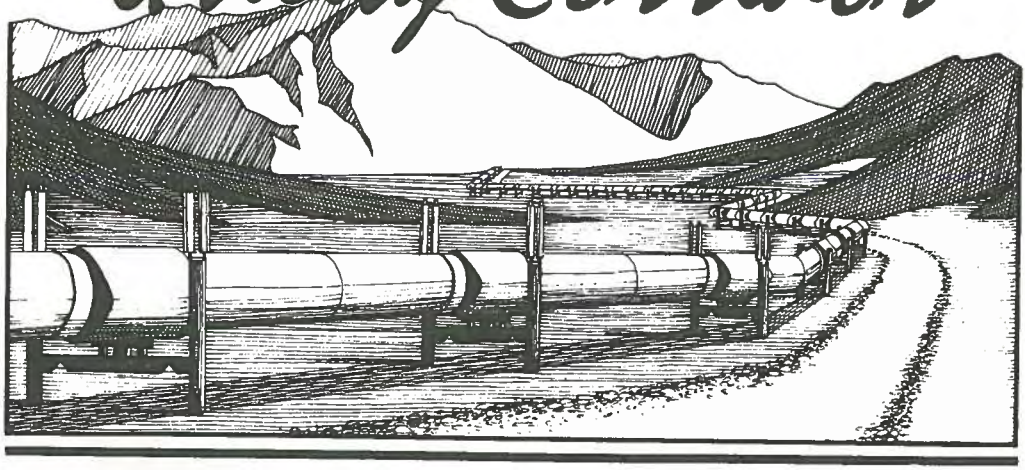
N

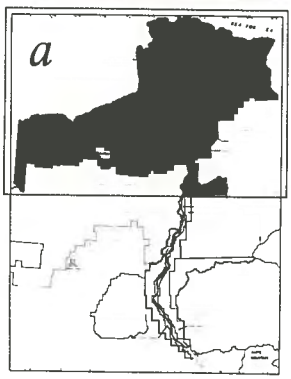
SCALE

10 0 20 40 MILES 60


GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
ARCTIC
NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
YUKON FLATS
NATIONAL WILDLIFE REFUGE
KANUTI
NATIONAL WILDLIFE REFUGE
WHITE
MOUNTAIN
NATIONAL
RECREATION
AREA
ENDICOTT MOUNTAINS
RAY MOUNTAINS
CONTINENTAL DIVIDE
Mount Igikpak
8510
Walker Lake
Nutuvukti Lake
Imaklik Lake
Iniakuk Lake
Wiehnitak Lake
Big Lake
Chandalar Lake
Chandalar
Hadweenzic
Hodzana
Koyukuk
Hogatza
Indian
Kanuti
Lake Todatonten
Bettles
Allakaket
Hughes
Stevens Village
Beaver
Livengood
T18N R28E
T18N R24E
KATEEL RIVER
T24N R1W
T24N R1E
FAIRBANKS
143 MILES TO FAIRBANKS
DALTON HIGHWAY
155° W
154° W
153° W
152° W
151° W
150° W
148° W
147° W

