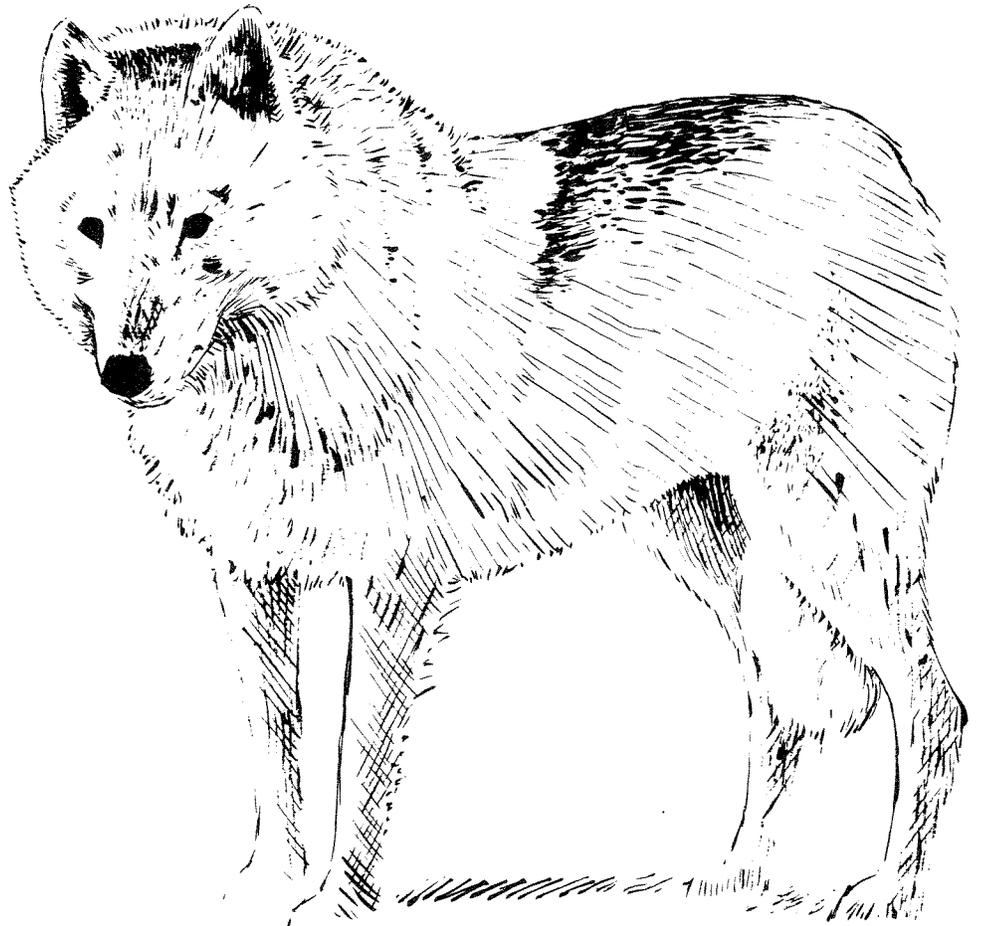


THE REGION AND PRESERVE



- Chapter I Introduction - This section explains why the GMP is being done, what the changes are in the text from the March 1985 Draft General Management Plan and in the December 1985 Revised Draft General Management Plan, what the management objectives are for the preserve, and what some of the planning issues and management concerns are for Noatak National Preserve.
- CHAPTER II THE REGION AND PRESERVE - THIS SECTION DESCRIBES THE NORTHWEST REGION OF ALASKA IN GENERAL AND THE NOATAK NATIONAL PRESERVE SPECIFICALLY.
- Chapter III General Management Plan - The management strategies for natural and cultural resources, public uses, and preserve operations are set forth in this section.
- Chapter IV Land Protection Plan - This section proposes options and priorities for protection of federal lands within Noatak National Preserve from activities that might take place on private lands within or adjacent to the preserve, and proposes two possible boundary changes.
- Chapter V Wilderness Suitability Review - The existing wilderness management and analysis of suitability of nonwilderness federal land within the Noatak National Preserve for potential inclusion into the national wilderness preservation system are described in this section.

REGIONAL SETTING

ACCESS

Access to northwest Alaska is primarily by air; it cannot be reached by road. Regularly scheduled flights are available from Anchorage and Fairbanks to Kotzebue, and from Fairbanks to Ambler, Shungnak, and Bettles. Connecting flights are scheduled from Kotzebue to all of the other northwest Alaska villages.

