

KENAI NATIONAL MOOSE RANGE

Alaska

Les Soudes sont Anglaises :
 Les Soudes en valent 3 Françaises.

CARTE DE LA RIVIÈRE DE COOK, dans la partie N. O. DE L'AMÉRIQUE.

Par M. BONNE, Ingénieur-Hydrographe
 de la Marine.



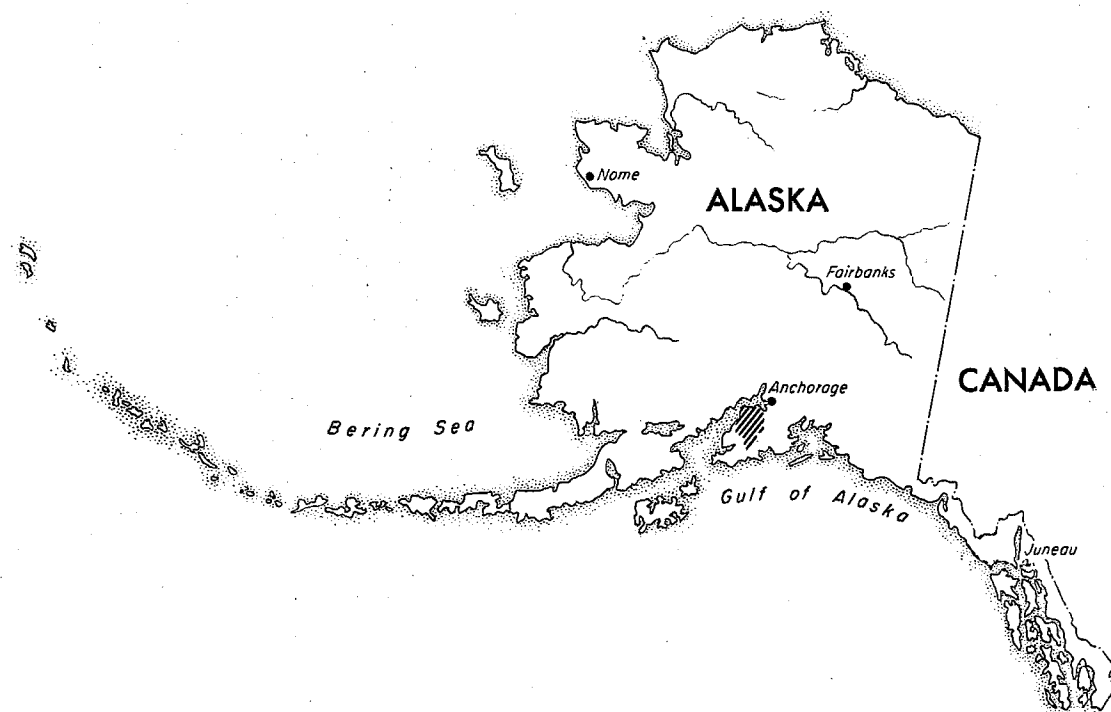
Courtesy University of Alaska Museum

Kenai National Moose Range is in the large land area to the left and below the word Turn-Again, upper center.

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MASTER PLAN



CONGRESS has accepted a share of responsibility for the nation's wildlife by authorizing acquisition, restoration, development, and management of suitable habitats. More than 325 units comprise the National Wildlife Refuge System reaching from Alaska to Florida and from Hawaii to Maine. The System reflects concern of people that native species will continue as part of human environment for the pleasure and inspiration of present and future generations. Kenai National Moose Range contributes to that broad purpose.

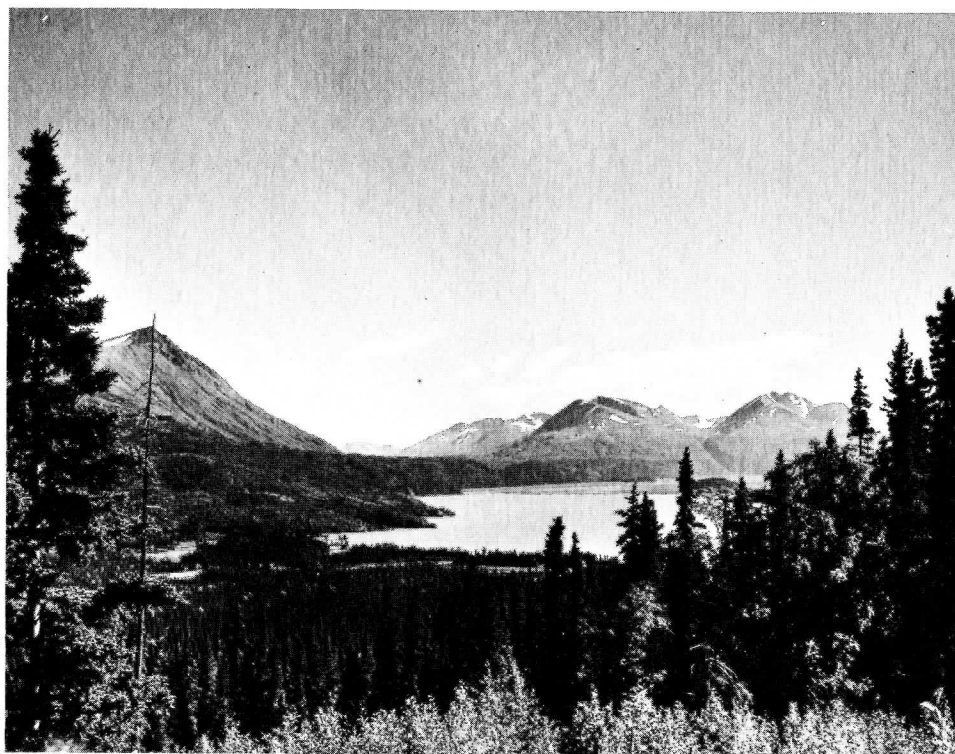
The goal of this plan is to promote understanding of Range programs and to describe developments and operations needed to fulfill its destined role among the great outdoor areas of the world. Approaches to achievement may vary as new techniques and ideas are developed, but the fundamental goal of benefit to man will remain unchanged.

PREFACE



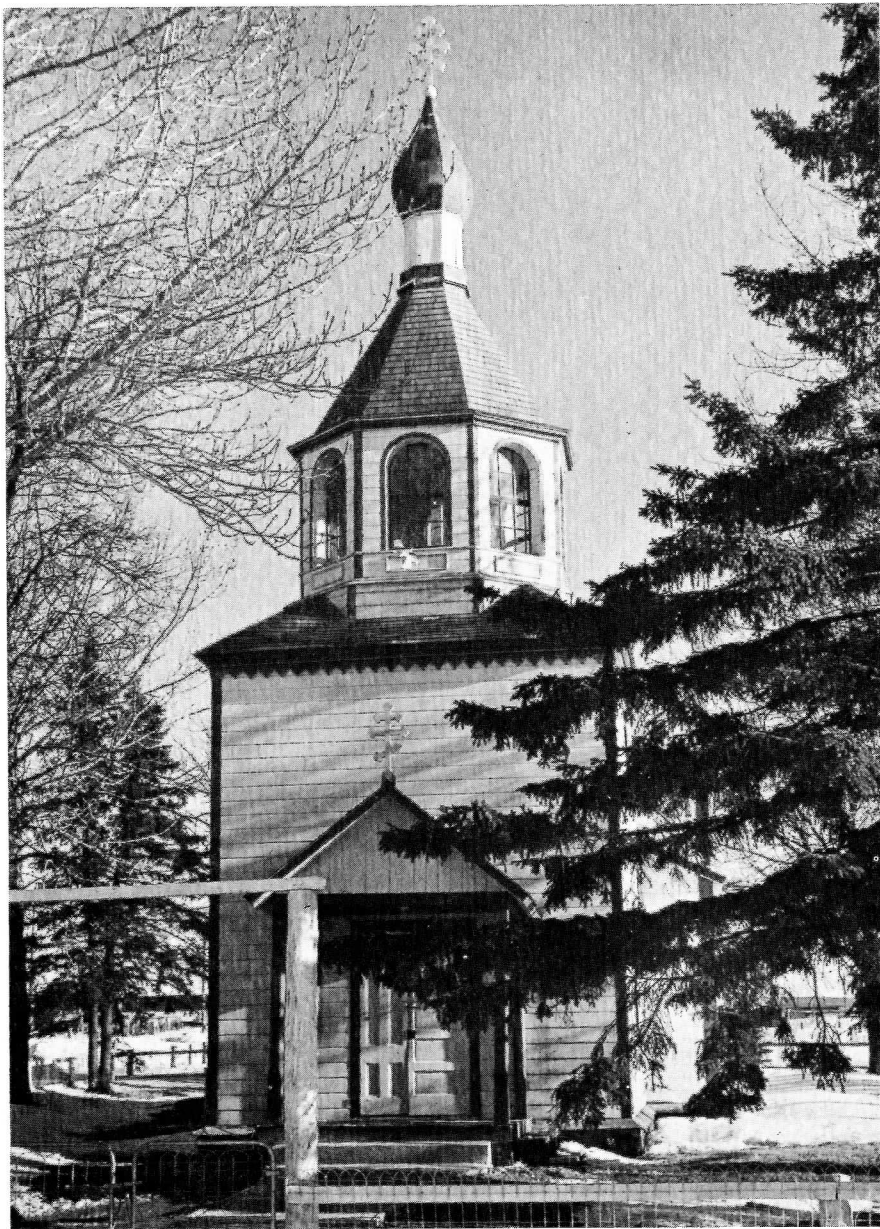
AND of scenic splendor and rich natural resources, Alaska is experiencing those same forces which forged our nation's older states. As people spread across the continent they created wondrous works, often without regard for the future or effect on environment. But the conscience of America has awakened to lessons of history. This awareness has developed a sense of urgency for planned actions designed to assure past mistakes will not be repeated. How well these are conducted reflects in large measure the response of administrators to attitudes of the American people.





In Alaska, changing old ways for new is exemplified on the Kenai National Moose Range. Oil and gas recovery activities compete with tourist attractions, rich fish resources, forest products, wildlife and aesthetic values. Utilization of one or a few resources must not eliminate others but be managed in a measure of balanced compatibility. This is public land of national significance, owned, used, and treasured by all Americans. Here exists a rich wildlife heritage in a wilderness setting of striking scenic beauty, an outdoor recreational land of increasing popularity. There are excellent opportunities for camping, hiking, boating, hunting and fishing; vital rearing grounds for commercial salmon; and valuable oil and timber resources.