Utility Corridor





Alternative C

1 of 2

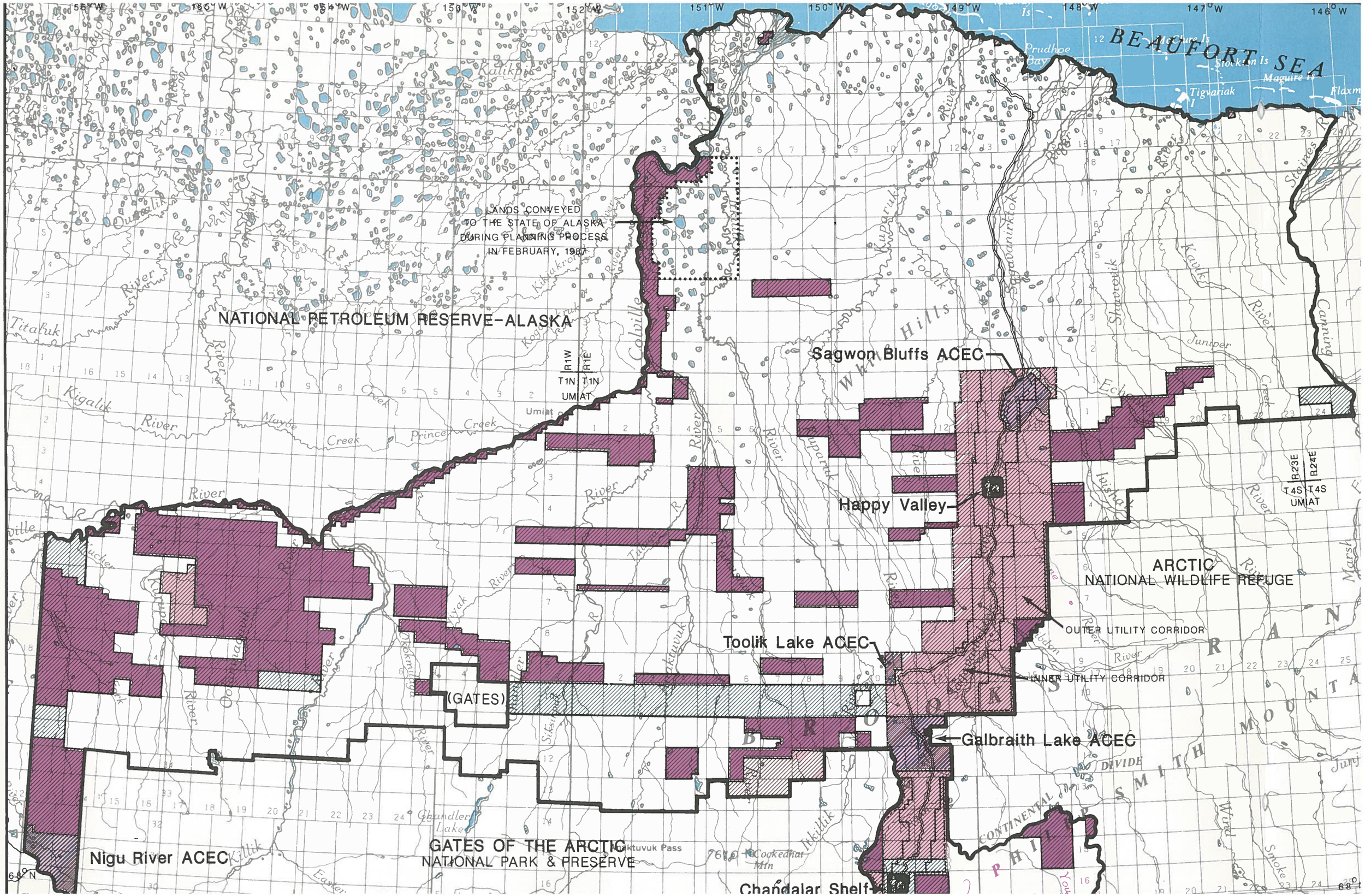
LEGEND

- Development Node
- Areas of Critical Environmental Concern (ACEC)
- Areas to be Opened for State Selection or Other Forms of Disposal
- Areas Presently Open for State Selection
- Areas to Remain Closed to State Selection
- BLM Administered Public Lands