Other means of intraregional travel include private and charter aircraft, motorboats, snowmachines, and dogsleds. One can boat from Kotzebue up the Noatak River to the village of Noatak and beyond. Overland winter trails exist between villages and other destination points in the region and are traveled by dogsled and snowmachine. All forms of travel are weather dependent.

CLIMATE

The climate of the northwest region is characterized by long, cold winters and cool, sometimes wet summers. While the coastal area experiences a predominantly maritime climate, the interior area, which includes the Noatak and Kobuk river drainages, experiences a more continental climate, with greater seasonal variations in temperatures and precipitation.

Summer temperatures for the northwest region range from the low 30s to the high 60s (degrees Fahrenheit °F). Winter temperatures for the region range between 0 and the minus 20s.

The coastal areas typically receive regular high winds. Mean monthly winds at Kotzebue are above 10 knots from September through April and blow from the east. Mean wind speeds are comparable during the summer months (average 10.5 knots) but are from the west. August and September are the windiest months, while the most extreme winds are associated with winter storms. Wind speeds are somewhat less in the interior than at the coast.

During the winter months, windchill temperatures have a major influence on biological systems in the region and require that extreme precautions be taken by humans outdoors. An air temperature of -20°F with a wind speed of 23 mph is experienced as -71°F, which can freeze exposed flesh within 30 seconds.

Coastal and lower elevation areas in the southwest portion of the region receive approximately 10 inches of precipitation annually. Higher inland areas to the east receive 25 to 30 inches of moisture. Rainfall usually increases as the summer months progress, usually peaking in August. Annual snowfall ranges from 45 inches in the southwest to more than 100 inches at higher elevations in the east.

Freeze-up of surface waters generally occurs from early to mid October and breakup occurs in mid to late May. At Kotzebue freeze-up usually occurs about October 23 and breakup about May 31.

LANDOWNERSHIP

Noatak River shares a boundary with Gates of the Arctic National Park and Preserve on the east and Kobuk Valley National Park on the south. Both areas are managed by the National Park Service. Along the southern boundary, from east to west, are a large block of state land, Kobuk Valley National Park, and the Squirrel River basin, which is administered by the Bureau of Land Management (BLM).

Most of the lands adjacent to the southwestern edge of the preserve are owned or selected by the NANA Regional Corporation and/or Noatak Village Corporation. Cape Krusenstern National Monument is about 20 miles west of the preserve at its nearest point. West and northwest of the preserve are large blocks of state-selected land. The BLM manages a north-south block of land (which also adjoins Noatak's western boundary) and the National Petroleum Reserve-Alaska to the north.

The North Slope Borough's southern boundary bisects the Noatak basin from east to west along the 68th parallel.

LAND USES

Regional land uses in northwest Alaska include subsistence, recreation, sport hunting and fishing, trapping, seasonal residences, resource exploration, and travel. In the scattered villages, lands are devoted to residential and commercial uses. There are isolated areas of ongoing or proposed intensive mineral development in the region, such as the Red Dog mining area west of the preserve and the Ambler mining district to the southeast. Placer gold mining takes place on a few streams outside of the preserve. There is also oil and gas exploration in the National Petroleum Reserve-Alaska, but the present active leases are near the Beaufort Sea more than 200 air miles north of the preserve. The Alaska Department of Fish and Game manages a fish hatchery on the Noatak River about halfway between Kotzebue and the village of Noatak. See also the discussion of external conditions in chapter IV.

POPULATION

Northwest Alaska, with approximately 38,000 square miles, hosts 11 communities with an estimated 1983 population of 6,043. Of these residents about 85 percent are native, primarily Inupiat Eskimo, and 14 percent are Caucasian. About 40 percent of the region's residents live in Kotzebue.

Population figures for the northwest communities are shown in table 1.

Table 1. Northwest Alaska Population, 1970-1983

	<u>1970(a)</u>	<u>1980(a)</u>	<u>Percent Change 1970-1980</u>	<u>1983(b)</u>	<u>Percent Change 1980-1983</u>
State	302,583	401,851	+32.8	--	--
Region Total (Kobuk Census Area)	4,048	4,831	+18.4	--	--
Ambler	176	192	+9.1	281	+46.4
Buckland	104	177	+70.2	219	+23.7
Deering	85	150	+76.5	158	+5.3
Kiana	278	345	+24.1	363	+5.2
Kivalina	188	241	+28.2	272	+12.9
Kobuk	165	62	-62.4	86	+38.7
Kotzebue	1,696	2,054	+21.1	2981	+45.1
Noatak	293	273	-6.8	273(c)	0
Noorvik	462	492	+6.5	517	+5.1
Selawik	429	361	-15.8	601	+66.5
Shungnak	165	202	+22.4	292	+44.6

- (a) 1980 Census of Population, Vol. 1, Chapter A, Part 3, Alaska (PC80-1-A3). U.S. Department of Commerce, Bureau of the Census, November 1981.
- (b) from Regional Education Attendance Areas Map, Alaska Department of Community and Regional Affairs, January 1984.
- (c) Alaska Department of Community and Regional Affairs, 1984 personal communication, revenue-sharing estimates from 1982.