Immensity of the land and rigors of climate no longer limit pressures of civilization. Industry demands opportunities to harvest economic resources, and recreationists expect outdoor enjoyment to be typical of wild areas. All must be managed wisely and compatibly to assure they will be enjoyed by future generations. This plan provides guidelines for balanced development and management of the Kenai National Moose Range.



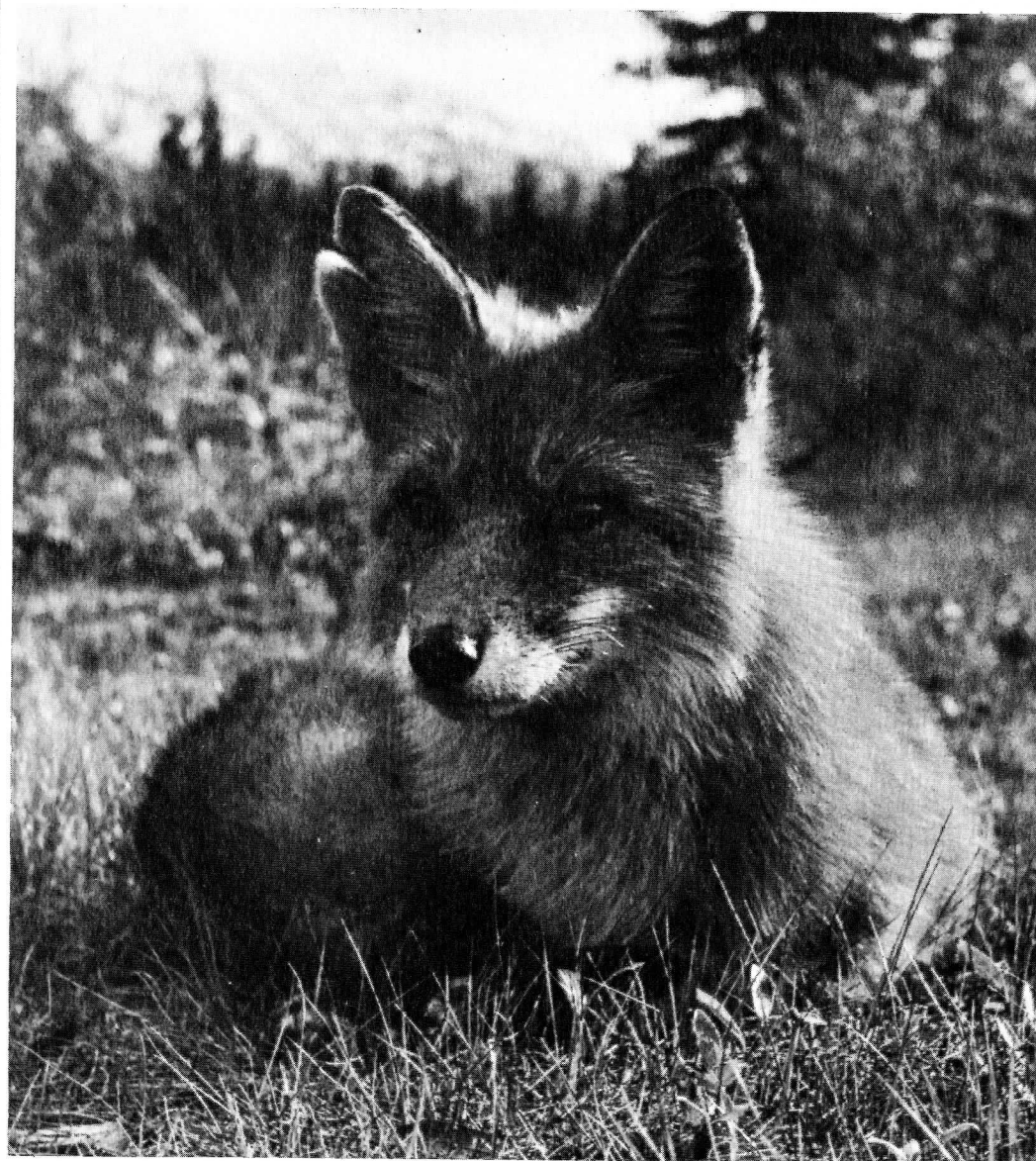
THE PAST

REMAINS of native dwellings, stone lamps, arrowheads and spearheads are evidence of early settlements on the Kenai. Russian traders and trappers found the Kenai Peninsula a land rich in fish and fur resources. Their first mission was to harvest sea otter, then the world's costliest fur. The quest was successful and within a few years the sea otter populations were reduced to a point from which they have never recovered.

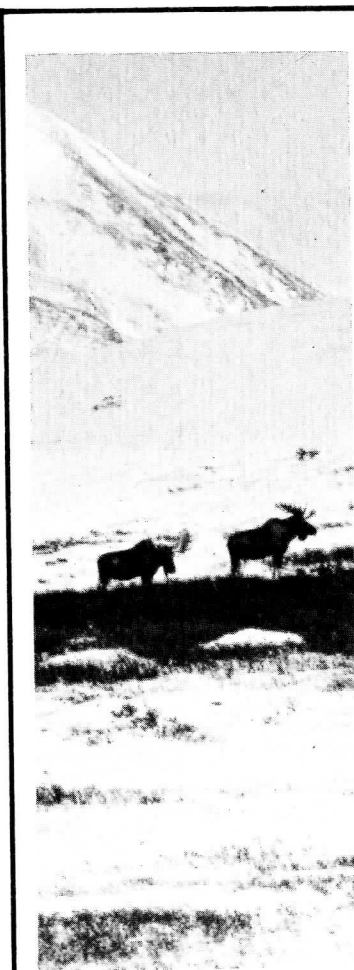
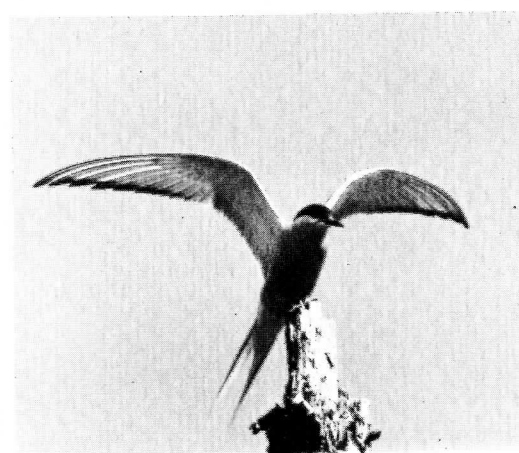
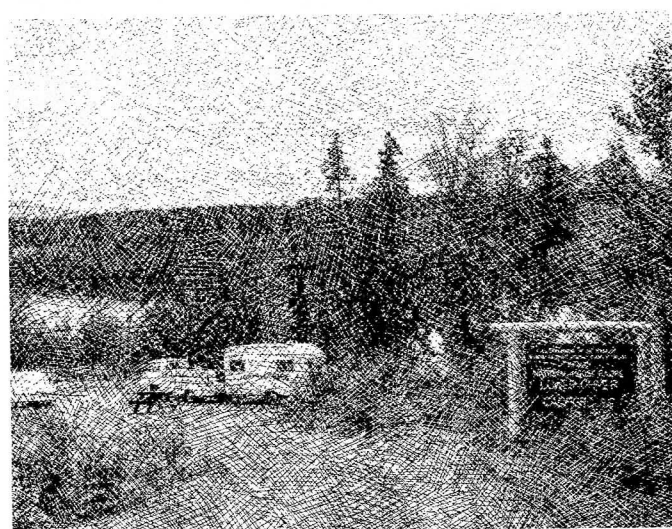
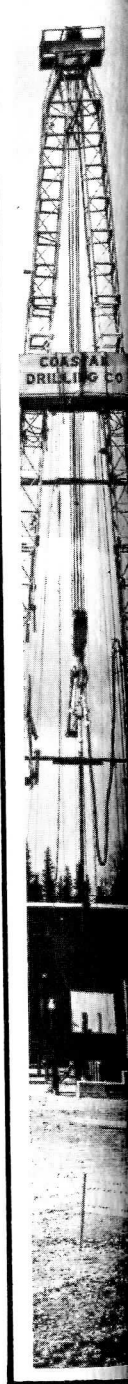
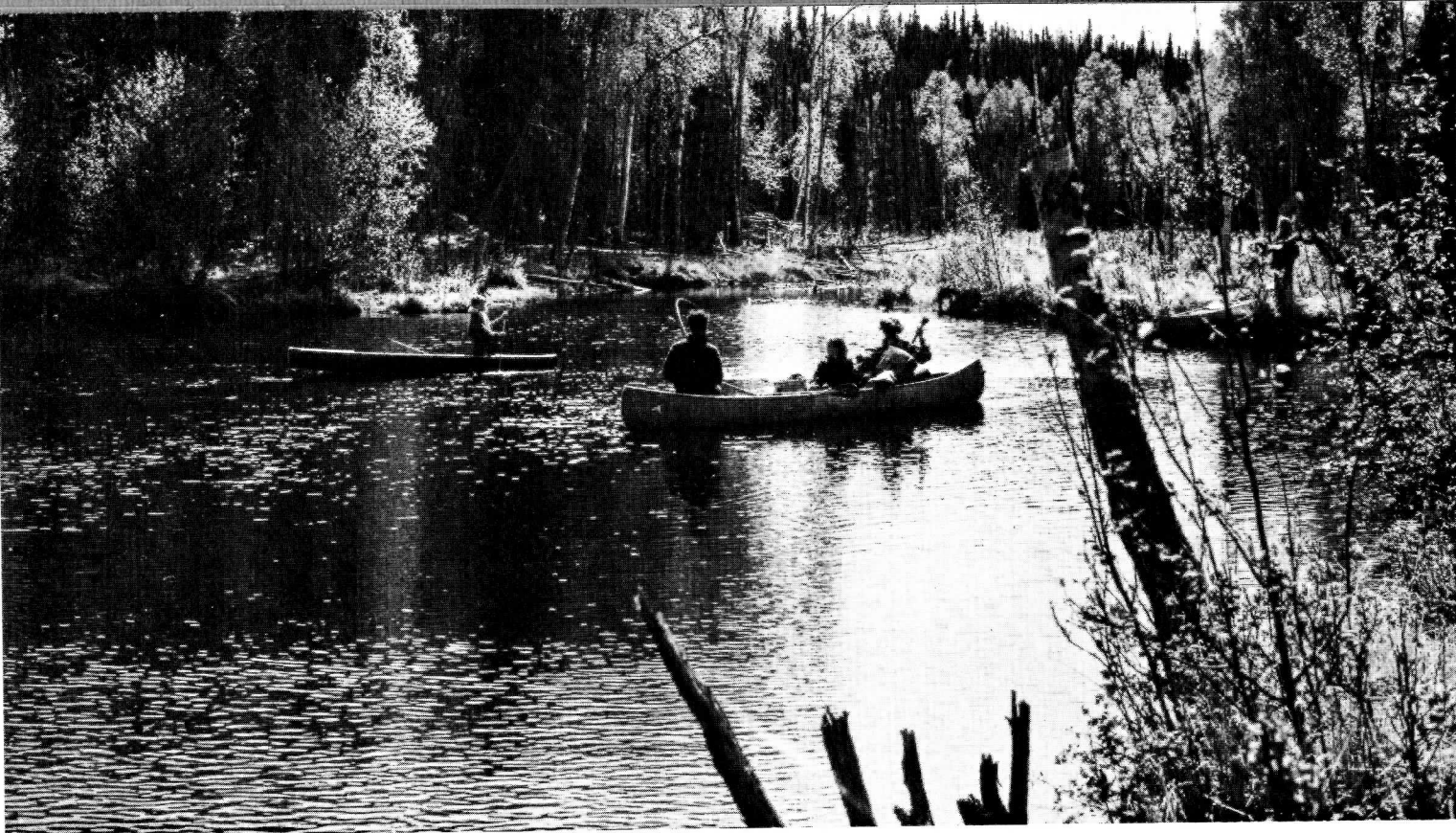
Point Possession, on the northern tip of the Range, was a landing site for an English expedition led by Captain Cook in 1778. Kenai, claimed to be the oldest permanent white settlement on the Alaska mainland, was founded in 1791 by Russians and named St. Nicholas. It was the Russian who made Alaska home—introducing culture, industry, farming and construction skills, churches, and schools. Well adapted to the environment, settlers married, raised families, and lived out their lives in this new country. Few returned to their motherland.