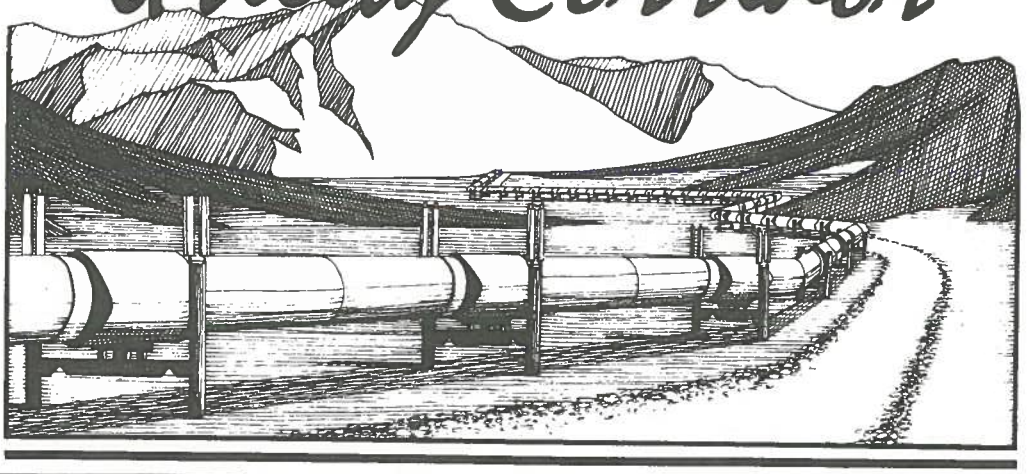
N

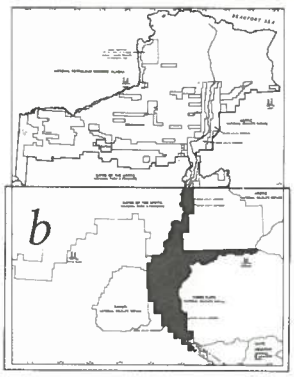
SCALE

10 0 20 40 MILES 60


BEAUFORT SEA
Prudhoe Bay
Stockton Is
Maguire Is
Tigvariak I
Flaxman
LANDS CONVEYED
TO THE STATE OF ALASKA
DURING PLANNING PROCESS
IN FEBRUARY, 1987
NATIONAL PETROLEUM RESERVE-ALASKA
Sagwon Bluffs ACEC
Happy Valley
ARCTIC
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
Toolik Lake ACEC
Galbraith Lake ACEC
(GATES)
GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
Nigu River ACEC
Chandalar Shelf
Umiat
R1W
R1E
T1N
T1N
UMIAT
R23E
R24E
T4S
T4S
UMIAT
Titaluk
Kigalik
River
Colville
Kuparuk
Toolik
Sagavanirktok
Shaviovik
Kavik
Juniper
Echooka
Ivishak
Canning
Staines
Marsh
Chandler
Sitisuna
Tamayariak
Ikkillik
Killik
Easter
Snowy
Windy
Smoke
Yoko
Chandler Lake
Anaktuvuk Pass
Cookeenat Mtn
CONTINENTAL DIVIDE
BROOKS RANGE
PHILIP SMITH MOUNTAINS
68°N
68°N