The process of aggregation into villages is recent in the history of this region. In 1910 less than 50 percent of the population lived in villages. By 1920 the 50 percent had increased to 75 percent, and by 1950 all but four percent of the region's population lived in established villages (Darbyshire & Associates 1983). Within the region mobility between villages is still characteristic today as is migration to Kotzebue.

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

ECONOMY

The economies of the NANA and Bering Straits regions may be characterized as a mixture of subsistence, wage employment and other forms of income. Nome and Kotzebue serve as regional centers for government and as service and distribution centers. Rural residents rely extensively on subsistence activities to meet dietary and cultural needs. Subsistence is defined in ANILCA section 803 as

the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.

Preservation of a subsistence lifestyle is a primary goal of the people of northwest Alaska (Dames & Moore 1983).

Although participation in the cash economy has substantially increased over the last decade and is expected to continue to increase in the future, this does not mean that subsistence efforts will necessarily decline. A 1979 survey of 311 native households in the NANA region revealed how subsistence is still an important part of the local economy (Dames & Moore 1983, pp. 6-16). When residents were asked how much of their food they obtain from subsistence, the responses were as follows: most--35 percent; one-half--24 percent; some--35 percent; and none--six percent. The survey also showed that as income increased, no less time was spent on subsistence activities.

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

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

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

Income and employment rates for northwest Alaska are well below those of the state, and income levels of the outlying villages are lower than those of Kotzebue. In 1980 the average per capita income for the region was \$7,225,

whereas statewide it was \$12,633. The average annual unemployment rate for the region (Kobuk Division) in 1981 was 10.5 percent (U.S. Department of Labor 1982) compared to a state rate of 9.4 percent (Dames & Moore 1983).

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

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

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

CULTURAL RESOURCES

Northwest Alaska is not the untrammled, trackless wilderness that many people perceive it to be. Humans have continuously explored and lived in the region and utilized its resources for more than 12,500 years. It has been well established (Hopkins 1967) that the great continental glaciers of the last ice age locked up vast amounts of water as ice. So much water was frozen that sea levels were lowered creating between Alaska and Siberia a large land mass called the Bering Land Bridge or Beringia. This land mass, more than 1,000 miles wide at one point, was above sea level from 25,000 to 14,000 years ago. Even though the rising seas broke through this land mass about 14,000 years ago (Anderson 1981), the present sea levels were not reached until 4,500 years ago.

Even today the Bering Strait, about 90 miles wide, is easily crossed (especially in winter when frozen), and is not really a barrier to human passage. It was across the Beringian Land Bridge and later across the strait itself that cultural groups entered northwest Alaska. As successive waves of immigrants arrived in the Arctic, earlier immigrants moved southward in a process that eventually brought people to the tip of South America. Other groups stayed to explore, settle, and adapt to Alaska and the Arctic. The prehistoric record of northwest Alaska documents part of this process, although the prehistory of much of the area has not been thoroughly investigated. Two key sites, Onion Portage and Cape Krusenstern, provide much of the known information about the cultural sequence in the interior Arctic and northwest Alaska.

The archeological record reveals a complex sequence of cultural development and adaptation in northwest Alaska (see Cultural Sequence in Northwest Alaska map). The earliest people (Paleo-Arctic culture) arrived in the region 12,500 or more years ago. There are few traces of their presence. It is known that they came from northern Asia and were nomadic hunters and gatherers, living off the land and traveling in small groups. Unlike many later groups, these early people did not depend on sea mammal hunting for their subsistence, but depended on caribou and other land animals.

The next wave of people apparently moved into northwest Alaska from the forested regions to the south and east. These Northern Archaic people arrived about 6,000 years ago with a distinctly different material culture. They apparently depended on hunting caribou and fishing in rivers for their livelihood, staying inland and near the trees most of the time. Because of their interior origin many archeologists believe these people represent an Indian culture rather than an Eskimo culture.