Fur reigned supreme until mid-nineteenth century. Elimination of the sea otter increased demands for beaver, marten, and fox furs. In the 1880's beavers were approaching extinction on the Kenai Peninsula. They responded to protection, but only remnants of marten and fox populations remain.

Purchase of Alaska by the United States in 1867 opened a new era. As the fur supply declined, attention turned to fish, and the first salmon cannery on the Kenai Peninsula was established in 1882. Discovery of gold in the late 1800's brought hundreds of prospectors and miners. Then, in the early 1900's, vast game herds attracted sportsmen from many parts of the world. Efforts of conservationists led to establishment of the Kenai National Moose Range by Executive Order in 1941.



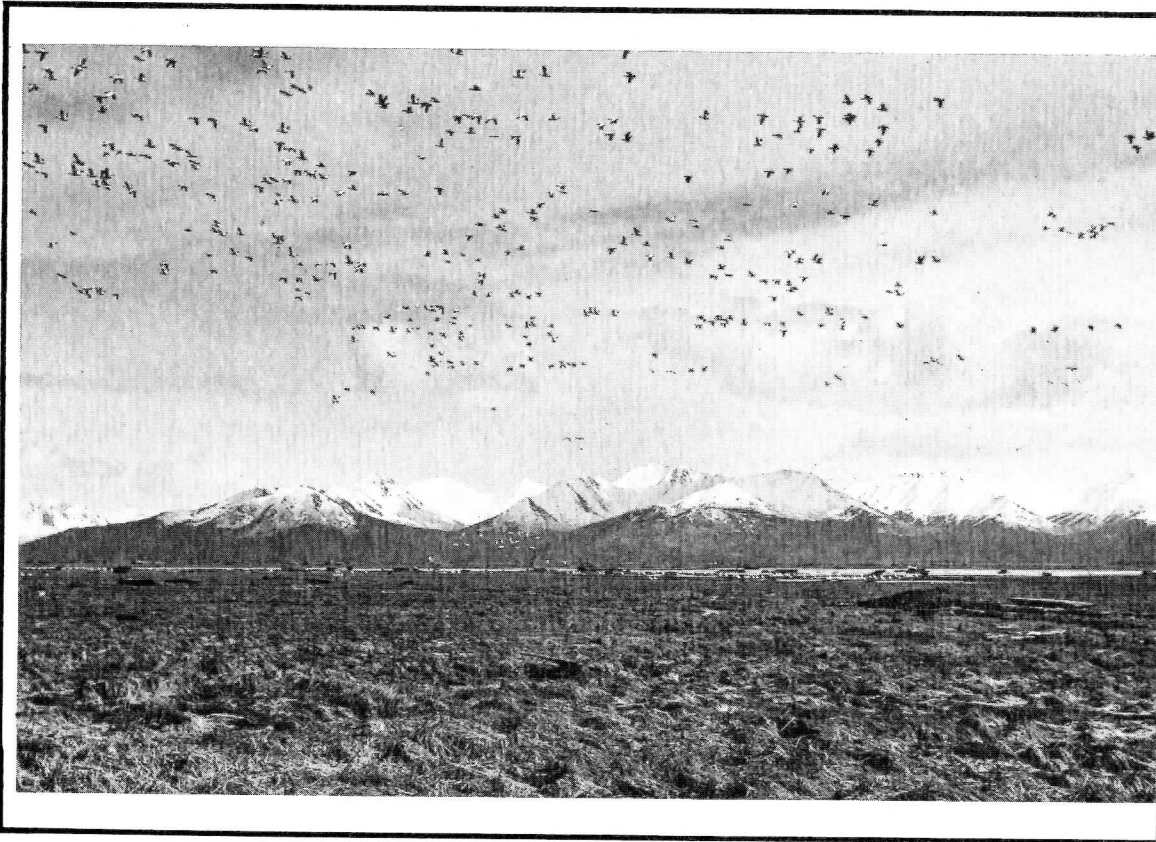
Cecil Rhode



THE PRESENT

KENAI National Moose Range is an area of 1,730,000 acres having immeasurable wildlife and scenic values. Naturalist George Shiras III, writing of his travels in the Skilak Lake country, wrote: "Were all of Alaska erased from the map except the Kenai Peninsula and its immediately adjacent waters, there would yet remain in duplicate that which constitutes the more unique and that which typifies the whole of this wonderful country."

Range lowland is a spruce-birch-aspen forest dotted with over 1,200 lakes. Scenic mountains rising to 6,600 feet are interspersed with many lakes and glaciers. Moose, Dall sheep, mountain goats, bears, and caribou thrive in varied habitat of the Range. The many waters are rich with fish and many kinds of waterbirds. Salmon spawned here help support the canning industry and offer sport fishing for thousands of visitors.



Most of the northern half of the Range is open to gas and oil development and has produced thousands of barrels of oil daily. Gas is piped from several locations, and although economic effects on local communities are substantial, any increase in commercial activities must be weighed against other assets.

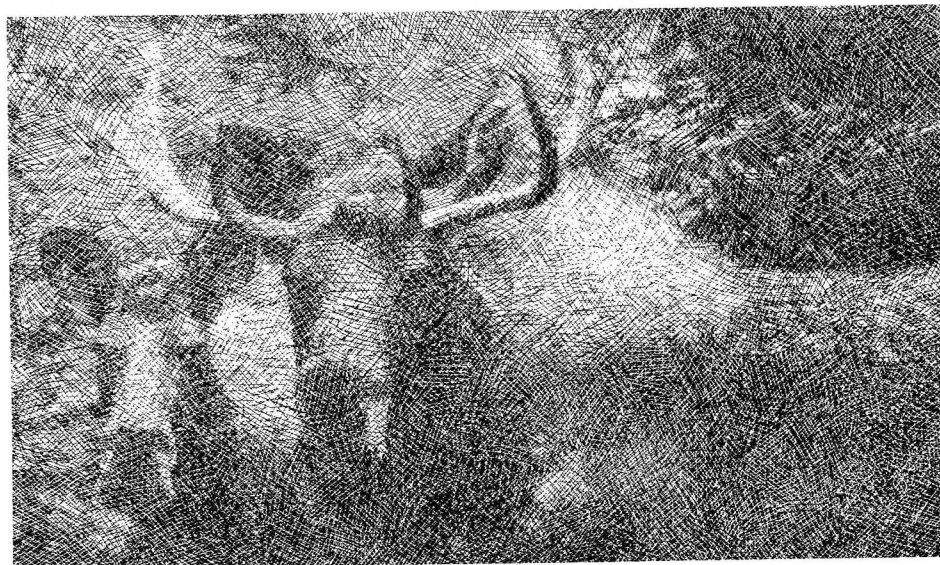
Being part of the accelerated surge of public use and industrial activity, the Range contributes sound natural resource management in a complex and changing time.