Utility Corridor





Alternative C

2 of 2

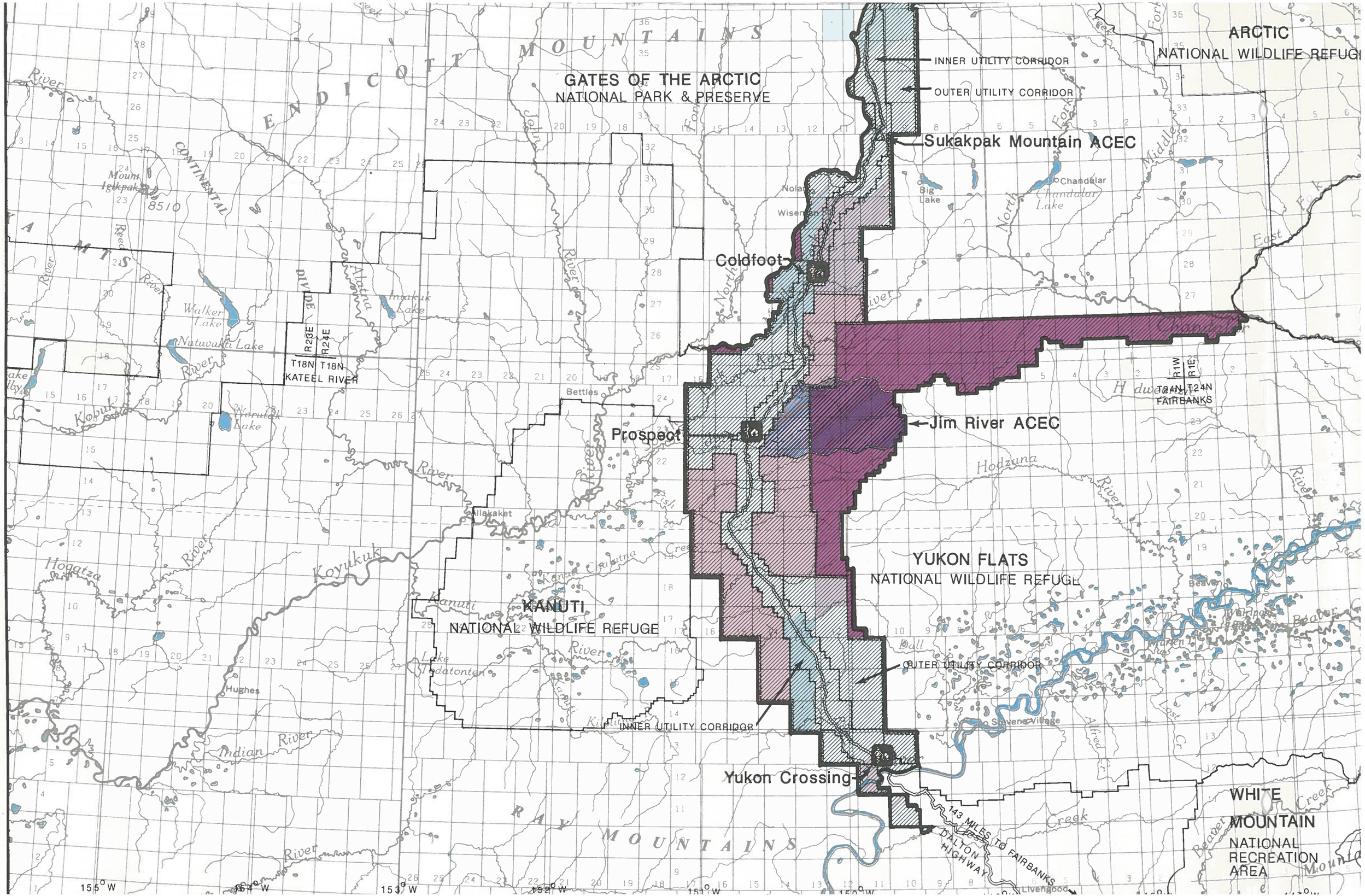
LEGEND

- Development Node
- Areas of Critical Environmental Concern (ACEC)
- Areas to be Opened for State Selection or Other Forms of Disposal
- Areas Presently Open for State Selection
- Areas to Remain Closed to State Selection
- BLM Administered Public Lands

SCALE

10 0 20 40 MILES 60

N


GATES OF THE ARCTIC
NATIONAL PARK & PRESERVE
ARCTIC
NATIONAL WILDLIFE REFUGE
INNER UTILITY CORRIDOR
OUTER UTILITY CORRIDOR
Sukakpak Mountain ACEC
Coldfoot
Prospect
Jim River ACEC
YUKON FLATS
NATIONAL WILDLIFE REFUGE
KANUTI
NATIONAL WILDLIFE REFUGE
OUTER UTILITY CORRIDOR
INNER UTILITY CORRIDOR
Yukon Crossing
WHITE
MOUNTAIN
NATIONAL
RECREATION
AREA
143 MILES TO FAIRBANKS
DALTON
HIGHWAY
ENDICOTT MOUNTAINS
RAY MOUNTAINS
Mount Igikpak
8510
Walker Lake
Natuvuktuli Lake
Imaikuk Lake
Narutak Lake
Big Lake
Chandalar Lake
Nolan
Wiseman
Bettles
Allakaket
Hughes
Stevens Village
Livengood
T18N
R28E
R24E
KATEEL RIVER
T24N
R1W
R1E
FAIRBANKS
155° W
154° W
153° W
152° W
151° W
150° W

Alternative D

This alternative proposed opening all planning area lands to State Selection. Consequently current management would continue until land ownership patterns are clarified. Refer to the maps for Alternative A.

Summary Table of Management Actions by Alternative

Table 2.7:
Summary of Management Actions by Alternative

(The Proposed Plan and the Preferred Alternative which appeared in the *Draft Utility Corridor Resource Management Plan* are similar. Important changes to the Preferred Alternative are noted in italics.)