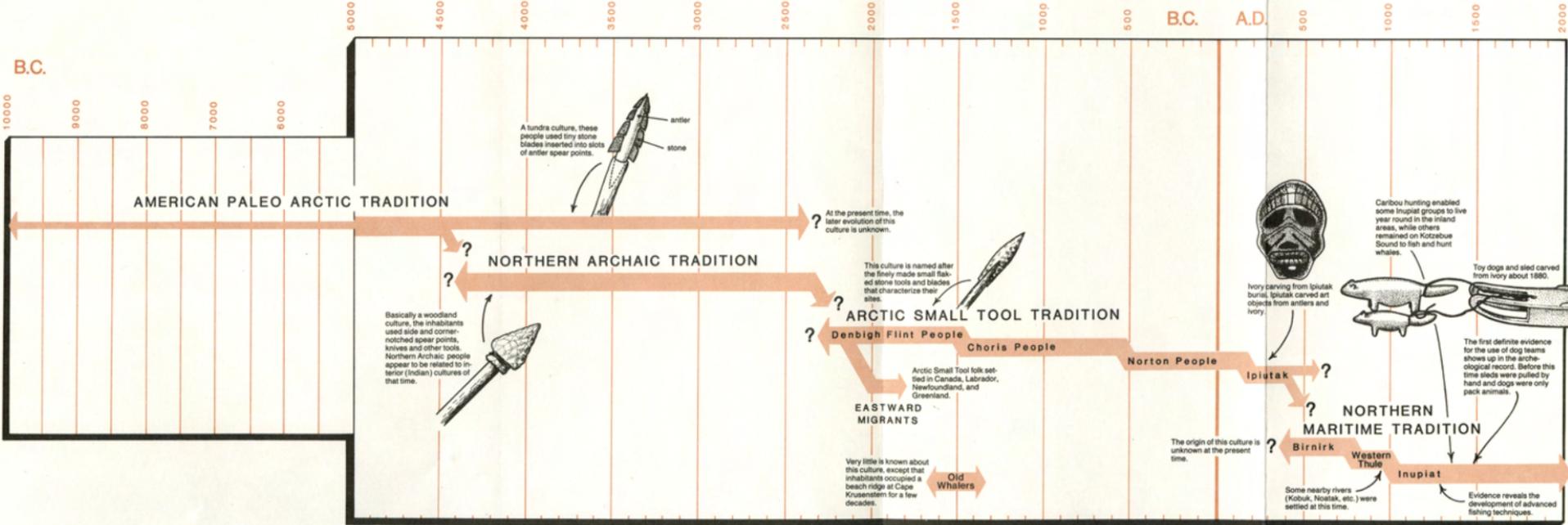
About 4,200 years ago Arctic-oriented cultures again appeared in northwest Alaska. Either a new wave of people or new ideas came into Alaska from Asia. This Arctic Small-Tool tradition, so named because of their finely made stone tools, was a dynamic one, adapting to efficiently use a wide range of arctic resources. The earliest culture of this tradition spread as far south as Bristol Bay and as far east as Greenland, occupying interior and coastal areas. These people moved throughout the Arctic over a long timespan (the tradition lasted over 1,000 years). They were adept at the use of both coastal and interior resources. Major settlements have been found near coastal areas such as along the lower Noatak and Kobuk rivers.

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

About 1,600 years ago the new Northern Maritime tradition appeared. It is not known whether these people came from Asia or developed from the earlier arctic peoples in Alaska. Whatever their origins, they developed the full Eskimo lifestyle of using marine resources such as seal, walrus, and whale as well as interior resources such as caribou and musk-oxen. These Northern Maritime tradition people developed from the Birnirk culture into the Western Thule culture, which spread all across the Arctic from Norton Sound to Greenland. From the Western Thule culture came the modern Inupiat culture, which is identifiable in the archeological record around the year 1200. The Inupiat used, and may have developed, advanced fishing and hunting techniques such as the drag float and the sinew-backed bow. The first evidence for the use of dogs to pull sleds dates to about 1500. Before this, sleds were pulled by people and dogs were used as pack animals. Some people moved inland full time (for example the Arctic Woodland culture on the Kobuk River)

CULTURAL SEQUENCE IN NORTHWEST ALASKA

United States Department of the Interior
National Park Service



(Adapted from Anderson, 1981: 56)

and developed specialized lifestyles. Extensive trading networks and communications were maintained over northwest Alaska.

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

In the late 1800s contacts with the outside world increased substantially. The fur trade expanded in economic importance and the use of sophisticated dogsledding methods became common. These concurrent developments provided greater mobility possibly resulting in people spreading out over larger areas in winter and leading to the abandonment of many of the larger villages. It was not until schools, post offices, and trading posts were set up around 1900 that large villages were again established (Anderson 1981, p. 57).