PLANS FOR THE FUTURE



PRESERVATION of natural environment while offering opportunity for public enjoyment and economic returns requires effective and progressive planning, development, and management. All values are weighed in choosing an equitable balance between activities, needs, and long-term public benefits. To fulfill these purposes, goals of the Range are to:

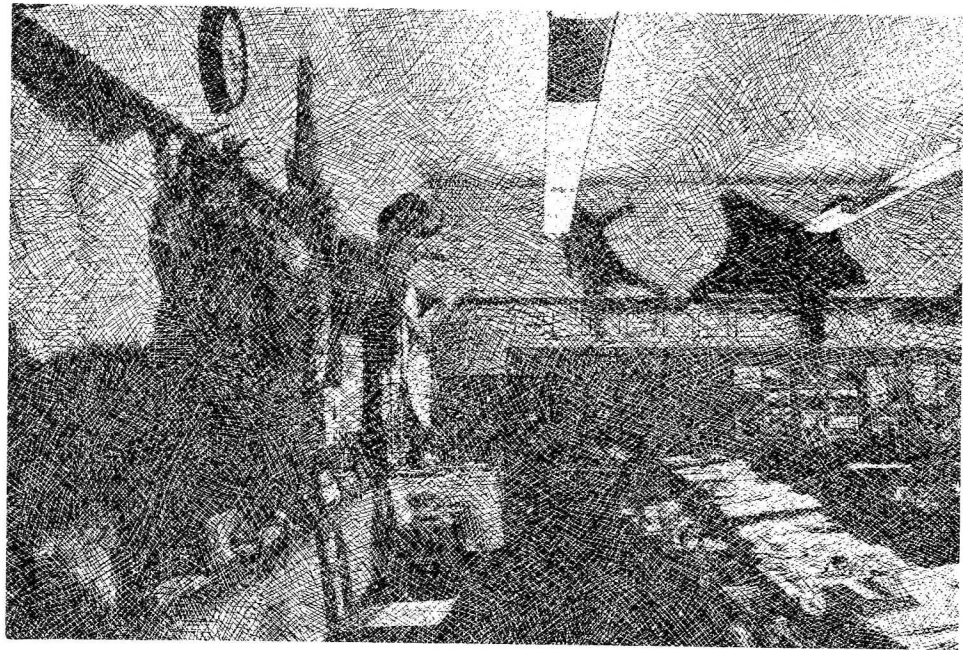
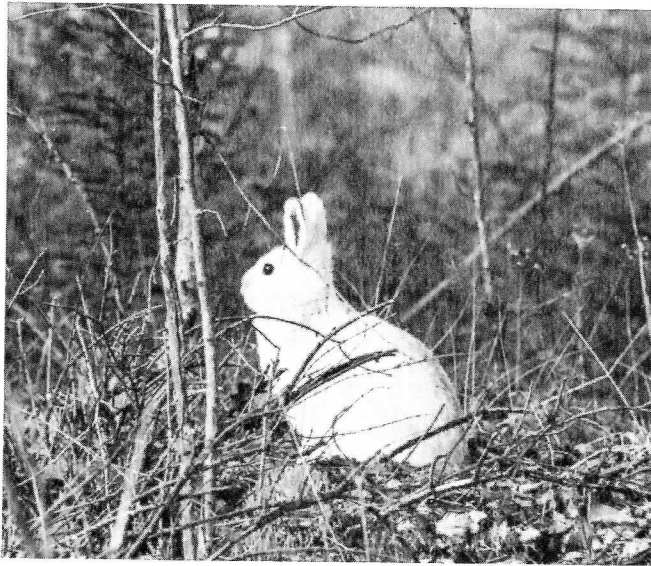
eight



- Maintain, manage, and improve selected wildlife environment in ways that will assure optimum populations.
- Preserve scenic values and major habitat types and select areas having typical wilderness characteristics.
- Protect watersheds and spawning streams basic to commercial and sport fishing.
- Protect habitat of rare or unique species.
- Maintain migratory bird habitat.

Cecil Rhode

Snowshoe hare



Kenai classroom



- Provide opportunities for high quality public recreation compatible with wildlife management objectives.
- Provide nature interpretation services furthering man's understanding of his relationship to his environment.
- Further scientific knowledge by encouraging studies of physical and operational features of the Range.
- Preserve and exhibit historic features for public interest.
- Offer opportunities for utilization of forest and petroleum resources when this will not interfere with other objectives.

These objectives chart the course for development and management of the Range.

Dall sheep



Brown bear



WILDLIFE

Representative wildlife populations will be managed in numbers consistent with capacity of the habitat. The Range is home for a wide variety of living creatures all contributing to the total environment. A prime responsibility is preservation of the type of habitats which sustained wildlife through centuries. Yet there are opportunities to maintain and even improve habitat by manipulation of vegetation and control of numbers. Naturalness will be abandoned only in real necessity.

The outstanding wildlife feature of the Range is the giant Kenai moose, largest antlered animal on earth. This magnificent beast is of special interest to sportsmen, naturalists, and tourists from many lands. The goal is to maintain habitat capable of supporting the population at its estimated present level of 9,000. Management will include hunting as a means of keeping numbers in balance with forage.

Beautiful white Dall sheep find conditions ideal in the Kenai Mountains where trophy specimens are taken. The population will be maintained at around 1,000 through protection of environment and regulation of hunting.

Mountain goat, black bears, and brown bears will continue as part of the whole environment and provide public enjoyment whether by observation, photography or harvest. The brown bear population, now low, benefits from protection of wild areas. Caribou, once abundant on the Kenai, then absent, were re-established in 1965 and are gradually increasing.

Mink, muskrats, weasels, land otters, beavers, coyotes, and lynx will be harvested except near roads and camp sites where they may be seen by visitors. Other Range programs will be generally beneficial for these species and management needs will be limited to special situations requiring controls. Occasionally wolverine and wolves are sighted.

The Range has hundreds of water areas in the vast pothole region once covered by the Cook Inlet glacier. Nesting waterfowl include the green-winged teal, pintail, Barrow's goldeneye, mallard, greater scaup, harlequin duck, American widgeon, shoveler, and Canada goose. Rare in many places, trumpeter swans, first waterfowl to arrive in the spring and last to leave in the fall, find a nesting home here. Chickaloon Flats is a concentration area for waterfowl in migration between nesting grounds and southern wintering habitat as well as a valued public hunting ground.

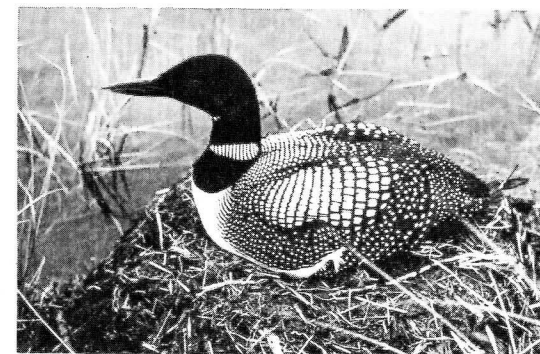
The vast lake system has one of the greater loon populations in North America. This bird and other water and shore birds are especially attractive to people camping and canoeing. Numbers are expected to remain near current levels.

Spruce grouse and all three species of ptarmigan are abundant within their required habitat. Snowshoe hares are common in the lowlands, and marmot colonies are an attractive feature of mountain hikes. Maintaining the natural environment assures perpetuation of these species and enjoyment for visitors.



Robert Belous

Mountain goat



Common loon

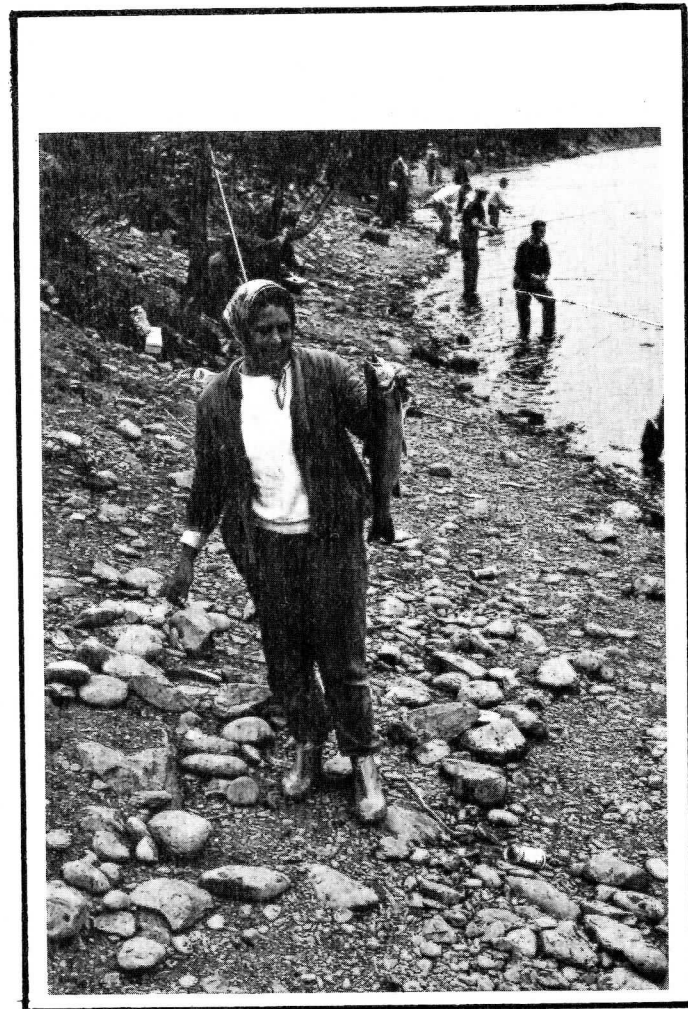
OUTDOOR RECREATION

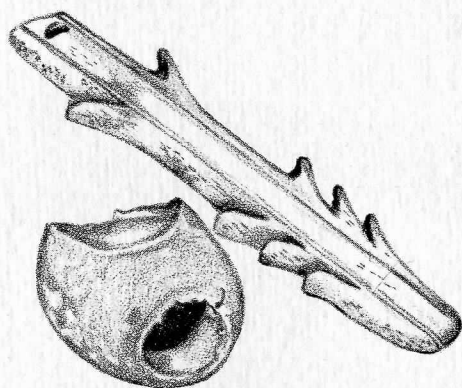
Refuge visitors expect to see and enjoy wildlife in natural settings. The purpose is to offer opportunities by which people in a varied and changing society can enjoy wildlife. Planned are paths where visitors from all walks of life can appreciate their important part of their heritage—an environment which sustains both wildlife and mankind. Affirmative responsibility to aid people in acquiring the skill, understanding, respect and rapport with the natural world is accepted. Refuge recreation will emphasize those values which caused Americans to create a National Wildlife Refuge System.

Over half a million visitors enjoy the Kenai National Moose Range each year. Limited facilities have been developed, but more are needed to serve the mushrooming public demand. By 1980 the number of visitors is expected to exceed one million. These will come from a society having widely divergent interests, leisure, and mobility.

Fourteen existing campgrounds will be expanded in suitable locations including Skilak Lake, Tustumena and Sterling Highway areas. Car campers find numerous sites, while the hiker is limited only by his energy.

Fourteen new campgrounds, boat ramps and other highway-associated developments will be distributed to avoid mass concentration. Sites are selected to provide maximum quality enjoyment with least damage to other features. In all development and operation, naturalness will be a sincere goal.





Native skills need to be preserved and utilized.

Alpine regions offer excellent opportunities for wilderness back-packing trips. This satisfying experience is open to all. A series of foot and horse-back trails including historic routes lead to remote areas. When completed, the foot and horseback trail system will comprise a 352-mile network. Campgrounds can be takeoff points or stopovers, and trails, old and planned, will improve accessibility, safety, and enjoyment. The numbers of hikers is expected to double in the next decade.