	ALTERNATIVES				
Issues and Resources	Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D
Development					
Mineral leasing	Approximately 5.8 million acres would be open to mineral leasing. Closed to leasing would be the southern portion of the proposed Nigu-Iteriak ACEC (the recommended wilderness area). Nonsurface occupancy stipulations in inner Corridor, 8 identified mineral licks, on portions of Jim and Kanuti river, and Prospect Creek floodplains.	No areas (0 acres) are now open to mineral lease.	Approximately 1.5 million acres would open to mineral leasing. Closed to leasing would be the outer Corridor adjacent to Gates of the Arctic National Park, the recommended wilderness area, crucial wildlife habitat, and the inner Corridor.	The entire planning area, approximately 6.1 million acres, would be open to mineral leasing.	Same as Alternative A.
Mineral location	Approximately 4.7 million acres would be opened to mineral location. Closed would be the inner Corridor, the Nigu-Iteriak ACEC (recommended wilderness area), portions of the Jim and Kanuti river and Prospect Creek floodplains, and eight identified mineral licks.	Only the outer Corridor, approximately 1.7 million acres, is open to mineral location. All other areas are closed.	Approximately 0.5 million acres would be open to mineral location. Closed would be the inner Corridor, crucial wildlife habitat, areas that drain into adjacent CSUs, recommended wilderness areas, and the outer Corridor adjacent to Gates of the Arctic National Park.	The entire planning area, approximately 6.1 million acres, would be open to mineral location, including the inner Corridor.	Same as Alternative A.

Table 2.7 cont.:
Summary of Management Actions by Alternative

Issues and Resources	Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D
Development cont.					
Mineral materials	Throughout the area, mineral materials extraction would be allowed. However, it would be prohibited in the eight identified mineral lick areas, the Kanuti Hot Springs, Nigu-Iteriak, and Sukakpak Mountain ACECs, and in designated wilderness areas. Extraction would be allowed in the Jim River and Prospect Creek streambeds and annual floodplains, and the Ivishak River ACEC only if no other economically feasible locations for material minerals can be found.	Mineral material extraction allowed in entire planning area. Standard stipulations apply.	Mineral material extraction allowed only from existing sites unless it is shown that new sites would not be in conflict with crucial wildlife habitat, stated purposes of ACECs, etc. No gravel extraction from floodplain of the Jim River and its tributaries.	Same as Alternative A.	Same as Alternative A.
Development nodes	Four nodes would be designated at Yukon Crossing, Coldfoot, Chandalar Shelf, and Happy Valley. *No land sales would be allowed within nodes under federal ownership.*	Five nodes are located at Yukon Crossing, Prospect, Coldfoot, Chandalar Shelf, and Pump Station 3.	Same four nodes as Proposed Plan, but limit development at Yukon Crossing to current levels.	Same five nodes as Alternative A. Also allow development outside of nodal areas when appropriate.	Same as Alternative A.
Realty Actions					
Acquisitions	Seek acquisition of 1) Killik River corridor; 2) lands adjacent to the Oolamnagavik block.	No acquisitions.	Same as Proposed Plan.	No acquisitions.	No acquisitions.
Other	Resolve split-estate management through disposal or acquisition. Allow sale of cabin lots at Wiseman.	Allow sale of cabin lots at Wiseman.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Alternative A.

Table 2.7 cont.:
Summary of Management Actions by Alternative

Issues and Resources	Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D
Realty cont. State selection	Within the Utility Corridor, allow state selection of approximately 0.7 million acres located in four discrete blocks: 1) Corridor lands south of the Yukon River; 2) lands near Prospect; 3) Coldfoot node and associated access corridor; 4) Corridor lands north of Toolik Lake. *The preferred alternative in the draft plan allowed selection of Corridor lands south of the Yukon River and at Coldfoot (approximately 32,000 acres total). The amended preferred alternative (April, 1988) allowed selection of Corridor lands south of the Arctic Circle and north of Toolik Lake (a total of approx. 1.1 million acres).*	No Corridor lands are available for selection.	Within the Utility Corridor, only allow state selection of the approximately 25,000 acres south of the Yukon River.	Within the Utility Corridor, allow state selection of the approximately 1.3 million acres the state has expressed interest in obtaining through "906(e) top-filings." Most of these "top-filed" lands are located south of the Brooks Range. Opened to selection would be all of the inner Corridor and much of the outer Corridor south of the Brooks Range.	Allow state selection of all lands within the Utility Corridor (approximately 2.8 million acres). Modify plan after disposals, or begin a new land use plan on lands remaining in BLM management.
Recreation	Manage the Utility Corridor with emphasis on recreation. Put a priority on development of a recreation area management plan for lands along the Dalton Highway.	Maintain present levels of recreation facility development. No new facilities.	Same as Alternative A.	Emphasize private investment in recreation development.	Same as Alternative A.

Table 2.7 cont.:
Summary of Management Actions by Alternative

Issues and Resources	Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D
ORVs	Conduct ORV use evaluation after the proposed plan is approved. Interim management would 1) allow noncommercial use of ORVs less than 1500 lbs on snow and frozen ground; 2) require permits for all commercial ORV use regardless of weight; 3) limit public access across TAPS to designated crossing points if 1500 lbs or over; 4) adhere to state restrictions on ORV use, but apply above interim management if restrictions are lifted.	Conduct ORV use evaluation. Interim management would 1) require permits for all ORVs during summer, freeze-up and breakup; 2) require permits for all ORV use with the except of snow machines 600 lbs or less; 3) limit public access across TAPS to designated cross points, if 1500 lbs or over; 4) adhere to state restrictions on ORV use but apply above interim management if restrictions are lifted.	Same as proposed plan, but emphasis on ORV use evaluation would be to develop appropriate mitigation of ORV impacts.	Same as Proposed Plan.	Same as Alternative A.
Access	The proposed plan would allow state selection of "access corridors" at Prospect and Coldfoot. Other access to state/private lands from the Corridor would be achieved through issuance of appropriate rights-of-way. Appropriate access to CSUs adjacent to the Corridor would be determined through cooperative study.	Appropriate access to state-owned lands adjacent to the corridor allowed through issuance of appropriate rights-of-way.	An access corridor at Prospect would be reserved to allow for rights-of-way from Ambler Mining District in accordance with Sec. 201 of ANILCA. Other access from the Corridor would be achieved through issuance of appropriate rights-of-way. .Appropriate access to CSUs adjacent to the Corridor would be determined through cooperative study.	State selection opportunities allow state to obtain lands desired for access at Prospect and Coldfoot. Otherwise same as Alternative B.	Same as Alternative C.

Table 2.7 cont.:
Summary of Management Actions by Alternative

Issues and Resources	Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D
Subsistence	Conduct 810 evaluations on all agency discretionary actions. Cooperative planning would consider impacts on subsistence from land use proposals. The proposed ORV use evaluation would consider appropriate limitations on ORVs to protect subsistence resources.	Conduct 810 evaluations on all discretionary actions.	Conduct 810 evaluations on all discretionary actions. The proposed ORV use evaluation would consider appropriate limitations on ORVs to protect subsistence resources.	Same as Alternative A.	Same as Alternative A.
Wilderness	Approximately 41,000 acres in upper Nigu River area recommended for wilderness designation.. *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, 1988)	Continue interim management. *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, 1988)	Approximately 3.4 million acres recommended for wilderness. This represents the entire CAMA Wilderness Study Area, except the non-wilderness assessment area (i.e., lands adjacent to Dalton Highway). *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, 1988)	Recommend no areas for wilderness designation. *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, 1988)	Same as Alternative A. *Central Arctic Management Area Wilderness Recommendations and Final EIS* (USDOI, 1988)
Wildlife	The following wildlife related measures are recommended under the proposed plan: 1) transplant muskox to the Oolamnagavik area; 2) conduct fisheries inventory throughout planning area; 3) close selected streams and mineral licks to mineral location; 4) restrict gravel extraction from Jim and Ivishak river floodplains.	Maintain current low intensity monitoring of wildlife resources.	Same as the Proposed Plan.	Same as Alternative A.	Same as Alternative A.

Table 2.7 cont.:
Summary of Management Actions by Alternative

Issues and Resources	Proposed Plan		Alternative A		Alternative B	Alternative C		Alternative D
ACECs	Galbraith Lake	56,000	Galbraith Lake	56,000	Same as the Proposed Plan.	Galbraith Lake	56,000	Same as Alternative A.
	Ivishak River	3,800	Ivishak River	3,800		Jim River	200,000	
	Jim River	200,000	Jim River	200,000		Sagwon Bluffs	42,200	
	Kanuti Hot Spr.	40	Sagwon Bluffs	42,200		Sukakpak Mt.	3,500	
	Nigu-Iteriak	64,000	Sukakpak Mt.	3,500		Toolik Lake	82,800	
	Nugget Creek	3,300	Toolik Lake	82,800		Nigu River	41,000	
	Poss Mountain	8,000						
	Sagwon Bluffs	42,200	Total	388,300		Total	425,500	
	Slope Mountain	5,100						
	Snowden Mt.	28,000						
	Sukakpak Mt.	3,500						
	Toolik Lake	82,800						
	West Fork Atigun	8,500						
	Total	505,240						