High-powered boats are common on the Kenai River; power and sail boats on major lakes. Quiet tours by canoe on small rivers and lakes offer a popular and satisfying enjoyable experience. Enlargement of the canoe system will open a region of varied plant and animal forms amid scenic beauty. The many loops offered will encourage extended canoeing trips through the wilderness lake system and excellent trout fishing area.

Lakes and streams form a vast network of outstanding sport fishing areas now providing more than 85,000 fishing days annually. The number is expected to double soon. Barren waters may be stocked when demand for fishing justifies the cost. Campgrounds, roads, and trails will make fishing more enjoyable and accessible.

Opportunities for hunting moose, Dall sheep, other big game, small game, and waterfowl are well known. More than 60,000 hunter days have been recorded in a single year. Spruce grouse are widespread and a great attraction to nimrods during the fall season. Wildlife harvest on the Range provides food, and related expenditures benefit local business. But most important, this opportunity to bag trophy class animals in an atmosphere steeped in history and tradition is the dream of many. While the number of hunters cannot increase as much as in other recreation, quality will be retained.

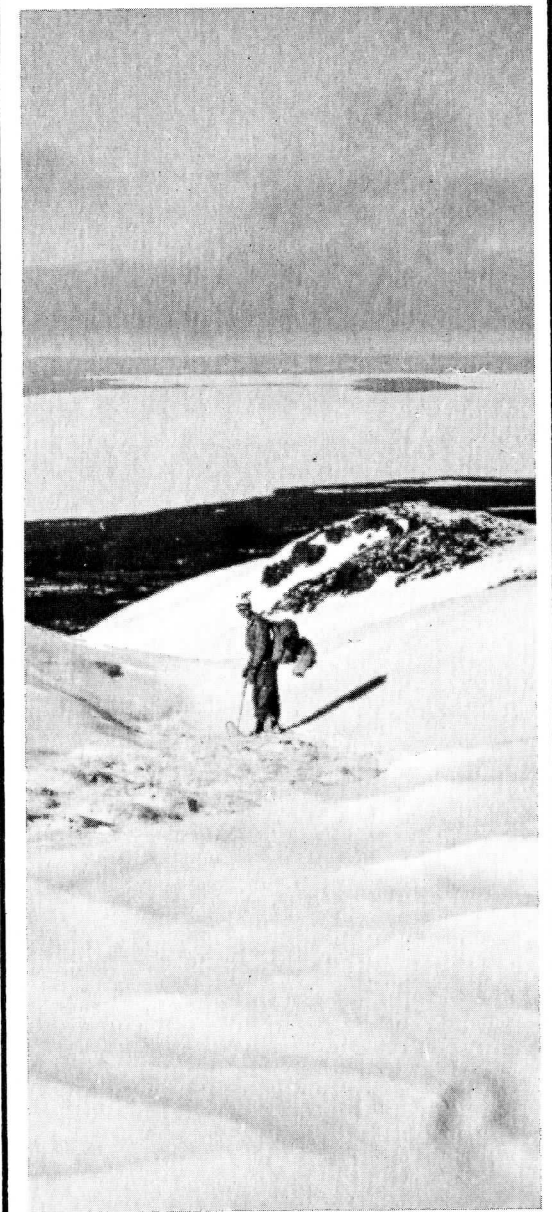


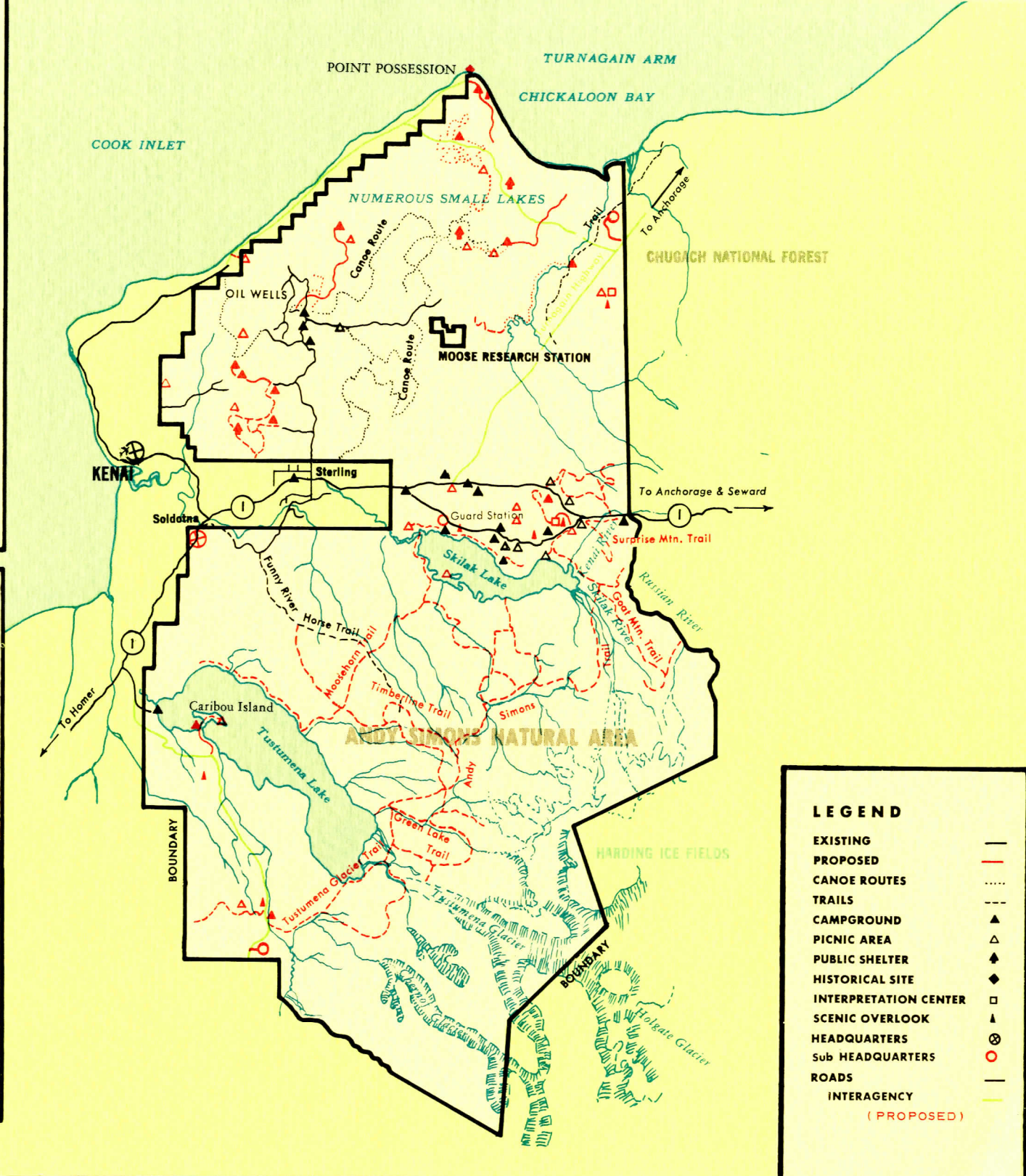
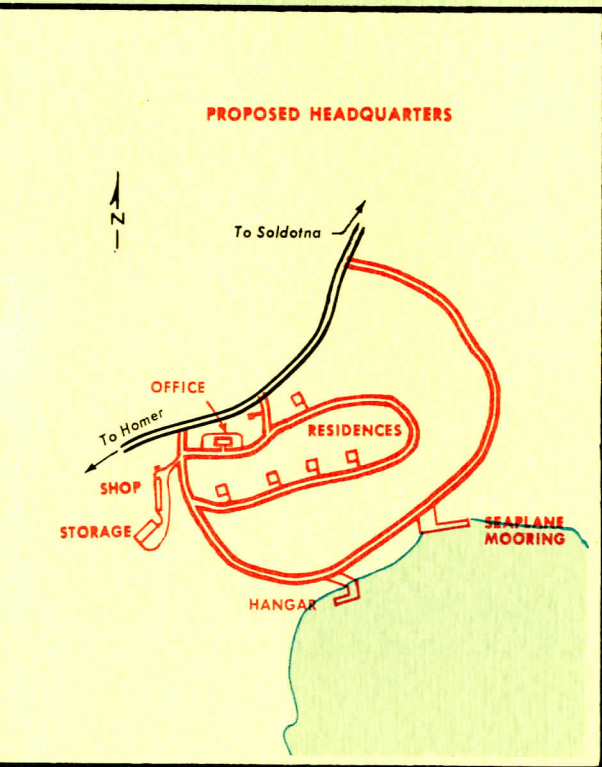
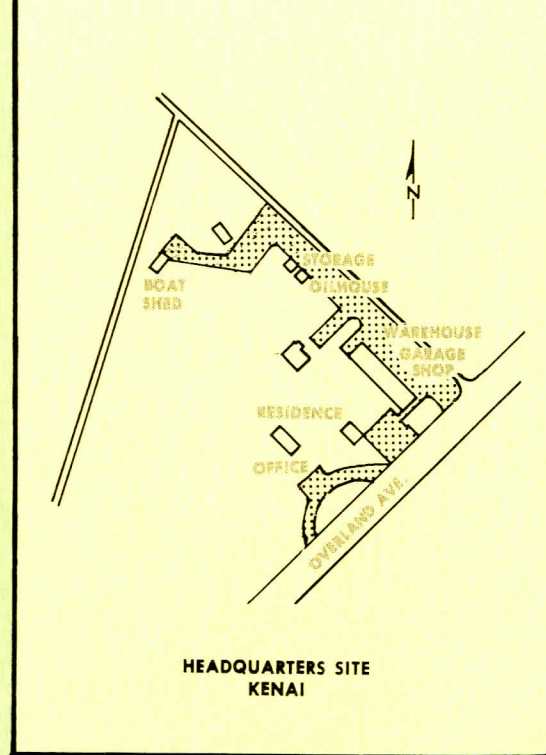
The Range is known worldwide as an area of special significance having a superb combination of wildlife, scenic, and historical values to be enjoyed as a natural inheritance. Two wildlife interpretation centers offering spectacular views, exhibits, and information will enhance the pleasure and value of visits. Interpretive displays and signs at appropriate turnouts from the highway are planned.

The Range is a living museum of native plant and animal communities continuing for use by people for generations to come. Wildlife interpretive trails will be part of the public use programs.

There are many unusual subjects of wide photographic interest. Gathering berries in the fall is a popular pastime. Cross country ski touring, increasing in popularity each year, finds ideal terrain in both mountain and lowland. Downhill skiers in western Kenai have been served many years by the Soldotna Ski Hill operated under Range permit.

The Range is large and capable of supporting heavy public use while preserving naturalness over a large part. In accord with the Wilderness Act of 1964 (Public Law 88-577), there are areas which qualify for consideration as wilderness.

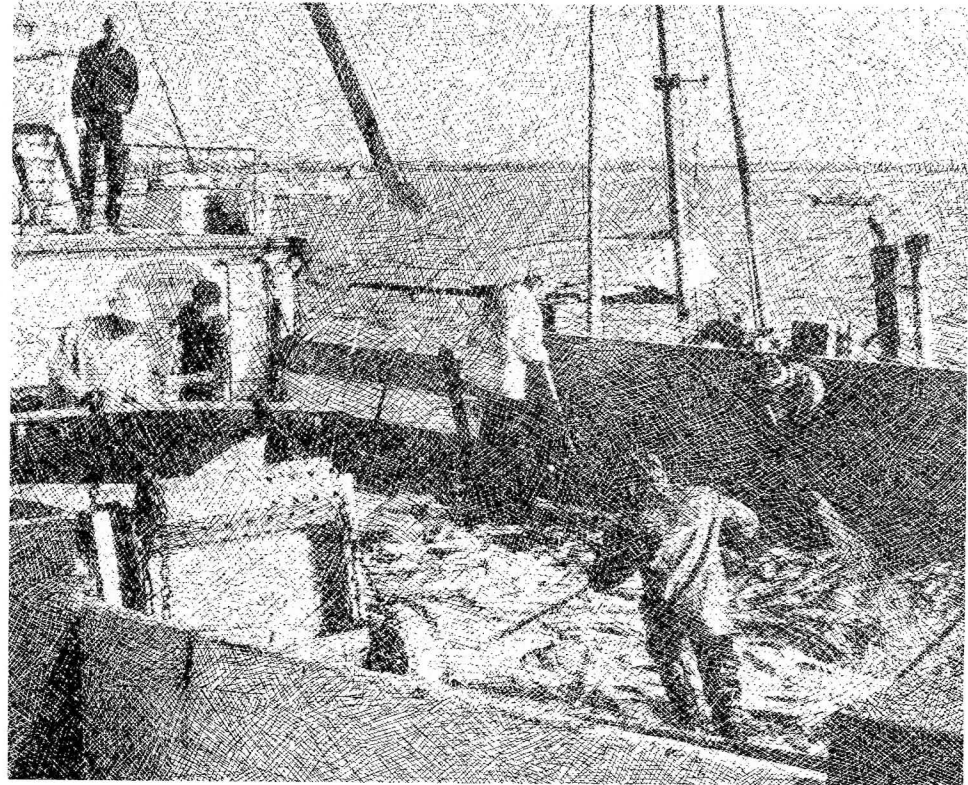




ECONOMIC USES

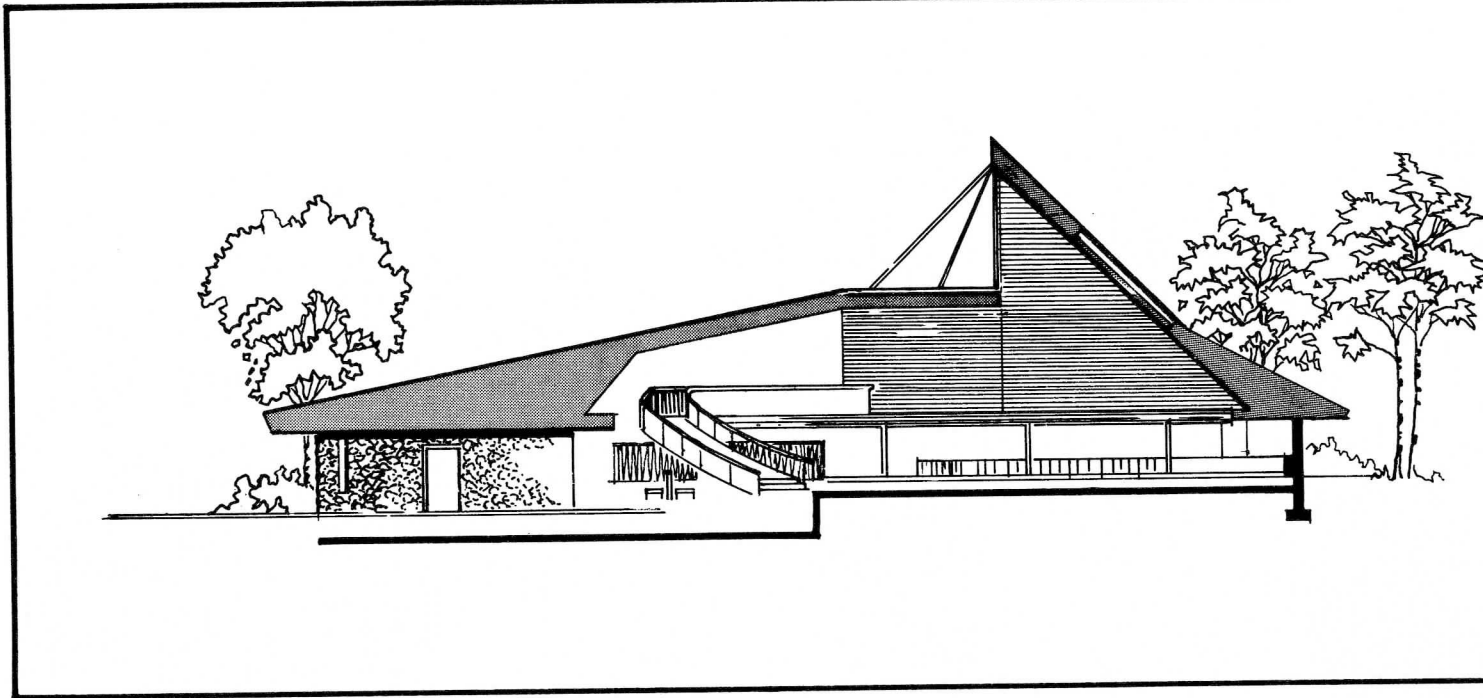
Utilization of renewable and non-renewable natural resources for economic purposes is a reasonable goal when it improves habitat for wildlife or causes little harm to other values. Studies show tourism in Alaska is becoming a leading industry. The Range, adjacent Chugach National Forest, Resurrection Bay, and Kachemak Bay areas support the tourist industry on the Kenai Peninsula. Therefore, oil and gas recovery and timbering will be managed to prevent immediate and prolonged loss to substantial visitor attractions. Resource utilization must be balanced if objectives are to serve both the national and the local interest. Recovery of petroleum deposits is an operation of direct economic impact. Roads developed in connection with economic activities can be used for recreation and administrative access. Some will involve interagency cooperative effort. Scars of fires and seismic activities need to be healed to make them ecologically acceptable.





There are potential timber harvest areas of 250,000 acres of spruce, aspen, cottonwood, and birch. A forest products industry would produce income and improve wildlife habitat. Timber removal is followed by regrowth of hardwoods, which are preferred moose browse.

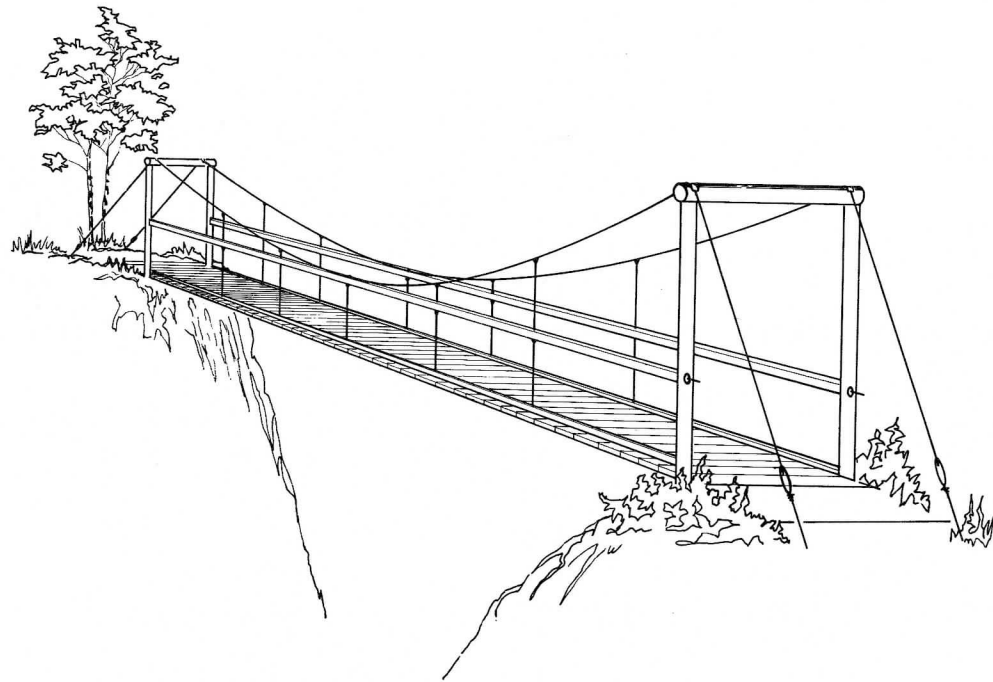
Several million dollars of the Cook Inlet salmon pack are attributed directly to spawning grounds maintained by two major drainage systems of the Range. Other waters are vast nursery basins used by young salmon before they move into salt water.



PLANNED DEVELOPMENT AND OPERATION



RINCIPAL values of the Range relate to its natural environment. Yet certain types of carefully planned development are desirable and appropriate. Wintering areas for moose need to be managed to provide a continuing food source of young hardwoods which these animals depend on. In addition to timber harvest, other artificial means are available tools. Development of recreational and administrative facilities will improve the quality of outdoor experiences and make administration more efficient. Developments and protection of environment are relatively costly in Alaska, but the returns too are substantial. Design and materials used will be appropriate for the purposes and locations.

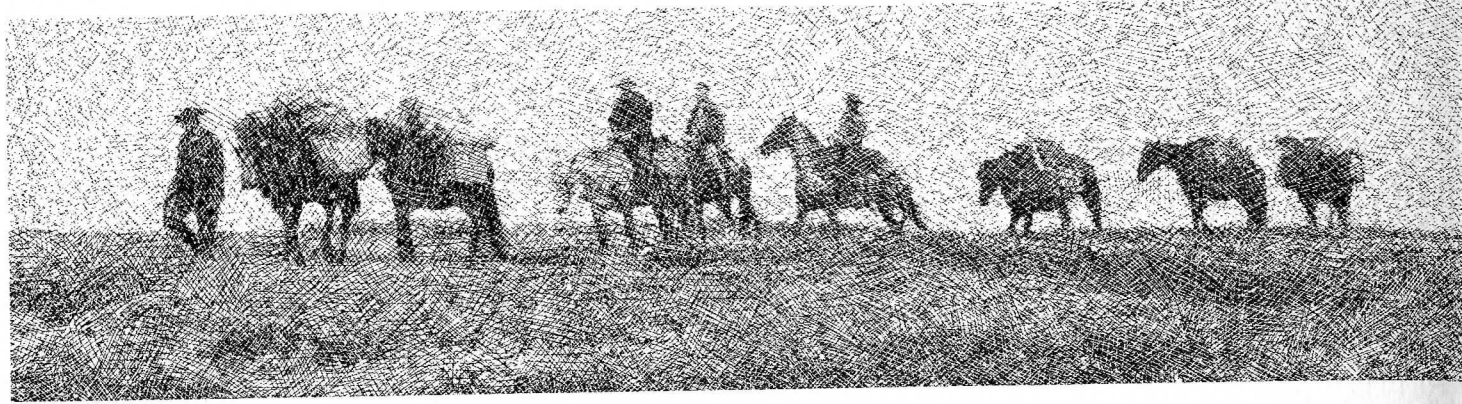


FACILITIES FOR ADMINISTRATION

New construction planned includes administration buildings at Headquarters Lake near Soldotna. Personnel will be closer to the Range; there will be space for supplies and equipment; and public needs will be served more effectively. Much work of the Range involves use of float planes. Moorage and storage at the new site will improve accessibility and economy of operation.

Fire protection and field patrol requirements are now met in part from the Skilak Guard Station. Two new field stations having similar purposes will offer visitor information and a few conveniences as well.

Some approach roads will be added to the present system to extend public access and improve operations.

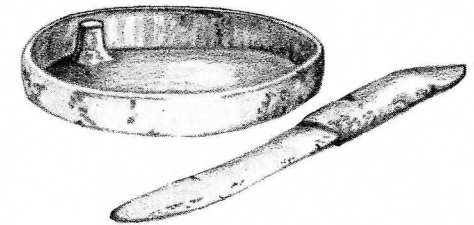


RECREATION

Protection of natural environment while encouraging public use requires careful attention to all values and needs. Improvement of existing campgrounds and construction of new areas will provide up to 600 camping units. New picnic sites are included.

Nearly 500 miles of canoe trails, foot trails, and horse trails are planned. Several scenic viewpoints and scenic spur roads will present opportunities for superior outdoor experiences. Trail shelters will allow winter travel by snowshoes or skis over much of the Range.

The two wildlife interpretive centers—one at Skelakh Mountain and the other at Trapper Joe Lake—will offer dramatic scenic views, information, and direction. Centers will include space for exhibits, an auditorium, storage and an attendant's office. Design of all development will retain naturalness to the extent possible using materials complementing and blending with the sites.



These are people programs to be made more meaningful through use of native skills. Wildlife interpretive programs will feature natural themes, and native craftsmen at work would be a popular feature. Native guides and interpreters will add authenticity to many recreational activities.



Wildlife observatories are planned for Chickaloon Flats waterfowl area and Caribou Hills moose units.

Several suspension-type foot bridges will provide a way into "back country."

Wilderness character of the surroundings, comparative isolation, and cold weather will be considered in all development.

ESTIMATED COSTS



WILDLIFE and the great outdoors no longer can be considered a free inheritance. They must now be measured by cost and return.

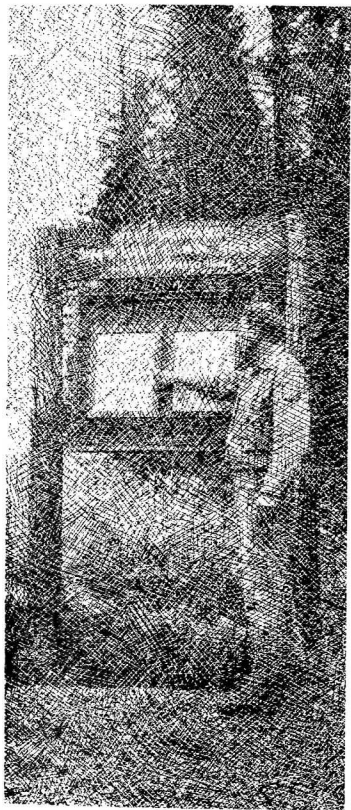
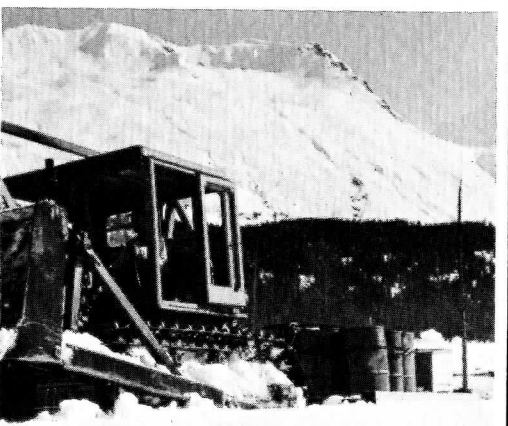
In the quest for funds, all must be mindful of the very substantial values of the Range and its present and potential contributions to a habitable environment. Activities will increase as development progresses. This will be reflected in progressively higher operation costs.

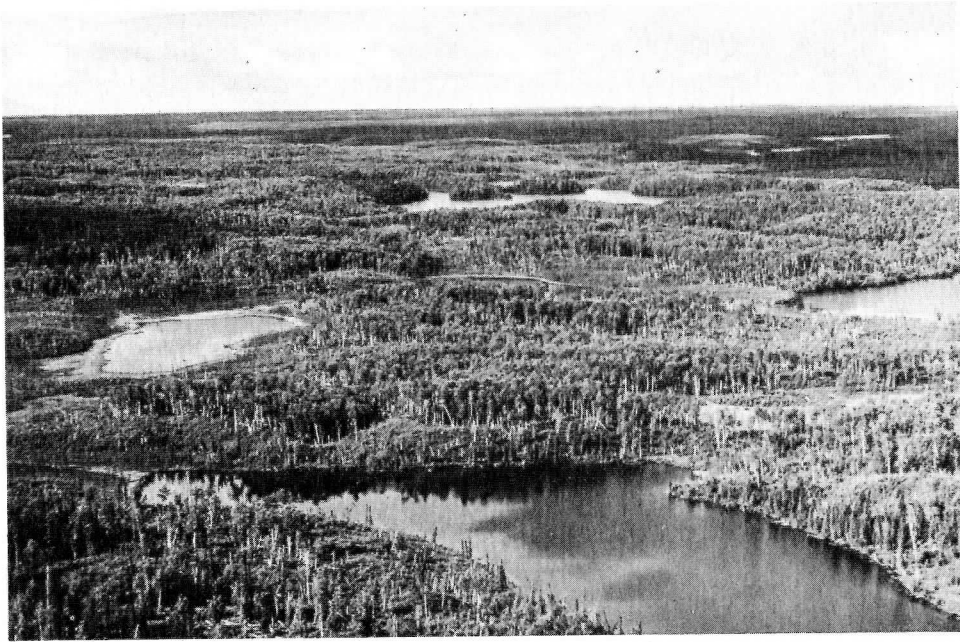
DEVELOPMENT

PLANNING (non-add)	\$ 926,800
BUILDINGS	1,053,000
UTILITIES	72,000
ROADS (32 miles)	957,000
FENCING AND POSTING	11,000
SIGNS	30,000
RECREATION	
Trails (352 miles)	
and bridges (15)	264,000
Bridges, foot (4)	200,000
Campgrounds, additions	494,000
Campgrounds, proposed	589,000
Picnic areas, proposed (24)	144,000
Canoe routes (101 miles)	38,000
Shelters (9)	27,000
Scenic overlooks (7)	90,000
Wildlife interpretive centers (2)	700,000
Historical site development	8,000
Wildlife lookout stations	50,000
Estimated Development Cost	<u>\$4,727,000</u>

OPERATIONS

	Present	After Development
Habitat Management	\$ 27,000	\$175,000
Wildlife Population		
Management	51,100	200,000
Public Use Management	57,900	250,000
Planning	5,900	15,000
Soil and Moisture	12,000	50,000
Expenses for Sales	—0—	50,000
Estimated		
Operations Cost	<u>\$153,900</u>	<u>\$740,000</u>





BENEFITS



ENAI National Moose Range combines natural values in a beautiful environment for enjoyment by people. It is a tribute to responsible men who saw beyond the allure of immediate exploitation. Tangible benefits defy full evaluation.

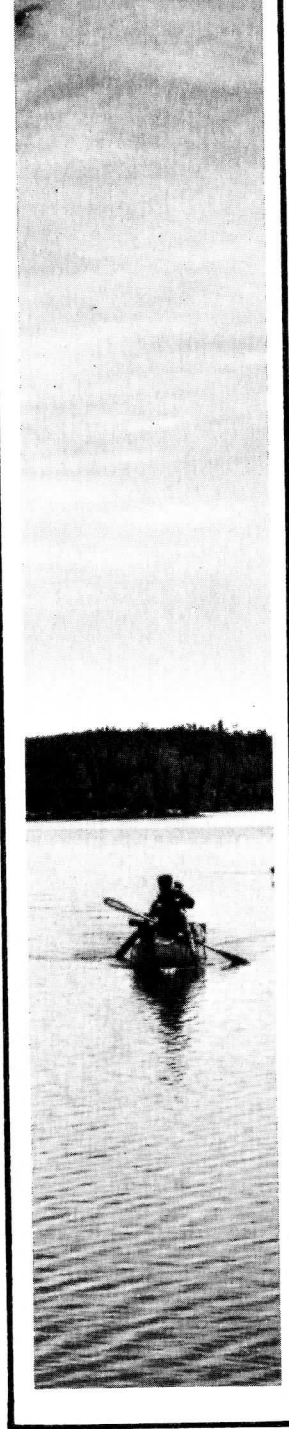
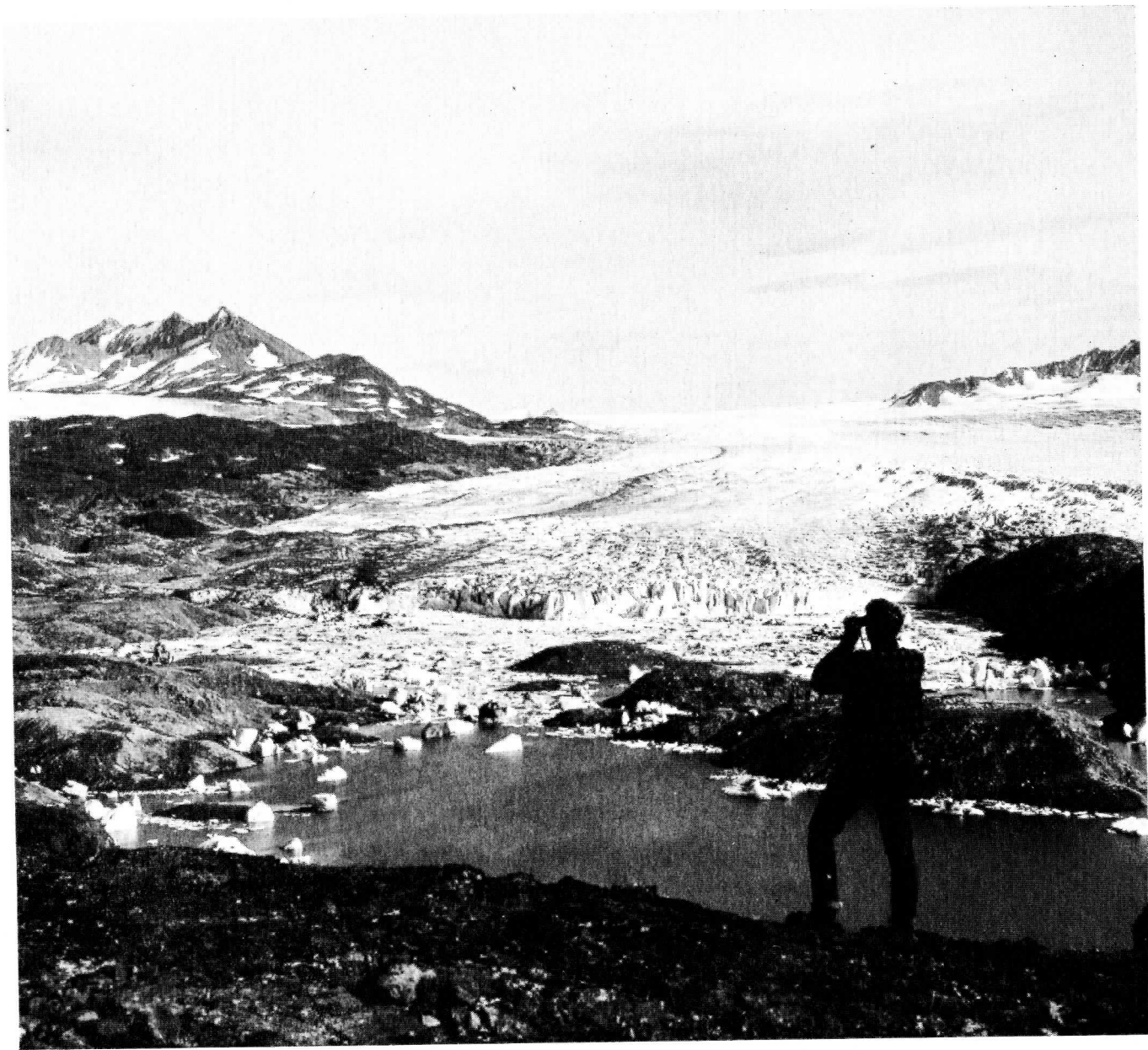
Importance of salmon spawned on the Range is much greater than the \$5 million direct return. Total value of the potential timber harvest includes more than just the price of lumber. Estimated worth of the wildlife harvest for food alone exceeds \$200,000 a year.



Andrew Simons

Nearly 500,000 people now visit this national wildlife refuge each year. An independent study indicates the number of visitors will multiply by 1980 and may spend up to \$4.9 million annually during their visits here. It places a long-term value of over \$500 million on the refuge.

But natural beauty, excitement of seeing a giant moose in native habitat, or the simple confidence that this part of our environment will continue are benefits beyond computation. More than direct monetary returns are the greater values of outdoor experiences enjoyed by people now and in the future.

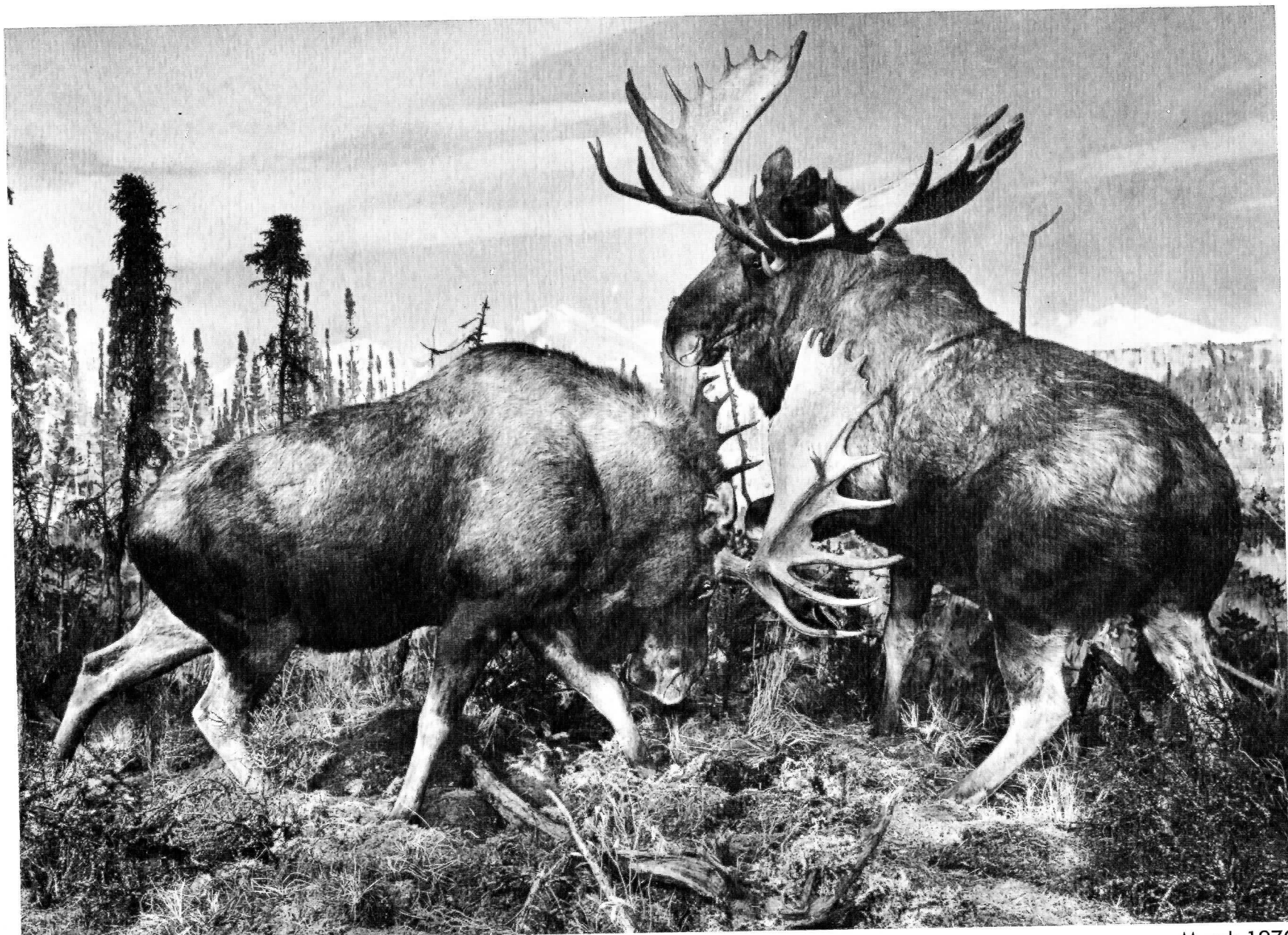




SUMMARY



ENAI National Moose Range is a specialized refuge of 1¾ million acres established to preserve representative habitat for typical native wildlife species. All live in a setting of striking grandeur. The Range typifies Alaska. Rich in history, scenery, wildlife, petroleum, timber, and recreational opportunity, it shares Alaska's "growing pains" in a time of drastic economic and social change. Opportunity for utilization of these values in situations and manner planned for least damage to natural features is present in generous abundance. Use of the very substantial economic resources will be balanced with the primary goal of preserving wildlife in natural surroundings for enjoyment by people. This is the way to highest and lasting benefit to mankind.



Courtesy of American Museum of Natural History

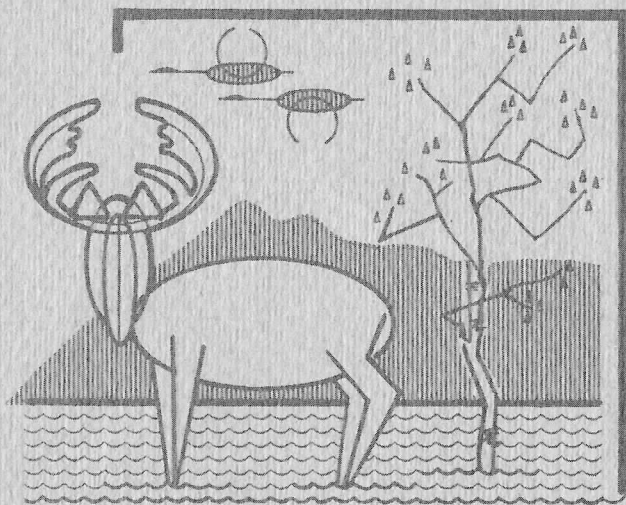
March 1970



As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources."

The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.

This administrative plan proposed and prepared by the Bureau of Sport Fisheries and Wildlife's Western Region, Portland, Oregon, supports and furthers the high objectives of the Department of the Interior for the wise development, management, and use of the lands, waters, and other resources of the National Wildlife Refuge System.



UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE