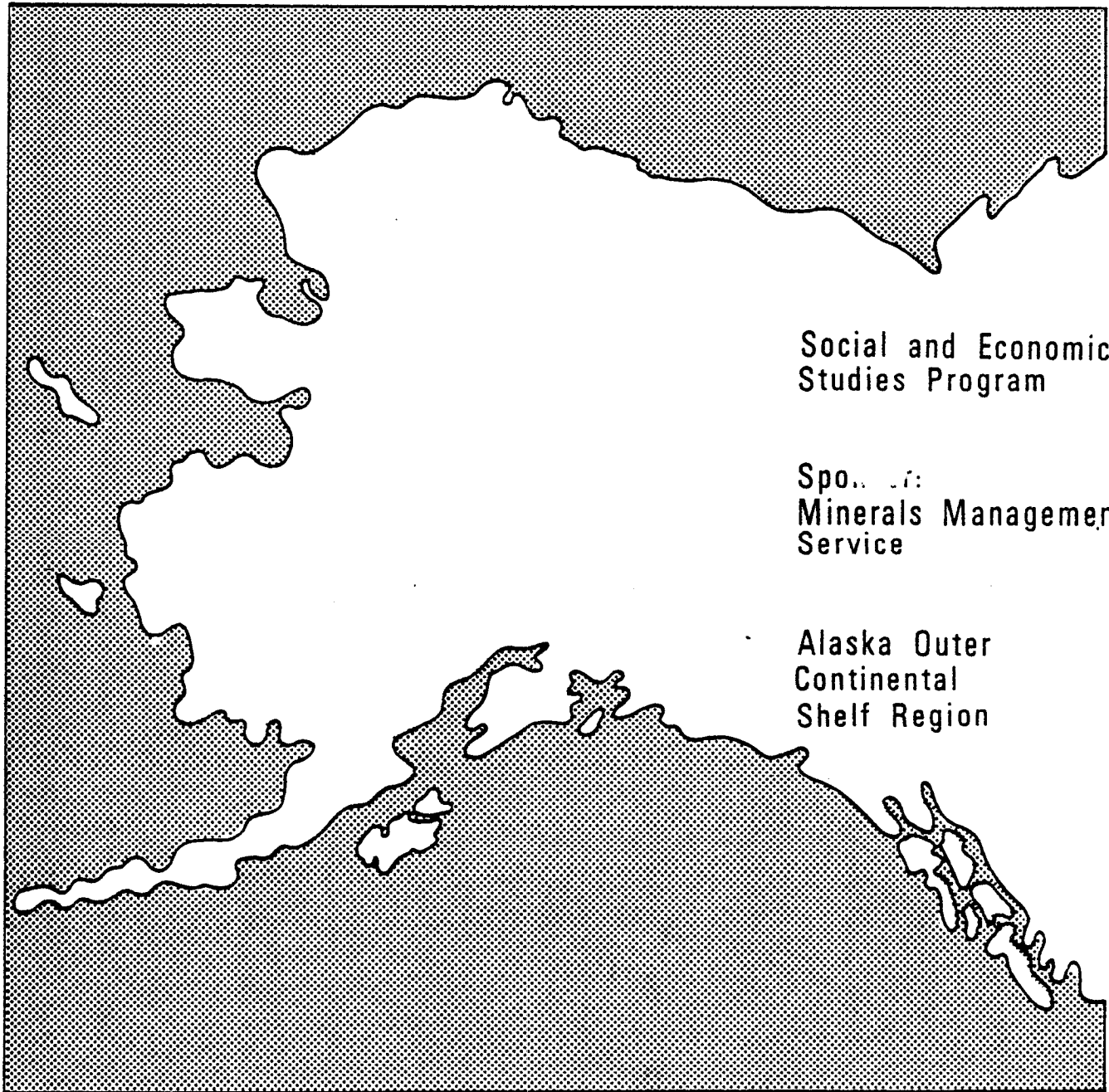


Technical Report
Number 67



Social and Economic
Studies Program

Sponsored by:
Minerals Management
Service

Alaska Outer
Continental
Shelf Region

**NORTH ALEUTIAN SHELF SOCIOCULTURAL
SYSTEMS BASELINE ANALYSIS**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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ALASKA OCS SOCIOECONOMIC STUDIES PROGRAM

NORTH ALEUTIAN SHELF BASIN
SOCIOCULTURAL SYSTEMS ANALYSIS

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Prepared for

MINERALS MANAGEMENT SERVICE

ALASKA OUTER CONTINENTAL SHELF OFFICE

November 1983

NOTICE

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Alaska OCS Socioeconomic Studies Program
North Aleutian Shelf Basin
Sociocultural Systems Analysis

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November 1983

Abstract

This report is a base line statement of the sociocultural systems of the Bristol Bay Region in 1980. It is one in a series of integrated reports that address different physical, biological, and social environments of the region. These reports collectively form background data for an environmental impact statement on potential petroleum development in the North Aleutian Shelf.

Chapters I and II present the Introduction and Methodology. Chapters III and IV discuss the Prehistory and History of the Region. Chapter V is an Overview of the Communities of the Region, clustered together in seven subregions. The similarities that align these communities into subregions are discussed, as well as the factors that differentiate them from each other. Not all communities are described. Rather, selected communities were chosen for fieldwork and presented as representatives of the subregions as a whole. Data on these communities include information on community infrastructure, economics, and subsistence patterns. Chapters VI and VII address the topics of Land and Politics at the regional level with village examples. Chapter VIII describes the Social Health Systems in the Region and the final chapter presents a Summary and suggests possible trends that may be emerging in the Region.

Even before European and Euro-American contact and settlement, the inhabitants of Bristol Bay experienced changes which are revealed in the Archaeological record. Russian settlement and fur trade interests introduced new material

goods, concepts of social organization, and ideas into the Region that influenced the culture of the indigenous inhabitants. European diseases also were introduced that reached epidemic proportions and devastated the population.

Commercial salmon fishing began in the Region in the 1880s. No other factor has had such major effect on the sociocultural patterns of the Region than this industry. It continues to dominate the Region. The yearly price of fish, management practices, limited entry, the 200 mile limit, vessel length, and several other factors influencing this industry are quite instrumental in affecting overall regional economic and sociocultural patterns.

In addition to the salmon fishery, the Bristol Bay Region also is rich in other natural resources which are attracting the attention of both developers and recreationalists.

The individual communities were autonomous entities prior to white settlement. Once the fish canneries were established, they tended to overshadow and dominate the nearby Native communities. However, because of economic developments in the fishing sector, ANCSA, State and Federal support programs, and a self-conscious awareness of Native cultural traditions, these communities are regaining their autonomy. A major aspect of this movement will be an aggressive claim of subsistence rights. Subsistence currently plays a vital role in the nutritional and sociocultural systems of the area. Increased development and the influx of more non-local hunters and fishermen will conflict with traditional subsistence activities. Opposition has been expressed toward any development or activity that will adversely affect subsistence activities.

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I. INTRODUCTION

Context of Study

DESCRIPTION OF STUDY

The purpose of this study is to describe the sociocultural systems of the Bristol Bay area. The Bristol Bay Area is geographically defined by the 30 communities within the boundaries of the Bristol Bay Native Corporation (Fig. 1; hereinafter referred to as BBNC). The study provides a baseline in order to assess potential impacts to the sociocultural systems of the Bristol Bay communities that may result from proposed petroleum lease sales in the North Aleutian Shelf Basin. The lease sale (Number 92), originally scheduled for October of 1983 and now scheduled for April 1985, is part of the Outer Continental Shelf (OCS) petroleum development program.

Potential impact areas are bounded on the northwest by the village of Togiak, across the northern top of the region by the villages of Aleknagik, Koliganek and Nondalton, reaching the northeasternmost village of Pedro Bay. The study region incorporates all of the villages south of these villages down the Alaska Peninsula to Port Heiden on the Bristol Bay side of the Peninsula and Ivanof Bay on the Pacific side of the Peninsula. One portion of the Peninsula area is not within the area of this study but within the Koniag Native Corporation's

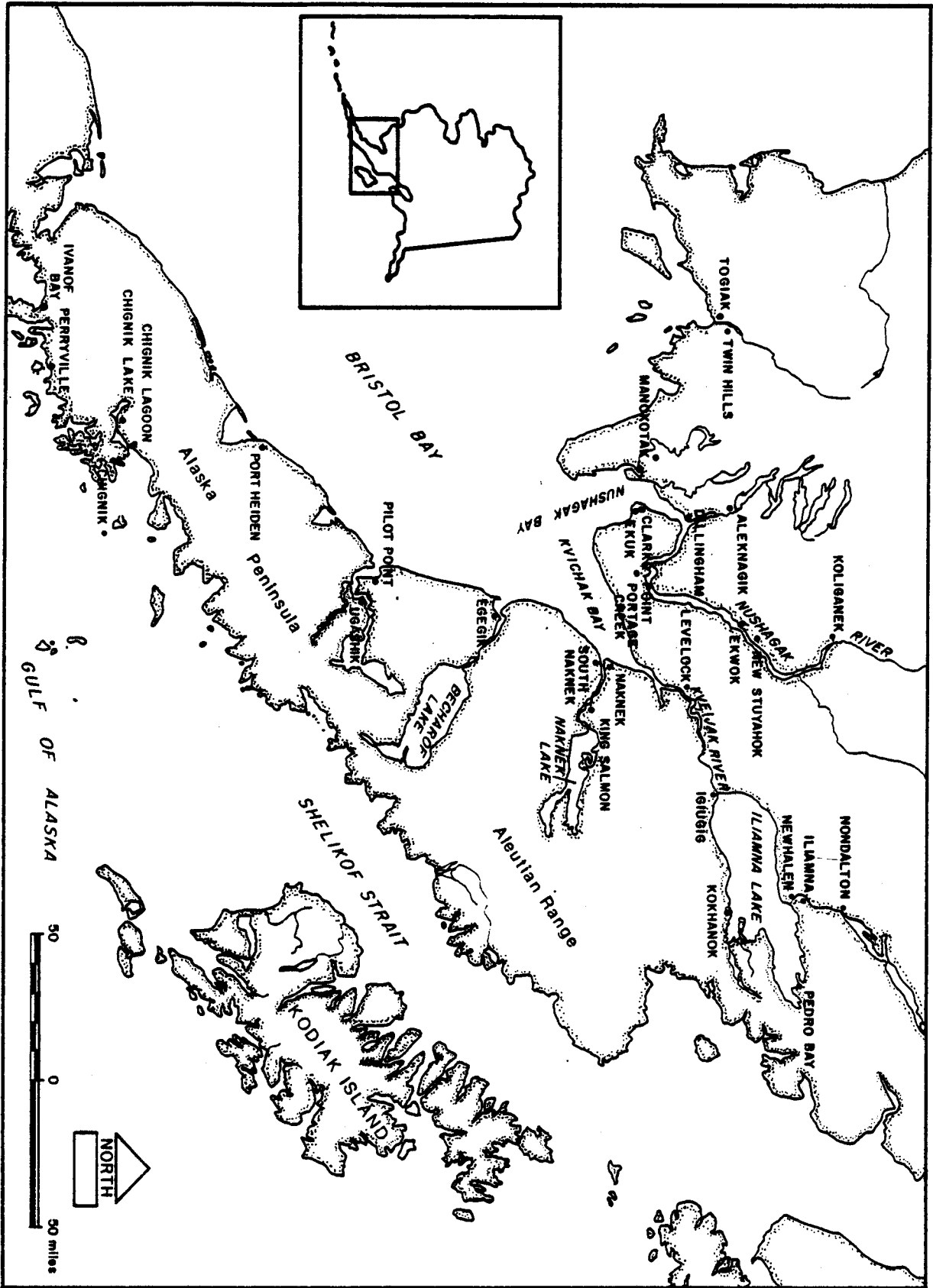


Fig. 1. Reference Map for Bristol Bay.

boundaries. Its boundaries are approximately just southwest of Becharof Lake to a point northeast of Kujulik Bay. The dividing line is roughly down the center of the Peninsula between these two points.

The goal of the study is to describe the sociocultural systems, or, in a less technical sense, the lifestyles of the residents in the communities of the Bristol Bay Region -- how these systems are currently structured and how they function. Within the population are whites and Natives, the latter represented by Yupik Eskimo, Aleut, and Dena'ina Athabascan Indian. A further objective is to determine how the sociocultural systems of the villages integrate with each other and with regional or state sociopolitical organizations.

Though the study concentrates on current conditions, prehistoric and historic patterns and events are described to substantiate or explain current conditions. This baseline study is associated with another study that provides future community projections designed to forecast what may occur to sociocultural systems if and when petroleum development commences.

Two researchers were involved in this study. James T. Payne was the Project Director. His responsibilities included research and writing of all sections, except Land and Politics, and overall responsibility for project completion. Stephen R. Braund researched and wrote the Land and Political Systems sections, edited and contributed to other sections.

RELATION OF STUDY TO ALASKA OCS PROGRAM

This report is one of a series of integrated studies which composes the Alaska Outer Continental Shelf Socioeconomic Studies Program. An understanding and description of the cultural, social, and economic environment of the area is the goal of the Socioeconomic Studies Program. These studies, along with biological and physical environmental studies, establish an overall comprehensive understanding of the total environment of the area. The overall goal of the studies, sponsored by the Department of the Interior, Minerals Management Service, is to evaluate potential onshore social, economic, and physical impacts caused by offshore petroleum development. Once the individual studies are completed, they will be summarized in an overall Environmental Impact Statement (E.I.S.) for the lease sale area.

One of these studies is a socioeconomic analysis of the City of Dillingham. The two researchers performing this present study are the only representatives of the OCS program to conduct research in the smaller, rural Bristol Bay Area villages.

Methods from Anthropology were used in gathering information on Native villages because the sociocultural systems of the villages are different from "mainstream" Euro-American systems. A presentation of employment, population, and economic statistical information exclusively would not include attitudes, beliefs, linguistic features, patterns of interpersonal communication, and behavior, and other cultural factors that are important in explaining village life. These cultural factors may be affected significantly by petroleum development and, therefore, must be examined. As Ellanna (1980:6) notes,

...many research methodologies and analytical tools of disciplines that historically and contemporarily focus on Western, urban societies and/or individuals are often not effective, relevant, or accurate when applied to small-scale, rural, non-Western societies.

SETTING AND STUDY LOCATION

Topography

The Bristol Bay Region covers approximately 55,000 square miles with about 600 miles of shoreline (Alaska Geographic 1978:13, 24). This region consists of an extensive system of lakes, rivers and streams, ideal for salmon, which shape the local economy, population, and sociocultural systems. Lakes are a necessary element in the life cycle of salmon, especially sockeye salmon. The numerous lake systems in the Bristol Bay Region (i.e., The Wood River-Tikchik Lake system, Lake Clark, Iliamna, Naknek, Becharof, and Ugashik lakes) as well as river systems (i.e., The Togiak, Nushagak, Mulchatna, Kvichak, Naknek, Egegik, Ugashik, and King Salmon rivers) provide optimum salmon habitat.

Climate

The climate of an area has a significant effect on the natural and sociocultural factors such as natural resources, construction designs, heating cost, clothing styles, and transportation patterns.

Most of the Bristol Bay Region falls within what is called the "transition" climatic zone, with some sub-regions falling in the "maritime" zone and others

in the "continental" zones (interior portions of the region). The transition zone lies between the maritime and continental zones in terms of temperature, precipitation, and wind conditions. Temperature extremes more resemble the continental zone, while precipitation and surface winds range between the two other zones (Alaska Office of the Governor, n.d: 4). Table I presents the climates of some villages, providing a clearer picture of actual conditions. As can be seen from Table I, the summers are relatively cool and the winters are usually below freezing (ranging between 66 to 7 degrees F.), although cold and warm extremes do occur (92 to minus 47 degrees F.). Precipitation ranges between 20-30 inches, depending on the sub-region, with large variations in the amount of snow included in the total precipitation.

Vegetation

The vegetation of Bristol Bay is important to the people for subsistence purposes. For example, grasses are traditionally used for basket making. They also have been used in house construction. Berries are an important part of the diet.

Tundra is the predominant plant community in the Bristol Bay Region and includes moist, wet, and alpine variations, depending on altitude. Tundra is characterized by a coverage of grasses, sedges, mosses, lichens, shrubs, herbs, and (at higher elevations) berries. At low elevations, spruce, birch and cottonwood forests exist. At higher elevations open spruce forests grade into brush/grass areas. Depending on drainage, soils, and amount of permafrost, large stands of timber can be found. In general, alder, dwarf birch, and dwarf willow

TABLE I

WEATHER CONDITIONS: BRISTOL BAY
Selected Communities

Community	Temperature		Extremes	Precipitation (including Snow)	Average Winds	
	Summer Max	Winter Min			Extreme Kts	
Port Heiden Village	40 to 59	14 to 33	-25 to 82	13 (29)	12.5	
King Salmon Village	38 to 63	4 to 29	-42 to 88	20 (45)	9.6	62
Iliamna Village	38 to 62	7 to 18	-47 to 91	26 (64)	9.0	
Dillingham City	37 to 65	7 to 30	-41 to 92	26 (65)		
Aleknagik Village	37 to 66	7 to 28	-36 to 88	34 (81)		
Togiak Area ¹	56 to 64	4		25 (60-70)		

¹Temperatures given at annual maximum ranges.

Sources: Alaska Office of the Governor, n.d.: 14

U. S. Department of Interior, Alaska Planning Group Final ES, Proposed Togiak Wildlife Refuge, n.d.b.

are found with lower shrub, grass, lichen, and moss coverage above 1,500 feet (Alaska Office of the Governor n.d.: 157).

Mammals

While fish are the main commercial resource and a key subsistence resource, the mammals of Bristol Bay also are significant for subsistence and sport hunting. Black bear are sparsely represented in the northeast area, while Brown-Grizzly bear are plentiful and widely distributed. Wolves are present in low to moderate numbers. Wolverines are common and abundant. There are two main caribou herds, the Mulchatna and Alaska Peninsula. Moose are relatively abundant on the Peninsula. Information is less available about the moose population in the rest of the area. According to informal interviews with residents and Alaska Department of Fish and Game (ADF&G) game biologists, the moose population tends to decrease towards the Togiak Region. Dall sheep can be found north of Iliamna Lake. Other mammals include lynx, Red and Arctic foxes, land otter, mink, marten, weasel, beaver, muskrat, and Showshoe and Arctic hares, many of which are quite important to people in the region. (Alaska Office of the Governor n.d.: 176).

Birds

An inventory of all the birds present in the Bristol Bay Region is very extensive and beyond the scope of this report. Any reader interested in this inventory should check the Southwest Regional Profile (Alaska Office of the Governor n.d.) or Armstrong (1980). However, a few comments are pertinent regarding the bird

population. First of all, the Bristol Bay lowlands, from Cold Bay to Dillingham, are excellent for waterfowl nesting and serve as a staging area for migratory waterfowl. This area is used by the birds in the spring and in the fall as they move south toward warmer climates. The region also serves as a wintering area for certain ducks. Besides these migratory birds, there also are resident species that remain in the area all year (Alaska Office of the Governor n.d.: 177, 193).

Marine Species

As with the bird species, the marine species are quite varied. Subsistence and commercially important marine mammal species include: Killer whales, Gray whales, Beluga whales, harbor porpoises, walrus, Fur and Harbor seals, sea lions, and sea otters. King, tanner, and dungeness crab are present as well as shrimp and different types of clams.

The most important species of fish are the salmon, including all five species. Pollock, cod, herring, halibut, and sole also are present.

Freshwater Fish

Besides salmon, mentioned under marine species, freshwater species include arctic char, northern pike, dolly varden, arctic grayling, rainbow trout, lake trout, whitefish, blackfish, and smelt. (Alaska Office of the Governor n.d.: 196).

POPULATION

Table 2 presents the historic population figures for the Bristol Bay Area. A pre-contact population figure of 2,400 residents is estimated for the region (Kresge, Fison, and Gasbarro 1974: 2-1). As can be seen from Table 2, the population increased from its 1880 figure to a high point at the turn of the century and declined over the next forty years. One reason for this decline was an epidemic of influenza that occurred in the fall of 1918 and spring of 1919. Severe European introduced epidemics were reported in 1832, 1838-1839, 1886, and 1899-1900. Though often poorly reported, these epidemics killed many people, lowered the resistance of many others, and undoubtedly caused severe socio-cultural disorganization. The influenza epidemic of the fall of 1918 and spring of 1919 was perhaps the most devastating, according to Van Stone (1967:99-104). This latter epidemic ravaged the population and had a tremendous effect on current settlement patterns.

World War II introduced military activity into the area resulting in a population increase between 1939 and 1950. By 1960, expansion of the King Salmon Air Force Base increased the population to over 4,000. Of course, this increase included mostly transient, predominately white, military personnel. Population increase slowed during the last twenty years as indicated by the 1970 and 1980 figures. Kresge, Fison, and Gasbarro (1974:2-4) note that the rate of increase between 1960 and 1970, "is clearly lower than the rate of natural increase due to births and deaths and thus implies that people were migrating from the Bristol Bay Region during the decade." Part of this slow growth rate during the decade

TABLE 2

REGIONAL POPULATION FIGURES¹
1880 - 1980

YEAR	POP	YEAR	POP
1880	4,010	1929	2,198
1890	2,726	1939	1,992
1900	3,400 ²	1950	2,756
1909	2,271	1960	4,024
1920	2,015	1970	4,974
		1980	5,710

¹ These figures are for the region as a whole and are not specific to the communities addressed in this report - see Table 3.

² May include seasonal summer population and workforce.

Sources: 1880 through 1960 from Rogers, 1972:362;
1970 from Alaska Department of Labor, 1981:10; and
1980 from U.S. Census Bureau.

is attributed to a reduction in military personnel as well as significant Native out-migration. The net increase in civilian Native population was less than the natural increase, while two-thirds of the growth in the civilian white population was due to net migration into the area (Kresge, Fison, Gasbarro 1974:2-7). During the same period (1960-1970), however, there was a 66 percent increase in the Eskimo village populations of Koliganek, Manokotak, Kokhanok, New Stuyahok, Togiak, and Twin Hills (Kresge, Fison, and Gasbarro 1974:2-11). Though not as pronounced, this increasing trend in these villages continued into the next decade (See Table 3).

The out-migration trend of the 1960s appears to have reversed in the 1970s with an increase of approximately 32 percent. With a declining death rate and a stable birth rate, the figures suggest a large element of the 1980 population figures to be the result of in-migration. "The growth of the regional population has not been restricted to a few towns, but has occurred in the majority of the villages" (Bristol Bay Area Health Corporation 1979:6; hereafter referred to as BBAHC).

Reasons for the out-migration of the 1960s and in-migration during the 1970s are unclear. According to BBAHC (1979:10-11), the Alaska Native Claims Settlement Act (ANCSA) may have accounted for some of the in-migration during the 1970s. Economic opportunities were the reasons offered during informal discussions in the villages. During the 1960s, people left the region apparently in pursuit of economic opportunities. However, during the 1970s, aspects of ANCSA, increased fish prices and catches in the late 1970s, limited entry, more construction projects, and other economic factors drew people back

TABLE 3
POPULATION TRENDS OF BRISTOL BAY VILLAGES
1920 - 1980

Village	1920	1929	1939	1950	1960	1970	Percent Change	
							1980	1970-1980
Aleknagik			78	153	231	128	154	20.3
Chignik Village			224	253	99	83	178	114.5
Chignik Lagoon					108		48	-0-
Chignik Lake					58	117	138	17.9
Clark's Point		25	22	128	138	95	79	-16.8
Dillingham	36	85	279	577	424	914	1,563	71.0
Egegik	83	86	125	119	150	148	75	-49.3
Ekuk		37			40	51	7	-86.3
Ekwok ¹		40	68	131	106	103	77	-25.2
Iguigig					36	36	33	-8.3
Iliamna	66	100	30	44	47	58	94	62.1
Ivanof Bay						48	40	-16.7
King Salmon					227	202	545	169.8
Kokhanok ²				39	57	88	83	-5.7
Koliganek				90	100	142	117	-16.6
Levelock				76	88	84	79	-6.0
Manokotak				120	149	214	294	37.4
Naknek	111	173	152	174	249	318	318	-0.0
Newhalen			55	48	63	88	87	-1.1
New Stuyahok				88	145	216	331	53.2
Nondalton	69	24	82	103	205	184	173	-6.0
Pedro Bay				44	53	65	33	-49.2
Perryville	85	93	92		93	94	111	18.1
Pilot Point			114	67	61	68	66	-2.9
Port Heiden	30	51			74	66	92	39.4
Portage Creek							48	-0-
South Naknek			134		142	154	145	-5.8
Togiak Village	91	71	10	108	220	383	470	22.7
Twin Hills						67	70	4.5
Ugashik		84	55	48	36		13	-0-
TOTALS	571	869	1,520	2,410	3,399	4,214	5,561	

¹Listed 1920 - 1939 as Ekwak

²Listed 1950 - 1970 as Kakhonak and 1980 as Koghanok.

Sources: 1920 - 1970: Rollings 1978
 1970: Alaska Department of Labor, 1981.
 1980: U.S. Census, 1981, and Alaska Department of Labor 1982 for Ekuk & Ugashik.

into the area. Other considerations also appeared to draw people back to the region, including traditional local foods, subsistence hunting and fishing, and the traditional, small village life-style. The construction of Village schools, particularly "Molly Hooch" secondary schools, in the communities also played a major role. Previously, students from the smaller villages could attend boarding schools, move in with friends or relatives in a larger town, or simply not attend school. While some of these patterns still exist, school construction has provided the alternative of attending school in the home village.

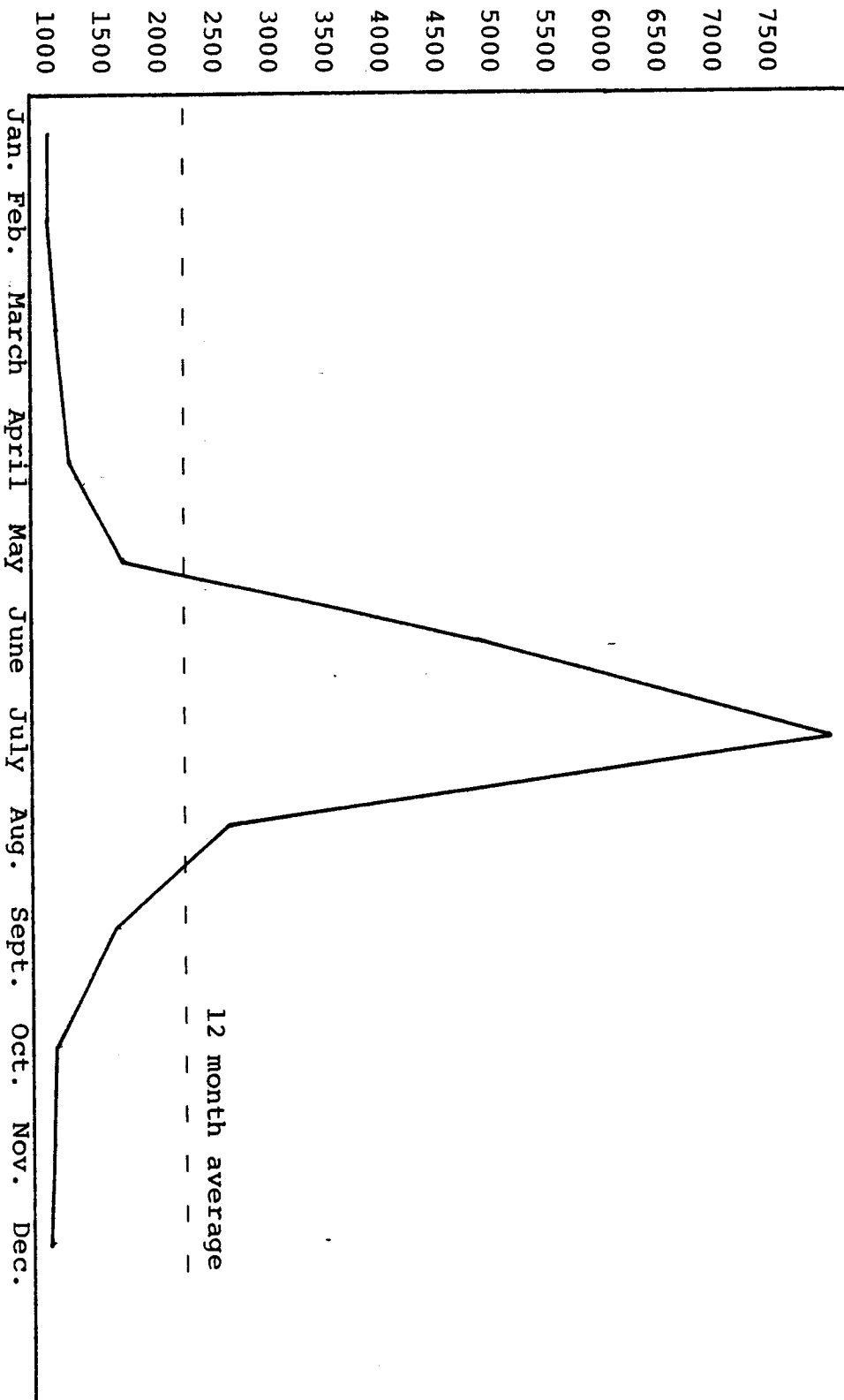
An example of these population dynamics was described by the residents of one community. They noted that during the 1930s and 1940s their community had a large population. During World War II, some of the men were drafted and other families moved to California to work in the war effort. Some settled down and stayed in the lower 48. Others returned to the village but eventually moved back to the lower 48, and, by the 1950s, the population had dwindled drastically. In the 1960s, some of those living in the lower 48 would come back to visit. They wished to return on a permanent basis but economic and other considerations prevented them. During the 1970s some of these people did begin to return, not only because of the positive aspects mentioned above, but also because "they were fed up with the urban lifestyle". The community members say they would prefer to see their village grow. They would also like to see the families in the lower 48 return. However, they are aware of needed changes in the community to draw people to the village. They feel these changes should be planned so their community will not suffer the consequences of too rapid and/or unplanned change.

The communities experiencing the largest growth in the 1970s are Dillingham, King Salmon, Iliamna, and Chignik. Dillingham, King Salmon, and Iliamna are primarily non-Native, commercial transportation centers. In Dillingham, growth may be due to increased governmental services, more job opportunities, larger commercial salmon catches, and higher fish prices. Iliamna's growth is related to its increase as a subregional transportation and recreation center. King Salmon's growth can be attributed to an increase in the military establishment. Chignik (slightly over one-half Native) experienced substantial growth in the 1970s which may be attributed to higher fish prices, diversification, and its position as a subregional economic center.

In 1970, Dillingham and the Bristol Bay Borough (Naknek, South Naknek, King Salmon, and non-village populations) accounted for almost one-half of the population of the Bristol Bay Region. This population ratio repeated in 1980, with a slight percentage decrease, the result of growth in other communities, despite the large increases by 1980 of both Dillingham and King Salmon.

The region experiences seasonal population changes - both migration within the region and in-migration of seasonal workers. Because of the area's heavy reliance on salmon fishing and processing, seasonal population shifts are directly correlated to the salmon's life cycle. As mature salmon arrive and are caught during the summer, a large, temporary population increase occurs (See Table 4). Cannery workers and fishermen arrive from other areas of Alaska and from the lower 48 states. Many regional residents move from other areas of Alaska and from their winter residences to become involved in fishing. Construction also occurs during the summer, adding construction workers to the population. One

TABLE 4
 Seasonal Employment Pattern
 By Month For 1970



12 month average = 2,240
 Source: Rogers 1972:369.

source estimates the population for the area increases by 3,600 during the summer (BBAHC 1979:7). With increasing interest in the salmon harvest, this figure has probably increased in the last few years.

Table 5 presents the subregional concentrations of population between summer and winter. As the figures indicate, the King Salmon area expands greatly during the summer (in actual numbers and the percent of total regional population), which is the result of salmon harvesting and processing activities.

According to BBAHC (1979:10), the average age in 1970 was 22.5 years and over 55 percent of the population was under 20 years of age, far below the U.S. 1970 average of 29 years. As with the rest of Alaska, there are more men (52 percent) than women (48 percent) in the Bristol Bay Area. There appears to be no great variation in overall age/sex distribution between the subregions (BBAHC n.d.:10).

There are substantial variations between the subregions and villages in racial distribution, however, Table 6 provides a 1980 racial breakdown of the villages in the area, excluding Ekuik and Ugashik (data was unavailable). At the regional level, Natives (Indians, Aleuts, and Eskimos) account for 68.5 percent of the population. In terms of subregions, Natives are the majority except for the Kvichak Bay subregion where they are only 34.5 percent of the population. Both the Nushagak River and Togiak-Kulukak subregions are 93.9 percent Native. These are followed by the Iliamna Lake subregion with 83.7 percent, the Southern Alaska subregion with 77.5 percent, the Northern Alaska Peninsula subregion with 73.4 percent, and the Nushagak Bay subregion with 61.2 percent

TABLE 5
SEASONAL DISTRIBUTION OF
BRISTOL BAY POPULATION¹
1978

Sub-Regions	Percentage of Regional Population	
	Summer	Winter
Iliamna	5.0%	11.7%
Chignik	7.9%	8.0%
Togiak	7.6%	14.6%
King Salmon	41.0%	20.0%
Dillingham	39.0%	45.7%

¹ These Subregions are different than used in this report, but they do reflect seasonal differences.
Source: BBAHC 1979:9.

TABLE 6

BRISTOL BAY VILLAGE POPULATIONS by RACE
1980

	White	Black	American Indian	Eskimo	Aleut	Pacific Islander Asian	Other	Total	Percent Native
Aleknagik	16		2	136				154	89.6
Chignik Village	83		3	5	87			178	53.4
Chignik Lagoon	7		2		39			48	85.4
Chignik Lake	13			2	121		2	138	89.1
Clark's Point	9		2	50	18			79	88.6
Dillingham	660	1	26	443	422	4	7	1,563	57.0
Egegik	18		1	3	53			75	76.0
Ekuk ¹									
Ekwok	5			70	1		1	77	92.2
Iguigig	3			16	9		5	33	75.8
Iliamna	56		19	7	12			94	40.4
Ivanof Bay	2		1		36	1		40	92.5
King Salmon	442	47	3	2	27	5	19	545	5.9
Kokhanok	3		9	8	63			83	96.4
Koliganek	4		2	110			1	117	95.7
Levelock	10		1	19	49			79	87.3
Manokotak	20			272	1	1		294	92.9
Naknek	154		6	25	130		3	318	50.6
New Halen	5		1	13	68			87	94.3
New Stuyahok	20			306	5			331	94.0
Nondalton	11		161				1	173	93.1
Pedro Bay	2		28	2	1			33	93.9
Perryville	8		3		100			111	92.8
Pilot Point	9			1	56			66	86.4
Port Heiden	31			1	58		2	92	64.1
Portage Creek	4			44				48	91.7
South Naknek	21		2	7	115			145	85.5
Togiak	26		2	440	1	1		470	94.3
Twin Hills	2			67			1	70	95.7
Ugashik ¹									
TOTALS	1,644	48	274	2,049	1,472	12	42	5,541	

¹ Race data unavailable for Ekuk and Ugashik. Total population figure (5,541) reflects these deletions.

Source: Alaska Department of Labor 1982.

Native. Figures from 1977-1978 student enrollment support Native population predominance in the region into the late 1970s. By school district, the figures for Native students are: Bristol Bay Borough, 59.8 percent; Dillingham City, 80.3 percent; Lake and Peninsula, 90.2 percent; and for Southwestern Region, 98.8 percent (Alaska State Department of Education 1978).

In summary, the Bristol Bay population has been far from static. Epidemics in the 19th and early 20th century had a large impact, often substantially reducing individual village populations, causing abandonment and village relocation, and reducing the overall population. This same period saw an influx of non-Natives to Bristol Bay to work in the commercial fisheries. The 1940s brought increases in military personnel in the region. Many villages were exposed, through the draft and war employment, to lower economic opportunities. The 1960s saw a net out-migration while the 1970s saw in-migration. The population is young with slightly more males than females. Natives are the predominant racial group throughout most of the region except in the King Salmon subregion. Each year there is a pronounced seasonal influx of workers drawn by the summer salmon harvest.

STUDY LIMITATIONS

In any research, certain limitations are placed on the study. The following is not intended as a negative or positive statement regarding these limitations but, rather, it is intended to make explicit and clarify the restrictions and directives with which the research was undertaken. The manner in which these limitations are incorporated into the research design are addressed in the Methods section.

Content Restrictions

The research goal of this study is to produce a sociocultural baseline statement of the Bristol Bay Region to use in assessing potential petroleum development impacts. This research must relate to sociocultural systems and be OCS relevant and specific to OCS development issues. The criteria of which issue or area to investigate is whether or not it relates to potential OCS petroleum development. The problem with this criteria is that it is often difficult to judge an issue/area's OCS relevancy when undertaking a baseline statement. A baseline statement implies comprehensiveness. Also, there is an underlying expectation that enough data will be available to satisfy the needs of the individual conducting the impact projections. The problem here is in anticipating the needs of the projections, both in terms of categories and content.

Literature Sources and Field Techniques

The OCS Socioeconomic Studies Program guidelines and regulations require data to be acquired through secondary literature sources which can be supplemented through informal discussions with knowledgeable individuals. No questionnaire or other formal surveys are permitted.

Geography, Time, Money, and Diversity

"In the best of all possible worlds," an ideal research design for this project would allow for anywhere from 6 to 18 months of investigation in each village in the region. There are 30 communities located in 5 or 6 subregions (depending

on how the subregions are divided). There are 3 distinct Native groups (Aleut, Eskimo and Indian) residing in the area. The whites living in the region reside predominantly in the Dillingham and King Salmon areas, though a few live in each community. Although these ethnic groups tend to be located in certain regions, there is enough blending, particularly in the Dillingham region, to confuse clear-cut classification. Mobility, in-migration and resettlement all work against homogeneous statements. History, cultural change, acculturation, and diffusion are processes which also have created a more complex situation than would exist in a more homogeneous region.

Though this culturally diverse and complex region could be studied quite intensely, obvious cost and temporal considerations, and the level of analysis required in the Bureau of Land Management's (BLM) scope of work, limit the level of intensity. The methodological approach has been adjusted to these limitations.

II. METHODOLOGY

Theoretical Orientation

The theoretical orientation governing the research design and methodological procedures of this investigation is derived from the discipline of anthropology. The major device used by anthropologists in attempting to understand and explain similarities and differences among the societies is the concept of culture. Culture may be defined as "the patterns of behavior and thought learned and shared as characteristic of a societal group" (Harris 1975:661). Since culture is learned it is not a genetic attribute, rather, it is human's non-biologically inherited means of adaptation and survival. The individual in the society expects other members in the society to share his/her culture. "The expectations one has of one's fellows may be regarded as a set of standards for perceiving, believing, evaluating, communicating, and acting. These standards constitute the culture that one attributes to one's fellows..." (Goodenough 1970:99).

An important feature of culture is its capacity to change. Patterns of thought and behavior are integrated and interdependent and may be viewed from a systemic perspective. This factor, along with culture's capacity to change, implies that change in one area of the culture system may produce changes in other areas of the system (Braund and Behnke 1980:10).

In general, culture is learned, not inherited; it is shared by group members who hold standards or rules about what to expect from one another; it is an integrated system and it has the capacity for change. Since this study assumes a diachronic perspective and is set in a context of examining cultural aspects subject to impact and potential change, some questions about the change process must be asked (See Braund and Behnke 1979:10). What are the parts of a cultural (or sociocultural) system? Are certain parts more susceptible to change than other parts? What causes change in sociocultural systems?

Cultural materialism (Harris 1968) and cultural ecology (Hardesty 1977; Netting 1977; and Steward 1955) are specific theoretical orientations within anthropology and are attempts to answer the above questions. They also provide the perspective which governs this research. These orientations divide the sociocultural system into three analytical parts: 1) techno-economic base; 2) social organization; and 3) ideology. The techno-economic base is composed of "the tools, machines, technique, and practices relating human existence to the material conditions of specific habitats" (Harris 1975:156). This is the area where culture interacts with the environment (both natural and man made) to gain food, energy, and protection. Social organization is how individuals and groups are arranged to assure orderly relationships in relation to reproduction, economic production, legal and military functions, and ideological functions such as religion (Harris 1975:157). Finally, ideology refers to people's opinions, values, plans, explicit and implicit knowledge, goals, and all other rational and emotional factors relating to sociocultural systems (Harris 1975:158, 663).

A major assumption of this theory is that, in the long term perspective, social organization and ideology respond to changes in the techno-economic base.

In other words, the causes of cultural differences and similarities are ultimately found in the techno-economic processes of the sociocultural system, which exert selective pressures for certain types of social organization and ideology (Braund and Behnke 1980:11)

As Braund and Behnke (1979:11-12) point out, the Socioeconomic Studies Program's (SESP) model of OCS impact contains an implicit assumption of a techno-economic model of culture change. First of all, it is concerned with industrial development which is part of the technical-environmental exploitative relationship. Second, it postulates this will have economic and social impacts at the community level in relation to population and employment changes. Third, it assumes development, with its attendant population and employment changes, may cause impacts in other areas of culture. Therefore, the independent variables of oil and gas development (techno-economic activity) are assumed to potentially affect the dependent variables of social organization and ideology.

Research Methodology

LITERATURE REVIEW

Reports and documents were acquired from the Bristol Bay Native Association (BBNA), Bristol Bay Native Corporation (BBNC), Bristol Bay Area Health Corporation (BBAHC), Bristol Bay Borough, various village corporations, Alaska

Department of Community and Regional Affairs and the U.S. Department of the Interior. The authors obtained and reviewed several books and reports on the archaeology, history, and ethnography of the area. The fishing industry of the area has produced a large body of material over the years and this was quite helpful in gaining an historical understanding of this industry. The Institute of Social, Economic, and Government Research (ISEGR) publications of the University of Alaska were helpful in this area. The Bristol Bay Times is a local newspaper in the Bristol Bay area that has recently begun publication. Copies of this newspaper were obtained. Popular publications such as Alaska Geographic's Bristol Bay Basin were also used. The researchers obtained data from the State of Alaska on criminal and social service statistics, local governments, the unorganized Borough and 14(c) land selection. The City of Dillingham and the Bristol Bay Borough Offices provided statistics and reports. The various offices of the Alaska Department of Fish and Game (ADF&G), the National Park Service (NPS), and the U.S. Fish and Wildlife Service (USF&W) have published materials on the region. In addition, the authors gathered useful information from Bureau of Land Management (BLM) and the Bureau of Indian Affairs (BIA). They also reviewed various lawsuits and federal and state legislation.

In general, literature is available on the region. However, some of it is incomplete and certain areas, both geographic and substantive, are somewhat sparse. As such, caution must be used in total reliance on written materials and the gaps must be filled through other approaches such as fieldwork.

FIELDWORK

Due to the large number of villages in the area and because of financial and time constraints, fieldwork was conducted in certain selected villages only. Village selection was based on three variables

- The OCS interests desired more emphasis on coastal as opposed to interior villages. Also, as the northern coast of the Alaska Peninsula is closer to the leasing sale area, it was felt by OCS that this area should be given research priority.
- The region is divided into smaller subregions by most agencies and individuals performing work and providing services or administration in the region. This sub-dividing of the area by these groups is based on their environmental, cultural, practical or special criteria. These pre-established subregions provided a framework for analysis and assisted in determining the number of villages per subregion to be selected for fieldwork.
- Consultation with locally knowledgeable individuals and organizational representatives, particularly BBNA, about village selection was undertaken in order to gain local opinion about how to acquire the most representative coverage.

Within this context, the following villages were selected for fieldwork: Iliamna Lake Region- Igiugig, Iliamna, Kokhanok, Newhalen, Nondalton; Togiak Bay-

Togiak, Manokotak; Alaska Peninsula-Chignik; Kvichak Bay-Naknek, South Naknek, Egegik, Pilot Point, Port Heiden, King Salmon; Nushagak Bay-Dillingham, Clark's Point; and Nushagak River-New Stuyahok. As can be seen from the list, certain of the subregions received better coverage than others. This was in accordance with the selection considerations presented above.

Summer is not a good time to conduct fieldwork in many villages. Many people leave their communities for fishing, which poses two reasons for not conducting fieldwork. First, many (in some cases the majority) of the residents are not present. Second, it would be politically, as well as practically, irresponsible to visit the villages when the community leaders and spokesmen are not present. In the smaller communities, certain positions (Mayor, Village Council President, etc.) exist to perform the community's business in relation to non-residents, governmental representatives, etc. These are the individuals one first "talks to" when entering a village; this is proper protocol. Because of these considerations, fieldwork in Dillingham, Naknek, and King Salmon, examining aspects of the fishing industry, and making contact with governmental organizations, was the only activity to occur in the summer. Contact with knowledgeable individuals was maintained throughout the latter part of summer and into the fall to determine when the villagers had returned so fieldwork could commence in those locations. Other fieldwork trips were undertaken in November, January and February.

It was necessary to adjust fieldwork techniques to be in harmony with the parameters of field research mentioned in Chapter I. The first of these was selecting only certain villages, as mentioned above. Although it would be ideal

to interview all residents of a village, this too is impractical in relation to time, money, and task requirements. As Nancy Davis (1979:17) notes, "To address the complete spectrum of human events...for the whole of time is a desirable--but impossible--ideal". Given the need to narrow the actual number of individuals interviewed, individuals were selected who best represented or possessed special knowledge about the community. Names of these individuals were initially provided by BBNA. As the fieldwork commenced, a network of knowledgeable people evolved. In the villages themselves, names were often provided of individuals who would be most knowledgeable about a specific area of interest. Local, regional, state and federal governmental, and service agency representatives were also contacted. Informal discussions were also held with other local residents whenever possible.

The content and structuring of the informal interviews were limited to topical areas relevant to the needs of the investigation. The Impact Categories served as general organizing topics.

Impact Categories

INTRODUCTION

There is a vast array of human activities, beliefs, and products that constitute sociocultural life. An intricate and complex web of relationships exist within and between these areas and products. There are numerous relationships between people and also between people and their environment. Examining all

of these areas and connections would constitute a massive "shopping list" to investigate. For this investigation, this shopping list has been reduced. The Scope of Work developed by the OCS office, which directs this research, states specific items to be examined. These items were chosen by the OCS office to determine what sociocultural knowledge is necessary, in order to understand the region in relation to petroleum development.

The second criteria for reducing the shopping list was the researcher's judgment of what items were necessary for an accurate view of the sociocultural systems of the area. This judgment was based on: 1) theoretical considerations; 2) methodological considerations; and 3) the parameters of the Scope of Work.

To some extent, the research design was also based on 4) the needs of future researchers. As stated earlier, another study will be conducted on the Bristol Bay Region that will attempt to determine potential impacts. Therefore, it is necessary to provide these future researchers with functional categories and accurate data for their projections. The following impact categories are designed as a mechanism for reducing and placing data into workable categories. Though they are conceptual devices, and to some extent arbitrary, they have been used and tested in many similar investigations because they provide analytical utility in addressing large bodies of data.

ECONOMIC SYSTEMS: SUBSISTENCE AND CASH ECONOMIES

The economic system is functionally interrelated with the rest of the sociocultural system. As such, any changes in the economic system could have

repercussions throughout the rest of the sociocultural system. It is vital to understand the workings of this area, in that economic activities may be affected by OCS development. Also potential conflicts could arise between OCS and other industries in the region. Included in this category are the cash economy and the subsistence economy. The subsistence economy was included as it is a significant aspect of Bristol Bay residents' lives, both economically and culturally.

POLITICAL SYSTEMS

As Braund and Behnke (1980:26) note, "Politics is a critical sociocultural category because community values and public objectives are articulated and implemented (or not implemented) through political processes." The formal, organizational political system will be the mechanism through which Bristol Bay residents will express their concern about OCS. If and when representatives of the petroleum industry need to perform activities in Bristol Bay communities, or on land in general, they will interact with the political system. As such, this category has importance in understanding how resource development will be viewed by regional political systems. Both governmental and native political systems are examined in this category.

SOCIAL HEALTH

Social health refers to such areas as crime, mental health, alcoholism, divorce rates, etc. In reference to OCS development, Social Health is an important consideration for two reasons. First, whenever there is development, there is the

likelihood of increased population. It is necessary to know if the Social Health service system can accommodate this new population or if it will place a strain on the existing system. Second, the social health status of a population can be used to evaluate if development has had a deleterious effect on the population. But, in order to measure this effect, a baseline of the existing situation must be available for comparison. This category examines physical, mental, and alcoholism health care systems. It also looks at criminal justice, social services and ethnic relations.

SOCIAL ORGANIZATIONS

Social relations are structured and patterned. Because most of Bristol Bay is Native in population, it is assumed that their social organization will vary, to some degree, from Euro-American social organization. It is important to examine this area, in relation to OCS petroleum development, for three reasons. First, petroleum development could directly affect social organization. Second, since sociocultural systems are intertwined, an effect of petroleum development in another area, such as economic systems, could have ramifications on social organization. Third, changes in social organization could be an indicator of effects caused by petroleum development. However, without a baseline to measure these changes over time, no direct cause from OCS or other factors, could be measured.

LAND AND ENVIRONMENT

Who owns the land, how it is used, and what constraints exist to land use reflect, and to some degree determine, people's values and attitudes about land. For many people their relationship with their environment in recreational, economic, and subsistence activities is dependent on the quality of the environment. Any change in the quality of the environment by new development constraints on users will conflict with existing local values (Braund and Behnke 1980:24). In Bristol Bay, there are numerous land issues. The ANCSA has had a tremendous effect on the small local villages. Selections, constraints on selection, conveyances, relations with local political entities, and decisions about land use are all factors directly affecting local community residents. Federal D-2 selections, in terms of parks, refuges, and preserves, overlay much of this region with differing usage regulations. Both ANCSA and the D-2 settlement are occurring at the time of this investigation and have immediate and important consequences. Any on-shore development by OCS will be confronted by potentially changing land status. Any oil spills or blowouts that may occur during OCS development could affect coastal lands which are of high value to a predominantly coastal oriented people.



III. PREHISTORY: TRADITIONAL ADAPTATIONS

Archaeological Investigations

Although there is possible evidence of human habitation in northwest North America before 20,000 B.C., archaeological materials providing the clearest indication of a cultural pattern begin around 8000 B.C. (Dumond 1977:154-155). A number of archaeological investigations have been conducted in the Bristol Bay Region. A 1948 survey, from the Alaska Peninsula to the Kuskokwim River, was conducted by Helge Larsen (Ackerman 1964:1). Old Togiak was excavated by Makoto Kowta in 1960 (Kowta 1963), and the northwestern tip of Bristol Bay and part of the Kuskokwim area was investigated in 1962 by Robert Ackerman of Washington State University (Ackerman 1964). Dixon and Johnson reported on a site near Iguigig that was destroyed during airport construction. Another site was reported on by Karen Workman at Graveyard Point on Kvichak Bay. Investigations also were conducted at Pedro Bay on Lake Iliamna (Townsend and Townsend 1961:25-58).

Perhaps the most intensive and long term archaeological research project carried out in the region was conducted by the University of Oregon. The initial work began in 1960 and was limited to the Naknek River drainage system. In 1964, the Oregon team expanded its work to include the Pacific side of the Peninsula, specifically at Kukak Bay and Takli Island. The objective of this research was the search for similarities and differences between the two sides of the Alaska Peninsula (Dumond, Henn and Stuckenrath 1976:17). Beginning in 1973 the

Oregon team also began research in the Ugashik area (Henn 1978). And, finally, in 1975 the Oregon group extended its research into the Chignik area.

From the above investigations, Dumond (1977:155) has constructed a summary of prehistoric sequences for Southwest Alaska. He calls the earliest period, dating from roughly 8000 B.C. to 5000 B.C., the Palaeo-Arctic Tradition. Materials recovered from the Ugashik Lakes region during this period included wedge shaped microcores, microblades, burins, leaf-shaped bifaces, and core bifaces (Dumond 1977:40, 154-155; Henn 1978).

The next prehistoric cultural pattern in southwestern Alaska was the Northern Archaic Tradition, which was widespread in Alaska and dates from about 4500 B.C. to 2000 B.C. Materials for this period were obtained from excavations at Ugashik and Naknek dating to about 3000 B.C. (Dumond, Henn and Stuckenrath 1976:22) and are similar to materials found at Security Cove (Ackerman 1964). The materials included side-notched points, scrapers, blades, and cores.

The Arctic Small Tool Tradition, roughly between 2000 B.C. and 1000 B.C., extended from the Bering Sea side of the Alaska Peninsula to Greenland. Artifacts from this tradition include microblade, burins, and endblades. Houses, remains of apparent winter encampment, were unearthed at both Ugashik and the Naknek drainage (Dumond 1977:83). According to Dumond, (1977:86) peoples of the Arctic Small Tool Tradition replaced peoples who were culturally of the Talki Birch phase of the Kodiak Tradition on the northern side of the peninsula. These Talki Birch phase people were apparently from the southern side of the peninsula and used the northern side on a seasonal basis, probably to hunt

caribou. "For a millennium after this replacement, peoples of the Small Tool Tradition and people of the Takli Birch phase of the Kodiak Tradition continued to live on opposite slopes of the Peninsula, virtually without contact" (Dumond 1977:86).

The Norton Tradition replaced the Arctic Small Tool Tradition. In the Naknek area, the Arctic Small Tool Tradition appears to have persisted until 1000 B.C. It was not until 400 B.C., after a gap of 600 years, that the earliest Norton sites are dated in the area. At both Naknek and, more particularly, at Ugashik (dates to the second millennium B.C.), there seems to be technical continuity and transition between the Arctic Small Tool Tradition and the Norton Tradition. Dumond notes (1977:109-110) that Norton culture was very intensive in the Bering Sea region and lasted as late as 1000 A.D. Pottery became fairly common and design evolution can be traced. Polished slate became more popular in the manufacture of stone artifacts. There is some evidence that the Kazigi (ceremonial and men's house) may have appeared during this period. Unlike the situation further north, large Norton sites do not occur on the coast of Bristol Bay. This may be due to the relative lack of large sea mammals in Bristol Bay compared to northern areas. Instead, the large Norton sites occur up the major river systems of Bristol Bay. Net sinkers and caribou antlers suggest reliance on salmon and caribou. By the turn of the millennium, Norton culture had spread to the Pacific side of the Alaska Peninsula (Dumond 1977).

The final cultural pattern in southwestern Alaska was the Thule Tradition which lasted until the historical period. As Dumond states, "...the Thule Tradition as a whole includes all the midden-building, polished-slate making, lamp-burning,

Kayak-and-Umiak paddling Eskimos of later times who extended from Kodiak Island to Greenland" (1977:118). By 1100 A.D. a developed aspect of Thule tradition appeared in the Naknek region, apparently being introduced from the north (Dumond 1977:133).

Once the Thule Tradition reached the Alaska Peninsula, aspects of it spread southwest, eventually reaching the tip of the Peninsula around 1000 A.D. Polished-slate implements were adopted as far as Near Island at the end of the Aleutian Chain (Dumond 1977:137). Thule life was relatively sedentary due to an ability to utilize a range of marine resources as well as land animals and fresh water fish. This ability led to a population increase and expansion up major river systems. The interior peoples exploited the interior area and maintained contact with the coast. As Dumond states in summary, "It was with this highly evolved ability to prosper in an often harsh environment that the Eskimo peoples were found when the Europeans began their final, inexorable expansion into the New World in the eighteenth century" (1977:149).

Territorial, Ethnic, and Linguistic Boundaries

At the time of contact with Europeans, the Bristol Bay Region was fairly uniform, populated mainly by Yupik speaking peoples. In the southwestern portion of the Bristol Bay Region, along the Alaska Peninsula, a division between Yupik speakers and Aleut speaking people existed as it does today. Though the exact boundary between the two groups has not been established, rough estimates give the location at Port Moller (Dumond 1974:1-7; Dumond 1977:66-

67). Kraus (1980:7-11) notes that the Eskimo and Aleut languages separated from a common parent language approximately 4,000 years ago. He also notes that the current linguistic boundary between the two groups is at Stepovac Bay, south of Port Moller (1974; 1980:8).

Dena'ina Athabascan Indian speakers reside in the east and northeast, running from Stoney River on the Kuskokwim River down through the eastern end of Lake Iliamna and on to Cook Inlet, (Krauss 1974). Townsend suggests that the Dena'ina "...moved into the area at least a hundred years prior to the coming of the Russians in the last quarter of the eighteenth century" (1970:79) -- a date that should be viewed only as an estimate.

Yupik speakers populated the rest of the Bristol Bay Region. Yupik speakers are linguistically further divided into 1) Central Yupik, spoken from Egegik northeast to just south of Lake Iliamna and north up to Unalakleet and 2) Sugpiaq or Alutiiq, which extends from Port Moller northeasterly along the Alaska Peninsula to Prince William Sound, including Kodiak Island. Krauss suggests the term Alutiiq is perhaps the better choice as a name for this southern Yupik language since it reflects the population's tendency to refer to themselves as Aleuts. This results from Russian influence, including religion, names, cultural, and environmental ties to the Aleuts (Krauss 1980:6-7 and Morgan 1979:175).

In terms of residency, the groups in Bristol Bay were divided into small enclaves. These groups were not "tribes" because there was no formalized political organization. Rather, they were "...recognized entities representing varying

kinds of ecological adaptation" (Van Stone 1967:xxi). Oswalt supports Van Stone's statement with his own analysis:

It is acknowledged that the term tribe is inexact when applied to these people, and yet there is no more satisfactory designation. The Eskimos so classified did not form distinct political units; in fact, political structure might scarcely exist even at the village level (Oswalt 1967:2).

These statements are brought into question by Ellanna (1980:67), at least for the Bering Strait region, where investigators who have conducted extensive field research found evidence for complex political organization and concepts of territorial boundaries.

With this discussion in mind, the following groups were in existence at the time of European contact in the nineteenth century. This presentation is based on the research of Van Stone, who concludes that accurate identification is complicated because of conflicting observer statements and in-migration of peoples from other regions. The first group, the Alegmiut, occupied territory extending from Port Moller up the Alaska Peninsula, included the western two-thirds of Lake Iliamna (Van Stone 1967:xxi). Their territory also extended northwest along the coast of the Bay, roughly to Cape Constantine. Oswalt notes that the Alegmiut are thought to have moved into the area described above in early historic times, either replacing or absorbing a group he refers to as Peninsular Eskimos on the Alaska Peninsula. The Alegmiut originally had resided on Nunivak Island until they were forced into Bristol Bay by Kuskowagamiut, Kiatagmiut, and other groups (Oswalt 1967:4, 8). The Alegmiut had an estimated population of 1,900 at the beginning of historic times, with about 500 residing on the coast (Oswalt 1967:4 and Van Stone 1967:xxi).

The second group in the Bristol Bay Region, the Kiatagmiut, occupied the Nushagak River and as far west as the Wood River Lakes and Tikchik Lakes. According to Van Stone (1967:xxi), their population was about 400 at contact.

The third group, the Togiagamiut, was located in the northwest portion of the Region. Oswalt (1967:8) gives their population at 1,000 at contact. The Togiagamiut shared boundaries with Aglegmiut, Kiatagmiut, and Kuskowagamiut.

The fourth and final group in the region included the Dena'ina Athabascan Indians of the Lake Iliamna area. Townsend (1970:83) estimates Dena'ina population at 1,000 for the entire Dena'ina region during the latter half of the nineteenth century. Townsend believes the population could have been much larger, possibly as high as 3,000, at the end of the eighteenth century and first half of the nineteenth century. However, a severe smallpox epidemic in 1836 substantially reduced the population.

Early Settlement and Subsistence Patterns

Settlement patterns here refer to annual settlement or residence patterns characteristic of a group. These patterns are important because they reflect the use of land and sea in relation to subsistence patterns (Ellanna 1980:71). Subsistence here refers to the way in which a people go about making a living, i.e., how people utilize the natural environment to obtain sustenance.

As noted by Dumond (1977:147-149), a regional variant of Thule adaptation existed in Bristol Bay prior to European contact. In general, this adaptation is characterized by relatively sedentary settlements with fairly large populations. Subsistence techniques were adapted to utilizing a broad range of marine and terrestrial resources.

There are a few sources of information available about specific settlement and subsistence patterns in Bristol Bay immediately following the contact period. The most developed and best documented of these is Van Stone's analysis of the Nushagak River Eskimos' adaptation. His information covers the period between 1890 and 1910 and he cautions that his description probably differs from the pattern existing during late prehistoric times (1967:122). The pattern described by Van Stone may be comparable for the Togiamiut, in that there was movement between the coastal habitats and the inland riverine habitats. The Aglegmiut, on the other hand, were more dependent on maritime and peripheral lake habitats (Federal Field Committee for Development Planning in Alaska 1968: 230). The following description on Nushagak adaption is solely from Van Stone (1967:122-130).

In the fall, the men would move from trapping in the interior to their permanent river or bay villages. Usually these permanent winter villages would be settled by the middle of October. Localized trapping, fishing, and caribou hunting occurred at this time and continued into winter. With the onset of the severe winter weather it is assumed that the prehistoric peoples did little traveling. Festivals, ceremonies, rituals, and the manufacture of subsistence and domestic implements occurred during winter.

In the spring (late February, early March, or even into April) the riverine residing families moved from their winter encampments to small streamside camps in the interior mountains. Caribou hunting continued though trapping was the main activity. Seals were hunted and smelt dip-netted in the spring by the Bay residents. Seals also were hunted by some of the riverine families that migrated to the bay in the spring.

In the summer (mid-June) the riverine families returned from the mountains to their riverside winter villages to fish for salmon. Some of the riverine families traveled in summer to the coast to fish for salmon or visit the trading post. Trade with the Bay peoples occurred at this time to exchange interior goods for coastal goods. Walrus hunting during the Russian period was an important activity in the summer. Moulting birds and Beluga whales also were hunted.

In late summer caribou were hunted and beaver obtained in the tributaries of the Nushagak by the men. With the first snows in October the men returned to their winter villages.

Settlement and subsistence patterns also are available for the Togiak area for late prehistoric times. Kowta (1963:453-455) presents the following profile of seasonal activities. The data is presented followed by estimation statements based on his archaeological data.

Winter:

- Fishing through the ice with spears and lures--quite certain to have occurred.
- Ice fishing with hooks and line--quite probable to have occurred.
- Winter fox trapping--quite probable to have occurred.

Winter (Continued):

- Trapping and hunting of land mammals--possible, little archaeological evidence.
- Netting of seals under ice--possible, little archaeological evidence.

Spring:

- Seal hunting at edge of ice--existed if evidence has been correctly interpreted.
- Land mammal hunting--probable, little archaeological evidence.
- Snaring and hunting of Spring birds--probable, little archaeological evidence.
- Bird egg collecting--probable, little archaeological evidence.

Early Summer:

- Fishing--probable, little archaeological evidence.
- Bear hunting--May have occurred.
- Sea Mammal hunting--may have occurred.

Late Summer and Fall:

- Caribou hunting--probable, little evidence.
- Other interior animals hunted--probable, little evidence.
- Sea Mammal hunting--probable, little evidence.
- Moulting bird hunting--probable, little evidence.
- Berry picking--probable, little evidence.
- Driftwood logs and dry grass acquired--probable, little evidence.

Kowta (1963:454) notes that mussel shells might have been gathered at any time when they were accessible and non-toxic.

In terms of settlement patterns, Kowta notes an interesting contradiction occurring. According to an historical source, the Togiagamiuts left their coastal winter villages and exploited the tundra during the summer. This is contrary to Kowta's archaeological findings that the village was settled during the summer. He explains this contradiction by pointing to a distinct decrease in the number of seals captured, which resulted in more summer salmon fishing away from the coastal village. He postulates that this decrease may have been caused by increased hunting pressures on the seals or progressive sedimentation of the Bay. This fairly recent sedimentation rendered the Bay environment less suitable for

seal habitation. The decline in seals as a food source was felt all year but most intensively during the winter when the animals were used as a stored food source. This resulted in: 1) more winter seal hunting; 2) more reliance on land mammals; 3) intensification of localized winter trapping and hunting; 4) increased importance of winter ice fishing; 5) increased utilization of birds and shellfish; and 6) abandonment of the village during the summer for salmon fishing up the rivers and streams with a return to the coastal encampment in winter.

One nutrition resource that may have been utilized during prehistoric times and, certainly into historic times, is "mouse food"--nut-like tubers that mice store for the winter along with other roots and stems. The villagers, usually women, locate the mice nests and then extract the tubers (Togiak High School 1980:2-5).

The final settlement and subsistence pattern discussed for the late prehistoric/early contact period is that of the Dena'ina. As with the other settlement and subsistence patterns described previously, the following is a generalized account. The information is from descriptions of Kijik village and the Lake Clark area.

During the cold months the Dena'ina settled into permanent winter villages. In early winter, trapping, ice fishing, and caribou hunting occurred. Seals were hunted in Iliamna Lake through the blow holes in the ice. Hibernating bears were hunted. Rabbits and ptarmigan provided a stable winter food resource (Van Stone and Townsend 1970:156-158). At the end of winter villagers would move

to their spring camps (Behnke personal communication) where they would fish, trap beaver, muskrats, and land otters, and hunt caribou (Van Stone and Townsend 1970:158).

During the summer the villagers would live in both large and small pole frame, bark covered structures located near streams where salmon, a major diet staple, were caught and dried. Large game animals including bear, Dall sheep, caribou, and moose were hunted and some of the meat was dried for winter storage (Behnke 1978:17-24). The grain from a wild rice-like plant was collected and eaten (Van Stone and Townsend 1970:159).

Fall camps were located close to the mountains where bear and caribou were hunted by the men. Women would pick berries, hunt ground squirrels, and catch and dry "fall fish", (salmon well into or past their spawning stage). These fish were popular, particularly with the older people, because they contained less fat, had a milder flavor, and were easier to digest than the mid-summer salmon. Beaver and other fur-bearing animals were trapped in the fall (Behnke 1978:17-24 and Behnke personal communication).

The previous section described the late prehistoric and early historic settlement and subsistence patterns of three of the larger areas of the Bristol Bay Region. There is a scarcity of information about the lower Alaska Peninsula area. Minor references are made in Behnke's work on the Katmai National Monument (1978:122-176).

Social Organization

Little information is available on the social organization of the Bristol Bay peoples for either late prehistoric or early contact times. As noted in the previous section on Territorial, Ethnic, and Linguistic Boundaries, the major organizational unit was the village rather than the tribe. For a full discussion of general Eskimo Kinship patterns, see Whitten 1964, Oswalt 1967, and Burch 1975.

Discussing the Bering Strait area in the late 1800's, Nelson states "The dwelling houses are the domain of the women" (1899:288). This appears to have been the pattern for the Eskimo region (specifically in the Nushagak area) of Bristol Bay according to Van Stone (1971:132). The men and boys traditionally spent their time in the Kashgee, or men's house (also spelled Kazigi, Dumond 1977:110 and pronounced Kashim by the Russians, Oswalt 1967:87).

In many villages during the early historic period the focal point for community life was the Kashgee, or men's house. It was always the largest structure in every village and the place where the men and boys spent most of their time. It was the center of religious observances and the place where many social obligations were fulfilled (Van Stone 1971:130).

Kashgees were usually located near the center or at the edge of the village. They had benches around the side. The center area was deep and could contain a fire and hot rocks for sweat baths or covered ceremonies (Van Stone 1971:130).

Van Stone notes, "It is no exaggeration that some of the most significant changes that took place in the region as a result of contact were those involving the Kashgee and its associated activities" (1971:131). Christianity replaced the older

religious forms which were associated with ceremonies occurring in the Kashgee. Religious ceremonies began to occur in Christian chapels, which the missionaries encouraged the Natives to build in their villages. Van Stone suggests that the decline in the group oriented religious ceremonies of the Kashgee may have been responsible, in part, for "...the proliferation of small villages throughout the area between 1880 and 1940" (1971:131-132). Eventually, men and boys ceased residing in the Kashgees and took up residence in the houses where only women and girls previously resided. This meant that the size of the houses began to increase. Increasing house size also was encouraged because the large extended family became the basic household unit during the early historic period in southwest Alaska. This pattern changed as the historical period progressed, with nuclear family units becoming more general.

IV. HISTORICAL PERIOD

Early Exploration and Settlement

On July 9, 1778, Captain James Cook became the first European explorer to enter Bristol Bay. Cook named the Bay after the Admiral Lord of Bristol and an officer went ashore at Cape Newenham, claiming the country for England.

The Russians may have explored the region as early as 1791 when Demitri Ivanovich Bocharov explored the northern Alaska Peninsula. The Russians entered the area via Lake Iliamna from Cook Inlet. In the early 1790s, Aleksi Ivanov crossed from Cook Inlet to Iliamna Lake, descended the Kvichak River to Bristol Bay and then ascended the Nushagak River (Van Stone 1967:4). In 1818, a Russian expedition under Petr Krosakovskiy was sent to explore the region and open up new trade possibilities (Alaska Geographic 1978). This party established a redoubt along the east bank of Nushagak Bay and named it Alexandrovski, later to be called Nushagak by the Americans.

In 1829 and 1830, Russian expeditions ascended the Nushagak River to explore the region, establish contact with the natives and, most importantly, to determine the fur trade potential. In 1832, Kolmakov and Lukin ascended the Nushagak, crossed over to the Kuskokwim and established a trading station along its banks (Van Stone 1967:10-11).

In 1867, Russia sold Alaska to the United States. Little exploration occurred during early American control.

Both the Russian Orthodox Church and the Moravian Church had a substantial impact on the Bristol Bay Region. As Van Stone (1967:21) notes, "No innovation among the Eskimos of the Nushagak River Region has had a greater or more lasting effect than Christianity." The Russian Orthodox Church began its influence in the area with the establishment of Alexandrovski Redoubt in 1818 with some baptism by the Russian trader (Van Stone 1967:21). In 1829 and 1832, Father Veniaminov visited Alexandrovski Redoubt and instituted an aggressive baptism of the Eskimos. A Chapel was completed at the Redoubt in 1832, and a mission with a priest was established there in 1842.

The Nushagak mission had 1,448 parishioners by 1852 and several exploration trips had been conducted up the Nushagak River (Van Stone 1967:29). The number of parishioners increased with time, even after Russia sold Alaska to the United States. However, in 1884, William H. Weinland and Henry Hartman of the Moravian church entered the area looking for a suitable location to establish a mission (Van Stone 1967:37). A house and schoolhouse for industrial education were established three miles north of Nushagak by the Moravians in 1886. This mission location was named Carmel. With the Moravian mission so close to the Russian Orthodox mission, relations between the two were less than pleasant (Van Stone 1967:39).

In 1895 and 1896, the Moravians began their first known trips up the Nushagak River and to the Togiak area. Baptisms outside the Nushagak mission area began

and membership in the church increased so that, by 1900, there were 211 members (Van Stone 1967:43-44). This increase was not enough of an encouragement for the effort of the Moravians at Carmel. In 1906 they closed the buildings and moved to their mission located at Bethel, on the Kuskokwim River (Van Stone 1967:46). With the departure of the Moravians, the Russian Orthodox Church continued its dominance in the area.

Epidemics

The native population of the Bristol Bay area had little resistance to European or Euro-American introduced diseases. Referring to a smallpox epidemic in 1838-1839, Van Stone (1967:100) states:

Although epidemics similar to this one may have been relatively rare, there is every indication that once European diseases had been introduced, they took a yearly toll that was not only great in terms of numbers of dead, but that greatly weakened the resistance of the survivors. In the many years of sickness, a few stand out as epidemics years, but the specter of ill health and death was continually present among the Eskimo populations of all southwestern Alaska.

These diseases had a devastating effect, often resulting in population decline and location change.

The first recorded disease to affect the region occurred sometime before 1832 and, although the type was not specified, it had considerable impact. Smallpox occurred in the Kuskokwim River regions in 1838-1839. Vaccinations were administered for the disease in 1838 (Van Stone 1967:99-100).

Disease again struck in 1886 (pulmonary diseases) and, in 1899-1900, a major epidemic of influenza and measles swept the region. "At Carmel every child under the age of two died and the Orthodox Church listed 111 deaths among its parishioners in 1899" (Van Stone 1967:101). Famine followed the 1899 epidemic, creating a further weakening of the residents' physical condition (Van Stone 1967:101).

The residents of Bristol Bay were aware of the source of the diseases. The following response was given when some Natives were asked by Hieromonk Theophil, around 1863, why they were resistant to accepting Christianity:

Before the Russians came here, our people lived to a ripe old age, now hardly anyone attains it. Formerly we did not know about epidemics but since we started to baptize our children and be baptized, scarcely a year passes without some kind of epidemic and deaths (quoted in Van Stone 1967:100).

The world wide influenza epidemic following World War I also affected the Bristol Bay Region during 1918-1919. This was an extremely severe epidemic, killing hundreds of people in the area. It affected both whites and Natives. "Every person in the large villages of Igushik and Kanakanak either died or moved away. Only eight persons are said to have survived at Chogiung. Many small villages in the Bay and along the River were either wiped out or abandoned at this time" (Van Stone 1967:103). The Eskimo population of the Wood River did not return to the area until the late 1920s (Van Stone 1967:117).

The 1918-1919 epidemic gave rise to the construction of a hospital at Kanakanak in 1919. This facility was destroyed by fire in 1932 and replaced by a 32 bed hospital in 1940. An increase in the range and quality of health care continued

from the 1930s and 1940s to the present. Contemporary health care will be addressed in a following chapter.

In summary, the native populations of the Bristol Bay Region were ravaged by white introduced epidemics. These epidemics not only killed people but led to a deterioration of the overall health of individuals. There were significant population movements with some villages and areas being completely abandoned. Significant for the cultural continuity of the people, much of the cultural knowledge may have been lost due to the deaths of older people. Many orphans were cared for in white operated orphanages, where a chance to learn the old ways on the lap of their grandfather or grandmother was denied them.

Formative Years of Commercial Fishing

Addressing the salmon processing industry in Bristol Bay, Van Stone (1967:63) remarks, "This remarkable industry, one of the most significant commercial innovations in Alaska's history, has, from its inception, brought about significant and far reaching changes in the area." These changes and the development of the fishing industry itself are the result of the tremendous numbers of salmon that come into the Bay each summer. Captain Cook noted the prevalence of Salmon when he wrote in 1778, "It (Bristol Bay) must abound with salmon, as we saw many leaping in the sea before the entrance and some were found in the maws of cod which we caught" (Alaska Geographic 1978:32). The following quote from Rogers (1972:364) underscores Cook's speculation:

From an annual average catch of four million fish for 1893-1900, the harvest rose to an average of twelve million for 1900-04, and with cyclical fluctuations, to an annual average of nineteen million fish for 1934-38.

Rogers goes on to point out a decline in the stocks in the 1950s and a recovery in the 1960s. However, the high figures (catch only, not available fish entering the Bay) indicate just how abundant the stocks can be. All five species of salmon are present in Bristol Bay: Chinook (king), Sockeye (red), Chum (dog), Humpie (pink) and Coho (silver). The reason the stocks are so abundant is because the Bristol Bay Region is an ideal salmon area. The numerous lakes and rivers flowing into the Bay are perfect for Sockeye salmon spawning, the most numerous and commercially most important species.

The native inhabitants depended heavily on salmon as a resource. "Red salmon were the staff of life to the Bristol Bay Eskimos. The caribou might not appear, the ducks and geese might fail to return and life might be difficult, but a failure of the salmon run meant disaster and starvation" (Hawkins and Daugherty 1958:17).

The Russians considered developing a commercial fishery in the area in 1866 (Van Stone 1967:67). Some salted fish were exported by the Alaska Commercial Company, "Petroff, in the census report of 1880, refers to exports from this section of 'from 800 to 1,200 barrels of salted salmon per annum from the Nushagak River'" (Cobb 1930:462). In 1883 the schooner Neptune put up a pack of salted salmon. That same year the Arctic Packing Company constructed a cannery on the Nushagak River and the next year, 1884, they packed 400 cases of canned salmon (Moser, 1899:173).

The late nineteenth century was a period of rapid expansion of canneries throughout Alaska, as it became obvious that large profits could be made from the salmon resource. This was true for Bristol Bay and, by 1890, canneries were established on all the major rivers in the Bay. The number of canneries increased until there were 25 in the Bay by 1920. The first floating canneries arrived in the area in 1922 (MacDonald 1950; Hawkins and Daugherty 1952:17). After the large salmon runs of the 1930s, the canning industry consolidated to about half a dozen firms (Rogers 1972:371).

The early technology of catching salmon was quite simple. Traps were used until 1923 in Bristol Bay, when they were eliminated (Rogers 1972:364). The drift gillnet was the primary catching technique in use. Other catching techniques include the set net and purse seines. The latter technique, along with traps, was used in Chignik Bay. Referring to the Chignik fishery up to 1930, Cobb notes, "Practically all of the fishing here is with traps, although gill nets and seines have also been used at times" (1930:458). Prior to 1951, the major type of vessel in use was the "Bristol Bay Double Ender". These boats had a crew of two and were propelled by sail. Very few fishermen owned their vessels during this period. The early "double enders" were 25 feet in length. In 1922, power boats were introduced along with purse seines. These were felt to be too efficient and were outlawed by federal authorities (Van Stone 1967:64-65).

In 1951, power was allowed to propel the boats. With the legal use of power, the nature of the fleet changed. First of all, there was the conversion to power:

The shift of boats from sail to power was accomplished over a period of years; in 1951, of the 717 boats fishing, only 86 had converted to power, but by 1954, of the 712 fishing, 697 were powered. This was accomplished initially by conversion of sail boats to power, the progressive replacement by specially designed and built power craft (Rogers 1972:371).

One reason for the conversion of the boats from sail to power was the efficiency of the power boats, which spurred independent ownership. Prior to power, the majority of the fishermen were provided with sail boats by the canners for which they worked. Most of the fishermen were transported from the lower 48 by the cannery that employed them. They were provided with food and gear aside from the sailboat. With legalization of power, fishermen began to purchase their own boats. This was economically feasible because the independent fishermen received more for their fish than those working for the cannery. Independence also provided the fishermen with an opportunity to bargain with the processors, which also increased their income (Van Stone 1967:65).

In addition to the in-migrating fishermen (usually Italians and Scandinavians), cannery crews were often transported to Alaska. In the spring, cannery crews, mostly orientals, would be loaded on boats in California with all equipment and supplies for the season. They would arrive at the canneries in Bristol Bay, unload and set up operations. During summer the fish would be caught and canned. In the fall the pack would be loaded onto ships and, along with the crews and fishermen, return to the lower 48.

Very few local residents were employed in the fishery. As Rogers (1972:364) notes, "As late as 1939, of all wages and other payments made in this fishery,

nonresidents collected 77 percent of which 84 percent was paid outside Alaska after the workers returned to their home bases."

The following discussion highlights early history of the fishermen's unions in Alaska. For a full discussion of these unions, see Casaday (1936:408-448).

In the 1880s there was a brief period when the fishermen were organized into a labor association. Little is known of this organization. In June 1902, 700 Bristol Bay fishermen went on strike. The strike was settled after four days, though the processors refused to pay the settled wage increase in the fall, contending their representatives did not have the authority to make such an agreement. During that winter the Fishermen's Protective Union of the Pacific Coast and Alaska was formed. This union represented varied, although not all, fishermen groups along the Pacific Coast and was quite strong in Bristol Bay. It helped raise the price of Sockeye salmon from less than one cent before 1902 to more than three cents by 1906.

In 1906 several of the coastal unions met and formed the United Fishermen of the Pacific. The Fishermen's Protective Union containing the Bristol Bay fishermen became a local and called itself the Alaska Fishermen's Union. In 1909 the Alaska Fishermen's Union broke with the United Fishermen, applied for and were granted affiliation with the International Seamen's Union. Price settlement with the canneries was negotiated prior to the fishermen departing California for Alaska.

From the initial strike in 1902 there were no strikes up through the late 1930s, even though they were threatened in 1921 and 1924. Up to 1936, little effort was made by the Alaska Fishermen's Union to organize resident fishermen, the membership consisted almost exclusively of "outside" fishermen. As Casaday (1936:436) notes, "...the Alaska Fishermen's Union had degenerated by 1935 into an exclusive little aristocracy of skilled craftsmen." Some of the union leadership and members rebelled against this orientation and, by 1936, efforts were underway to organize resident fishermen.

World War II had a significant impact on the Bristol Bay fishery. Manpower was drawn away for the war effort. Price inflation and relaxed regulation encouraged the canneries to increase their effort. The lack of manpower encouraged the processors to use local residents in larger numbers. Native Alaskans were recruited from distant parts of Alaska. Attempts by the processors to reverse this trend after the war were not successful (Rogers 1972:371).

In the 1950s the Alaska Fishermen's Union represented cannery employed fishermen. Independent fishermen began to organize, needing their own organization to represent them. In 1959, the Western Alaska Cooperative Marketing association was formed. This organization is located in Dillingham and its membership is composed primarily of local native fishermen. The Alaska Independent Fishermen's Marketing Association was formed in about 1966 to meet the needs of the non-resident independent boat owners. It also included residents and setnetters as well as the drift gillnetters. The Alaska Fishermen's Union still represents tendermen, beachmen, culinary workers, and resident

cannery workers in Bristol Bay but stopped representing fishermen around 1972-1974. Non-resident cannery workers are represented by the I.L.W.U.

As Rogers (1972:364) notes, "The history of the Bristol Bay salmon fishery has been a pattern of boom, bust, and modest recovery typical of all Alaska fishing regions." As can be seen from Table 7, this is the case. From an initial 1,058,000 fish caught in 1893, there was a steady increase in the numbers caught with fluctuations until the peak years of 1934-1938 were reached with a 19 million average. After the peak, the catch gradually declined to a low point in the early 1950s (Rogers 1972:364). Hawkins and Daughtery (1958:18) said of this low period "...the salmon runs in Bristol Bay have fallen on evil days." The run improved during the 1960s due to improved management and research projects instituted during the 1950s. However, disaster again struck the fishery in the early 1970s with very low runs, particularly in 1973 when only a million and one half fish were caught. According to one source:

The Bristol Bay fishery, traditionally the world's richest red salmon fishery, is today in a state of economic crisis. In 1974, this fishery will be essentially closed for the first time since commercial operations were initiated here in the late 1800s. The economy of the Bristol Bay region rests almost entirely on the red salmon fishery resource. As a result, the economic impact of this closure on the incomes of over 4,000 people of the Bristol Bay area and on others who depend upon this fishery for their livelihood has assumed disaster proportions (Alaska Department of Community and Regional Affairs 1974:1).

The fishery did not actually close in 1974 but only 2.5 million fish were caught. From this date there has been a rapid increase, culminating in a catch of 28 million in 1980.

Table 7. Total Commercial Catch for Bristol Bay, 1893 - 1980

1893	1,058,000	1922	24,671,791	1951	4,565,973
1894	1,292,900	1923	18,443,156	1952	11,587,549
1895	1,520,112	1924	10,802,627	1953	6,546,030
1896	2,362,109	1925	8,255,378	1954	5,235,803
1897	3,522,768	1926	20,116,054	1955	4,857,751
1898	5,062,630	1927	11,351,626	1956	9,418,792
1899	5,268,150	1928	20,224,161	1957	6,695,038
1900	8,613,445	1929	13,019,485	1958	4,718,335
1901	10,561,991	1930	4,874,423	1959	5,191,560
1902	13,613,710	1931	13,474,435	1960	15,450,834
1903	16,708,175	1932	16,093,386	1961	12,751,685
1904	12,566,228	1933	24,029,866	1962	6,432,826
1905	15,379,144	1934	21,024,017	1963	3,345,225
1906	13,329,368	1935	3,100,811	1964	8,124,296
1907	11,313,020	1936	21,415,702	1965	24,737,533
1908	17,285,980	1937	21,598,374	1966	12,261,717
1909	16,188,302	1938	25,295,927	1967	4,979,190
1910	12,796,911	1939	14,300,806	1968	5,289,473
1911	9,497,878	1940	5,318,481	1969	7,162,841
1912	22,024,443	1941	7,743,285	1970	22,050,524
1913	21,433,093	1942	6,732,502	1971	10,396,829
1914	21,526,958	1943	17,749,837	1972	3,283,368
1915	15,794,026	1944	11,957,230	1973	1,547,293
1916	20,093,937	1945	7,978,607	1974	2,678,236
1917	25,060,244	1946	8,406,905	1975	5,300,926
1918	24,651,416	1947	18,909,368	1976	8,107,501
1919	7,614,942	1948	15,155,216	1977	6,718,302
1920	11,658,344	1949	6,795,568	1978	16,324,739
1921	16,212,892	1950	7,409,893	1979	23,392,903
				1980	28,159,589

Source: Alaska Department of Fish and Game records, 1981.

World War II

During World War II an airfield was constructed at King Salmon in 1941 by the U.S. Army. The King Salmon base was used during the war as a fuel stop, weather forecasting facility, and rest camp. In 1944, it was renamed the Naknek Army Air Base and operated until 1945, when it was deactivated. The base was reactivated in 1947 by the Alaskan Air Command and renamed King Salmon Airport (U.S. Airforce 1979:2). Another airfield was constructed at Port Heiden during the war and disbanded after the war. This base was also reactivated for use as a commercial Airport (Alaska Planning Group 1947a:71).

The infusion of military personnel and operations exposed the residents to the "outside" world. World War II military activity was the primary force behind a population increase in the region - a growth of 40 percent between 1939 and 1950 (Kresge, Fison, and Gasbarro 1974:2-3).

People also moved out of the Bristol Bay Area during World War II, either to join the armed forces or work in defense plants. Some of these people remained outside while others moved back into the area with an increased exposure to the outside world.

The most significant impact to the area from World War II, however, was in the fisheries. The exclusion of residents from the fishery was broken because of manpower shortages. The pre-war pattern of exclusion was never again the rule.



V. CONTEMPORARY SUBREGIONAL PROFILE

Community Clusters: Subregions

For a variety of reasons, it is undesirable to deal with the entire Bristol Bay Region as a single homogenous area. The ethnic diversity within the Region is extensive, consisting of Aleuts, Eskimos, Indians, and Non-Natives. The study covers a very large geographic area, nearly 600 square miles. The Region includes 30 communities and a diversity of community and subregional economic and social systems. It would be overly cumbersome to address each village separately. While similarities clearly exist among various communities, the researchers also found significant differences between various groups of villages. Therefore, for purposes of this analysis, we have chosen to group the study communities into seven community clusters, or subregions.

The criteria used for grouping the villages into the subregions include:

- Geographic Proximity.
- Transportation and Communication Systems (i.e., common transportation routes and modes).
- Social and Cultural Relations (i.e., common ancestral, historical, or religious backgrounds; inter-community social or cultural interactions).
- Economic Systems in General (i.e., shared subsistence areas, shared or exchanged subsistence items, fishery use).
- Direction of Community Cluster Orientation (i.e., toward Dillingham, King Salmon, Kodiak, Anchorage).

The seven subregions utilized for the study, and the villages in them, follow:

Northern Alaska Peninsula Subregion

- Port Heiden*
- Pilot Point*
- Ugashik

Kvichak Bay Subregion

- Naknek*
- South Naknek*
- King Salmon*
- Egegik*

Southern Alaska Peninsula Subregion

- Chignik*
- Chignik Lake
- Chignik Lagoon
- Ivanof Bay
- Perryville

Togiak-Kulukuk Bay Subregion

- Togiak*
- Twin Hills
- Manokotak*

Nushagak River Subregion

- Portage Creek
- Ekwok
- New Stuyahok*
- Koliganik

Nushagak Bay Subregion

- Dillingham*
- Aleknegik
- Ekuk
- Clark's Point*

Lake Iliamna Subregion

- Iliamna*
- Newhalen*
- Nondalton*
- Kokhanok
- Pedro Bay
- Igiugig
- Levelock

* NOTE: The study includes detailed discussions of these villages as representative communities in the various subregions.

The use of subregions or community clusters is only for purposes of analysis. It is not intended to detract in any way from the uniqueness of each village. This study illuminates the individual character of each community. There are wide variations in populations, social histories, ethnicity, geographic locations, and kinship and social linkages.

However, the Bristol Bay Region does have certain key characteristics that tend to unify its inhabitants. For example, the predominant economic force throughout the study area is commercial fishing and fish processing. While equal access to the commercial fishery poses problems in the region, primarily because of limited entry and relative distance from the fishing grounds and processing facilities, this economic activity produces an important commonality throughout the entire region and is the mainstay of the area's cash economy. In addition, the widespread harvest of fish and wildlife resources for personal consumption provides a common interest in the general welfare of natural resources throughout the region. For both of these reasons, Bristol Bay residents are protective of fish and other wildlife resources and tend to oppose activities that could negatively affect them (i.e., offshore oil and gas activity, state land disposals).

Northern Alaska Peninsula Subregion

INTRODUCTION

The Northern Alaska Peninsula subregion is located closest to potential petroleum development in both the North Aleutian Shelf and Saint George Basin lease sale areas. Therefore, potential impacts, both positive and negative, are likely to affect this region first, with more intensity and of longer duration than other areas of the Bristol Bay Region. Hence, the Socioeconomic Studies Program directed that this region receive greater attention than the other subregions. The communities in this subregion include Port Heiden, Pilot Point, and Ugashik (See Figure 1). Both Port Heiden and Pilot Point were visited during fieldwork.

These three communities could be considered as part of a larger Alaska Peninsula subregion of Bristol Bay. In this sense they are more similar to the Chigniks, Egegik, and the Naknek areas than they are, for example, to the northern areas around Togiak, the Nushagak River or Lake Iliamna. Simply, they share more in common with their closer neighbors than they do with communities at a farther distance. This larger Alaska Peninsula subregion is tied together by three factors. First, climate and geography are similar. Second, the salmon runs in the region between the Chigniks and Kvichak Bay are very abundant which has led to economic prosperity, salmon cannery development, and concomitant Native contact with white and oriental fishermen and cannery workers for a longer time period. And finally, the cultural background

of these peoples is Pacific Gulf Yupik or Aleut (Krauss 1980), whereas most of the northern Bristol Bay peoples are Central Yupik and, in some ways, have more of an affiliation with their Yukon-Kuskokwim Delta neighbors than they do with the people on the Alaska Peninsula. However, the three villages that comprise the Northern Alaska Peninsula subregion form their own distinct unit on the Peninsula. They differ from the Chigniks and the insular communities to the southwest in environment and, to a degree, in sociocultural orientation. They also differ from Egegik, the dividing line between Central Yupik and Pacific Gulf Yupik (Alutiiq) speakers, and the communities further north.

There are many similar characteristics that tie these three communities together as a specific subregion of the larger Bristol Bay Region, including their locations on the northern or Bering Side of the Alaska Peninsula, similar weather conditions, and common vegetation and animal communities. Port Heiden and Pilot Point are both settled on bays, Port Heiden Bay and Ugashik Bay respectively, and the village of Ugashik is located up the Ugashik River. All are located on flat tundra backed by mountains to the east. Since there is no road system serving these communities, they rely on air service for passenger and freight transportation and on barge service for freight and fuel transportation. The main air transportation artery is to either King Salmon or Dillingham and then on to Anchorage.

Prehistoric information is scarce for this area. Historically, white interests in the three communities emerged with the development of commercial fisheries in this subregion. Today, the salmon runs of the Ugashik, Meshik, Egegik, and Kvichak Rivers are still the economic mainstay for these communities. Fishing

methods and technology are fairly uniform throughout the communities. At present the older, wooden fleet is being replaced by a more modern fiberglass fleet. The necessary infrastructure and/or capital does not currently exist in this area to diversify into fisheries other than salmon. In general, the fishing crews are family, kin, or friendship based, and the size of the crews appear to be increasing. While males tend to dominate in the drift-gillnet fishery, women dominate in the commercial and subsistence set net fishery. There are a limited number of costly commercial salmon entry permits in the subregion. This has raised some concern among the residents as to how their children, who do not hold a permit, will make a living. Some economic and social stratification may be occurring in relation to who owns and who does not own limited entry permits.

The communities are also similar in that local government is an important employment area after commercial fishing. In addition, local stores, airline service jobs, and trapping are important employment areas for these communities. Because all three communities are so economically dependent on the salmon fishery, any fluctuations in that fishery will likely result in an increasing or decreasing reliance on subsistence. The communities have a similar subsistence resource base and have similar practices of utilization and intra- and inter-community sharing of the subsistence items.

The population of these communities is small. Port Heiden is the largest with 92 persons, followed by Pilot Point with a population of 66, and there are 13 persons listed as living in Ugashik. Social relations based on kinship and friendship are a manifestation of the small population and of a Native cultural

tradition. Strong ties of kinship and friendship extend to inter-village relations among these three villages. These ties extend beyond the social area into the economic sphere. Each community is involved in other subregional organizations in joint economic enterprises based on ANCSA funds. To some extent this involvement reflects a sense of isolation some community members feel from the larger regional corporation, headquartered in Anchorage and, to a lesser extent, from the non-profit association located in Dillingham.

These communities' active pursuit of economic development beyond the village level is reflective of the dynamic local leadership existing in each community. Many of the residents of these communities are well-traveled, well-informed, and have more of an Euro-American perspective than peoples in the northern areas of Bristol Bay. The success of the salmon industry in the last few years has reinforced this perspective and provided a solid economic foundation. The local leadership is comprised of individuals who are both economically and politically active and successful. They are currently involved in improving the infrastructure and housing in their own villages and in developing the village's ANCSA settlements beyond the village level.

In summary, the three villages of Port Heiden, Pilot Point, and Ugashik are viewed as constituting a distinct sub-region within the Bristol Bay Region. This assertion is based on similarities of environment, economy, subsistence practices, sociocultural patterns and traditions, and self perception and designation.

PORT HEIDEN

Location, Community Life, and Infrastructure

Port Heiden is on the Bering Sea side of the Alaska Peninsula at the southwestern end of the Bristol Bay Native Corporation region. It is located between the northeastern shore of Port Heiden Bay and Goldfish Lake, close to Bristol Bay itself. A few miles from Port Heiden is the Port Heiden Airfield which was constructed during World War II. It is currently used for commercial purposes. Remnants of the War construction period still exist near the area between the airfield and the community. Port Heiden Bay serves as the outflow for the Meshik River drainage system. The community itself sits on relatively flat tundra which increases in slope, to the east of the community, until the 3,350 foot level of Mount Aniakchak is reached.

For the purposes of this report, the community will be referred to as Port Heiden, even though the village itself is often referred to as Meshik. The population of Port Heiden is given as 92 in 1980 census data (Alaska Department of Labor 1982). Of this population, 33.7 percent are white, 63 percent are Aleut, and the remaining 3.3 percent are Eskimo and other. It was estimated that about 10 people still speak the native language and perhaps 20 understand it. School bilingual assessment figures indicate that, among the students, English is most frequently spoken though there is some grammatical transfer of the native language (Alaska Department of Education 1981). A bilingual program existed in the school at one time but was eventually disbanded.

According to some of the older local residents, Meshik is a very old community. Local residents claim it once had a large population. Petroff's estimated 40 residents for the 1880 census (Rollins 1978:1880-8). South along the coast were the villages of Unangashik (also given as Unangashek, Unangashak, and Oonangashik) and Ilnik. No population figures are provided for Ilnik, but Unangashik's population for 1880 was 37 (Rollins 1978:1880-8; Dumond personal communication). According to community residents, an influenza epidemic of 1918-1919 devastated the population with many of the dead buried in mass graves. The survivors of Ilnik and Unangashik moved to Port Heiden. Very few people live at Ilnik currently and Unangashik is abandoned.

There are about 30 houses at Port Heiden and the city has been waiting for Housing and Urban Development (HUD) housing for about two and one-half years. One person stated that the houses have been repaired and painted in recent years due, probably, to education and travel, which has exposed them to the styles of "outside" housing. The feeling is that "people want to live better." Because of the community's close settlement on the coastline, a few of the houses have slipped into the bay due to erosion and storms. The community is presently concerned with an erosion control project which consists of moving the entire village to a safer nearby location.

Electricity is community owned and all houses are electrified. Water is acquired through individual wells. Policing is done by contacting the Alaska State Troopers. It was noted by those interviewed that the Troopers are seldom called in as problems are "usually straightened out in the village." There is a fire trailer tank and volunteer firemen. Fire extinguishers are located in houses with

large extinguishers present in central locations. Transportation is by air for everything except fuel, which is imported by barge. Even vehicles arrive by air because of the salt corrosion if shipped by barge. There is only one phone in Port Heiden, but everyone is connected through Citizen's Band radios which are located in most houses.

There is one all purpose store in Port Heiden, a Post Office, small library, and city office. One structure serves as the community hall and health clinic. The health aide has worked as an aide for twelve years and is paid through BBAHC. The clinic was built several years ago and upgraded in 1979. Any severe health problems that cannot be alleviated at the health clinic are referred to doctors at the Kakanak health service in Dillingham. Emergency cases are airlifted by Peninsula Airline or by the Coast Guard to Kodiak. A nurse visits the community about three times a year, a doctor twice a year and a dentist once a year. The biggest health problem is accidents, though these are infrequent. Alcoholism is a problem and seems to increase after fishing when money is available, according to those interviewed. An alcoholism counselor resides in the community. One resident noted "Natives can handle all white things except alcohol." The toughest period, in terms of mental health strain, is considered to be February. Quite a few residents travel to the "Beaver Round-Up" in Dillingham during this month to overcome the pressures of "cabin fever". Drugs are not considered to be a problem, though some use does exist, according to some residents.

In terms of ethnic relations it was stated, "In the old days whites used to be dominant. If you were a Native you weren't worth a damn and this was up to

a few years ago." There is the feeling that whites would come in and try and "run over you". Immediate relations seem to be improving, however, because the residents do not have to interact with whites if they so choose. The economic leverage resulting from ANCSA and ownership of salmon permits by Natives are viewed as assuring long term equality between ethnic groups, according to some of those interviewed.

There is a new high school building in Port Heiden and an older grade school. A new K-12 school is planned. Special programs in the school include Johnson O'Malley and Indian Education. Special education, reading, speech therapy, and testing services are provided by the Lake and Peninsula District on an itinerent basis. There is a three member Community School Committee which serves as a school board. There appears to be no major dropout problem and education is considered a value in the community.

City funding is through federal revenue sharing and P.L. 93-638. Also, grants such as Rural Development Assistance (RDA) are acquired. Port Heiden is a second class city with a City Manager and seven member council, one of whom is elected mayor. The Native council is the Port Heiden Village Council, which has seven members with one elected as president. The village corporation is the Alaska Peninsula Corporation, which has nine members. Port Heiden's Native Corporation has merged with the Native Corporations of Ugashik, South Naknek, Newhalen, and Kokhanok. This was undertaken to raise money and improve both management and the utilization of resources. Plans are evolving for mergers with more villages. It was felt that, at present, the three organizations cooperate well with each other, partially because there is some overlap of board

members. However, it was noted that, as the city grew, there might be some problems between the city and the Village Council.

Relations between Port Heiden and the BBNA and BBNC were felt to be very good though the relationship with BBNA was felt to need improvement. Though there was a general feeling that Port Heiden was adequately represented on BBNA and BBNC Boards and in Juneau, there was some opinion that the Bay Area should have two representatives in Juneau, one from Dillingham and one to represent the Peninsula.

The ANCSA land distribution is still in progress. The Alaska Peninsula Corporation received land from this Act and most of it was selected near the city. The present attitude is that the Corporation is "not going to sell any land." This may present a problem in the future as available land is scarce in the immediate area.

Recreation in Port Heiden involves a lot of inside "social coffee drinking", hunting, fishing, snowmobiling (though there really isn't much snow and three wheelers are more useful), berrypicking, steambathing T.V., bingo, video cassettes, and beachcombing. The mayor serves as recreation director for the city. Plans are being developed to upgrade the Community Hall in order to provide more recreational services with more management. The Mayor also provides services to the elderly such as delivery of food and transportation.

There was a Russian Orthodox Church in Port Heiden, but currently the community is visited by a priest about once a year. A non-denominational "Port

Heiden Mission" currently exists in the community. The Army bulldozed the local graveyard during World War II and built a warehouse over it. Some effort has been made to require the Army to change this situation but it has met with little success.

It was noted by those interviewed that there is a fairly strong interrelationship with other local villages such as the Chigniks and Pilot Point. Many of the residents have relatives in other villages and visiting is fairly frequent. Prior to about 1950 visiting was done by dog sled, but these were abandoned at about that time.

Several problem areas were noted by the residents in reference to their village life and infrastructure. One non-resident noted that Port Heiden is like a big family and that their motto could be "A community that does things together." If this is true, the following "problem areas" will likely be solved by the community itself.

- Erosion problems are endangering some houses. Plans are underway to move the entire community.
- Plans are being developed to rebuild the Community Hall. A transient hotel may be included as part of the development.
- Alcoholism is considered a problem by some residents, particularly during the end of fishing.
- Port Heiden's boat harbor is in need of dredging and expanding. At present there are no good harbor facilities available in Port Heiden. During the fishing season the boats are moored in a shallow lagoon and subject to sitting on the sand during low tide and potential wave

damage during high tide. During the winter the boats are stored on land without any structural protection (Combs 1981:174).

- An improved water system is needed as well as the development of a sewer system.
- Some new housing is felt to be needed.
- The fuel barge arrives in the spring when there is little money in the community. The City purchases the fuel and sells it to the local residents. There is some concern about the increasing price of the fuel that arrives each year.

Economics

The major economic activity of Port Heiden is based on commercial salmon fishing. During the late 1880s Port Heiden was known to cod fishermen. Scandinavian influences, reflected in surnames, date from this period (Combs 1981:165). Near the turn of the century a salting station was located, at various times, at Port Heiden (Rich and Ball 1928:73) and fish traps were used there on occasion, according to local residents.

The current salmon fishermen utilize the area from Stroganof Point in the Meshik River to the north side of Ugashik Bay near Pilot Point. This area includes two different fisheries management areas with Port Heiden in the Alaska Peninsula area and Ugashik in the Bristol Bay management area. A provision of the General Provisions of the Alaska Board of Fisheries regulations has accommodated the traditional fishing route of the residents of Port Heiden by noting that Port Heiden is considered to be part of the Bristol Bay

management area prior to June 30 and after August 1 (Alaska Department of Fish and Game 1980:154). Thus, those Port Heiden fishermen holding Bristol Bay permits (a majority) can legally fish in their own home waters during an early and late fishery. Fishing begins in late May with the chinook salmon run in the Meshik River. In June the fleet moves to Ugashik for the large sockeye salmon run. The Ugashik run lasts until about the middle of July when the fleet returns to Port Heiden for the coho salmon run in the Meshik River which begins usually in the second week of August.

Drift gillnet and setnet are the fishing methods used by the Port Heiden fishermen. In 1980, local residents held nine drift gillnet and 12 setnet Limited Entry permits for the Alaska Peninsula and Bristol Bay areas (Nebesky, Langdon and Hull 1982:253). The value of these permits in 1981 was estimated at \$80,940 for a drift permit and \$32,704 for a setnet permit. (Nebesky, Langdon and Hull 1982:253). The drift gillnet permits are owned by men only (Combs 1981).

There is no fish processing facility currently located at Port Heiden. The fishermen have been selling their fish through three markets. Some fishermen have sold their catch to Swiftsure Fish Company tenders and, during the 1981 season, as many as 39 cash buyers had tenders located in Ugashik Bay for the sockeye salmon run in which the Port Heiden fishermen participate (Combs 1981:177). The third marketing channel is through Christensen and Sons Fish Company, a local family operated concern. Christensen's fish are shipped to Anchorage for sale.

A few of the Port Heiden fishermen have expressed interest in and participated in the Togiak herring fishery. There is a potential clam fishery near Port Heiden which has not been developed. Bottomfish, crab, and halibut are available in the Bering Sea. However, the residents' boats are too small for participation in those fisheries and entrance would require major capital investments.

The residents' boats are all 32 footers; roughly half are older, wooden boats and the other half are more modern, constructed of fiberglass. Some local fishermen believe the 32 foot limit should be dropped in order for fishing to become more efficient. The crews are usually composed of a captain and one crewman, though there is an increasing tendency to use two crewmen. The crewmen are not necessarily family members but 38 percent are family related and a total of 71 percent are kin and/or local residents (Combs 1981:175). Although very few women work on the boats, they do operate the setnets. No residents reported that they had obtained a State shore fisheries lease for their setnet site. In terms of location, there is a "gentlemen's agreement" that the same families fish the same sites every year. However, another person's site can be fished if permission is asked for and acquired. Some concern was expressed about limited entry because younger people are denied access to the commercial fishery.

The airfield here has not been a significant source of employment for Port Heiden residents. There was little interaction between the airfield crew and the village during World War II, except occasional medical care provided to the community by the Army doctor. The airfield and base created no expectations of material goods, largely because Port Heiden residents already had adapted to the "white" ways prior to the war. Closing the base after the war had little

import on the community. The Federal Aviation Administration (FAA), which eventually took over operation of the airfield, is simply considered a good neighbor.

In addition to fisheries, government provides a second source of employment for the residents. The school employs three certificated teachers, one cook, one maintenance person, one custodian, and one bus driver. Though the health aide is now paid, it originally was a volunteer position. There are two paid positions at the Post Office. Within the City there are the secretary and manager positions. The City Council and Village Council members are not paid positions. There are no paid employee positions at the store. There is one paid position at the airport. Few Native crafts are made in Port Heiden. There are a number of "contract" positions with the City including road maintenance and construction. Speaking of the seasonal local employment, one resident noted "Unemployment during the winter is not really a cancer. There is so much other stuff to do. We never run out of stuff to do."

For some residents, trapping is an important commercial activity in the Port Heiden area. Trapping is conducted in the flat tundra areas and the primary species caught include fox, mink, and otter. Though big game guiding is an activity at Port Heiden, only one local person guides, the remaining guiding is done by non-residents.

In relation to economic development there is interest in diversifying into new fisheries, such as clams and bottomfish. Diversification, however, has financing problems. There are definite feelings against offshore petroleum development.

The major concern about OCS development is that oil spills and blowouts may affect fish stocks. Local environmental conditions, including ice, wind, and tides, are seen as potentially causing serious problems with either petroleum development and/or clean-up operations. The residents noted that they were well aware of events in the North Sea and in the Gulf of Mexico. One resident stated that, when people run out of caribou they will often fall back on seals and the residents would "hate to have the oil kill them off." Onshore petroleum development is viewed favorably. Port Heiden has had onshore petroleum exploration experience. Test drilling was conducted just a few miles north of Port Heiden in 1972 (BBNA 1976a:19).

There are several issues and concerns relating to economics in Port Heiden, which, though already touched upon, are summarized here:

- Some concern was expressed about a need for bigger boats both for diversification and efficiency.
- Limited entry may eventually be a problem with an increasing population.
- Though offshore petroleum development is not favored, onshore development is regarded somewhat favorably.

Subsistence

The Port Heiden area is relatively rich in local food resources. As one resident stated, "Lots of stuff to eat, but I can't name them all." The following list is

not inclusive but presents species mentioned by those local residents who were interviewed.

- Marine Species: Seal, sea lion, walrus, beluga whale (not available as in the past), other species of whale, salmon, clams, halibut, crab.
- Land Mammals: Caribou, moose, beaver.
- Fresh Water Fish: Smelt, trout, dolly varden.
- Birds: Several varieties of duck and geese, ptarmigan.
- Vegetation: Wild spinach, wild rhubarb, wild celery, beach greens, fireweed, wild rice, mushrooms, cranberries, salmonberries, moss berries.

Range. The subsistence range utilized by Port Heiden residents is fairly extensive. Though most subsistence is done locally, some items are acquired at greater distances. Smelt, subsistence salmon fishing and duck and geese hunting extend south along the coast as far as Ilnik. Some use extends a few miles north of the community along the beach. The tundra region around Port Heiden is used for most subsistence items and the road system is used for vegetation collection such as wild celery. Caribou migrate quite close to Port Heiden where they are hunted and moose are hunted in river systems and in the tundra areas. The Black Lake area southwest of Port Heiden is utilized for moose. Razor clams are dug on the Pacific side of Aniakchak beaches.

Exchange . As one resident said, "We share food. If someone gets a moose, everyone gets some. No one goes without meat. People who can't take care of themselves are taken care of." It was also stated by those interviewed

that people from other villages would travel to Port Heiden to hunt and, if they acquired some game, they often share it with Port Heiden.

Use Patterns. Although the subsistence species listed above reflect some of the items that can be utilized, not all of them are by all people. The major species used are caribou, salmon, duck, geese, smelt and wild berries. Only some of the older people still occasionally make use of the other forms of vegetation. Moose were an important item but have become scarce, according to local people and caribou have replaced them in useage. There was absolute agreement among those interviewed that caribou was the number one subsistence item. It was stated that 100 percent of the residents participate in subsistence activities of one form or another. It was also estimated that 98 percent of the residents' meat diet was local subsistence. Greens were acquired from the store with the exception of some of the older people who used some local vegetation for part of the year. It was further stated that, "Everybody puts up berries for jam." Berries are also frozen or used fresh for "Aguta", a mixture of berries, Crisco and sugar.

That subsistence is important in the community is expressed in the following quote, "We do not need to make money except for fuel. Cash doesn't really mean that much. Cash you can be without." Besides fuel, it was mentioned that cash was needed for such items as rice, potatoes, and cigarettes. Fishing is seen as a way of paying for electricity, heat, and items purchased in the store. Dependence on local game was noted to be variable with economic conditions in the sense that imported beef is quite expensive and many people could not afford it except during good fishing years. Some people attempted to raise gardens but

the squirrels prevented success. Hunting is generally done in groups and berry picking is usually done by two or more people.

Issues and Concerns. There are several issues and concerns related to subsistence activities that were expressed by the residents.

- There is some fear that any change in environmental conditions will adversely affect the animals. For example, the caribou may alter their migration routes.
- Any restriction on subsistence may potentially diminish sociocultural tradition. As one resident said, "Learning how to hunt, how to be a man, that you can provide for your family. Without that, you can lose that sense of traditional customs."
- Much of subsistence use is related to economic conditions. Subsistence use varies depending on the success of the fishing season. Any restrictions on subsistence use would cause hardship, particularly during bad fishing years. Though all potential subsistence items are not used all the time, they are viewed as a reserve that can be utilized depending on need.
- One concern expressed by the residents is waste of subsistence resources attributed to sport hunting. There is a feeling that sport hunters seek antlers for trophy use and leave the meat to rot. This is referred to as "headhunting". The decline in the local moose population is attributed to "headhunting". This problem is viewed as declining as recent attention has focused on conservation and the meat is being utilized.

PILOT POINT

Location, Community Life, and Infrastructure

Pilot Point is located on the east central shore of Ugashik Bay which opens into Bristol Bay. It lies between the two coastal communities of Port Heiden to the south and Egegik to the north. About 10 miles to the southeast of Pilot Point lies the community of Ugashik also on the Ugashik River.

The region around Pilot Point is mostly flat tundra. About 35 miles to the southeast are foothills which rise to Mount Chigiagak at over 6,000 feet in elevation. Approximately 25 miles due east are Lower Ugashik Lake and Upper Ugashik Lake, backed by more mountains. About 6 miles north of the northern tip of Upper Ugashik Lake is the quite large Becharof Lake. Approximately 60 miles to the east is the Pacific Ocean.

According to the 1980 census, Pilot Point has a population of 66 with 9 whites, 1 Eskimo, and 56 Aleuts (Alaska Department of Labor 1982). Historically, Ugashik was the main village with Pilot Point more of a hunting and fishing camp, according to local residents. Early records indicate that, from 1889 to 1898, C.A. Johnson operated a salmon saltery downriver on the opposite bank from Pilot Point. In 1894 he established another saltery one and one-half miles above Pilot Point. This saltery was sold to Alaska Packer's Association (APA) and incorporated into their cannery operations built in 1895 just above Pilot Point. This cannery, one of two APA canneries, was referred to as the Ugashik

Fishing Station (Moser 1902:215-217) and operated until 1958 when deterioration of the harbor forced APA to close the facility. Moser (1902:214) notes from his tour of the Alaska salmon fisheries that the community was called "Pilot Station" at that time because a Native lived there who piloted vessels through the main channel of the Ugashik River entrance.

After a severe flu epidemic in 1919, Ugashik people resettled at Pilot Point. One resident noted that during the early 1920s some people from Nome were moved to Port Moller and Nelson Lagoon. They were dissatisfied with those locations and again moved, this time to Pilot Station in 1923. The name of the community was changed to Pilot Point in 1933 when a post office was established there.

Those residents interviewed, the majority of which are Natives, did not view ethnic relations as a problem. Indeed, Pilot Point has had historic experience with ethnic diversity. Early cannery workers were Chinese and Native; fishermen were Italians and northern Europeans. As noted earlier, after the 1919 flu epidemic, large numbers of Eskimos moved in and settled on the south side of town, separated from the Aleut population. Currently, however, there is only one Eskimo still living in Pilot Point.

A few of the older village residents understand and speak the Native language but English is used almost exclusively. A bilingual program existed in the school at one time but is no longer active. School statistics indicate the children speak primarily English, with some use of Native grammatical forms.

Most of the buildings in the community are located on a bluff overlooking the shore line. There are 27 houses in the community, not all occupied but most in good condition. The Post Office building contains the village phone. A community center houses the Health Clinic. Health care is provided by the Public Health Service (PHS) and delivered by a resident health aide. Residents with severe health problems are flown by air charter to Dillingham. A doctor and public health nurse visit once a year. A major health problem, according to some of the residents, is alcohol abuse. The Community also experiences the usual assortment of colds, flu, sore throats, etc. Dentists visit Pilot Point about once a year. One resident stated, "They used to just extract teeth. Now they do better work." There is a Russian Orthodox church in the community and a Reader was in residence until about 1939. The school building built in 1939, has one classroom, a darkroom, kitchen, and teacher's quarters. School facilities also include a playground, and a shop located in a separate building. The largest structure in Pilot Point is The Alaska Packer's cannery, which ceased operations around 1939. The cannery is located on the shore at the base of the bluff and consists of a number of large structures, including a dock. Only one of the cannery buildings is used as a part-time store. Several steambaths in the community offer popular relaxation. One resident put it this way, "I would take one everyday if I could."

Domestic water is provided mostly by private wells although water must be carried to about six houses. Most of the homes are provided electricity from a system operated by the Village Council. "Just about every house had windmills for charging wet batteries for the radio," according to one resident.

Policing responsibility is assumed by Alaska State Troopers brought in for any problems. However, State Trooper sometimes take several days to get to Pilot Point, a factor that causes stress during the intervening period and deters residents from making a citizen's arrest. Resistance to performing a citizen's arrest exists because the villagers might reject the person making the arrest, according to some of those interviewed. Most of the people of Pilot Point are either related and/or close both emotionally and physically. Ostracization might occur, which would be very difficult to accept in such a small community. Residents said there was little crime in the community although some concern was expressed about an increase in break-ins.

Although a volunteer fire fighting crew was organized by the Village Council, as one resident said, "Everyone just grabs something and runs." A grant has been applied for to purchase firefighting equipment. An application has been submitted to HUD for a fire truck and fire house. There are complications, however, relating to settlement of land claims title for the proposed firehouse site.

Fuel is delivered near the end of July by barge and there is year-around air service for material goods and passengers. One resident noted that in the past brush-like alders were burned for fuel since there are no large trees in the area. The alders were chopped when the lakes froze in the fall, when they are easily reached by traveling across the frozen lakes. The alders were stacked and transported by dog team when enough snow had fallen to use the teams. Alders were still burned in the early 1950s, though shipped-in coal was already in use. In the mid-1950's, stove oil was introduced. Currently some people use butane.

Vehicles are now flown into the community to avoid salt corrosion that can result from barge shipment by sea. All food, except local subsistence, is flown in. "Three wheelers", snowmachines, and vehicles have replaced dog teams which, in the past, were commonly used.

Pilot Point is an unincorporated community within an unorganized borough. Some consideration is being given to apply for second-class city status. The community is governed by the Pilot Point Village Council. Financial support is derived from revenue sharing and P.L. 93-638 funds. The Pilot Point Native Corporation is the profit organization for the village, and it has a joint venture relationship with the Egegik Corporation in a cannery at Egegik. There is mixed opinion about Pilot Point's relationship to the regional Native Corporation level. There is some feeling that BBNC is remote and non-representative, yet some awareness exists that BBNC can't inform the communities of every action they take. BBNA, on the other hand, is seen in a slightly more positive vein.

When asked about what effect ANCSA had on the communities, there was some agreement that it has brought governmental and other responsibilities down to the community level. There was, however, some feeling of concern about these new responsibilities, "A lot of things we don't understand that's being handed down." It was also noted that there is a feeling in the community that people aren't as free to move on the land as they once were. Stated more precisely, "BLM makes regulations; they will burn a cabin if you build one. Yet guides from Anchorage and Fairbanks can build a cabin and they aren't bothered." There appears to be available land for expansion in Pilot Point, according to

local residents. The primary use of the surrounding land is for subsistence activities, according to the residents.

A number of issues and concerns were expressed by Pilot Point residents regarding their community.

- A fire truck is needed.
- The harbor and boat dock have silted in. There is a need for dredging of this area.
- A water and sewer system are needed.
- There is a necessity for new housing and improvements on existing housing, including foundations.
- Heavy road maintenance equipment is needed.

Economics

The major economic activity in Pilot Point is commercial salmon fishing, which usually begins around June 10 and ends in September with the coho salmon run. The most important fishery is the Ugashik sockeye salmon run which is strongest in July. The Diamond E. cannery in Egegik purchases large numbers of salmon from Pilot Point fishermen. Cash buyers also purchase their fish.

Historic practices made it "tough for a local to get into the fishery," according to one resident. None of the local residents worked in either of the Ugashik or Pilot Point canneries. Cannery crews were mostly Filipinos at Ugashik and Chinese or Mexican at Pilot Point. The fishermen were mostly Sicilians.

Canneries owned the boats and transported "pet" fishermen from California to Pilot Point.

There were 19 drift gillnet permits and 15 set net permits listed for Pilot Point in 1979 (Langdon:1981). Typical crew includes a captain plus one or two crewmembers, with a trend towards three crewmen. Most crews are composed of family members, occasionally including wives. Set nets are worked by women. In the past, one family would traditionally use a certain location for their set net site. There were informal agreements that another family's site could be used. Some of the sites are leased and there appears to be a trend of increased leasing of sites from the State.

Increasing competition from outside fishermen will, to a degree, prevent the Pilot Point fishermen from taking full advantage of the Ugashik sockeye salmon run. The Pilot Point fleet consists mostly of wooden boats although the older boats are being replaced by the new fiberglass variety. However, this investment in new 32-foot salmon fishing boats will prevent diversification into alternative fisheries requiring larger vessels.

Trapping provides another source of income for the residents. Some of the major species trapped include beaver, squirrels, muskrat, otter, mink, wolves, wolverine, coyote, lynx, and fox.

The school has employment positions for a certified teacher, cook, custodian, and preschool aide. Most of the students continue their education through high

school even though there is no high school at Pilot Point. Some families live in Anchorage while their children finish high school.

Other occupational positions available in the community include one post office employee, a family run store, one health aide and one assistant, two air taxi pilots, one airport maintenance position, and one Kodiak Western agent. There is some reliance on welfare; "It all depends on the fishing season." Grass baskets were made at Pilot Point but not currently for commercial purposes. Some grass collecting and basket making is done through school-funded programs. Most boat and vehicle repair work is done locally by the individuals themselves.

Village houses are also constructed by the residents. "We're very self-reliant," according to one resident.

In general there is a negative attitude about economic development, specifically offshore oil development, because of potential danger to salmon. Some residents were knowledgeable of other OCS developments and potential oil spill areas such as the North Sea and the Gulf of Mexico. There were no negative feelings about the onshore drilling relatively close to Pilot Point (BBNA 1976a:19). Potential offshore development raises more concern, however. One resident stated, "If an oil spill ruined the salmon, the bears wouldn't have a food supply and then they would start chewing on us. The cycle would be ruined." Strong opposition also exists against the development of roads to connect Pilot Point with other communities in the region and the state. "Most everybody likes it the way it is," said one resident.

Significant economic issues and concerns raised by the Pilot Point residents include:

- **Limited Entry:** The limited number of permits has not produced any pressure yet but the finite supply is causing concern. "Fathers will be fishing to their dying day. Kids have to scrounge around to get on a boat." The situation is exacerbated by a lack of local sources for limited entry permit loans. Also, many people in these small communities have not been able to build required credit ratings, especially true for younger people desiring a limited entry permit loan.
- **Boat Storage Fees:** Most boats are stored in the APA cannery. There is some concern that the storage fees may be increased.
- **32 Foot Limit:** Residents are split over this issue, larger boats could accommodate refrigeration, resulting in higher fish quality. Larger boats would enable an individual fisherman to diversify into other fisheries. However, "There is a fear outside fishermen with capital can get bigger boats," said one resident. "Dentists, lawyers, and plumbers will take a month off to come up here to fish."
- **ADF&G Management:** Some concern was expressed about inadequate ADF&G Management of the fishery in 1980, resulting in illegal fishing by outsiders and violence, such as ramming boats and "almost gun play". Concern about potentially disruptive influence of outside fishermen was expressed by one resident when he noted, "The people here respect each other. We all know each other."

Subsistence

"Pretty hard to starve out here," one resident said about subsistence. "There's a different season where different items are taken. There's a cycle of food running around. When you get hungry you just go out and get something to eat." The subsistence species mentioned by some residents as available (although not necessarily currently used), include but are not limited to:

- Marine Species: Salmon, herring, seal (grey) and beluga whale (historical usage), clams, flounder, sole, halibut, crab, cod, sea lions.
- Land Mammals: Moose, caribou, porcupine, rabbits, beaver, squirrel, bear.
- Fresh Water Fish: Smelt, pike, trout, bullheads, dolly varden, grayling, whitefish.
- Birds: Ptarmigan, geese, duck, crane, snipe.
- Vegetation: Wild rice, wild celery, wild spinach, tundra plants used for tea, mossberries, cloudberry, low and high cranberries, wineberries, bloodberries, wild rhubarb, blueberries, soup greens, a few mushrooms, grass for baskets, mouse dens were opened and the stored food (nuts) were utilized.

The yearly cycle in relation to subsistence was stated as follows (again this is a general listing):

- Summer: Salmon (both commercial and subsistence salmon fishing), natural vegetation.
- Fall: Caribou, geese, moose, put up salmon (insects are absent so they don't bother the drying fish), berries, bear for the grease (no longer done).
- Winter: Moose, caribou, pike, smelt, ptarmigan, beaver, seal.
- Spring: Duck, geese, early king salmon.

Range. Subsistence utilization is mainly localized around Pilot Point. The drainage and flat tundra areas along the Ugashik River are used for a variety of subsistence species. Moose are hunted in the valleys of the low foothills to the south and east. Caribou hunting and fur trapping are done in the tundra areas north of the community. The Ugashik lakes area is a popular location for both recreation and subsistence uses such as fall salmon and trout fishing and berry picking. Some of the people will go to Chignik every year to acquire berries for jam and "aguta", clams, and king crab. Perryville and Ivanof also are visited by some people to acquire a variety of Pacific foods such as octopus and a shellfish called a "Bidarki". Smelt and Pike fishing is done on the rivers near Ugashik because the ice is thicker than the ice near Pilot Point.

Exchange. In reference to exchanging of subsistence items one resident stated, "It is not expected to share, but people just do it. You share your good

fortune and it will come back to you." Although the rules of exchange are up to the individual, those in need, like an elderly widow, will receive food as will strangers. One person said, "Even some person you don't like you give food. A man's got to eat. But if someone's lazy, won't give them much....only the lazy won't eat."

Some Pilot Point residents travel to other communities such as Chignik, Perryville, and Ivanof for subsistence activities. Some exchanging is conducted with residents of those communities with Pilot Point often providing caribou. Even Saint Paul has received Pilot Point caribou in exchange for seal flippers. Chignik plays an important role in the exchange process since the residents there acquire salmon very early in the season. These early salmon are sent to Pilot Point where there often is "a feed." Relations between Pilot Point and Ugashik are very good. The subsistence ranges of Ugashik overlap with Pilot Point's and exchanging and sharing occurs between the two communities. People from Chignik often hunt caribou on the Bering side of the Peninsula and historically would travel to the Pilot Point area by dog team. Airplanes have eased transportation problems. Kinship is one reason there is interaction with other communities, primarily Chignik and Ugashik. These family ties often influence the exchange pattern between communities, i.e., family sharing. Within Pilot Point, however, exchanging and sharing appears based on affiliation with the community.

Use Patterns. All of the residents participate in subsistence activities to some degree. An estimated to-thirds to three-fourths of the meat is local. Nearly all jam is made from local berries while other local vegetation is used less intensively.

It was noted, however, that if food were cheaper there would still be subsistence use because of taste preference and traditional patterns of getting out in the countryside. This pattern includes recreating around the Ugashik Lakes. The two locations on the lakes where cabins exist are popular recreational and subsistence locations. Many families travel to the Lakes together to, "have a good time gathering up subsistence and just enjoy living off the country." Also popular are the hot springs near Mount Chiginagak used historically for health purposes. One resident said the hot springs will ease severe cases of arthritis after a week of treatment.

While commercial fishing is viewed as an important source for cash goods, many residents would "rather live off the land." In the relationship between cash and subsistence, cash tends to support subsistence, but this would vary depending on the success of the commercial season. "It's hard to say which is more important," said one resident. "They all play a part."

Issues and Concerns. Subsistence issues and concerns expressed by Pilot Point residents include:

- It appears the moose population is declining, resulting in stronger dependence on caribou.
- Any decrease in subsistence rights would threaten food sources and the traditions of acquiring those food sources.

- Potential offshore oil development is seen as a potential threat to marine subsistence species.

Kvichak Bay Subregion

INTRODUCTION

In this report the villages of Naknek, South Naknek, King Salmon, and Egegik are grouped together as the Kvichak Bay Subregion. There are several factors that unify these communities and distinguish them from the other subregional village clusters. The first of these factors is proximity/geography. The three communities of South Naknek, Naknek, and King Salmon are located on the Naknek River. This river drains Naknek Lake and empties into Kvichak Bay, close to the mouth of the Kvichak River. South Naknek is on the south shore of the river about three miles from the river entrance. Naknek is across the river, on the north shore, about two miles from the river mouth. King Salmon is located 14 miles further up the river on the north shore (see Fig. 1). Approximately 35 miles southwest of the Naknek River is the Egegik River, emptying into Egegik Bay and serving as the drainage for Becharof Lake. The village of Egegik is located on the south shore of Egegik Bay, close to the point where the river empties into the Bay. The countryside around these four communities is mostly tundra and dotted with small lakes.

The four communities also share a similar environment. They are all located beside a major river close to where the river feeds into Bristol Bay. These

rivers also unite the communities economically with the exception of King Salmon. The salmon using these rivers are the basis for the main economic enterprise in the subregion, and this industry will be discussed in more detail below.

The third factor aligning three of these four communities is political organization. Naknek, South Naknek, and King Salmon are within the Bristol Bay Borough, the only organized borough in the Bristol Bay Region. It was incorporated as a second class borough in 1962. The existence of the borough ties the three communities together through its: powers (planning and zoning, education, and taxation); services (police, fire, sewers, etc.); and as a political focal point with offices, a bureaucracy, and elected officials. The politics section of this report provides a more in-depth description and analysis of the Bristol Bay Borough.

Culturally, the villages of Naknek, South Naknek, and Egegik share much in common. According to Krauss (1980), Egegik is the point of division between the Central Yupik and Alutiiq languages. Currently, very few of the residents can speak the Native language, English having become predominant. The villages are predominantly Native and all three have traditional village councils and ANCSA village Corporations. A Russian Orthodox priest lives in South Naknek and serves the religious needs of the three communities. King Salmon, on the other hand, is a white community with military, governmental, sport fishing, and hunting occupations predominant in the economic sector.

NAKNEK, SOUTH NAKNEK, AND KING SALMON

Location, Community Life, and Infrastructure

Archaeological investigations indicate there were hunting camps in the Naknek area during 3,000 to 4,000 B.C. (Nebesky, Langdon, and Hull 1983:209). The area was settled at least as far back as the 1600s and, according to Feldman (1979:4), ancestors of the present inhabitants were living there in 1849. The local villages referred to themselves as "K'naxiarmiut" or people of the K'naxiix (Feldman 1979:9). For an ethnohistorical analysis of Naknek, see Feldman (1979).

Just a few miles east of South Naknek was the village of Savonoski. The residents moved there from "old" Savonski located east of Naknek Lake because of ash fallout from the 1912 Katmai eruption. The residents of "new" Savonski have subsequently moved to South Naknek.

The 1980 population figures for the three communities are: South Naknek - 145; Naknek - 318; and King Salmon - 545 (Alaska Department of Labor, 1982). South Naknek is 85.5 percent Native; Naknek is 50.6 percent Native; and King Salmon is only 5.9 percent Native (Department of Labor 1982). Local residents estimate that perhaps as many as half of the residents of South Naknek speak or understand the Native language to some degree. A much lower percentage of the Naknek residents speak the Native language while virtually no one speaks it in King Salmon. No bilingual program is offered in the Bristol Bay Borough School District as of 1980.

The largest structure in South Naknek is the APA cannery, a complex of buildings on the east end of town. Within South Naknek are 52 houses, 15 of which are new HUD structures. There is a summer housing shortage due to the influx of seasonal workers. The quality of housing ranges from very poor to good. A PHS water and sewer system are in the process being installed with expectations that it will serve the full community. All houses are electrified. South Naknek has a runway located outside of the community. There is a Russian Orthodox Church, a school building, two stores, a Post Office, and community building where the only phone is located. There is a fire truck for fire protection.

In the past, local transportation for South Naknek was by dog team and supplies were brought by boat. Mail in those days landed at Kanatak Bay on the Pacific side of the Peninsula near Lake Becharof. It was then transported by dog team during the winter across the lake to Egegik and up to South Naknek on the "winter trails", which follow the beach. From there it continued up the Winter Trail to Dillingham. Currently, South Naknek is supplied by air and barge. Local transportation includes vehicles and numerous three-wheelers which are used for a variety of transportation purposes. There are snowmobiles but little snow falls in the area.

Television for South Naknek is beamed from the Air Force Base at King Salmon. Radio is picked up from Dillingham and Anchorage. There are phones in most residences. Naknek and King Salmon both receive King Salmon television as well as the same radio stations. All three communities are provided police protection by the Borough and the State Trooper located in King Salmon. The Air Force

base has military police. Air and barge service also serve King Salmon and Naknek.

Naknek also received 15 HUD houses which are part of its complement of 164 homes. Some displeasure was expressed about the HUD houses, with reports that the floor joists are coming apart, the buildings are shifting, and the nails are popping up. All the houses in Naknek are electrified. Community water and sewer systems are planned. Fire protection is provided by fire trucks at both Naknek and King Salmon. The Bristol Bay School District has its offices in Naknek, and provides K-12 grade education. The Lake and Peninsula School District (serving the rural communities' educational needs) also houses its main offices in Naknek. High school students are flown in daily from South Naknek. In Naknek there are two stores, two restaurants, three bars, a civic facility, movie theater, one service station, a library, lumberyard, and four air taxi services. There are approximately eight salmon processing plants on the north shore near Naknek, six of which were operating in 1980.

The largest distinguishing structures at King Salmon are the airstrip, the FAA, and Air Force facilities. Housing is provided for the Air Force and FAA personnel as well as other governmental employees. Offices of the Alaska Department of Fish and Game, Department of Transportation and Public Safety, and Federal offices for Fish and Wildlife Service, National Park Service, and National Weather Service are located in King Salmon. There also are numerous flight service buildings, a supermarket, a hotel, an Inn, a mechanics shop/car rental business, a church, and a lodge in King Salmon. Both Naknek and King Salmon have resident phone service. South Naknek and Naknek have Village

health aides; King Salmon has medical services at the base. The Air Force Base at King Salmon has assumed responsibility for fire protection because, as one base official noted, "We are there first because we're ready and can get there first. We're the only aircraft crash and rescue unit for the airstrip."

Both South Naknek and Naknek have Village Councils and Village Corporations. The South Naknek village corporation has merged with Port Heiden and Ugashik. All three communities of South Naknek, Naknek, and King Salmon are within the Bristol Bay Borough. Relations between the Borough and the two Nakneks are, according to some residents, suffering from growing pains with problems over schools, roads, etc. As one resident of South Naknek stated, "This village has learned to stick together because of battling with the Borough." There are fairly good relations with BBNA and BBNC though there are some mixed feelings about the Peter Pan Cannery (one of BBNC's investments) being sold.

Russian Orthodoxy is a strong integrating force in Naknek and especially in South Naknek where the priest resides. A major cultural event is Russian Christmas. Holy pictures are placed in the home. Groups of people go from house to house carrying a star (representing the star that led the three wise men) and singing carols to the residents. Then food is served to the singers. Another tradition is "masquerading" which was popular a few years ago. This event occurred around February or March. People would dress in old clothes and visit homes in groups. The residents would have to guess the identity of the masqueraders before they left. Sweatbaths are also another popular tradition. Steambath houses are evident and quite popular. In South Naknek there is a yearly "Turkey Shoot" which helps to purchase toys for children for Christmas.

Santa Claus arrives in a helicopter from the Air Force base at King Salmon. Other forms of recreation include hunting and fishing, bingo, movies, basketball, a yearly traditional pot luck, and a trip to Dillingham for the Beaver Round-up.

Even with the broad ethnic diversity in the area, there is little friction between the ethnic groups. Besides the local Natives there are also resident whites. The Air Force and other governmental groups in King Salmon have many ethnic groups represented. During the summer, Euro-American College students, Filipinos, Eskimos (from Goodnews Bay, the Yukon and Kuskokwim River villages of, for example, Kwigillingok, Saint Mary's, Marshall, Pitkas Point, and Kwethluk), and Japanese egg technicians work in the canneries. The non-resident fishermen tend to be Italian-Americans and Scandanavian-Americans. Several factors may explain the lack of ethnic friction. First, the Air Force makes an effort to provide recreation and entertainment for its personnel. It also encourages good relations with the community and actively discourages ethnic or racial conflict. Second, the cannery management will not condone any friction and is very watchful of disruption. Any employee who instigates a problem is promptly fired and transported out of the community. Also, the intensity of the cannery season and the goal of making a fairly large sum of money in a short period of time discourages conflict among the workers. Third, the fishermen are occupied fishing. One resident noted the term "white man" is used quite frequently. He said, "When you hear the term 'white man' it refers to the government. I know some colored who get called 'white men' because they're bureaucrats." Ethnic relations were not always so pleasant, at least for the Natives. According to one resident, when South Naknek was a "company town" the processors, "Used to cuss the villagers and tried to take them off their

land. They were like Caesars in a foreign land." In the past, there was discrimination in fishing and cannery jobs. "The residents would get the worst boats and you had to produce better than an outsider." Bunkhouses and mess halls were segregated. One resident contended that some of the cannery superintendents would "sell" the better boats for \$400-\$500 to outsiders. The outsiders paid the "kickback" to be guaranteed a boat. This limited the quality and number of boats available to local residents.

Each of these communities have concerns and issues about the areas mentioned above.

South Naknek

- Alcoholism is considered a serious health problem. Reasons given for the problem include long winter nights, unemployment, and too much idle time. Drugs also are seen as an increasing problem.
- There is some concern about petty crime such as theft, breaking and entering, burglary, and vandalism.
- A major issue in South Naknek, with some residents is the construction of a bridge connecting South Naknek with Naknek and King Salmon. This would alleviate flying students to school, which is costly and dangerous. A bridge would also give the residents access to the supermarket and other facilities at King Salmon. One resident said he "heard way back when they named the town they were promised a bridge." Some residents also said that when the weather is quite severe, medical emergencies cannot be evacuated by air. One young boy was lost recently to appendicitis. There was

a feeling that he might have been saved if a bridge existed for rapid transportation to medical facilities.

- Bulk fuel storage is needed at South Naknek.
- Residential phones, sewer and water are being planned or developed.

Naknek

- Alcohol and drug abuse are are considered a problem in Naknek.
- A boat harbor and dock are being developed. This will assist local and non-resident fishermen since they currently must tie up at canneries or in the river in overcrowded conditions.
- A freezing facility for fresh frozen fish is being investigated.
- According to BBNA (n.d.:26), a workshop to teach vocational skills is needed.
- The water and sewer systems need upgrading and improvement.
- One problem is the lack of facilities, services, and housing to absorb the large population influx during the summer. This problem may not have an adequate solution since the influx is for a short time. One resident expressed his dissatisfaction over the seasonal population shift by stating "It's just nuts. Not enough of anything."

King Salmon

- The airstrip needs to be repaired. According to an official the traffic has increased over 200 percent in the last several years.
- During the summer, the cross strip at the airport is closed because it is used as a small plane parking strip for the canneries, creating an overcrowded condition.

- Housing is a problem according to some local residents.

Economics

The main economic and employment base for South Naknek is commercial salmon fishing. This is true for Naknek also, except the community is not totally dependent on fishing. There are governmental and service jobs both in Naknek and King Salmon. According to one resident, "King Salmon exists for the runway. It is a transportation hub for Bristol Bay."

Most of the fishing related jobs for South Naknek are directly in either drift gillnet or setnet fishing positions with few residents working in the cannery. According to Langdon (1981), 15 drift permits and 34 set permits are held for South Naknek. The crews usually consists of two men, depending on the prosperity of the season. Crews are somewhat kin-related, but not necessarily so, according to local residents. Crewshares will depend on experience and if the person is a relative or not. A few women participate in the drift gillnet fishery. The setnet fishery is about half men and half women, including family groups. The entrance of men into the setnet fishery is relatively recent and these men are mostly non-residents.

The APA cannery at South Naknek employs approximately 400-500 people per season, including both fishermen and cannery workers. The resident cannery workers, tendermen, beachmen, and cullinary workers are represented by the Alaska Fishermen's Union (AFU). The non-resident cannery workers are

represented by the International Longshore Worker's Union (ILWU). The fishermen belong to the Alaska Independent Fishermen's Marketing Association (AIFMA). This applies to all the canneries in the vicinity. When asked about current relations between the communities and the canneries, one resident said "As fishermen there's a lot of friction because of fish prices. As people, the relationship is pretty good; not too bad."

Besides fishing, there are several local jobs within the community of South Naknek. These include: five cannery watchmen, one community health representative, one alcoholism counselor, one postal employee, positions in two small stores, one road maintenance position, and seasonal employees to open and close the cannery. Within the school there is one certificated teaching position, one cook, one aide, and one janitor. According to one resident, very little trapping is done.

Naknek is dependent, although not totally, on the fishing industry. Langdon (1981) lists 47 drift gillnet and 66 setnet permits for Naknek in 1980. Board membership for drift fishermen in AIFMA fishermen's union is through the canneries with which the fishermen are associated. The number of board representatives depends on the number of drift fishermen working for the cannery. The setnetters are represented by geographic locations, including Southside and Northside (both "dry fishing", i.e., fish when the tide is out) and the Graveyard or "Cutbank" area (fish when tide is in). The other jobs that provide local Naknek residents with alternatives/additions to fishing include positions in the bars, restaurants, stores, service station, library, Naknek Electrical Association, refuse service, construction, lumberyard, air taxi service,

and several positions with the Borough. Naknek is also headquarters for the Bristol Bay School District and the Lake and Peninsula School District. The Bristol Bay School District serves about 200 students including the high school students flown in from South Naknek.

As mentioned previously, King Salmon's employment revolves around the Airfield. The Airforce alone has 341 personnel stationed in King Salmon. The base is self-contained with just about all personnel living on the base. Less than one dozen civilians work on the base. The tour of duty is only one year and efforts are made to avoid "cabin fever". The barracks are modern with only one or two people per room. The sleeping bays are sexually integrated and there are about 10 percent women on the base. According to one source, the base puts little money into the economy. However, about 100 of the base personnel work in the canneries during the fishing season. The base is federally owned and the runway is owned by the State of Alaska. Besides the Air Force, there are the various Federal and State governmental employee positions and private sector positions as listed in the above section on Location, Population, and Infrastructure.

Development and change are not necessarily viewed as good things by some residents of South Naknek. One resident noted that rapid change has created a problem of where to go for a solution, adding, "Respect for the advice of elders has gone. What should Natives look to--Education? The education system has not been kind to Natives." There is a feeling that some of the residents are not able to absorb recent changes, which may be one cause of alcohol abuse. According to one long time resident, South Naknek started transforming from a

traditional Native Village to more of a white village in the 1930s. Off-shore petroleum development is not looked upon favorably by some of the residents of the area. The concern is for potential negative effects on the fish stocks. On-shore petroleum development is viewed more favorably. According to one resident, there is actually very little discussion about off-shore petroleum development since the non-resident fishermen are too busy fishing. However, when it was discussed, there was almost unanimous opposition. This same person felt a complete Coastal Zone Management Plan for the entire Bering Sea should be put in effect before any off-shore drilling was conducted.

There are several areas of concern and issues related to economics that were addressed by the residents of the three communities:

- Airport: Some interest was expressed in expanding the South Naknek airport so fish could be flown directly out of South Naknek rather than ferrying them to King Salmon for shipment.
- 32 Foot Limit: According to some of the local residents, there is a feeling that the village residents want to maintain the 32 foot limit. As one resident noted, "We have to keep it or the next step would be purse seining if we allowed bigger boats."
- Limited Entry: Among local residents there is concern about limited entry. As one resident stated, "Limited Entry stinks. I have three sons who've fished with me since they were eleven years old, yet they didn't have enough points. And then school teachers who didn't even know about Bristol Bay when my kids were fishing got one. There are no provisions for locals who want to get one." This latter point is of some concern to local officials who would like to see more fishing jobs available for local residents. This would assist the local economy.

- Herring: There is interest in participating in the Bristol Bay herring fishery. But there is some reluctance because most of the people are gillnet fishermen and the herring fishery is perceived as a seine fishery.
- Development: There is a sense that the local area is in transition from rural to urban status. There is concern for orderly development that will neither overwhelm the facilities or sociocultural structure.

Subsistence

For the purposes of this report, subsistence information will be used almost exclusively from data acquired for South Naknek. This data will provide the available use items and use patterns as related by local South Naknek residents. These items and patterns would not be seen to differ from Naknek or King Salmon since they are in the same ecological habitat. However, it must be noted that use of the more traditional items (such as vegetation other than berries) would decrease the more "white" the community is.

The subsistence species stated by residents as utilized currently or traditionally include:

- Marine Species: Salmon, clam, halibut, flounder, sole, seal, beluga whale.
- Land Species: Moose, caribou, bear, beaver, rabbit, porcupine.

- Fresh Water Fish: Whitefish, lake trout, smelt, blackfish, barebit, grayling.
- Birds: Duck, geese, ptarmigan, seagull eggs.
- Vegetation: Salmonberries, black or moss berries, low bush cranberries, blueberries, wineberries, wild celery, wild spinach, currants, wild rhubarb.

Another listing of local subsistence items that were traditionally used was obtained by Feldman (1979:10) for Naknek:

....The gathering of wild foodstuffs occurred regularly on a seasonal basis, also. This included the gathering of seagull eggs, wild "corn" (Askunwax), grass roots (Nauwax), berries for making "Aguduk" (Eskimo ice-cream), wild "spinach" (basinux), wild "celery" (igiduk or juplux), onion-like "greens" (Putroskis - a Russian term), and wild "rhubarb"....In Addition a variety of fowl were hunted including ducks, geese, ptarmigan, seagulls, swans, cranes, curlew and snipes, primarily in the spring. Hunting and trapping centered on caribou, moose, bear, beaver, land otter, porcupine, muskrat, squirrel, lynx and rabbit....During the early fall and later spring the snaring of freshwater blackfish took place in Seagull Lake and at other freshwater lakes not far removed from the village....

Range. The residents extensively utilize the area around their communities. South of the three communities are a line of bluffs called the Smelt Creek Ridge, which is an informal line separating where the Egegik residents hunt and fish and where the South Naknek and Naknek people hunt and fish. Though this is a general southern boundary, individuals and groups will hunt for duck and geese along the coast below Egegik. The coast of Kvichak Bay is the western edge of use though fishing is done in the Bay. Clams are dug along this coast. Not much subsistence activity occurs very far north of the Naknek River.

In the east, Naknek Lake was a very popular traditional subsistence location. However, there is some confusion about what activities are allowed within this area currently as it is now within the Katmai National Monument boundaries. Razor clams are gathered by certain individuals who fly to a bay near Katmai.

Within these rough boundaries the majority of subsistence activities occur. The river is used for smelt fishing and duck and geese are hunted on nearby lakes. Smelt are fished all along the river to King Salmon. Moose are hunted in river drainages and caribou are hunted on the tundra region south of the Naknek River. They are also hunted in some low hills below the monument border, south of Naknek Lake.

Exchange . It was noted that in the "old days" items were divided up between the entire village. The current trend is more towards dividing between friends and relatives.

Use Patterns. "Aguta," "Indian Soup," and jams are made from berries. One family said at least 50 percent of their diet is from subsistence items, with these items being served three to four times a week. The residents estimate that the community is 50 percent dependent on local foods with 75 percent of their meat diet composed of local meat. It was strongly stated that the quantity of local meat used is in direct relation to the price of meat in the store. As meat prices go up, local subsistence use will increase and vice versa. "Up to a few years ago the trend was towards store meat but now its going back," said one resident.

Hunting is usually conducted individually or in family groups. Usually two or more people go berry picking. If berries are not available locally, people will fly to the Nushagak River, Newhalen, Iliamna, and Dillingham to gather them. People from other villages will come to the Nakneks' region to setnet fish and pick berries. Occasionally they will come to the region to hunt caribou. "Once four guys from Goodnews Bay came down here on snowmobile for caribou. They got to the Kvichak River and got their caribou. They would have gone further down the Peninsula if they had to," said one resident about inter-village subsistence patterns.

According to one resident, Beluga whales historically would enter the Naknek River. During the flood tide, local residents in bidarkas would position themselves downstream from the whales and scare or "herd" them upriver. As the ebb tide occurred, the whales would be in shallow water where they could be easily captured. Seal were also hunted in the recent past although only one resident still hunts them.

One reason offered for a decline in the use of local vegetation is people no longer know what items to select. "Young people scared to eat wild vegetables. Some that are good look like some that are poison." Another traditional pattern that has changed is egg usage and preservation according to local residents. In the past, seagull and duck eggs were utilized. With the establishment of the canneries, chicken eggs were delivered to the communities in the spring. To preserve them for the rest of the year, they were "salted" or brined. The next development was to "waterglass" the eggs. This was done by dipping them in sodium silicate, a waterproofing solution, "and we hoped they lasted".

The importance of eggs in the local diet has current implications in relation to a court case involving ownership of Seagull lake near Naknek, which has seagull eggs on it. The village corporation, Paug-vik, claimed that a local cannery was using water from Seagull Lake without permission, since the corporation owns the land. The cannery and the State of Alaska disagreed and the case has gone to court (see Feldman 1979 for details). In his analysis of the ethnohistory and subsistence patterns of Naknek, Feldman (1979:16) noted that the seagull eggs at the lake played (and still play) an important role in the subsistence of the residents, thus supporting their claim to traditional and current usage. He also noted Blackfish from the Lake were utilized. It was reported by residents from South Naknek that currently blackfish are trapped and utilized by a few of the residents. It was also stated that these "Chigjiggers" or "Chinajiggers" (Feldman 1979:16) would occasionally be kept in the house in goldfish bowls as pets.

Issues and Concerns. Several issues and concerns about subsistence were expressed by the Naknek River community residents:

- **Change and Regulation:** Change and regulation has caused resentment, fear and anger, about curtailment of traditional subsistence activities. As an example of this, one resident stated "It is very hard for a native to understand why he should change his way of life that his ancestors have been practicing down through the centuries. There was a woman who was jigging for smelt when a game warden came up and asked her if she had a license. She laughed and thought he was kidding. He had her down before the magistrate the next day who fined her \$25.00. MAD! Jesus she was mad."

- Moose: The moose herd appears to have diminished, according to local residents. This has caused quite some concern.
- Bear: The number of bear in the area has increased. According to local people, bear used to be in the Katmai Monument only. Now they are around the village. One resident "counted five bears during the summertime at one time in the village. We don't have sled dogs anymore which would keep them away, only little house dogs. In the Fall we have to worry about them getting into our setnets. We have to go by car and take a gun."
- Sport Hunting and Fishing: Sport hunting and fishing is considered by some of the residents to be a real threat to the subsistence lifestyle. This is particularly true of "headhunters"--hunters who discard the meat and keep the head and/or horns for a trophy.
- Katmai: The Katmai National Park is seen as a barrier to subsistence activities. As one resident stated, "The Monument area was more than hunting, fishing, and berry picking, we lived the outdoor life the men were born and raised to." Near Dumpling Mountain (locally called "Kittiwik Mountain") the residents acquired berries, bear, and spawned out salmon (called "redfish" in other areas). This fish, which contains less oil than summer salmon (thus reduced spoilage) is hung in October, dries, freezes, freeze dries, and is consumed by both dogs and humans.

ELEGIK

Location, Community, Life and Infrastructure

Egegik is located about 35 miles south of the Naknek River and the three communities mentioned above. Egegik sits on the edge of Egegik Bay. The country around Egegik is mostly tundra in nature with numerous small lakes. The 1980 population was 75 (Alaska Department of Labor 1981). During the summer, however, the population increases to 500 or 600 with the infusion of fishermen and cannery workers working for the Diamond E. Cannery located in Egegik. The year-round residents are 76.0 percent Native. About six people can still speak the Native language and there is no bilingual class in the school. Student's bilingual scores (Alaska Department of Education 1981) indicate their language is mostly or exclusively English although there are some Native grammatical patterns.

Besides the numerous cannery buildings, there are 58 houses in good to fair condition with 13 new homes planned. All have electricity and about 30 percent have running water. The remainder utilize wells or haul water. There is an airstrip located at the edge of the community. There also are school, Post Office, and Russian Orthodox Church buildings. The school serves grades K-8 and there are 7 children currently enrolled. High School needs are met either at Naknek or Anchorage. The school serves as a community recreation center with potlucks, sewing, and movies as examples of activities. There are two stores and one bar in Egegik. There is no fire protection other than a hose at the cannery and private home fire extinguishers. A village Policeman was hired

through the Comprehensive Employment Training Act (CETA). Medical services are provided by a village health aide. Additional care is provided by a doctor, dentist, and Public Health nurse who visit once a year. There is one phone in Egegik, although most houses are connected through citizen band radio. There is one television station and video tape recorders are popular.

Currently, there are a large number of three wheelers and a few snowmobiles because of limited snow. Freight is brought to Egegik by plane throughout the year. Barges bring freight in during the late spring, summer and early fall.

There are currently five or six large families in Egegik and no Native/White ethnic problems. What ethnic problems do exist occur during the summer. Cannery crews are composed of Euro-American college students, Filipinos, and Eskimos from Tanunik and from the Yukon and Kuskokwim River Regions. Though ethnic problems are rare, one problem recently existed "with the Filipinos against everyone else," according to one resident.

The Egegik Village Council and the Becharof Corporation (profit) work well together with a few of the members on both boards. Two whites serve on the Egegik Village Council. There are five members on each board. The Becharof Corporation has its money invested in the Diamond E. Cannery at Egegik. Pilot Point also is affiliated with the Becharof Corporation in the cannery. Japanese interests also have invested in the cannery. There is a feeling by some residents that not enough interaction with BBNA and BBNC occurs because of isolationism, although BBNA tends to visit occasionally. Some negative feeling and suspicion exists about BBNC's policies and actions. Also, some residents feel a

sense of regionalism with the Peninsula viewed as separate from the rest of the Bristol Bay area because of proximity, lifestyle, and social, cultural and economic affiliation.

There appears to be some room for expansion at Egegik though there are problems with shortages of power and water. Land use is mostly for residence, business, and subsistence. Lack of land conveyances from ANCSA has hindered development.

When asked about development, one resident stated, "There is a desire for controlled growth. Education and travel has made us aware of what rampant growth means." The residents are aware of OCS and are concerned about how it will affect the salmon. On-shore drilling has been conducted nearby and the people are not as concerned about any petroleum development on land as they are OCS.

Tourism is mostly related to sport hunting and there is little interest in increasing it, according to some of the residents.

The issues and concerns of the residents within the above discussion are:

- Water and Power: There is a problem with the amount of available water and power. These are viewed as blocks to community growth.
- Expansion: There is a desire to expand through building a Village Community Center, public telephone system, and a Council Meeting

Hall. It was noted, however, that some residents would like things to remain as they are.

- Alcohol and Drugs: Alcohol and some drug abuse are viewed as a problem by those residents who were interviewed. An alcoholism counselor resides and works in the community. There may be an increase in drug usage in the community, according to some residents.
- Graveyard Relocation: The graveyard at Egegik is eroding away. The residents are in the process of relocating the graveyard.
- Education: There is some concern about a few of the student's educational attitudes such as, "What do you need an education for when you can make a million dollars in fishing?" There is also some concern about the height of the drop-out rate.
- Population: A few of the residents expressed concern about the low population. According to one resident, Egegik had somewhat of a bad reputation. There are hopes and plans to improve the community and increase the population.

Economics

The major economic mainstay of Egegik is salmon fishing. There are 24 drift gillnet permits and 30 set net permits listed (Langdon, 1981) for Egegik in 1980.

Other fishermen (besides the local residents) fish in the area and are housed in the cannery bunkhouses. There are two large salmon processing plants located in Egegik, including Diamond E. (previously owned by APA) and Egegik Seafoods. A Columbia Wards packing plant is located on the north side of the Bay but has not processed salmon for many years. Some of the fishermen expressed interest in the Togiak herring fishery.

While there is a hunting lodge located across the river, it does not provide employment for Egegik residents. Within the community are a number of jobs including one job at the liquor store, two cannery watchmen, one position in the bar, one position at the Post Office, janitor and cook positions in the school, one health aide, one health clinic janitor, one airstrip maintenance position, and one policeman. It was estimated that 10-15 residents participate in trapping fox, mink, otter, wolves, wolverine, and beaver.

Economic issues and concerns at Egegik include:

- Limited Entry: Some of the residents sold their limited entry permits and there is now concern about entrance for the younger people into the salmon fishery.
- 32 Foot Limit: The attitude on the 32 foot limit is generally to retain it.
- Fishery Development: At Diamond E. there are plans to use the large boats as crab boats during the winter and salmon tenders during the

summer. There is also discussion about becoming involved in the halibut, shrimp, flounder and herring fisheries.

Subsistence

The species that are and can be utilized off the land, according to local informants, include caribou, moose, salmon, smelt, halibut, grayling, crab, rainbow trout, blackfish, duck, geese, ptarmigan, clams, blackberries (moss), cranberries, salmonberries, blueberries, wild celery, wild spinach, and whitefish.

Range. The Egegik residents utilize the vicinity immediately around the community quite extensively. The Egegik River and Becharof Lake also are used. Moose are hunted all around the lake and the lake is used for recreation as well as subsistence activities. Caribou pass between the lake and the community. Duck and geese are hunted south along the coast. Moose are hunted along the King Salmon River drainage. Between Egegik and South Naknek a low line of bluffs, called the Smelt Creek Ridges, serves as a demarcation where the people from the two communities range for subsistence items. This is not a marker of "territory", rather it simply indicates the ranges.

Exchange. Some sharing is done within the community of subsistence items. There also exists a bartering system of labor. Not much exchanging or sharing occurs with other communities.

Use Patterns. It was stated by some residents that the people are more cash oriented than subsistence oriented. What subsistence activities do occur usually involve individual or family efforts rather than community efforts.

Credit is available at the store and CETA and disaster relief funds are available for severe times. There is welfare, but only one resident is currently receiving it. The d-2 settlement was not a major concern.

Issues and Concerns. Overhunting by outsiders was considered the biggest threat to subsistence.

Southern Alaska Peninsula Subregion

INTRODUCTION

The villages included in the Southern Alaska Peninsula Subregion are Chignik, Chignik Lagoon, Chignik Lake, Ivanof Bay, and Perryville. These villages are located on the southern, or Pacific, side of the Alaska Peninsula with Port Heiden, directly north across the peninsula, their closest neighbor. These five communities are integrated by their geography and remoteness, their socio-cultural similarities and social relationships, a common subsistence and economic resource base, and their common concerns. These same factors distinguish this subregion from the other subregions in Bristol Bay.

This introductory section discusses these integrating and distinguishing factors at the subregional level. This is followed by a more detailed description of the village of Chignik. Because of this subregion's location, the probability of direct petroleum development impacts on the villages is considered low. Fieldwork in at least one of the communities was conducted to determine what linkages exist with the rest of Bristol Bay. Though each of the villages in the subregion are unique, they share much in common. It was these common aspects that needed to be explored. Chignik was selected as a representative sample village for the subregion.

Location and remoteness are the most obvious factor distinguishing these villages from the rest of the Bristol Bay regional communities. Unlike the other communities in the region, they are the only ones located on the Gulf of Alaska side of the Alaska Peninsula. They are a great distance from Dillingham and King Salmon. Mail service is often slow and unreliable. Telephone service to and from Chignik, for example, is often irregular due to inadequate facilities.

The region's maritime climatic zone is punctuated by frequent storms in the Gulf of Alaska that often prevent regular airline service from maintaining a schedule. The proximity of these five villages to each other, and relatively inexpensive air and water transportation between them promotes integration among the five communities. Across the peninsula, Port Heiden is the first transportation link from the "Chigniks" (a common name for the subregion) to other communities either east or west. Port Heiden also is the first stop on a flight pattern (except for charters) to Kodiak, which is the main urban community of orientation for the Chigniks, especially for Chignik and Chignik

Lagoon. This fact also distinguishes this subregion from the other villages in the Bristol Bay region which are oriented towards either Dillingham or King Salmon. Kodiak serves as more than an urban service center for the Chignik residents. Some of the residents hold dual residency in Kodiak and also in one of the subregion's villages, migrating to the villages for the summer salmon season. This pattern was prompted, in part, by a lack of village educational opportunities in the past. Entire families would move to Kodiak during the school year so children could receive an education. Besides the educational aspects, there also are close kinship relations between some families in Kodiak and the Chigniks. The salmon fishing techniques of purse seining and set gillnetting are used by the people of both Kodiak and the Chigniks, while Bristol Bay practices only gillnetting for salmon.

The Chigniks are situated in an area where two cultures converge - the Eskimo culture from the northeast and the Aleut culture from the southwest. The native language (rarely spoken today) is Alutiik or Sugpiaq (a branch of Alaskan Yupik). The residents view themselves as Aleuts. Included in this view is a Russian Orthodox religious orientation served by a priest who lives in Perryville. Kinship and friendship relationships are strong between the five villages and inter-community visiting is quite common. The 1980 population figures for this subregion (see Table 6) are Chignik-178, Chignik Lagoon-48, Chignik Lake-138, Ivanoff Bay-40, and Perryville-111, for a total subregional population of 515 persons. Of this population, 77.5 percent are native, 22 percent are white, with .5 percent Asian or other. Of the total population, 74.4 percent are Aleuts (Alaska Department of Labor 1982).

The main economic activity in the subregion is salmon fishing, similar to other subregions in the Bristol Bay Region. Approximately 90 Limited Entry permits have been issued for the Chignik purse seine salmon fishery (Langdon 1980:119). Purse seining is the dominant salmon fishing technique used in this fishery although commercial beach seining and set netting (for subsistence purposes) also are used. The Chignik sockeye salmon are known for their high quality. With the advent of Limited Entry, those individuals holding permits have profited quite well in this fishery in recent years. This value is reflected in an average net earning of \$161,682 in 1977. The estimate value of a Chignik purse seine permit ranges between \$175,000 to \$250,000. The fishery has the highest earnings and the highest value placed on the permit of any salmon fishery in the state.

Several other marine resources also are available for harvesting in the area. Tanner crab is an important resource although there has been a recent decrease in the catch. King crab and shrimp also are harvested in the region. Crab and shrimp are harvested primarily by non-local fishermen. Local fishermen concentrate on the more lucrative and less investment demanding salmon fishery.

Bottomfish are a potential exploitable resource for the area but have attracted little local interest. The halibut fishery was exploited in the past but is receiving little attention currently.

There are two fishery related organizations in the subregion, the Chignik Advisory Board, which advises the State Board of Fisheries, and the Chignik

Boatowner's Association, which acts as the bargaining agent for the fishermen. Both of these organizations are noted for discipline of their members and their concern with good management of the fishery. There are three land-based canneries in the subregion. The APA cannery at Chignik Bay is the only facility processing at this time. The fish that would normally be processed at the Columbia Wards cannery, located in Chignik Lagoon, are being processed by APA. The third cannery also is located at Chignik Bay. It is still in the final stages of construction and, as noted further in this report, is involved in a law suit. "Floating" processors have entered the area in recent years to compete with the land-based facilities. Like other villages in the subregion located near and historically associated with a large fish processing facility, the relations among processors, fishermen, and the village are undergoing recent changes. These evolving relationships are described in more detail in the following section on Chignik.

CHIGNIK

Location, Community Life, and Infrastructure

As noted above, the community of Chignik is on the Gulf side of the Alaska Peninsula. It is located at the head of Anchorage Bay, a small bay within the larger Chignik Bay. Anchorage Bay is enclosed by extremely steep mountains, some of which drop directly into the water. The village sits on a relatively flat region just above the beach. A small creek runs through the community. During flood tide, the creek backs up and creates a shallow lagoon near some of the

houses. Northwest of the community is a fairly strong creek, which drains the nearby mountains and empties into the Bay.

The 1980 population for Chignik was 178 persons. Of this figure, 83 were white and 95 were Native. According to some of the residents, the community originally started from five sisters who all had large families. Many of the women married men of Scandanavian descent (reflected in Scandanavian last names), who worked or fished at the local cannery. It was mentioned by one resident that an influenza epidemic in the early part of the 19th century killed a very large number of people. During and after World War II, many people left the community and didn't return. In the 1950s, some residents moved to Kodiak so their children could attend high school.

Only a few of the older residents still have some command of their native language. When they were young, many of these older people said they were slapped in school for speaking their native language. This was done to encourage them to speak English, but it also diminished use of their native language. Some of the Scandanavian husbands also discouraged the speaking of the native language. Current language proficiency figures (Alaska Department of Education 1981) indicate almost all of the children speak English exclusively, although some native grammar form may be present in their language structure. Chignik had a bilingual program at one time, but currently none exists.

The population of Chignik expands with an infusion of cannery workers during the summer salmon fishing season and during the winter and spring crab fishing season. Cannery sources estimate this increase to be 150 in-migrants for the

salmon season and 50 in-migrants for crab processing season. The cannery attempts to get 50 percent of its people from Alaska and 50 percent from the lower 48. Ethnically the cannery workers are Filipinos, Eskimos from Nulato and Kaltag, some local residents, and Euro-American college students. One reason cited for hiring people from Alaska is that "People from lower 48 treat it like a party. People from Alaska know what fish is all about."

There are about 45 houses in Chignik, 35 of which are occupied. New housing is planned for 1983. One older resident can remember that some people were living in Barabaras (traditional underground house) when he was a child. He noted that Chignik is now "not a poor village" and that young couples can buy their homes outright. The largest structure in the community is the APA Cannery located on the beach. This cannery consists of a number of structures including the single dock in the community. A number of seining boats are stored next to the cannery during the winter. There is a school in Chignik which is part of the Lake and Peninsula School District. There is not a drop-out problem, according to the local teachers. Most of the community's children attend the local school except for a few who attend school in Kodiak. The community airstrip is about a mile outside of town. An old school house is being converted into a Village Council building. The community also has one store and a one-time Russian Orthodox Church building that has fallen into disrepair. The Russian Orthodox priest at Perryville still serves the community. The protestant Chignik Bay Chapel is attended by some residents.

The water system is owned by APA and can serve the entire community. Until the early 1970s, the water system was closed down by the cannery in September

at the end of the salmon season. Residents hauled water from local streams until May, when water service was resumed by the cannery in preparation for the summer fishing season. The plant began processing crab in the early 1970s, and water has been available all year. However, the water pipes running from the main line to the houses are above ground. In deep winter they will freeze and, again, the residents must haul water. A few of the residents own wells.

Electricity is also provided by the cannery. About 95 percent have enough electricity "to run a few light bulbs". A separate electrical system for the community is currently under construction. Outhouses, common in the past, are being replaced by individual septic tanks.

Police functions are handled by Alaska State Troopers called in when there is a problem. There is some feeling that local resident police might be an advantage, particularly during the summer or during a strike. Fire extinguishers in the homes are the only fire protection for the community.

Heavy freight transportation is by ship which is fairly regular (once a month on the average). The mail may take up to 2 months for delivery, according to local residents, although it is usually more frequent. Air passenger service is provided all year, by charter or the mail plane, depending on the weather. There is no satellite television. Cable T.V. is provided by the cannery. There is a phone in the community, but it functions only intermittently. Contact within the community is handled through citizen's band radios in each household. The cannery has single side band radio equipment for outside and emergency contact.

Transportation within the community is usually by pick-up trucks or three wheeled motorcycles.

The Chignik Village Council and Far West Incorporated (the profit corporation) are Native organizations within the community. Funding for community administration is through State revenue sharing and P.L. 93-638. The Chignik Advisory Board and the Chignik Boatowner's Association, which deal with fish and game matters and price settlements, represent the other four communities in the subregion along with Chignik. Other organizations within Chignik are the Local School Advisory, the Johnson O'Malley, and the Indian Education Committees, all of which work well together, according to local sources.

There is some feeling that communication with BBNA is not all it could be. "A Vista volunteer who was passing through happened to mention we were eligible for the P.L. 93-638 money and had been for the last five years. We were flabbergasted," said one resident. There is some unhappiness about BBNC's selling of the Peter Pan Cannery, since most people in the community are fishermen. Also, Far West and the four other Chignik area village corporations (collectively called Chignik Coastal Fisheries, Incorporated) had invested in a cannery near Chignik with Peter Pan's (and BBNC's) backing and support. This cannery was viewed by local residents as a means of gaining independence from the non-locally owned resident canneries. Since the local fishermen are Far West stockholders, they would be working for themselves, selling fish to their own cannery, and receiving profits in the form of dividends. When BBNC sold Peter Pan to a Japanese firm, the new owners wanted either ownership of the

Chignik cannery or a financial settlement to buy out the Japanese firm's interest in the cannery. Settlement is now pending in court.

Much of the local land is owned by APA. ANCSA land selections have been made but not conveyed. When asked about the effect of ANCSA, one resident said, "It has created more headaches and more paperwork we really weren't ready for." He also noted that previously no one cared who hunted on the land. Now, "we watch who hunts." Land use in the area is for fishery related economic activities, residence, and subsistence activities. Two constraints to development of the community are swampy areas and mountainous terrain. The community is located on a relatively small, flat area adjacent to the shoreline and surrounded by hills. Development land is minimal in the flat region and it would require a major construction effort (including road building) for development on the hills.

Physical health problems are treated by a village health aide and nurse employed at the cannery. A doctor from Dillingham visits about twice a year and a dentist visits once a year. Emergency situations can be handled by the Coast Guard or, if the weather is good, by commercial chartered aircraft. In the past, the canneries employed a doctor and there is a desire by community residents to again have a resident doctor. One doctor wanted to set up a practice "but there was some snag", according to one local resident, and the Doctor decided not to locate in Chignik. Residents said there is only minor drug and alcohol abuse problems in the community. Alcohol is not a problem because cannery policy is quite simple, "We have a rule that if you can't show up or you stay home too often, you're out of a job."

According to local residents, ethnic relations are very good. The only recent problem was a minor internal dispute among some Filipino cannery workers. A change in ethnicity is reflected in local place-names. One area in Chignik was historically called "Chinatown". It had hogs, chickens, cows, ducks, vegetable gardens, and some Chinese cannery workers living there. The current variant is now called "Filipino Town."

Relations between the community and the cannery are interrelated and reflective of the relationship between the fishermen and the cannery. In the formative and historic processing days, the cannery was "all powerful." The canneries owned the boats. In the early days, large drag seines were dropped from doories and scows were used for packing. Food and gear also were provided by the cannery besides the wages. Numerous fish traps were used in the area and some of the big doories existed until the 1930s, according to local residents. At the end of World War II, power was added to the cannery-owned doories. Improved boats appeared consistently through the 1950s, and some of the fishermen began acquiring their own boats with financial backing by the canneries. In 1959, traps were outlawed and purse seining by independent fishermen increased as a trend. Since the 1970s, more fishermen have brought boats without company backing. They went to other sources for backing, "To be clear of the canneries."

While the fishermen were becoming more independent, they still were obligated to the canneries for boat storage, machine shop privileges, net and gear lockers, use of the dock and grid, some loans or financial backing, and many other similar connections. As the fishermen ceased being employees of the cannery

and became independent businessmen, the cannery's policies began to change. One point of contention involves cash buyers who entered the Chignik fishery in large numbers in 1976 offering higher prices for salmon than the resident cannery. Many of the fishermen who had fished for the resident cannery in past years sold to the cash buyers. The resident cannery's management felt that, if the fishermen wanted to sell to the cash buyers, they could no longer expect free services from the resident cannery. So, if the fishermen wanted to use the net lockers, the machine shop, boat storage, etc., they would have to sell their fish to that cannery or pay for the services. Loans and backing were once provided without charging interest. Now interest would be charged. From an almost "paternalistic" employee/employer dependency situation, the fisherman-cannery relationship has evolved towards independent businessmen negotiating with each other and, as one person noted, "There is a price for independence."

As with the fishermen, the cannery's relationship with the community is evolving. There was a company store at the cannery which serviced the community and often provided credit. As was indicated above, the cannery also provides to the community electricity, water, medical care, dock usage, single side band radio for emergencies, and, most importantly, jobs. The cannery continues to have power, amenities, facilities, and services. It was, and is, the largest institution in the community. Two factors are evolving to change the dependency relationships. First, there is the question of "right" to these services. From the community's perspective, these services can cease on the whim of the superintendent. From the cannery's perspective, the services are offered partially for community relations and partially because the residents are the local labor force. The second factor changing relations evolved from the

emerging independence of the fishermen (who are the residents) and ANCSA. A desire to become independent and autonomous of the cannery has emerged in the community. This is quite agreeable with the cannery who desires a more businesslike relationship with the community. The company store burned in 1976 and was not rebuilt. One person, addressing relations between the cannery and the community and fishermen, said "There's no more company store."

Besides changing their policy in respect to the community, the canneries have changed their management. In the past, superintendents lived in "white houses" and had strong control. They made all the local decisions because they could not easily communicate with the home office. They usually worked their way up from lower jobs. They would arrive in mid-May and leave the first part of September, "and had the rest of the year to rectify their mistakes." They worked from 7:00 a.m. until 11:00 p.m. or longer. The newer superintendents are more management trained and hired upon completion of college. The scope of the job is changing and it is now a year-round job with long hours. Because of the increasing complexity, decisions are delegated. Plans are being made to place a small computer at the cannery.

There are several issues and concerns that were expressed by local residents in relation to their community life:

- **Docking Facilities:** There is only one boat dock in the community and it is owned by APA. The residents would like to have their own public boat harbor and dock to service the resident and non-resident fleet, which is increasing in number. Currently there are 104 purse seiners

and 5 crab boats. During the winter, these boats must be run to other communities for storage, which has costs in time and increasing fuel costs. Many of the fishermen don't fish during the winter because they have no place to store or tie-up their vessels. Boats can be tied up to the APA dock except during bad weather and heavy swells, when they must be anchored in the bay with one person on board.

- **Road System:** A road connecting Chignik to Chignik Lagoon would benefit both communities in terms of a dump and retail facilities. People at Chignik Lake and Chignik Lagoon are often "frozen in" during bad weather and can't get to Chignik to go crabbing. Chignik has the jobs and the Lagoon and Lake have the people but air transportation is required. Also, if they want to work in Chignik it means they wouldn't be able to go home at night. A road would alleviate this problem.
- **Water and Electricity:** The residents would like to have their own water and electrical system rather than depending on the facilities also owned by APA.
- **Office Building:** Chignik needs a community office building. The current facility is too small.
- **Telephone:** Perhaps the most immediate need is a local communications "dish" which will provide an operable telephone. Recent negotiations with Alaska Communications, Inc. (ALASCOM) may result in the establishment of a local system soon.

- Airline Service: There is a desire for scheduled airline service to Dillingham and Kodiak. Much of the "Chigniks" economic and socio-cultural relationship is with Kodiak. Currently, the cheapest way to Kodiak is through King Salmon to Anchorage then to Kodiak.

Economics

One long time resident of Chignik noted, "In the early days if you didn't get a job with the cannery you starved; there was no welfare or anything." Many families would disperse to "trapping grounds" during bad economic years, far from the village, for the winter. Cash goods were acquired through the cannery store, often on credit. Meat was acquired through subsistence efforts. As economics improved, the residents began to remain in the community, order case lots of food (often on credit), hunt, and fish locally in order to survive during the winter.

As is obvious, Chignik is economically dependent on salmon fishing, though crab and shrimp appear to be potential alternatives. At one time a halibut fishery existed and there is some participation in a small herring fishery. Bottomfish, octopus, snail, and halibut also are potential fisheries.

The APA Cannery at Chignik is the only operating land based cannery in the area. Columbia Wards Fisheries, across the Bay, is not operating and APA processes its fish. The Columbia Wards plant recently suffered a severe fire. The third cannery at Chignik, built in 1979, is the one partially owned by Chignik

Coastal Fisheries, Incorporated (CCFI). It has never operated, requires final construction, and is currently involved in a legal dispute. The APA cannery at Chignik processes salmon and crab. The salmon processing is divided into fresh frozen and canned. APA owns the fresh frozen processing section. The canned salmon line is owned one-third each by APA, Columbia Wards Fisheries, and CCFI. As mentioned earlier, local residents do the fishing and Filipinos, Mexicans, and Euro-American college students are brought in to work in the cannery. Some Eskimos from the Nulato and Kaltag area also work in the cannery. The number of people working in the cannery is approximately 50 for the winter crab season and 150 for the summer salmon season.

Besides fishing and canning, there are a few other jobs in the community. These include one postal position, two jobs in a family owned store, a phone monitoring position, road monitors contracted from the State, two school aides, one health aide, and part time construction work. A few of the residents trap mink, land otter, beaver, fox, weasel, wolverine, and wolf.

There appears to be a positive attitude toward economic development except for off-shore drilling for petroleum. There is a fear that spills or blowouts would harm the fish. Also, there is concern that petroleum development would not benefit the local economy. Some concern also was expressed that petroleum development would usurp current transportation services, although this was disputed by other individuals noting that their services were assisted in their establishment by APA needs. Local labor loss is not seen as a concern by the cannery since replacements could be hired. One resident seemed to sum up feelings about off-shore drilling by stating: "We depend too much on natural

environment for cash and subsistence. If there was enough economic benefits to help all the villages and we were assured of no spills, then there would be no objections."

A strong desire was expressed for incorporating into second class city status in order to gain a raw fish tax. Another strong interest is in building a road to King Salmon, "Then we could get goods ourselves and not have to depend on the canneries," but absolutely not to Anchorage. In respect to development in general, one resident noted, "The people would like to see the quality of their life improve, but not their way of life."

Several issues and concerns were raised by local residents about the economic situation in Chignik:

- Boat Harbor: There is a need for a public boat harbor and dock so more local and year-round fishing can occur.
- OCS: If petroleum drilling was safe to marine life and helped local economy, it would be accepted.
- Development: Favorable settlement of the suite over the new cannery for the Native corporation would mean a new market and dividends for the fishermen.
- Limited Entry: It was noted that younger people want limited entry permits but, because of cost, they are almost unobtainable. There is a

concern about what will happen to the younger people's economic opportunities.

Subsistence

The Chignik residents are very marine oriented. As such, it is not surprising that much of their subsistence items are acquired from the sea. Marine and land species used for subsistence by some residents for the Chignik area are listed below. Note that this is an incomplete list acquired from those individuals that were interviewed.

- Marine Species: Salmon, halibut, crab (three species), codfish, black bass, sculpins, herring, octopus, clam (several species), and sea urchin.
- Land Species: Moose, caribou, rabbit, beaver, and bear.
- Birds: Ptarmigan, duck, and geese.
- Vegetation: Salmonberries, mossberries, cranberries, and blueberries. Some people are planting gardens.

One resident noted that people are beginning to see walrus in the area. The elder people never remember seeing walrus in the Chignik region.

Range. As would be expected, the Chignik people utilize the marine and coastal areas of their environment quite extensively. South along the coast, Castle Bay is used to acquire clam, duck, and geese. Use continues in the smaller bays, around to and including Chignik Lagoon. The long flat beach area in the west and northwest area of Chignik Bay is used to pick berries and Thompson Valley, at right angles from this beach, is used to hunt moose and caribou. Use continues up the coast to Inuya Bay. Razor clams are acquired at Aniakchak Bay. Some individuals will cross the Peninsula to hunt caribou at Port Heiden. Spawned out salmon and beaver are acquired at Chignik Lake. Though the five Chignik area villages are relatively close, they use different territories. There is no "unspoken law" about these differing territories, they are simply respected. An individual can go into another area but, in general, they use their own areas according to those that were interviewed.

Exchange. The residents who were interviewed noted that it was very important to share subsistence items within the community. "Usually things are shared between anybody and this is true of other villages. Any person who is dependent or needy will be taken care of." Exchange between villages also occurs. "The first fresh fish of the season we give to the Lagoon and Lake for caribou and moose. We give them sea food."

Use Patterns. It was stated, by those interviewed, that everyone participates in subsistence to some extent and it was estimated that at least 50 percent of the meat diet is from local items. During bad years this may increase to 80 percent. The species utilized will vary in that people will use

caribou if moose are not available. When asked what the average Chignik family would utilize, the following rough estimate was provided:

- Salmon: freeze about 40, salt 100 in kegs, dry 100, and smoke another 100.
- Moose and Caribou: at least 2.
- Ptarmigan: about 15.
- Duck and Geese: 25 to 30.
- Crab: "lots", an easy 100.
- Halibut: 20 in the 20-35 pound range.
- Codfish (Scandanavian influence): Salt down a 100 pound keg.
- Rabbit: 10 to 15.
- Berries: Over 5 Gallons.

This estimate was for Chignik and it was stated by those interviewed that the other villages may vary in usage with some more reliant on moose and caribou than on crab.

When asked about the emotional importance of subsistence, there was a very strong feeling about it. "Subsistence is a must. You can't do without it. Impossible to survive without it. It's what we're used to." Because Chignik is so far removed from metropolitan areas and has variable freight delivery with so much being imported, subsistence is viewed as something that is dependable, "If anything happens that we are cut off from outside it's something on which you can rely. We don't have stocks of food."

One resident noted that welfare cannot replace subsistence rights. Chignik has had high numbers of residents on welfare during bad fishing years and the welfare money is spent on heat and light. With welfare and subsistence, it was felt a person could survive. There was a strong feeling that, though the residents aren't as dependent on subsistence as they used to be, cash supplements subsistence. As with other villages, cash is for material goods and subsistence provides most of the meat and some of the vegetables.

All aspects of subsistence activities, acquisition, preparation, and presentation are taught to the children. It is considered as part of the cultural heritage. "Parents always involve kids in subsistence activities. Same as fishing."

Issues and Concerns in Subsistence. Two major threats to subsistence were voiced by those residents of Chignik who were interviewed. First, "headhunters" are considered a real menace. "I have seen four nice big moose just bloating with only their horns gone. I have seen an airplane spot a moose, land, and shoot them which is against the law." The second and more generalized threat is perceived restrictions on subsistence activities caused because of the d-2 settlement.

Relations with Bristol Bay

One of the main purposes of doing fieldwork in Chignik was to discern their interrelationship with Bristol Bay. The concern was to determine if and how events in Bristol Bay would affect the five villages in the Chignik area.

With modern transportation and brine systems, fish from Bristol Bay can be processed in Chignik. Traditionally, Bristol Bay has had more salmon than can be processed locally, and the Chigniks have slightly less salmon than could be processed locally. Excess from Bristol Bay could be processed in Chignik. This means an effect on Bristol Bay salmon can have an effect on Chignik. Equipment and tenders from APA canneries in Bristol Bay are shared with the APA plant in Chignik.

People in the Chignik area have kinship ties to people in many of the other Alaskan Peninsula villages. These ties result in extensive travelling, visiting, and residing with relatives and vice versa. Subsistence items are shared with relatives and friends in other communities. Individuals and groups use other areas for subsistence pursuits and this will often involve staying in another community. It must also be mentioned that the population of the area is not large. Thus people tend to know the residents of other villages. Also, the various regional political organizations and responsibilities tend to bring various representatives of the communities together on a fairly regular basis.

In summary, there are economic and extensive subsistence and social ties that bond the people of the Southern Alaska Peninsula Sub-Region to Bristol Bay. Any impacts to Bristol Bay may have ramifications in the Southern Alaska Peninsula Sub-Region.

Togiak-Kulukak Bay Sub-Region

INTRODUCTION

The three villages in this subregion--Togiak, Manokotak, and Twin Hills--are located comparatively far from the proposed petroleum development area of the North Aleutian Shelf. However, some of the communities are close to the Bay and all are somewhat affected by events occurring in Bristol Bay, including offshore oil development. Togiak and Manokotak were selected for fieldwork.

These three communities are located in the northwestern quadrant of Bristol Bay. Togiak and Twin Hills are only a few miles from each other, close to Togiak Bay. Manokotak is on the Nushagak Peninsula approximately 22 miles southwest of Dillingham. These villages have two extra-village orientations. Dillingham is the largest nearby community and this route also leads to Anchorage. However, because of historic and current kinship ties, these communities (particularly Togiak and Twin Hills) also are oriented towards the Kuskokwim River Communities.

The 1980 census listed the following populations for the three communities: Togiak, 470; Manokotak, 294; and Twin Hills, 70 (Department of Labor 1982, see Table 6). The residents of this subregion are about 94 percent Eskimo (Togiak 93.6 percent, Manokotak 92.5 percent, and Twin Hills 95.7 percent). Besides being predominantly Eskimo, the villages are traditional in their sociocultural

patterns with Yupik Eskimo spoken by the majority of the residents as their first language.

In addition to the ties with the Kuskokwim River communities, the villages also have close ties with each other. After the 1918-1919 epidemic, some residents of the Yukon-Kuskokwim Delta moved to the Togiak area. In 1965, a number of Togiak residents moved to and established Twin Hills after flooding in the Togiak area. Also, some of the Twin Hills residents are from the Yukon-Kuskokwim Delta area. These interchanges of people form the basis of the strong ties between Togiak and Twin Hills and residents of the Yukon-Kuskokwim Delta. Manokotak became a permanent settlement in 1946-1947, populated by people from other villages, including Togiak. Relations between the three communities also include the sharing of subsistence items.

The economic base of these three villages is commercial salmon fishing. There also is participation in a growing commercial herring fishery in Kulukak Bay. Drift and set gillnetting are the major techniques utilized in the salmon fishery with drift gillnetting and purse seining used in the herring fishery. A locally developed, very shallow-draft, 24 to 28 foot skiff is used for drift gillnetting. The majority of the herring are caught by non-residents utilizing purse seining.

All three communities are very dependent on subsistence resources. Major reliance is on marine species even though both marine and land species are utilized. These subsistence items are important for their nutritional and social value. Subsistence items are exchanged between families within villages and between villages, which strengthen the ties between the communities.

TOGIAK

Location, Community Life, and Infrastructure

Togiak is located in the northwest corner of Bristol Bay, about 67 miles west of Dillingham. The community sits directly on the coast, at the head of Togiak Bay. Directly northeast of the village is the mouth of the Togiak River. Across the Bay from Togiak is a large cannery facility. The immediate land environment around the community is tundra. The current community is "new" Togiak. "Old" Togiak, or Togiagamute, is located across the bay near a cannery facility. The new location was more attractive and people began to move to the current location until only a few people lived in "Old" Togiak by 1940 (Nebesky, Langdon, and Hull 1983:26).

The 1980 Togiak population of 470 is an increase of 87 (22.7 percent) over the 1970 census. Togiak is the third largest community in the Bristol Bay Region. A high birth rate and migration account for the relatively rapid population growth. One resident noted, "Very few young people move out. Everyone pretty much stays here." When asked where in-migrants come from, the residents responded, "from up north", i.e., the Yukon-Kuskokwim Delta region. The residents of Togiak stated that most families were related to each other. The majority of the residents are Yupik Eskimos. The only non-Native residents are school personnel and seasonal employees who work in the cannery. Almost all of the Native residents speak Yupik. This is supported by bilingual educational

statistics that indicate 84.4 percent of the students speak either Yupik only or Yupik with some English (Department of Education 1981). Three bilingual aides instruct the schoolchildren in Yupik.

There are 30 Alaska State Housing Authority (ASHA) houses in the community, built in 1974; the remaining 86 houses are "village built". In terms of quality, estimates are that 35 percent are considered good, 50 percent fair and 15 percent in very bad condition. Numerous steambaths exist in the community and serve important social functions of relaxation and exchanging information. The ASHA houses are felt to be cold and of poor quality, according to some residents. Approximately 99 percent of the houses have water, sewer and electricity. The water system consists of a well located one and one-quarter miles from the village, a 60,000 gallon storage tank, a pump house and pressure tank, and chemical treatment. During the summer, there frequently is not enough water for both the residents and the fish processing company. Sewer is treated in a sewer treatment plant and electricity is provided by generators from the Alaska Village Co-op. One dominant feature in the community is the airport, which extends into the center of town. A second distinctive feature is Kachamak Seafood, the cannery located at one end of town. Television and radio are receivable in the community and telephones are located in most homes. The "Village Affairs" building houses the City administrators, the village council, and jail facilities. Transportation for the community is provided by barge and air. Skiffs travel to Dillingham in the summer and snowmobiles are used in the winter.

Togiak is an incorporated second class city. There are seven elected City Council members and a Mayor who is elected by the City Council members from one of their members. Togiak has a Native Village Council and a village corporation. No alcohol is allowed in Togiak. Local financial support is gained through a two percent sales tax on goods sold at the local stores. The city receives revenue sharing, a portion of a raw fish tax, health and social service funds, and funds from the Telephone Co-op.

The largest single structure in Togiak is the school, built in 1959 and upgraded in 1973 and 1974. It is divided into elementary, secondary, and gymnasium sections. A wood shop, metal shop, music room, and generator building are located nearby. The Togiak school has approximately 150 students and is part of the Southwest Region Schools. There is one principal and 16 certified staff members. Residents said most of the village children complete high school and there are approximately seven village children in college at Fairbanks and Anchorage.

There are three health aides serving the community. A new six-room health clinic was under construction in Togiak. The clinic, owned by the city and leased by the U.S. Public Health Service, is a fairly sophisticated structure with modern conveniences including a ramp for handicapped people. Public Health Service nurses visit the city three times a year and a doctor visits twice a year. Any patient too serious for local treatment will be flown to the hospital at Kanakanak or to Anchorage if the Kanakanak facility cannot provide required care.

One resident said dog sleds were used for transportation at Togiak about 25 years ago. Togiak suffered a severe flood in 1964. Most of the sled dogs were killed, which led to the wide use of snowmobiles, three-wheelers, and pick-up trucks.

Issues and Concerns: There are several issues and concerns expressed by the residents regarding the infrastructure in Togiak:

- Because of soil erosion and flooding in the community, particularly along the coast, there is a need to relocate homes closest to the beach to a safer location.
- The airport's location in the center of the community is considered a potential hazard. A desire was expressed to move and expand the airport, although there is some questions regarding acquisition and ownership of potential land for the new site.
- At present there is no large general purpose community center. Construction of a community center is necessary, not only for activities but as a location to bring the community together.
- Some concern was expressed that counselors and psychologists were not providing adequate services for the school.
- It was noted by some of the residents that some of the older people still pass on oral traditions to the younger people. This also is being done through the bilingual classes in the school. There is a desire for the traditional ways to be taught and passed on through the generations. One person raised the concern over the potential loss of respect for older people because of the impact of the white culture.

Economics

As with most other communities in Bristol Bay, the cash economy is almost totally dependent on salmon fishing. Approximately 70 drift gillnet and 23 set net permits were listed for the village of Togiak in 1980 (Langdon 1981). Average income in 1980 from drift gillnetting was \$12,176.00 and the village gross overall salmon fishing average was \$11,455.00 (Langdon 1981). Salmon fishing by the Togiak fishermen is usually done in 24-26 foot boats rather than with the larger 32 foot boats used in the rest of the Bay. Some of the fishermen believe that with a smaller boat, deliveries are more frequent and the fish do not weigh down on each other as much as in the larger more heavily loaded boats. More frequent delivery and less damage from piling are seen as factors resulting in higher quality. Also, the 32 foot boats are considered too deep for Togiak Bay. The boats are mostly flat bottomed skiffs propelled by outboard motors. Most of them are usually wooden but a few are constructed of fiberglass. Boats are equipped with depth finders and citizen band radios. Usually the boats are manned by one or two crewmembers, not necessarily family members. According to the residents, very few fishermen drown. The Togiak fishermen belong to the Western Alaska Cooperative Marketing Association.

A comparatively recent commercial herring fishery has opened up at the doorstep of Togiak. The first large scale harvest began in 1977 (BBNA 1980:5) and has increased in tonnage each year, to approximately 17,774 metric tons in the 1980 season. Purse seiners (140) took 84 percent of the harvest and gillnetters (363) accounted for the remaining 16 percent (Langdon 1980:1). There

is considerable local dissatisfaction with the fishery which can be summarized by Langdon's (1980:28) comment "Bristol Bay residents are simply not getting a fair shake in obtaining the economic benefits of this resource." The first problem is that seiners take the largest share of the fish, and the Togiak fleet is composed of small gillnetters. Togiak has little experience with purse seining, which effectively blocks them from efficient, large scale participation. A second complaint is that the processors won't accept herring caught by local Native gillnet fishermen. As one Togiak fisherman noted, "We went to one processor and he said there wasn't enough roe. We went to another processor, and he measured a 30 percent roe count." A third complaint is that the herring fleet dumps its garbage and unaccepted herring into the bay, which then floats up onto the local beaches. According to residents, Togiak fishermen salt and dry their unaccepted herring rather than dump it in the Bay. A fourth complaint is the feeling that the herring fishery is scaring off walrus and seal. A final complaint is that the roe-on-kelp herring egg fishery is stripping local kelp beds. This was a traditional subsistence food and there is concern that the commercial harvesting will permanently damage these beds. As one person noted, "Togiak was fairly isolated until the herring fishery" and another felt "More people would like to see the herring fishery closed."

There is one operating fish cannery in Togiak and another under construction. A third is located across Togiak Bay. A number of the village women work in the canneries, in addition to managing set net sites.

Besides fishing, the formal cash income positions within the community are:

- Four police positions.
- One maintenance man.
- Two postal positions.
- Three health aids.
- Approximately 9 full/part time positions at the school including 3 bilingual teachers, 2 bilingual aides, 2 cooks, 2 janitors, and 1 librarian.
- Village Council (a minimal payment is made members).
- Several positions in the few stores in the community.
- The National Guard.

Trapping in the area is minimal. Some handicrafts are made, including fur hats and grass baskets. There are an estimated 50 village women making grass baskets. Also, about 20 percent of the residents are involved in ivory carving.

Issues and Concerns. The following are significant issues and concerns relating to the economic situation at Togiak:

- Limited Entry: Not everyone who felt they were eligible received a limited entry permit. There is a limited number of permits at Togiak compared with the population growth. As one resident stated, "How are people going to support their families? These people will have to go on welfare which will cost the State money." Another concern about limited entry is the lack of access to available sources of capital (i.e., banks) to purchase an available permit. One resident stated, "I'm full Native and I'd like to buy a permit from another Native but there is no money available."

- Deregulation of the 32 foot limit: Very strong feelings were expressed to maintain the 32 foot limit on drift gillnet boats for the reasons listed above.
- Herring Fishery: This issue raised more concern than any other issue except preservation of subsistence rights and a subsistence lifestyle. The herring fishery next to Togiak did not benefit Togiak fishermen or the community in any substantial economic manner. It polluted their beaches and threatened their roe on kelp subsistence patterns. Also, fear was expressed that an over-harvesting of herring, which serves as a vital link in the food chain, would jeopardize other commercial and subsistence stocks. The fear of depleting of herring stocks reached the point that one resident fisherman felt a five year moratorium on the herring fishery was needed to replenish stocks. The use of village corporation lands (private property) by the non-local herring fishermen (i.e., herring spotters use a landing strip near Nunavachak Lake) has created some concern. Also, the influx of airplanes associated with the herring fishery (i.e., fish spotters) is perceived as causing a decline in ducks near Tongue Point. As stated in Bristol Bay Native Association publication No. 23 on development priorities, "A well coordinated effort to establish markets for local herring fishermen should be undertaken immediately." This quote stresses the idea that if this fishery is to continue, local residents should be able to share in the profits as well as share in the costs.
- Reindeer Herding: This occurred in the Togiak area in the early part of this century and reindeer are still raised on Hagemeister Island.

- There is an expressed interest in developing a viable herd in the Togiak region again (BBNA n.d.:28-30).
- OCS Development: There was a strong unified feeling against any petroleum development that might endanger subsistence and commercial species and the environment. Onshore petroleum development was not opposed.
- Cash Economy: This is intimately tied to the subsistence economy. The subsistence economy serves psychological, cultural, and nutritional needs while supporting the cash economy. Conversely, the cash economy supports effective subsistence activities. Alterations in one affect the other.
- Outside Control: A general apprehension and fear of outside corporate interests (i.e., Japanese fishing industry; oil companies) was expressed by general residents.

In summary, the major economic activity in Togiak is seasonal salmon fishing with some residents working in the local canneries. The newly developed local herring fishery has not been of much benefit to the Togiak fishermen. A limited number of part and full time positions exist in the community mostly related to the governmental sector. Trapping and handicrafts provide some supplemental income.

Subsistence

Referring to the relationship between subsistence and the number of limited entry salmon permits, one villager said "Without subsistence we'd starve. In a number of years when the population increases and there are still few permits, we're going to have to rely more on subsistence."

The following species are the more prominent subsistence items utilized by the residents of Togiak:

- Marine Mammals: Seal (numerous species), sea lion, walrus, whale, porpoise.
- Marine Fish: Herring, smelt, capelin, flounder, halibut, salmon (all five species).
- Other Marine Species: Clams, dungeness crab, tanner crab, shrimp, eelgrass, herring roe on kelp, jellyfish (a specific species driven in after a southeast storm in the Fall).
- Birds: Geese and large varieties of ducks, seagull and Murre eggs, ptarmigan.
- Land Mammals (hunting and trapping): Moose, brown bear, fox, caribou (hunted in Egegik and Naknek), wolverine, beaver.
- Fresh Water Fish: Blackfish, trout.
- Vegetation: Basket grasses, wild spinach, wild celery, wild rhubarb, beach greens, salmon berries, blackberries, cranberries, blueberries, huckleberries, local herbs for medicine.

Range. When asked the range of subsistence utilization, the residents of Togiak displayed an intimate, immediate, comprehensive, and unanimous knowledge of where subsistence species are located, gathered, and/or hunted and fished. The Togiak people range a great distance for their subsistence items. The entire coastline is utilized from the west side of Nushagak Bay all the way to Cape Newenham, including all the bays and inlets. The islands off Togiak Bay also are utilized including Hagemeister, High, Crooked, Summit, The Twins and Walrus Islands, and Black Rock. In terms of distance out to sea, the residents indicated seal and sea lion hunting occurs just past the southern end of Hagemeister Island. Hunting, fishing, and trapping inland extends roughly in the north from the Kanektok River (above Quinhagak) south. The eastern boundary is roughly the Wood River Mountains. Within this region, the farthest locations utilized are for beaver trapping and moose hunting. It was noted that some Togiak women would fly to Platinum for basket grasses. People also will go as far as Aleknagik and Manokotak for berries. Caribou hunting is done as far away as Naknek and Egegik.

All of the villagers do not utilize this entire area all the time. Rather, some individuals and groups utilize certain areas for certain species at certain times of the year. The Togiak residents range into areas close to other communities and, conversely, the residents of those communities utilize areas close to Togiak.

Although the interior land area utilized is quite large, the impression given was that the farthest regions were used mostly for trapping by certain individuals. Moose and bear hunting were more localized and closer to the village than the

trap lines. The marine and coastal environment on the other hand appear to be more intensely utilized by a greater number of people.

Exchange. The villagers noted that any large species, such as walrus, seal, and moose were distributed in the community. They said items were distributed not just to family members but also to friends and neighbors. Distribution was based mostly on need and for people, such as the aged and disabled, who couldn't hunt. However, one person noted that for some people, relatives would come first.

One resident noted, "We go to Aleknagik and Manokotak for berries. Manokotak comes here. Sometimes there would be a big production of berries in one area. The next year there wouldn't be." In Addition, Togiak trades its whitefish with Manokotak for their blackfish.

Use Patterns. Spawned out salmon are an important subsistence item. These fall fish are caught in Togiak Lake. Entire families go to the lake and remain there until the required number of fish are caught. It cannot be doubted that subsistence products are seen as extremely important by the Togiak residents. The relatively low income from fishing for those head of households who received limited entry permits, coupled with the absence of numerous full-time non-fishing related jobs underscores one resident's comment that "Without subsistence we'd starve."

In terms of the consumption of the broad range of subsistence items, there appears to be some degree of a generation gap. As one villager said, "Most older people and parents eat Native food but some kids like Gussock food."

Issues and Concerns. The following points are the threats and concerns expressed by Togiak residents regarding their subsistence lifestyle:

- There is a concern that the commercial herring fishery will jeopardize traditional and local subsistence species. This includes the herring itself as well as herring roe-on-kelp. There is also fear that a decrease in herring will reduce the number of species that feed on them. Another fear is that the herring fleet is scaring off walrus and seal.
- There seems to be mixed feelings towards the commercial herring fishery. On one hand, because the villagers are short of cash, they favor the commercialization of this fishery. On the other hand, because herring is a local subsistence resource, the commercial fishery creates a certain amount of conflict. In addition, because the villagers have derived little economic benefit from it and they perceive it as harming the herring stocks and kelp beds, the commercial herring fishery is not favored by all villagers.
- There is a generalized fear of any threat to subsistence since there is such a high dependency on subsistence. To a large degree, this is related to the availability of cash producing jobs. These jobs are variable, unstable, and scarce. Subsistence on the other hand is relatively dependable.
- Non-Native culture has introduced new fast, convenient Euro-American foods that can be purchased locally. These may be a deep and long term threat to the subsistence lifestyle in that they can change tastes and food acquisition patterns.

MANOKOTAK

Location, Community Life, and Infrastructure

Manokotak lies directly east of Togiak, about in the center of the upper Nushagak Peninsula and approximately 22 miles southwest of Dillingham. It is located between a small hill to the east and the Igushik River to the west. The small hill provides wind protection and the village is located at its base. The river runs quite close to the village and boats and storage houses are located along its banks. It is an ideal location for a village setting. This village site is lived in most of the year except during the fishing season when many of the villagers move to a fish camp at Igushik on the west bank of Nushagak Bay. Manokotak is a "young" village, with construction starting in the 1940s. The residents came from the villages of Igushik, Tuklung, some from Togiak and Aleknagik, with the majority from Kulukak. These people had ceased reindeer herding and selected the present site because of its excellent location. Also, it was relatively close to Dillingham. A school was built in the village in 1958.

The population of Manokotak, according to 1980 census figures, is 294 (Department of Labor 1982). All are Yupik Eskimo, except for the white school teachers. Yupik is spoken by most community residents, except the whites, and 80.7 percent of the 109 students speak either only Yupik or Yupik and English (Alaska Department of Education 1981). It was stated that, "Most everybody is related here. There are a few big families. There is a problem with getting

girlfriends because of this and a lot of people marry out." The goal of the community, in terms of growth, is that, "We want to grow quietly. We want agreeable people here." Residents said there were no racial problems in Manokotak.

There are 61 houses in the community, 47 of which occupied. About 50 percent of these are in fair condition. In 1971, ASHA constructed 19 new houses and there is hope that more new houses will be built. In 1978, a community hall was built with federal funds. It contains community official's offices and a meeting room. The village telephone is located in the co-op store. A health clinic and recreational hall also exists in the community (BBNA, n.d.:20). There are two health aides, an alternate health aide, and an alcoholism counselor. Public Health Service nurses visit the village twice a year and a doctor visits two or three times a year. Serious conditions are flown to either Dillingham or Anchorage. Little alcoholism or alcohol abuse problems occur, according to those interviewed.

The largest structure in the community is the school which is in the Southwest Regional Schools System. There is one elementary and one secondary building and four houses for teachers. There is one cooperative store and several other private stores. Most people in the community either own or have access to steambaths. People get together in the steambath and talk business, "That's where we get our information." To the north of town is the airport. There are two problems associated with the airport. First, airplanes cannot land in a strong southeast crosswind. Second, the community is blocked for expansion and

would like to build on land around the airport. However, the State of Alaska owns a large portion of the land around the airport, which prevents construction.

All residents have electricity, water, and sewer. The village corporation owns the electrical facility. There are four village police officers and it was stated that there is very little crime in the community. There is a paid fire chief and 13 volunteers. There is no fire truck, only extinguishers and a fire hydrant. Barges come up the Igushik River during the summer and air freight serves the community throughout the year. There is a need for bulk storage tanks since fuel only comes during the winter. A single television station is transmitted from King Salmon and the community can receive several radio stations. Plans are being made to acquire cable television.

Snowmobiles are quite prominent as the local means of travel. Reflecting on the introduction of snowmobiles, one resident said, "We always had dogs but we got rid of them when snowgoes came. But dogs don't break down, they don't use fuel, and there's no place a dog can't go. Dogs can find the way back and snowgoes can't. Plus, some people are hard of hearing and dogs have good ears. If a person falls through the ice, the dogs will warm him, snowgoes won't."

Manokotak became a second class city in 1973 for several reasons. First, this status permitted the imposition of the current two percent local sales tax. Second, it would be easier to acquire grants, revenue sharing, CETA jobs, P.L. 93-638 money, and establish city jobs in the community. The city participates in State revenue sharing. Third, the second class city status permitted easier passage of city ordinances. The Manokotak Village Council works closely with

the city. A village corporation, Manokotak Natives Limited, also exists in the community. The corporation's capital is invested in the community, in a village light plant, and in the teacher housing. Residents had wanted the investments used to improve their village. There was some discussion about a merger with Twin Hills but the move was felt to be too premature. The main religion in the community is Moravian and a lay pastor lives in Manokotak. The church helps the elderly and infirm by acquiring funds for their assistance. Also, the church and the Village Council both support a survival rescue squad.

Issues and Concerns: Issues and concerns expressed by residents regarding infrastructure in Manokotak include:

- The airport crosswind problem and the state ownership of the area around the airport, which blocks expansion.
- There is little room for growth. The community is blocked for expansion on all four sides, e.i., by a mountain, the river, a swamp, and the airport. This is a real concern as Manokotak is experiencing relatively fast growth and the residents value a steady growth pattern.
- Problems with a clay/mud soil and the desire for a sewer lagoon.
- Opposition to offshore petroleum development although onshore development would be accepted. It was estimated that the village acquires 60 percent of their diet and 100 percent of their income from the marine environment. As such, it can be seen that any threat to the marine environment is a threat to Manokotak's livelihood.
- Other infrastructural improvements, including the development of bulk storage tanks and construction of a city jail and Post Office Building.

Economics

There are 37 salmon drift gillnet permits and 27 salmon set net permits assigned to Manokotak in 1980. The gross average drift income is \$23,750 and the set average gross income is \$3,857 with the village average gross income from salmon fishing at \$14,467 (Langdon 1981). Most of the fishing is conducted near Igushik, which is Manokotak's summer fish camp. Drift and set netting are done in Nushagak Bay. The fishermen belong to the Western Alaska Cooperative Marketing Association. In general, the women and children handle the set nets and the men operate the drift gillnets. Crews are usually two or three persons per vessel and are usually family members though friends sometimes serve as crewmembers. Most of the fishermen fish for the Columbia Wards cannery at Ekuk. A few of the villagers work as cannery workers for Columbia Wards, and a very few work in the canneries at Togiak.

Most of the boats are 32 foot long and constructed of fiberglass. There is a desire to maintain the 32 foot limit because the fishermen feel they could not afford larger boats. Not everyone in the community who desired a limited entry permit received one. As fishing is the only major source of income, there is concern about the limited number of local permits in relation to the number of young people in the community.

Some of the Manokotak fishermen participated in the Bristol Bay herring fishery. A few were able to sell their fish but, in general, the egg count was too low for sale. As with Togiak, the Manokotak fishermen noted debris scattered along the beach, apparently originating from the herring fleet.

A number of full/part time jobs exist within the community. Besides the 10 certified teaching and 2 principal positions, there are several classified positions in the school. These include two cooks, two janitors, and a number of Indian Education Act and Johnson O'Mally funded part time positions. There are four village police officers, two health aides and one alternate, one village advisor, one post mistress, three road maintenance personnel, two airport maintenance personnel (contracted from the Department of Transportation), a CETA refuse collection position, and a limited number of employees in the village stores.

Fur trapping is another important economic activity in Manokotak, according to the residents. Species trapped include red fox, beaver, lynx, muskrat, wolf, otter, seal, mink, and wolverine.

Issues and Concerns. The economic issues and concerns within Manokotak are as follows:

- There is some concern over the small number of limited entry permits in the community. With an expanding population, this will create a problem for some of the younger generation.
- As noted by BBNA (n.d.:21), there is the potential for reindeer herding in the area. Many of the older villagers had experience with this activity. Also, modern technology would allow for more up to date herding techniques.

Subsistence

One estimate gives Manokotak's dependence on the marine environment for food at 60 percent. Another estimate is that overall dependency ranges between 40-70 percent. This depends on the family's income, with more subsistence dependency the lower the cash income. Cash is seen as very important since fuel, food, clothing, and items to pursue subsistence activities are only available through cash purchase. The following are partial lists of species which are available and utilized by the Manokotak residents:

- Marine Mammals: Seal, walrus, sea lion, and beluga whale.
- Marine Fish: Flounder, salmon, herring, and smelt (in river and in bay).
- Other Marine Species: Herring roe on kelp, beach greens, and clams.
- Land Mammals: Moose, porcupine, bear, muskrat, squirrel, beaver, otter, rabbit, and caribou (hunted in the Mulchatna River and Pilot Point Areas).
- Birds: Duck, geese, spruce hen, ptarmigan, duck eggs, Murre eggs, and seagull eggs.
- Fresh Water Fish: Rainbow trout, grayling, pike, catfish, blackfish, and whitefish.
- Vegetation: Beachgrass, wild celery, sour duck, pink plumes, cranberries, blackberries, salmon berries, and blueberries.

Range. As with Togiak, Manokotak residents have a wide range they utilize for subsistence. Though localized around the village, the range extends to the west as far as the Osviak River area, where duck and geese are hunted. In the east, subsistence occurs on the other side of Nushagak Bay, except for

some caribou hunting in Pilot Point. The entire Nushagak Peninsula is utilized, particularly the coastline. North of Manokotak, located between Ualik and Amanka Lakes, there is an old village site previously used by some of the Manokotak residents. The general region around the old village is extensively utilized, particularly for subsistence salmon, other fishing, and berry picking. Some trapping and moose hunting is conducted further north of these lakes. Some residents would often fly to Levelock for berries, particularly blackberries (blackberries are also known as Moss berries). Caribou hunting is conducted in the Mulchatna River drainage above "old" Stuyahok. The Wood River Mountains form a general boundary between where the Togiak and Manokotak people subsist. This is not to imply "rights", but rather, this is simply a demarcation of the subsistence activities of the two villages.

Exchange. When asked about exchanging and distributing subsistence goods in the village, one resident said, "There's no argument about who's is who's. We share and share alike. The native way is that we don't own. We're just here to use temporarily." It was stated by several residents that the needs of the old and disadvantaged were met.

Some residents said a special relationship exists with Togiak and Twin Hills. Manokotak's blackfish is exchanged for Togiak's whitefish. Moose and beaver would be sent to Twin Hills. Manokotak gets its seal oil from Togiak. This exchange and sharing is conducted on an informal basis. Also, some of the Manokotak families are from Togiak and have friends and relatives there. Some exchanging is done with Aleknagik and New Stuyahok, usually seal oil for caribou. It was noted that there is "good dried fish up there."

Use Patterns. Berries are usually picked by groups because of fear of bear and for social reasons. Hunting far away from the community is usually done by men in groups because of potential breakdown of snowmobiles. Local hunting is done either by groups or singly.

The emotional importance of subsistence was explained in answers to two questions. When asked how they would feel if they were just given Euro-American food, the reply was that they wouldn't care for exclusively Euro-American food. In other words, traditional food is important because the residents are used to it and prefer it. When asked how they would feel if they were simply handed Native foods, the response was they would feel they missed something if they didn't gather/hunt/fish for the food themselves. "Welfare is good to have but it's not the way we do it."

Issues and Concerns. Manokotak's issues and concerns in the subsistence area are:

- The game is frightened of snowmobiles. This was stated as another justification for using dog teams.
- According to some of the older people in the community, game animals such as moose, otter, mink, fox and caribou are less abundant.

Nushagak River Subregion

INTRODUCTION

The Nushagak River subregion includes the four communities located on the Nushagak River which, beginning at the furthest village upstream, are Koliganek, New Stuyahok, Ekwok, and Portage Creek. The residents of these villages are 93.9 percent Native, predominantly Yupik Eskimo (see Table 6). The geographic and biological focus of this subregion is the Nushagak River which is both the primary means of transportation and the source of the most important wildlife species: salmon. The village of New Stuyahok is the only village in the subregion that has not seen a population decline in the past 10 years. To the contrary, New Stuyahok's population has grown dramatically over the last several decades, largely at the expense of the other villages in this subregion. Koliganek is the most remote village in the subregion and is highly subsistence oriented. Residents of Koliganek are opposed to development projects that could adversely affect their subsistence lifestyle (Braund 1982) and stated they specifically live in a remote area to maintain this subsistence lifestyle. The small village of Portage Creek, located at the confluence of Portage Creek and the Nushagak River, is the newest village in the subregion, settled in the early 1960s by residents from Koliganek. The village of Ekwok is the oldest continuously occupied village on the Nushagak River, because both Koliganek and New Stuyahok have relocated. With the major exception of salmon, subsistence activity and wildlife resource utilization is oriented inland. There is exchange with maritime communities for marine products such as seal oil.

As in many of the communities of the Bristol Bay Region, commercial salmon fishing provides the major source of cash to all Nushagak River villages. Table 8 shows the number of limited entry permits held by residents of each community. Although the proportion of the population that these permits represents is relatively low (ranging from 24 to 10.5 percent), these villages have a high dependent to fishermen ration (Langdon 1981:10-12). According to local residents, very few villagers from this subregion work in the canneries, most are able to find jobs working on a relative's boat in the drift fleet. It is noteworthy that the substantial majority of the limited entry permits in this region are drift permits. This fact is representative of the riverine mobility of all the communities and results in a greater degree of affluence because drift fishing is generally more lucrative. In late May, the village residents move enmasse to Bristol Bay to participate in the commercial salmon industry. Families camp near the mouth of the Nushagak River in the Lewis Point vicinity. Women and children use set gillnets to catch salmon to dry for later subsistence use while the men engage in the commercial harvest. Generally, the men return to these summer camps between fishing periods or travel to other communities to purchase supplies. The general subsistence pattern for the rest of the year is discussed by Van Stone (1967:131-156) and summarized in the following sections.

TABLE 8.

NUSHAGAK RIVER AND ILLIAMNA SUBREGIONS
 Village Populations and Limited Entry Permits

	Population ¹	Approx. No. of ² Limited Entry Permits			Percent of Population With Limited Entry Permit
		Drift	Set	Total	
New Stuyahok	325	30	4	34	10.5
Ekwok	79	16	1	17	21.5
Koliganek	116	15	3	18	15.5
Portage Creek	50	10	2	12	24.0
Nondalton	170	12	13	25	14.7
Newhalen	87	6	3	9	10.3
Iliamna	94	12	21	33	35.1
Pedro Bay	42	2	2	4	9.5
Kakhanok	83	12	3	15	18.1
Igiugig	33	6	-	6	18.2
Levelock	80	11	8	19	23.8

¹ 1980 U.S. Census

² Source: Langdon 1981.

NEW STUYAHOK

Location, Community Life, and Infrastructure

New Stuyahok is located on the Nushagak River about 50 miles northeast of Dillingham. The community is situated in a small valley between bluffs and extends up a slope away from the river.

With a 1980 population of 325, New Stuyahok is the largest village in the Nushagak subregion. Except for the school teachers, the population is Yupik Eskimo. The elderly and adult people speak Yupik, which is taught in the school through bilingual classes. Alaska Department of Education (1981) records indicate that while about 86.2 percent of the students speak mostly English, Yupik also is spoken.

There are about 50 houses in the community, mostly in fair condition. New Stuyahok and all the other Nushagak subregion communities are served by the Southwest-Region School District. There were approximately 90 students in K-12 in 1981. Russian Orthodox is the predominant religion and there is a very elegant Russian Orthodox church. A priest visits the community every three or four months and a reader lives in the community to provide services more often. A new village affairs office building has been constructed for use by the Village Council and Village Corporation business. There are two stores in the community. The entire village has electricity, and water and sewer services are available for most houses. However, water is hauled to several homes. There is some indication that the electrical system will have to be upgraded if the community grows much larger.

New Stuyahok is a second class city with a mayor and council. There are two policemen in the village and State Troopers can be called in if necessary. Villagers said there were few criminal problems. A health clinic is located in the community and there are two health aides and one alternate. For serious illness, calls can be made by radio to the hospital in Dillingham and individuals can be flown out for treatment. Because New Stuyahok is a dry village, alcoholism is not a major problem. There appears to be very few drug problems. Fire protection is provided through volunteers with fire extinguishers.

Supplies are barged in during the spring and air freighted year-round. The airport is located on top of one of the bluffs above the community and can be reached by snowmobile, car, or on foot. Oil is sometimes acquired from Dillingham by snowmobile. Television is watched on video tape recorders and the community receives a few radio stations. There is one phone in the community, although each house has a citizens band radio for communication within the village area. Kinship ties are strong in the village and there are many large extended families.

The people of New Stuyahok travel extensively for both subsistence and recreation. During Slavic (Russian Christmas), some of the residents travel to Newhalen for celebrations. Beaver Roundup is attended in Dillingham and there are local village winter carnivals. Recreation within New Stuyahok includes basketball, volleyball, wrestling, television (video tape recorders), skiing, ice skating, as well as other activities.

Issues and Concerns. The infrastructure of New Stuyahok has not kept up with the rapid population growth and the following issues and concerns are considered development priorities for the village (BBNA's Development Priorities n.d.:12-18).

- Community Transportation: A dump truck and a fire truck are priorities for the community. This is important for protection and development purposes.
- Post Office: An increase in population has put pressure on the mail system and there is a need for a post office.
- Airport: There is a desire for an enlarged airport. This would facilitate direct freight service from Anchorage. Also, an airport terminal building is needed.
- Roads: Local roads need improvement, particularly the one leading to the dumpsite.

Economics

As already stated, commercial fishing is the economic mainstay of New Stuyahok. About half of the New Stuyahok families set up their fish camp at the Lewis Point location for subsistence salmon fishing and breaks between the commercial fishing periods. Thirty salmon drift gillnet permits and four salmon set gillnet permits are listed as registered to residents of New Stuyahok. Average gross income of the New Stuyahok drift gillnetters is \$31,167.00 (Langdon 1981). In general, fathers and sons fish together and single fishermen often bring friends and/or relatives. Subsistence set nets are handled by the

women and children. Not everyone fishes for one cannery exclusively and, while most people own their own boats, some are rented. During the winter, trapping provides some income for the community. Species trapped include land otter, lynx, mink, beaver, and martin. Beaver is also utilized for food.

In addition to these seasonal wage/cash opportunities, there are a small number of permanent full time jobs. Within the school, there are janitorial, cook, teacher aide, and recreation positions. City positions include airport maintenance, electrical power plant maintenance, secretarial, and law enforcement. A few residents work in the stores and some of the older people receive public assistance.

The economic issues and concerns mentioned include:

- Limited Entry: There is some sentiment that everyone who desired or felt they deserved a limited entry permit did not receive one. Also, there is a concern that not all younger men will be able to get permits.
- 32 Foot Limit: It is felt that the 32 foot limit should be maintained on boat length for commercial fishing.
- Petroleum Development: There is opposition to petroleum development in Bristol Bay because it may affect fishing, which is the main economic activity in New Stuyahok.
- Employment: There are not a large number of local jobs in the community, and there is a desire for more local work.

Subsistence

We have discussed the seasonal round of the Nushagak River communities. The following list of wildlife resources was provided by New Stuyahok residents:

- Land mammals: Moose, caribou, and rabbit. Beaver is both trapped and eaten.
- Birds: Ptarmigan, duck, and geese.
- Fresh Water Fish: Whitefish, smelt, suckers, pike, rainbow trout, grayling, and dolly varden.
- Marine Species: Salmon and other species exchanged with marine communities such as ling cod from Kwethluk on the Kuskokwim River.
- Vegetation: All local berries.

Range. The core range from which subsistence items are acquired is the Nushagak River drainage. Fresh water fish are caught in the rivers, moose and rabbit are hunted along the Nushagak and its tributaries, and trapping occurs in these same areas. A favorite berry picking location is at the junction of the Nushagak and Mulchatna Rivers. Caribou are hunted inland on both sides of the Mulchatna and near its headwaters. Ptarmigan are hunted to the east of New Stuyahok across the Nushagak. Some moose hunting extends as far as Kemuk mountain, northwest of the community. Ducks and geese are hunted in numerous wetlands adjacent to the Nushagak River as far south as Portage Creek. Subsistence salmon and berries are acquired at the summer fish camp at Lewis Point and smelt are caught there during the winter. Those families who do not travel to Bristol Bay for commercial fishing catch their subsistence salmon within 10 miles of New Stuyahok.

Because access is concentrated along the Nushagak River, subsistence harvest ranges of the four Nushagak River subregion communities often overlap. When asked about the overlap, one resident said, "People don't get upset if we use other areas, it's a free country." Newhalen people hunt for caribou near New Stuyahok, according to some residents.

Exchange. Sharing is still a vital custom among Nushagak River Eskimos. People who acquired fish or game share it with friends and relatives. One person said, "We have enough moose and we share it. No one goes hungry. We are still rich. We don't have a lot of money but we have fish and game." There also is an exchange or sharing of subsistence items between villages. The New Stuyahok residents receive walrus meat, herring roe-on-kelp, and seal from the coastal villages in exchange for moose, fish, and caribou. This may be based, to some extent, on kinship ties.

Use Patterns. The people usually return to their communities around August. Families who didn't dry salmon during the summer put up salmon during this period. Duck and brown bear hunting occur locally while moose and caribou are hunted at locations often far from the villages. Late summer and fall is a period of intense activity when preparations must be made for winter. Houses and boats are repaired and supplies are purchased and transported to the community.

For some villagers, trapping is a major activity during the winter and a welcome source of cash when cash supplies are generally low. Some caribou and moose hunting occurs but subsistence activities are less intense than during other

seasons. Throughout the winter, grayling and pike are fished for through the ice. Some hunting for hare and ptarmigan occurs. Russian Christmas is celebrated and a lot of visiting occurs during the winter.

More trapping occurs in the spring. "Beaver Roundup", a major regional celebration, occurs in Dillingham during the early spring. The furs that were trapped during the late fall, winter, and early spring are sold at the Roundup. Besides the economic activities, "Beaver Roundup" is a major period of celebration. In mid-April, ducks and geese return and are hunted. Towards the end of spring preparations are made to return to Bristol Bay to begin another fishing season.

Issues and Concerns.

- Sport Hunting and Fishing: In recent years, non-local sport hunting and fishing in the Nushagak River drainage has increased. Local residents fear that trophy hunters are diminishing game stocks. In addition, there is growing scepticism among the villagers about the success of "hook and release" sport fishing. Local residents stated that they see numerous dead fish with damaged mouths.
- State Land Disposals: The State has several potential remote land disposal areas within the subsistence range of Nushagak River subregion villages. Local residents fear the intrusion from outsiders will interfere with their subsistence activities, diminish game stocks, and disturb caribou migration routes.
- Salmon: As already mentioned, the possibility of offshore petroleum development in the Bristol Bay Region is a local concern because of its

potential effect on salmon. Salmon not only provide the majority of cash but also a substantial portion of the local food supply.

- Electricity: While most Nushagak River residents desire cheaper electricity, they are concerned about potential adverse impacts of hydroelectric development and transmission lines on local fish and game populations. Hydroelectric development is perceived as a potential hazard to salmon populations. Transmission line construction is perceived as the first step toward increased non-local access to the area: "Transmission lines now, trails next year, and roads the following year" (Braund, 1981:51).

Nushagak Bay Subregion

INTRODUCTION

The villages within the Nushagak Bay Sub-Region include Aleknagik, Clark's Point, Dillingham, and Ekuk. Ekuk and Clark's Point are located on the east shore of Nushagak Bay. Dillingham is located on the Nushagak River near the mouth of the Wood River, which empties into the Nushagak. Aleknagik is located at the upper end of the Wood River, where it joins with Lake Aleknagik. Clark's Point and Dillingham were visited during fieldwork in this subregion and are described below.

Besides their geographic proximity, these communities share other similarities that tie them together as a subregional cluster. The commercial salmon fishery is the economic base for all of the communities, although Dillingham's economy is more diversified.

Dillingham serves as the community of orientation for the three smaller communities in the subregion. It is the largest nearby urban center and has a population much larger than the three satellite communities. The 1980 populations are Dillingham 1,563, Aleknagik 154, Ekuk 7, and Clark's Point 79 (Alaska Department of Labor 1982). Dillingham provides a broad range of services to the residents of the smaller communities that are either not available or somewhat limited in those communities. The hospital at Kanakanak provides medical services for the subregional residents who cannot be treated locally. Dillingham is the transportation hub for this subregion and for other subregions. For example, persons travelling from Clark's Point to Anchorage or further would make connections at Dillingham.

Ethnically, the communities in the subregion are predominantly Native although Dillingham is less so than the other three communities. Dillingham is 57.0 percent Native, Aleknagik, 89.6 percent Ekuk, not available, and Clark's Point, 88.6 percent (see Table 6). Each village has a traditional council and a profit corporation. Dillingham also headquarters the regional Native non-profit corporation, Bristol Bay Native Association (BBNA). The four communities in the subregion also are tied together through relationships between the profit-making village corporations. Choggiung Ltd. represents a merger of the Dillingham, Ekuk, and Portage Creek corporations. Choggiung also acts as land

manager for Clark's Point and Aleknagik. Although precise numbers are not known, there are some kinship ties between residents of these villages, partly because family members have moved to Dillingham.

Subsistence items and ranges utilized are similar for all the communities. Actual participation and sharing patterns appear to be somewhat different for Dillingham, which is discussed in the later section on subsistence.

CLARK'S POINT

Location, Community Life, and Infrastructure

Clark's Point is located on the east bank of Nushagak Bay at a point where the Bay begins to narrow into the River, about 14 miles south of Dillingham and 3 miles north of Ekuk. As the name implies, the community sits on a point backed by a bluff. The ground is mostly tundra. The first known establishment at the location was the Nushagak Packing Company cannery built in 1888. The community was named after John W. Clark who was the manager of the Alaska Commercial Company in Nushagak (Nebesky, Langdon, and Hull 1983:80). The cannery joined Alaska Packers Association in 1893. Canning operations at Clark's Point have been intermittent. Currently, a floating cannery processes the salmon in the area.

During the summer fishing season, the population of 79 increases by about 200 cannery workers. The permanent population is 88.6 percent Native. Residents

interviewed said about seven of the residents still speak the Native language. A bilingual program has been established in the school to teach and maintain the language. School statistics indicate the students speak mostly English with some native grammatical patterns (Alaska Department of Education 1981). There are 13 students in grades K-12 at the school with excellent attendance and no drop-outs. Parents and students in the community value education quite highly, according to residents and teachers.

There are 15 occupied and 13 unoccupied houses in Clark's Point, most of which sit close to the beach. The unoccupied houses are used during the summer. The occupied houses are in poor condition and are being replaced by 15 new HUD houses. The HUD houses had been promised to the community for several years, but it was not until a bad storm in the summer of 1980, which threatened the homes, that development began to proceed. The HUD houses were to be built on the bluff overlooking the current community, where they will be safe from storm damage. The importance of the traditional steambath in the village was underscored by the comment, "Just about everybody has steambaths". The largest structures in the community are the APA cannery buildings, currently not in use. Instead, APA docks a floating processor next to the land based cannery to process fish. The next largest building is the school. There is a Catholic church in the village and the population practices Catholic, Moravian, and Russian Orthodox religions.

Water is hauled to most of the homes. While there is a large quantity of water available, most of it is not good for drinking. The community well water is good but does not have a large flow. Water from this source is used during the winter

when the cannery source is unavailable. The cannery is supplied during the summer by pipeline from a source one and one-half miles from the site. The pipeline goes through the community and provides water to the residents during the summer. Only the school and one home have sewers. The cannery, school, health clinic, and a few families have their own electrical systems. Fuel oil is the main heat source in the village.

There are no local police. State Troopers are flown in for any problems. Fire protection consists of calcium chloride and water in barrels for each house, smoke detectors, fire buckets, and fire extinguishers. There is some concern about children getting into the fire barrels. Medical services are the responsibility of a village health aide and a health clinic in the community. Emergencies are flown to the hospital in Dillingham. Emotional and family problems are handled within the community, according to the residents. Transportation within the community is by vehicle, three-wheelers, and snowmobile. A barge serves the community during the summer and there is year-round air service. Food and supplies are generally purchased periodically by flying to Dillingham. Television is picked up from Dillingham and King Salmon. One local and a few distant radio stations are received. There is one phone in the community and the residents are linked by citizen band radios in each home.

Clark's Point is an inactive second class city. There is a three percent sales tax at the single store and the Clark's Point Village Council receives P.L. 93-638 monies. The tax is used to pay the phone bill only. There is some desire to become an active city again, "to partake in revenue sharing and make a better life."

The Village profit corporation, Saguyak, Incorporated, has investments in stocks and bonds. The council and Saguyak work well together, and it was stated that there never has been any major local political problems. Relations with BBNC are fair, except on two issues. The selling of Peter Pan cannery left some negative feelings. "We're fishing oriented," said one resident. "Why sell a fish processor?" The second issue involves a dispute over whether gravel is considered a surface mineral or a subsurface mineral. Local village corporations own surface mineral rights to the land while the regional corporation owns the subsurface mineral rights. One observer said gravel used to be considered a surface mineral, but now the regional corporation claims it is a subsurface mineral, giving it the economic benefits of mining gravel desposits.

The attitude towards BBNA was fairly positive, "Doing a pretty damn good job," according to one resident. Political relations with the school district are good. The only concern is that the residents are moving to the top of the bluff while the school remains on the flat region. There was some belief that Clark's Point really didn't share much in common with other subregions. Rather, there appears to be some orientation toward Togiak, Manokotak, and Twin Hills.

A great quantity of land in the community is owned by APA which has caused some problems with expansion. However, the community can expand as it desires on top of the bluff. A townsite application is still pending conveyance. Also, applications were made for Native allotments, some of which were awarded and some of which were still pending at the time of the study.

One resident summed up the problems with ANCSA development by saying, "What hinders a small corporation is that it costs lots of money. You have to have a business manager, office, attorneys, and auditors. We're fishermen not businessmen, that is the problem. Need profit and capital to start."

Alcohol and drugs are considered community problems and, although there is no liquor store in town, Clark's Point is not dry. "Western culture advertises its problems and solutions before it's a problem in the small villages," said one resident "People hear about drink and drug problems on television." Crime is a problem only during certain times of the year, right before or right after fishing, and consists mainly of vandalism and theft. Local residents believe it is related to outside people. Ethnic relations are considered very good, in general, although there may be problems with certain individuals.

Concerning traditional Eskimo culture, attitudes and culture change, it was noted that as late as the mid 1930's arranged marriages were still made farther north. Also, the belief in giving children away was and still may be (to a very small degree) currently a value. It must be understood that children are highly valued and were given to another in the past as an expression of gratitude. While they were used in the past, there is only one sled dog team in Clark's Point currently. Interest in obtaining more teams is increasing.

The residents are very village oriented and, although people buy homes in Anchorage, they return to the village. "I always want to come back. It's my home," noted one resident.

According to some residents, the Natives do not have as strong a sense of property as whites. However, this appears to be changing. "In the old days you just built your house," said one resident. "We are learning that if you own a piece of land, it's valuable, you can borrow against it to build a house."

There is a differing sense of time and work schedules between Natives and whites. The Natives are more familiar with seasonal routines. The seasonal sense of time varies in intensity and can be viewed as a seasonal sensory awareness. As the fishing season approaches, for example, a sense of anticipation and energy grows. "You hit it running," said one resident. "It seems like there is a lassitude during the winter then your strength is rejuvenated during the summer. You get really wired. I saw a guy running so fast he banks going around corners." To some residents the concept of the "weekend" has become important. Even though people don't have an 8-5, five day week and are seasonal oriented, they look forward to celebrating on the weekend. Still, there are clearly different attitudes toward heavy work weeks, a situation reflected in this comment by a Native resident, "A ten hour day, seven days a week, takes time away from other priorities like hauling water. So a fellow takes a day off and the white guy can't understand money isn't everything."

Attitudes about money may be changing. Some residents said it shouldn't be placed first in values, but "People are becoming more 'white' in their attitude." Respect toward the elderly is an important value. They are not put in "homes" but cared for in the community by the residents. "Public Health and the BIA have suggested we put them in homes but we don't," a resident observed. "They (the elderly) keep busy." Earlier work patterns of men doing most of the set

gillnetting and women working in canneries has evolved to more women handling set gillnets while men concentrate on drift gillnetting. Despite changes, roles in general, remain traditional. "Even if a woman does have a job, she still takes care of the house," according to one resident.

Clark's Point residents raised several key issues and concerns about the previously discussed above.

- There is a desire to move the school and health clinic to the top of the bluff, along with the new houses.
- Water, sewer, and electricity are a major priority.
- The current road from the coastal plain to the new community site on top of the bluff is too narrow and in poor condition. Residents would like to widen and improve it.
- The goals of the community are to regain active second class city status and develop more fiscal and administrative sophistication.

Economics

Commercial salmon fishing is the main economic activity for the residents. According to Langdon (1981), there were 10 drift gillnet and 9 set gillnet permits listed for Clark's Point in 1979. Crews on the boats are typically two or three, usually are family members and/or friends. A few residents work in the cannery. The land based APA cannery is not processing. A floating APA cannery ties up alongside the docks and processes the fish. Most of the resident fishermen fish for APA. Some of the cannery's boats are leased to Eskimos

from the Bethel area--Toksook Bay, Nelson Island, Nightmute, Newtok--and it is estimated that about 90 percent of the cannery's fishermen are Native. One person said that some people used to fish for a "grubstake" only (i.e., enough cash for essentials rather than to accumulate capital). However, this has changed and people now invest substantial energy in fishing for capital accumulation. Boats are stored in the cannery during the winter and the fishermen have use of the company shop and net lockers. Supplies can be purchased at the company store on credit without interest, but there is a limit.

Some concern was expressed about catch limits imposed upon the fishermen because the cannery can't process all available fish. "Yet, if you fished for someone else," said one resident, "you wouldn't be able to fish for the cannery again." Most of the fishermen are members of the Alaska Independent Fishermen's Marketing Association, and Clark's Point has three representatives in the Association.

There was opposition to off-shore petroleum development, while on-shore development was considered to be much safer. No opinions, one way or the other, were expressed about increased tourism. The residents did say that they were well aware of problems caused by too rapid development, and that a road to Clark's Point would cause these problems.

Besides fishing, a few local jobs exist. These include a cannery watchman, store clerk, postal clerk, health aide, village administrator, school aide, school cook, school janitor, bilingual teacher, airport maintenance person and 6-1² temporary

construction jobs. Several women in the community make baskets, which preserves traditional cultural patterns while providing income.

Issues and Concerns mentioned about the economic situation in Clark's Point include:

- Limited Entry: "Opinions are mixed on this issue. Some residents support it while others had difficulty obtaining a permit.
- 32 Foot Limit: There is community support to retain this limit.
- Canneries: Some concern exists over the (informal) restriction to fish for one cannery only and then be subject to a quantity limit by that same cannery.
- Herring Fishery: There has been some involvement in the herring fishery, although without great success. There is a desire for more involvement.

Subsistence

What follows is a list of the primary local subsistence items used by some residents:

- Marine Species: Herring, salmon, tomcod, lingcod, seal, beluga whale, walrus, sea lion, clam, roe on kelp, flounder, sole, and halibut. Also salmon eggs and other internal parts of the salmon, pike, and trout.

- Fresh Water Fish: Blackfish, whitefish, smelt, pike, and trout.
- Land Species: Moose, caribou, rabbit, bear, and porcupine.
- Birds: Ptarmigan, seagull and cormorant eggs, spruce hen, geese, and duck .
- Vegetation: Blackberries (mossberries), cranberries, blueberries, currants, salmonberries, huckleberries, basket grass, wild celery, labador tea, wild rhubarb, beach strawberry, and willow shoots. Local herbs are collected for medicinal purposes.

Range. Basket grass is acquired from Togiak, Goodnews Bay, Quinhagak, and Platinum. People fly to Aleknagik, Platinum, and the Iliamna area for berries. Moose is hunted around Pilot Point and Ugashik. Caribou are hunted over the entire upper and lower Peninsula. Aside from being hunted locally, duck and geese are hunted below Pilot Point. The entire Nushagak Bay is utilized as well as the eastern shore of the Nushagak Peninsula. The Peninsula, formed by the Nushagak River where Clark's Point is located, is extensively utilized. Lake Aleknagik is used near the Community of Aleknagik and around the Agulowak River for trout and spawned out salmon. The headwaters of the Wood River are fished. Hunting occurs in the Kokwok River drainage.

Exchange. Sharing is considered a value and it occurs within Clark's Point. The elderly and non-hunters will receive items. Some exchanging occurs between villages and is done based on kinship, to a degree. According to those

interviewed, smelt are traded for whitefish from Ekwok, New Stuyahok, and Bethel. Occasionally, moose is traded for lingcod from Manokotak. Sometimes items are simply sent and not exchanged.

Use Patterns. Men do most of the hunting (usually in groups or pairs) and whole families participate in berry picking. According to local residents, people used to bury fish for use during the winter. Also, people would dig tunnels in the hills and place ice from the ponds in them to preserve foods during the summer. During fluctuations in species availability, use will include whatever species are present. Several villagers said subsistence use varies depending on income, "As long as you have money, you'll probably use subsistence less, but will use it more if you have less money." It was estimated that there is about a 50 percent dependence on local resources. There is an emotional importance to subsistence food. "Traditional food is important," said one resident. "You can have all the money in your pocket, but when you crave that food, you're going to get it. People who used to come here from up north to fish for the company. They would eat at the mess hall and would say, after eating white food, that even though they're full, they're still hungry. Part of it is getting it; you worked for it. You enjoy it more."

Issues and Concerns. Several issues and concerns were noted by the Clark's Point residents in relation to subsistence:

- **Petroleum Development:** Concerns over the potential effect of petroleum drilling on subsistence are reflected in this statement by a resident, "Animals will leave a development area or a populated area."

- Trophy Hunting: The biggest threat to subsistence is believed to be "headhunters", who hunt for trophies and not for sustenance.

DILLINGHAM

Location and Infrastructure

Dillingham is the regional communications and transportation hub of Bristol Bay, rivaled only by King Salmon. Many regional service and governmental agencies have offices in Dillingham. From the perspective of the smaller communities, Dillingham is seen as a regional, urban center. However, with easy and relatively inexpensive airline connections, Anchorage is quite accessible and provides a different perspective on Dillingham. Besides these regional aspects, Dillingham has its own economy which is heavily dependent on fishing.

An extensive analysis of Dillingham's population, economy, land use, community services and facilities, and local government organization has been conducted by Alaska Consultants. Their study is part of the integrated Socioeconomic Studies Program of the Outer Continental Studies Office of the Bureau of Land Management and interfaces with this report. Since Alaska Consultant's report is quite comprehensive, only a review of their major points is presented in the following section (Socioeconomic Overview). This section is an abstract of their report (Alaska Consultants 1982:3-105) and interested readers are directed to their full report available through the U.S. Bureau of Land Management in Anchorage.

As discussed in the prehistory section of this report, the area around present day Dillingham was occupied by the Alegmiut at the time of Russian settlement. The first Russian settlement occurred in 1818 with the construction of Alexandrovski Redoubt on the eastern shore of Nushagak Bay. This settlement was later renamed Nushagak. The Russian-American Company exported salted salmon from the area, although the precise date is not clear. The first cannery was constructed in 1883 near the village of Kanulik not far from Nushagak (Van Stone 1967:67).

A village recorded as "Ah-lek-nug-uk" (also referred to as Chongiung) was recorded in the 1880 census within the present day Dillingham Townsite. Between 1890 and 1910, attention shifted from the eastern to the western shore of the Bay. In 1903, U.S. Senator William Paul Dillingham conducted a tour through Alaska and the town was named after him in 1904 (Nebesky, Langdon, and Hull 1983:65). The actual location at the time was about three miles from the current location at a place now referred to as "Olsonville." In 1944, the name Dillingham was transferred to Snag Point, the community's current location, where its Post Office had been located since 1904 (Nebesky, Langdon, and Hull 1983:66).

Socioeconomic Overview

Economy. As expected, fishing and fish processing are a significant part of Dillingham's economy, accounting for 30.8 percent of the jobs in the economy. Because Dillingham serves as a regional center for western Bristol Bay, it has a fairly large governmental sector. Of the government jobs (21.7

percent), 16 are federal, 44 state, 120 local, with 26 percent of the governmental jobs considered basic. The service sector is the third largest employment sector in Dillingham after fish/fish processing and government. In 1980, this sector accounted for 144 (17.4 percent) of the 828 full-time jobs. The next two most significant sectors in 1980 were trade with 101 (12.2 percent) jobs, and transportation, communications, and public utilities with 96 (11.6 percent) of the jobs. Contract construction followed with 34 (4.1 percent) jobs and finally, finance, insurance, and real estate at the bottom with 18 (2.2 percent) jobs. Except for contract construction, trade, and government, all other sectors are over 50 percent basic.

Like the rest of Bristol Bay, Dillingham experiences strong variation in the seasonality of employment. Alaska Consultants (1982:18-19) found a range of annual employment between 139 percent in July and 75 percent in December. These figures are considered conservative because they excluded fishermen, since the figures only applied to insured workers. Seasonality coincides with the fishing season, peaking at the height of the sockeye salmon run. Unemployment figures are not kept for Dillingham. However, the Bristol Bay labor area appears to have a lower unemployment rate (7.4 percent) than the State of Alaska as a whole (9.6 percent). However, Alaska Consultants feel this statistic is misleading. Unemployed Bristol Bay workers do not register for jobs because none are available, so these workers do not appear on unemployment rolls, according to Alaska Consultants.

Alaska Consultants (1982:-22-26) noted there was a healthy growth in insured employment (which excludes fishermen) in the Dillingham area during the 1970s.

The government sector grew significantly. The recovery of the sockeye salmon runs in the late 1970s accounted for a 51.1 percent increase in total employment between 1978 and 1979 in the Dillingham area. ANCSA also influenced employment trends in the area. Recreation appears to be a developing sector for the future. However, the region's inaccessibility, lack of adequate accommodations, and lack of available labor during the fishing season (to work in recreation) have suppressed growth in this sector.

Land-Use. Dillingham's development is oriented toward the water, like most fishing communities. However, most new housing has developed outside of the town in the rural areas. Most industrial development is along the waterfront within the town, except for the two canneries at other locations. Commercial activity is mainly located on Main Street within the townsite. Available developable land within the townsite is limited by poor soil conditions, random development patterns, and an inefficient road system. Outside the townsite, poor soil conditions and land ownership patterns have limited available land.

Preliminary 1980 housing figures indicate there were 581 housing units in Dillingham which is a 118 percent increase over the 1970 figure of 266 housing units. The vacancy rate in 1980, however, was 19.6 percent (114 units), which is considered high. These figures are disputed by city personnel, who say there is a low rental vacancy rate which drops to zero during the fishing season. Most residences are either single family or duplex units. Dillingham's housing stock includes a high proportion of substandard units, largely because of the age of the structures.

Community Services and Facilities. The Dillingham Police Department has assumed responsibility for police protection within the corporate limits since 1971. An Alaska State Trooper stationed in Dillingham assumes responsibility for the rural area. There is a police station but no jail and prisoners are held in the State facility. Police activity has increased in the last few years. There were 272 active cases during the first eight months of 1980, a 67 percent increase over 1979. The 1980 court case load is 64 percent higher than 1979. Serious crime is relatively minor, however. According to the Police chief, most crime is alcohol related. Police problems are seasonal in Dillingham with peaks occurring in March during the "Beaver Round-Up", in May during the herring season, and in July and August during the salmon season. Police estimate that 85 percent of the crime is committed by non-residents.

Fire protection in Dillingham is provided by a volunteer fire department, which has a firehouse, three fire trucks, and two ambulances. A crash/fire unit is stationed at the airport. In recent years, most serious fires have involved substandard houses.

Health services are provided by the Bristol Bay Area Hospital at Kanakanak, a private physician, and a State of Alaska public health clinic. More detail on these services is provided in a later chapter of this study. The Bristol Bay Housing Authority provides housing assistance. The Bristol Bay Native Association administers and provides a variety of assistance programs. The State Department of Public Assistance provides income for those in need and the Department of Social Services is responsible for Child and Adult protection services.

Dillingham has its own School District, which has a K-6 elementary program and a 7-12 high school program. Grades K-3 are housed in an elementary school and all other students are in the high school building. The high school was constructed in the 1950s with renovations in 1970 and 1973 and additions in 1978. A planned new elementary school will greatly expand the elementary facilities and services. Enrollment has increased about 24 percent between the 1969/1970 and 1979/1980 school years. However, the departure of foreign students, who attend only one year, and boarding students actually resulted in a decline in enrollment during the latter 1970s.

Dillingham is served by a municipal water supply, which provided water to only 20 percent of the residents in 1980. Industrial users have developed their own systems to meet their needs. Although plagued by initial problems, the city has made progress in improving its system. Dillingham currently does not have an adequate sewer system, and improvements are planned. Electricity in Dillingham is diesel generated and also serves Aleknagik. There is an extensive phone system in Dillingham and the number of stations has more than tripled since 1975.

Local Government. Dillingham was incorporated in 1963 and became a first class city in 1972. First class status has allowed the city to assume the following powers in addition to those previously held: 1) levy property taxes up to 30 mills or 3 percent of assessed valuation, without referendum; 2) establish and maintain a school district; and 3) elect a Mayor at large who has veto power, which can only be overridden by not less than three-quarters vote of the City Council. The City has a council-mayor form of government with a six person

council and a mayor who is elected at large. The manager is responsible for day to day operations of the city under the direction and policy of the Council and Mayor.

Seasonality and Community Life

One frequent visitor to Dillingham was struck by its diversified population. There are several reasons for this impression. First, Dillingham is a regional governmental center. Many of the government positions are filled by college graduates who bring their background, training, and values with them to the City. During the summer, some of these governmental agencies increase their staff (i.e., ADF&G fish biologists) which temporarily brings new people with new ideas into the community, a trend that has increased in recent years. A second factor accounting for the diversity of Dillingham is that regional level Native organizations have been established there. These organizations have hired talented Native people to work for them, which adds to the richness of Dillingham's social life. A final diversification factor is the variety of ethnic groups that comprise its population, particularly during the summer. Dillingham is truly a crossroads where all peoples in the Bristol Bay area meet. There are whites, Eskimos, Aleuts, and Indians from the smaller communities who congregate or pass through Dillingham throughout the year. Natives constituted 57.0 percent of the population in 1980 (Alaska Department of Labor 1982, see Table 6). Summer population increases dramatically with the fishing season. The fishermen are Natives and Euro-Americans while the cannery workers (about 200) are Euro-Americans (of different ethnic backgrounds), Japanese nationals

(technicians), Filipinos, and Eskimos from Bethel, Nunapitchuk, Kasigluk, Nelson Island, and some local areas.

Life in Dillingham during the summer is intense. During off-shifts, cannery workers can be seen in the area nearest the stores, eating, talking in small groups, sunning themselves, or relaxing. The local combination fast food/market is a popular location. Cannery workers all live in bunkhouses at the cannery, which is totally self-contained. With all the variety of cultural backgrounds, conflict could be a major concern. As one resident noted, "Whenever you get 200 people together you're bound to have some problems." However, it was stressed by those interviewed that major problems seldom occur, which is supported by police records. Reasons for the lack of problems include the intensity of the work leaves little time for trouble, the close cannery control over the workers, and the fact that people work in the canneries to make money, not to get into trouble.

The main point of orientation for the fishermen is the boat harbor, an unimpressive slough next to town that fills and empties with the tide. There is a single floating dock to which the boats tie. When the tide is out, the boats sit on the mud. Not many facilities are available for the fishermen at the harbor. There is one structure nearby with bathroom and shower facilities. The boats are mostly 32 foot stern pickers, with some bow pickers. Power reels are not generally used though power rollers are fairly common. As Browning notes (1974:189-190):

The Bristol Bay fishery is so intense at its peak during years of medium and heavy runs that only the strongest or most stubborn of men can fish a standard size Bristol Bay boat alone at a time when he may pick up three or four thousand salmon on a short drift. Bristol Bay gillnetters haul their nets before they pick them because this permits a faster picking operation than is possible with the usual gillnet power reel, and it takes both a skipper and his "boatpuller" to manhandle fish-heavy nets across the relatively ineffective power roller mounted above the transom. Picking salmon from such a haul is demanding work to be done in a hurry, but even a hurry takes too much time in that fishery. The power reel, as distinguished from the power roller, is entirely satisfactory for most gillnet fisheries but it does not allow the extra-fast picking of fish required on Bristol Bay.

The pace of activity decreases when the fishing season has ended, the canneries have closed, and the boats have been put away for the winter. Government and services are the main economic activities from late fall to spring except during Beaver Round-up, which occurs in March when trappers sell their furs to fur buyers. It is also a time of celebration, with dog-sled races, dancing, and other festivities. People from all over the region attend.

Dillingham has a Native Council--The Dillingham Village Council--and a profit corporation, Choggiung, Limited. The Council was founded in 1968 to maintain Native cohesion, traditions, and cultural integrity and meets once a month during the summer and sometimes more frequently during the winter. The Village Council also acts as a service organization, supporting (through donations) local events or needs that involve Native people. Choggiung merged with the Eku and Portage Creek profit corporations, retaining the name Choggiung for all three, to avoid duplication of services such as lawyers, staffing, and facilities.

Dillingham is quite similar to other communities in Bristol Bay in subsistence usage patterns. Salmon, other types of fish, moose, caribou, duck, and geese are the primary items utilized. Berries and a few other vegetation items are consumed. Residents said it is getting more difficult to acquire these items. Even subsistence salmon are viewed as threatened. A complaint was expressed that the "suitcase people" (temporary residents such as school teachers and other governmental employees) are crowding out the long term local residents from their setnets.

Subsistence items are shared mainly with friends and relatives, and then with anyone who is in need. Sharing is not community wide as is the case in the smaller communities because, as one resident said, "It's difficult to divide a seal into 1,600 pieces!" In terms of range, some Dillingham people use Okstukuk Lake, travel up the Kvichak River as far as Igiugig and use the Lake Iliamna region. The immediate vicinity around Dillingham including the Wood Lake region is utilized. Caribou is hunted on the lower peninsula near Egegik, Pilot Point, and Port Heiden.

Issues of Concern

Petroleum Development. One person said the attitude in Dillingham towards off-shore petroleum development, "Runs the gamut from pure greed to 'we'll shoot OCS and if they try to build a road from Anchorage we'll bomb the bulldozers' and then there's the middle view." The general view of those interviewed was negative towards off-shore development. Major concern

centered around potential adverse impacts to the salmon industry. At the November 29-30, 1979, meeting of BBNA (BBNA Full Board Meeting Minutes 1979:28), the following position was taken:

The Board was asked to consider the former stance the BBNA Executive Committee has taken on the sale of Oil and Gas Leases in the St. George Basin, Navarin Basin and the Northern Aleutian Shelf. Until such a time as sufficient guarantees in writing can be made that the salmon stocks of Bristol Bay will be fully protected, the Executive Committee has gone on record as opposing the sale of Gas and Oil Leases in those areas.

With the lease sales in the St. George basin scheduled for December, 1982 and the Northern Aleutian Shelf for December of 1983, effort is being expended to delay these sales for as much as five years in order to gather more data on the impact of offshore drilling on the salmon stock. It is felt that there is little chance of stopping the sales, however, there are hopes that some assurances will be made and safeguards instituted to protect the major economic activity in Bristol Bay.

MOTION

Randy Briggs moved that the BBNA Full Board of Directors adopt the position as embraced by the BBNA Executive Committee that until guarantees for the protection of the Bristol Bay salmon stock be received in writing from the government, BBNA will go on record as opposing the sale of Gas and Oil leases in the St. George Basin, Northern Aleutian Shelf and the Navarin Basin. Seconded by Sally Smith. MOTION CARRIED UNANIMOUSLY.

This concern also has been expressed by the formation of a Bristol Bay/Outer Continental Shelf Advisory Committee (Larson 1980).

Choggiung Limited made a number of ANCSA land selections based on potential on-shore petroleum development, indicating an awareness that on-shore petroleum development will eventually occur in the area.

Other more specific concerns were voiced about off-shore petroleum development. One resident said that during the Prudhoe Bay pipeline development, the

Bristol Bay area couldn't get lumber. Either the lumber itself or the transportation services were being absorbed by the pipeline needs. The ice pack in Bristol Bay is also seen as a threat to petroleum development. According to residents, the pack shifts somewhat during the winter and moves out very fast during the spring, which could jeopardize any oil rigs in the area. The ice also is seen as a hinderance to cleanup activities, "What happens if there is an oil blowout under the ice?" asked one resident. "How do you get to the oil?" A final point mentioned about off-shore petroleum development was that the Bristol Bay Region, in general, is not a poor region economically. Revenue from the development is not viewed as necessary, particularly as incomes may decline because of negative development impacts on the salmon.

Other Concerns. There are several issues of concern in Dillingham, most of which are related to development:

- Boat Harbor: As noted earlier, Dillingham's boat harbor is less than satisfactory. With steadily increasing use, the facilities are clearly inadequate and overcrowded. There is a desire to upgrade the harbor. "With the primary economic base of Dillingham and its surrounding villages being the commercial salmon fishery, it is important that the boat harbor be improved to meet the needs of the local fishing industry" (BBNA n.d.:7).
- Roads: There is a desire to improve local roads, which are receiving more use as the salmon industry expands. Of particular importance is

the road to the airport where fish are flown out to other areas. A road connection to Anchorage and an intra-regional road system connecting the smaller communities has been discussed. Opinion on these latter projects is divided, with some strong opposition to the proposed Anchorage linkage.

- Docking facilities in Dillingham are felt to be inadequate. Planning is underway to improve and develop the local dock.
- Tourism and Recreation: Dillingham sits close to some of the most spectacular recreation lands in Alaska. Increasing tourism is seen as a mixed blessing. While it would provide income, it would also bring a different type of person to the area, place pressure on natural resources, and might conflict with the activities of the fishing industry.

Iliamna Lake Subregion

INTRODUCTION

The Iliamna Lake subregion, located in the northeastern portion of the Bristol Bay Region, includes the villages of Iliamna, Newhalen, Nondalton, Pedro Bay, Kakhanok, Igiugig, and Levelock. The communities of this subregion all border the Lake Clark, Newhalen River, Lake Iliamna, Kvichak River drainage system.

This drainage is not only the most important sockeye spawning and rearing habitat in the world but also the largest fish stock contributor to the Bristol Bay fishery. Not surprisingly, the major source of cash income for the residents of this subregion is the Bristol Bay commercial salmon industry. Table 8 shows the number of drift gillnet and set gillnet permits in each village as of 1980. Many residents also work as fishing crew members or find employment in one of the Region's canneries. Salmon also is the primary subsistence resource for the residents in all the villages of the subregion. Although these villages are adjacent to the areas most likely to be impacted by Bristol Bay offshore petroleum development, the importance of salmon in both their cash and subsistence economies demonstrates a critical interrelationship with the rest of the region. Any development in the region that adversely affects the Bristol Bay salmon fishery will have an adverse impact on the Iliamna Lake subregion.

The geographic focus of this subregion is Lake Iliamna, which provides major water transportation routes between the different communities. Except for Levelock and Nondalton, which are located on the Kvichak River and Sixmile Lake respectively, the remaining communities in this subregion are located on Lake Iliamna shoreline. Since the subregion is inland from the coast, goods must either be flown in from Anchorage, barged up the Kvichak River, or hauled across the portage from Cook Inlet. This isolation results in some of the highest transportation costs in Southcentral Alaska or Bristol Bay, making this subregion a very expensive place to live (Behnke 1981). Historically, these communities have been oriented toward King Salmon and Naknek for their goods and services, but in recent years Iliamna has emerged as a subregional center, the result of

a growing sport fishing and hunting industry and jet service to and from Anchorage.

Residents of the Iliamna subregion generally tend to leave their communities to participate in the commercial fishery. Their inland location buffers the villages from the large population increases associated with commercial fishing. Despite this relative isolation, however, these settlements are experiencing seasonal population increases of another type--non-local sport hunters and fishermen who often, from the villagers' perspective, compete with them for wildlife resources. The Newhalen River, Kvichak River, Lake Iliamna, and numerous smaller streams and lakes within the subregion increasingly attract more and more recreationists. This influx of people is viewed with growing alarm by residents in these communities. Because the region has both a relatively small population (580 people, 1980 U.S. Census) and a low population density, sport hunters and fishermen who travel by motorboat and aircraft can impact local subsistence harvests of fish and game substantially. Summer is the peak period for operation of the hunting and fishing lodges in the Iliamna subregion. It also is time that many local Native residents leave their villages for commercial fishing, subsistence fish camps, or fire fighting. Thus, the potential for conflict is relatively high since Natives and sportsmen are using the same natural resource for very different reasons.

The Iliamna subregion differs from the rest of Bristol Bay in ethnic composition. In this subregion, Dena'ina (Athabascan), Aleut, Eskimo, and Euro-American peoples come into contact. It is unclear how long the different Native cultures have been in contact with each other in the subregion, but considerable

population movements were underway when the Russian fur traders entered the region in the late 18th century (Osgood 1963; Townsend 1970, 1973; Behnke 1982). It is known that Iliamna Lake already was a cultural cross-road for the Dena'ina and Yupik Eskimos by the turn of this century. Presently, the people of Nondalton and Pedro Bay are predominantly Dena'ina while the villages of Levelock, Igiugig, Newhalen, and Kakhanok are predominantly of Aleut-Eskimo descent. The village of Iliamna, originally a trading post, is nearly 60 percent white, with the remainder mostly Dena'ina and other Native groups (1980 U.S. Census).

Despite the cultural diversity of the communities of this subregion, "the people of the Iliamna subregion can be considered a regional society ... because of the high degree of social and economic interaction between the different communities" (Behnke 1982). Kinship ties and social ceremonies, such as the "Slavi", socially link the different villages. Furthermore, all these communities depend on the same locally available wildlife resources for a substantial portion of their food supply, commonly sharing subsistence hunting and fishing areas. The subsistence economy combines with the importance of commercial fishing, a seasonal and erratic cash source, to link the villages economically.

Levelock is included in this region because of shared subsistence use areas and kinship ties with the other communities of the Iliamna subregion. In fact, the areas commonly used by Levelock residents for subsistence hunting and fishing generally overlap the areas used by Igiugig residents. Because of Igiugig's small size, numerous kinship ties (many families have moved to Igiugig from Levelock), and similar subsistence use patterns, the village was placed in the Iliamna

subregion rather than affiliate it with the larger communities of Naknek and King Salmon.

ILIAMNA, NEWHALEN, AND NONDALTON

Location, Community Life, and Infrastructure

Even though this subregion is 83.7 percent Native (1980 U.S. Census), no single Native group predominates. The primary groups include Eskimo, Aleut, and Dena'ina. Furthermore, a growing sport fishing and hunting industry has spurred growth in the Euro-American population in the subregion. This cultural diversity is a logical focal point for a discussion of community life, economic status, and the interaction and interrelationships of this subregion with the rest of the Bristol Bay Region. Three villages--Nondalton, Newhalen, and Iliamna--demonstrate the cultural diversity of the subregion, the various economic strategies (both cash and subsistence), and the different levels of interaction with the rest of the Bristol Bay Region. A discussion of these three villages justly represents the entire subregion.

The villages of Iliamna and Newhalen are located on the north shore of Lake Iliamna. Newhalen, situated at the mouth of the Newhalen River, is about 4.5 miles west of Iliamna. The two communities are connected by road. The village of Nondalton is located 15 miles north of Iliamna on the west shore of Sixmile Lake. All three communities are slightly more than 200 miles southwest of Anchorage.

The population dynamics and ethnographic distribution of these three villages is representative of the entire subregion. The populations of Nondalton, Iliamna, and Newhalen is 170, 94, and 87 people, respectively (U.S. Census 1980). Nondalton, the largest village of the subregion is 93.1 percent Native; the Native population is almost entirely Dena'ina Indians. There has been a gradual population decline in Nondalton over the past 20 years, most likely caused by a lack of employment opportunities in the village. As mentioned previously, the present population of Iliamna is predominantly Euro-American, with only a 40 percent Native population. Unlike Nondalton, Iliamna has grown steadily since the first U.S. Census in the village in 1939. The most significant growth has occurred in the last decade, a population increase of more than 60 percent. This growth is likely the result of two key factors: the burgeoning sport hunting and fishing industry in the area and the development of Iliamna as a regional transportation center. Newhalen, like Nondalton, is predominantly Native (94.3 percent), almost entirely Eskimo-Aleut. The village population has remained relatively stable over the past 10 years. It is the hallmark of the Iliamna subregion that three villages, within such close proximity, can have such diverse population and economic dynamics, as well as such disparate ethnographic origins.

All three communities, Nondalton, Iliamna, and Newhalen, are in the Lake and Peninsula School District. An elementary school and high school in Newhalen serves the residents of both Newhalen and Iliamna. During the 1981-1982 school year, 66 students were enrolled in the schools, 18 of which were bused each day from Iliamna. The school system is an important source of jobs. Besides seven full-time teachers, the school employs approximately eight local residents as

cooks, teacher's aids, bilingual instructors, maintenance man, and custodian. In addition, Iliamna is the home base for the area principal, art teacher, music teacher, district librarian, and reading consultant. A combined elementary and high school in Nondalton employed five full-time teachers and a half dozen support personnel during the 1981-1982 school year. There were 47 students in the Nondalton school during that year (Community Profiles).

Both Nondalton and Newhalen are second class cities incorporated in 1971. In addition, both communities have seven member city councils and hold regular elections each October. Iliamna, on the other hand, is an unincorporated community within the Unorganized Borough. The only form of government in the village is a five member traditional council which has been recognized by the U.S. Bureau of Indian Affairs as the official governing body of the village. Ethnic relations are strained in Iliamna because a traditional Native council serves as the local government in a predominantly non-Native community. A more detailed discussion of this problem appears in the chapter on Political Systems later in this study.

The high transportation costs in the Iliamna subregion considerably add to the costs of goods and services rendered. This is especially true for Nondalton, the residents of which have to pay additional freight costs from Iliamna. Goods are either flown from Iliamna in small aircraft or driven 10 miles up the "portage" road and then taken by skiff the remaining eight miles to Nondalton. This road bypasses the Newhalen rapids and is used primarily to haul fuel and other supplies from the bargehead or airport at Iliamna to the navigable portion of the upper Newhalen River. Behnke (1982:21) noted that this system of transporting

of fuel from Iliamna to Nondalton added \$.30 per gallon to the cost of fuel oil to say nothing of the additional labor involved. Only one-third of the Nondalton residents heat with fuel oil, with the remaining still heating with wood. The majority of residents in both Newhalen and Iliamna heat with fuel oil.

Economics

Employment opportunities have always been highly erratic in the Bristol Bay Region. The Iliamna subregion is no exception. In recent years, the most important source of employment opportunity for Newhalen, Nondalton, and Iliamna residents has been the Bristol Bay commercial salmon industry. Because commercial fishing provides only seasonal jobs and because monetary intake is directly dependent on the size of the salmon run, it is an unreliable source of cash. For example, gross incomes for Bristol Bay Natives in 1980 were more than 40 percent less than the previous year (Langdon 1981).

A rough estimate of the relative importance of commercial fishing to residents of the three communities is demonstrated by the percentage of the population that have limited entry permits. Slightly over 35 percent of Iliamna residents had permits in 1980 while less than 15 percent of Nondalton and Newhalen residents has permits (Table 8). The average income derived from commercial fishing in Nondalton during 1980 was \$8,442 per household including both crew and permit holders (Behnke 1982:19). In contrast, the average gross income for permit holders alone in Newhalen and Iliamna was \$17,133 (Landon 1981). A significant factor in the marked difference in the income of Nondalton residents, in comparison with the other two communities, is the availability of fishing

vessels. Twelve of Nondalton residents' permits were drift permits but there were only three boats in poor condition locally owned. Other drift permit owners worked partners with boat owners outside Nondalton (Behnke 1982:18) and this arrangement was not as financially rewarding.

Other employment opportunities available to residents of all three communities are seasonal construction jobs and seasonal firefighting. There are very few long term job opportunities available locally. This is especially true in Nondalton where almost all the available long term jobs are associated with the school. Permanent jobs in Newhalen are generally in the public sector and school. Of the three villages, Iliamna has the highest number of job opportunities. As already mentioned, many of the Lake and Peninsula School District employees are located in Iliamna. There also are more than a half dozen hunting and fishing lodges in or near the village that provide jobs for some local residents. In addition, because Iliamna has become a subregional center, there are employment opportunities with the FAA Station, Wein Air Alaska, Alaska Division of Aviation (airport maintenance), and two air taxi services.

Subsistence

The importance of subsistence harvest products in the economy of these three communities varies. Dependence on wildlife resources also varies from year to year because of the highly erratic nature of employment opportunities and cash income. Regardless of the seasonal cash economy, locally harvested fish and game still provide an important source of food for all three villages. Salmon is the most important subsistence resource used in these villages. For example,

during three years in which data was collected in Nondalton, salmon comprised 63 to 80 percent of the subsistence harvest (Behnke 1982:50). Other important resources are beaver, caribou, moose, and freshwater fish. Seals are occasionally taken from Lake Iliamna. In addition, rabbits are snared throughout the year and a variety of berries are harvested each fall. Some residents from each village still trap furbearers to supplement their income.

Range. While there is a substantial overlap of the general hunting and fishing subsistence use ranges for all three villages, concentrated subsistence use areas generally differ. The residents of Iliamna fish for salmon on the Newhalen River and along the north shore of Iliamna Lake east of the village. Chekok and Canyon Creeks, and the Iliamna River (the original site of this village) also are favorite subsistence salmon fishing areas. Iliamna residents hunt and trap along both the north and south shores of the entire east end of Lake Iliamna and as far north and west as Keefer Creek. The village of Newhalen is ideally situated to take advantage of the sockeye salmon run, and it is at the mouth of this river that the substantial majority of Newhalens' subsistence salmon harvest takes place. Freshwater fishing, hunting, and trapping by Newhalen residents is concentrated along the north shore of Lake Iliamna west of the village. Nondalton residents harvest salmon and freshwater fish in the upper Newhalen River, Sixmile River, and along both shores of Lake Clark. The hunting and trapping range used by Nondalton residents is larger than that used by either of the other two villages. The major harvest areas are north and east of the village and along the streams and valleys on the eastern shore of Lake Clark. When the harvest areas of the other villages in the Iliamna subregion are included, virtually the entire area north of Katmai National Monument and east of the

Nushagak River can be considered as subsistence hunting, fishing, and trapping ranges.

Exchange. The exchange of subsistence harvest products within each village and between villages remains prevalent in the Iliamna subregion. Sharing food is an important social and cultural unifier among the different villages within the Iliamna subregion. Behnke (1982:62ff) noted intra-village exchange patterns in Nondalton where a segment of the village population harvested the majority of the moose and caribou and then redistributed this food source to other village residents. In addition, because of the seasonal nature of employment opportunity in this subregion, it is common for some members of an extended family to remain in the village or at summer subsistence fishcamps putting up salmon, while other members are engaged in the wage economy.

Issues and Concerns. The residents of the Iliamna subregion value the subsistence/rural lifestyle that predominates this area and voiced a variety of concerns about potential and ongoing changes that are affecting their way of life. The most important of these issues are noted below:

- Energy Development: The Alaska Power Authority is considering several hydroelectric development scenarios for the Bristol Bay Region, most notably the Tazimina Lake or Newhalen River projects in the Iliamna/Newhalen vicinity. Residents of both this subregion and the larger Bristol Bay Region were primarily concerned with the potential impacts of hydroelectric development on salmon, the mainstay of critical subsistence and cash economies. Because the Tazimina River

and Newhalen-Lake Clark systems contribute significantly to the Kvichak River system sockeye salmon runs, any negative impact on these waterways could adversely affect the economy of Bristol Bay (see Crutchfield et al. 1982). In addition, local Iliamna, Newhalen, and Nondalton residents, located nearest to the proposed developments, were concerned about the influx of people into the immediate area (both temporary construction workers and permanent residents) and the resulting impacts on local wildlife resources and community infrastructure (see Braund 1982).

- Recreation: Local residents who still rely on subsistence harvests for a substantial portion of their food supply are increasingly concerned about the impact of sport hunting and fishing on local wildlife resources. Newhalen and Nondalton residents noted that wildlife populations have decreased in the immediate vicinity of their villages. As a result, their subsistence harvests have become more expensive and more time consuming because they are forced to travel further for game.
- Easements: As discussed under the Land chapter of this study, public easements along waterways passing through ANCSA lands were not intended to provide the public with rights to use Native lands for recreational activities. As increased recreational use occurs, non-local sportsmen tend to use the shores of many lakes and streams which are not longer available for public use. As recreational pressure increases,

conflicts are likely to occur. In addition, trespassing on Native Allotments also is a concern.

- Rural Lifestyle: Both local subsistence users and sport lodge owners have a vested interest in maintaining a relatively low population density in the area. Hydroelectric projects, state land disposals, and other development projects that would significantly increase the local population are a concern to all Iliamna subregion residents.
- As discussed in the Politics chapter of this study, populations growth and the associated need for local government can create community problems in this interethnic region. For example, in Iliamna the rapid growth in the non-Native population has resulted in a division in the community. Many non-Natives believe the local Native council does not adequately represent their concern.

VI. LAND

Introduction

The importance of contemporary land use and ownership patterns in the Bristol Bay region cannot be overemphasized. Besides fishing, land status is a second critical factor which will force social and economic change in the region. Fishing, land, and traditional subsistence use patterns all form an important basis of the Bristol Bay way of life.

Traditionally, the importance of land to Bristol Bay residents centered around its use rather than complex ownership formulas. But, throughout the 20th Century, Congress passed a number of laws which defined ownership patterns on Native lands. Often, these laws did not reflect traditional use patterns. More often, the local land user was unaware of or did not understand either this legislation or the bureaucratic regulations which carved ownership lines across common use areas. Conflicts developed between land use and ownership patterns in the region. Many Bristol Bay residents feel that there were no land conflicts until white men arrived and began to divide the land into separate parcels. Regardless of their cause, these conflicts, the land laws, and corresponding regulations are becoming increasingly significant as critical factors which will greatly influence the pattern and quality of life in the region. Thus, even though they do not represent traditional land concepts, the laws and regulations will possibly be the most significant part of the future land system in the region.

In order to understand the status of land ownership and use in the Bristol Bay region today, it is first necessary to briefly discuss the relevant federal legislation, as well as policy and court decisions, which affect Alaskan lands. Bristol Bay land ownership patterns are the product of:

- the 1906 Native Allotment Act;
- the 1926 Native Townsite Act;
- the 1958 Alaska Statehood Act (P.L. 85-508);
- the 1971 Alaska Native Claims Settlement Act (ANCSA:L. 92-203);
- the 1976 Federal Land Policy and Management Act (FLPMA:L. 94-579);
- the 1980 Alaska National Interest Lands Conservation Act (ANILCA:L. 96-487);
- Department of Interior Solicitor's opinions; and
- court decisions.

At regional, village, and individual levels, final land conveyances are intermeshed by all six of these acts, federal policy, and various court decisions. ANCSA, ANILCA, and FLPMA have sections which address both Native Allotments and Townsites; and pending litigation related to Native Townsites (i.e., Aleknagik et al. v. Andrus) will have a significant bearing on the final dispensation of village and individual lands, not only in the Bristol Bay region but in the entire state. Consequently, the Bristol Bay region, like other areas of Alaska, is continuing in a redistribution of land related to all of these factors. Until the final implementation of the Statehood Act, ANCSA, and ANILCA, land ownership patterns and the uses permitted on the land will be in flux.

This section will review current land ownership and use patterns in the Bristol Bay region as well as discuss the present (1981) status of the forces which are affecting these patterns. As shown in Table 9, the major land owners in the Bristol Bay region are the State of Alaska, the federal government (primarily parks, preserves, and refuges), Native corporations, and to a lesser degree individuals who have and will acquire land through federal land laws, especially the Native Allotment Act, the Townsite Act, and Section 14(c) of ANCSA. Relatively speaking, there is very little public domain left in the region. The municipalities (Bristol Bay Borough and the incorporated cities) are not yet major land owners. As will be discussed below, this situation may change in the future with the implementation of Section 14(c)(3) of ANCSA (community expansion lands).

Land settlement patterns of Eskimos, Aleuts, and Athapaskans in Bristol Bay reflect historic dependence on marine, fresh water, and land resources. Local dependence on fish is reflected in the coastal (riverine, lake, and marine) location of most of the communities. Local Natives were more interested in the use of natural resources, not the Western concept of land ownership. It was not until after the arrival of white men that formal patterns of land ownership developed in Alaska. One of the first mechanisms by which Natives could acquire title to land was the Native Allotment Act. (For a discussion of the philosophy behind the allotment policy see Case 1978:49-51).

Table 9 Land Status in the Bristol Bay Region¹

		<u>Acres</u>
<u>Patented Lands</u>		
Private		
Trade & Manuf. sites	559	
Headquarter sites	223	
Homesites	1,092	
Homesteads	3,752	
Mineral	264	
Misc.	566	
Townsite settlement	365	
	<u>6,821</u>	6,821
Townsite Trustee ²		4,808
ANCSA Village Corporations		24,395
State		<u>4,018,068</u>
Total Patented	4,054,092	4,054,092
<u>Native Allotments</u> (Certified - 59 ea)		3,983
<u>State Tentatively Approved</u>		2,408,937
<u>ANCSA Village Corp. Interim Conveyance</u> (IC)		2,463,784
<u>National Parks, Monuments, Refuges, and Preserves</u> ³		8,097,136
<u>Pending</u>		
Private		2,578
Townsites		1,643
Native Allotments (Active)		129,924
State Selections ⁴		9,798,555
ANCSA Village Corporations ⁵		477,323
<u>Public Domain</u>		650,000
TOTAL		28,087,955
Land acres in region (excludes land which drains southward into the Western Gulf of Alaska) ⁶		26,021,012

¹ This table represents only lands within the Bristol Bay Regional Corp. (BBNC) boundaries.

² Does not coincide with data obtained from the Townsite Trustee. This figure is approximately twice as high.

³ See Table 110.

⁴ Withdrawals shown on BLM's record system often overlap, and therefore this figure represents duplication and is too high.

⁵ Estimate.

⁶ Kresge et al. 1974: Table 8-4.

Sources: U.S. Department of the Interior, BLM, Alaska Automated Lands Record System, March 12, 1981 and Easement Progress Report, January 5, 1981; P.L. 96-487; U.S. Fish and Wildlife Service; National Park Service.

Stephen R. Braund & Associates. (1981)

NATIVE ALLOTMENTS

It was not until the Native Allotment Act of 1906 that Alaskan Natives were provided with an opportunity to obtain individual title to land. As amended in 1956, the Native Allotment Act allowed an Alaskan Native resident who is either the head of a family or twenty-one years old to receive up to 160 acres of nonmineral land upon proof of continuous use and occupancy for five years, either prior or subsequent to application. (Pending litigation challenges the right of the Secretary of Interior to impose use and occupancy requirements of Native allotments outside of national forest lands--see Case 1978:51, 55.) Natives hold the land under a restricted "certificate of allotment" issued by the Department of Interior, and any transfer of the allotment must be approved by the Secretary of Interior. As long as the allottee or his heirs own it, the land is inalienable and not subject to taxation. Unlike lands acquired in Native townsites, there is no provision whereby the allottee can petition for an unrestricted deed. Although the Native allottee does not receive fee simple patent to the land, a 1956 amendment allows allottees to convey, for fair market value and with BIA approval, the land in fee simple estate to another person. This amendment allows allotment lands to potentially become fee simple lands in the private sector. Thus, the lands become freely alienable and taxable once they are transferred from the original allottee or his heirs.

The Native Allotment Act is often compared with the Homestead Act for non-Natives and provided a mechanism by which Natives could acquire title to land they used. Generally, these lands were located outside of permanent settlements because the most common uses were associated with hunting, fishing, and berry

picking. The allotments did not have to be in contiguous tracts but could be divided into as many as four separate parcels so long as the total did not exceed 160 acres.

The Department of the Interior through BLM and BIA administers the Native allotment program. Although BIA processes the applications, BLM investigates and verifies the applicant's use and occupancy, surveys the land, and issues the allotment certificates. Because the two bureaus generally have different functions (BIA Realty is charged with protection of Native land rights while BLM protects a more general public interest), they often conflict over policy related to Native allotments (see Case 1978:54).

Once BLM issues the certificate of allotment, BIA acts as a property manager for the allottee. As managers of Native restricted lands, BIA counsels and assists allottees in any sale, lease, gift deed, or right-of-way matters. Allotment lands do not change hands without BIA approval, and if they are sold, it is only for fair market value. After all of the pending allotment applications are finally adjudicated, BIA will have a substantial and continuing task to assist the thousands of allottees in proper management of their lands.

At best the allotment process is a very slow process fraught with many difficulties. Two separate agencies are involved, and over the years BIA Realty has had a minimal staff, which resulted in little direct contact between the BIA and potential applicants. Consequently, many Natives were unaware of the allotment program and therefore did not take advantage of it. Also, before an allotment is granted, BIA and BLM must follow a complex and time consuming

scheme of regulations and policies (see 43 CFR 2561). Additionally, BLM policy shifts related to allotment implementation (see Case 1978:55-58) seemingly served to unnecessarily obstruct Native allotments in various ways. Finally, verification of use and occupancy is often difficult for the government realty specialist because Native use (hunting, fishing, and berry picking) often leaves little physical evidence of occupancy. If BLM adhered to a "physical evidence only" policy, it could result in the rejection of some 7,000 pending applications (Case 1978:56).

The relatively few number of certificates issued attest to the difficulties associated with the allotment process. In the first 54 years of the act (1906 to 1960), only 80 allotments were approved in Alaska (Federal Field Committee 1968:451). During the next eleven years until the passage of ANCSA on December 18, 1971, an additional 128 certificates were issued, for a total of 208 certificates issued statewide (Case 1978: 54). As of May 31, 1977, BLM and BIA had issued a total of 377 certificates of allotment and 2,403 administrative approvals respectively (Case 1978:54). Administratively approved allotment applications only lack surveys before issuance of a certificate. Even after the survey, it often takes three or four years for the BLM Washington office to issue the certificate of allotment.

Additionally, in 1978, a backlog of 6,581 cases were still pending adjudication at BLM (Case 1978:54). This meant that 6,581 Natives had made a valid application, but BLM had not yet completed the investigation and adjudication process. Most of these allotment applications were collected during a 19 month allotment drive just prior to ANCSA passage (Case 1978:65). Orchestrated by

Alaska Legal Services, Rural Alaska Community Action Program (RurALCAP), the BIA, the Alaska Federation of Natives (AFN), and the Federal Action Agency (VISTA), this drive was the result of awareness that pending Alaska Native land claims legislation would revoke the 1906 Allotment Act. The drive was highly successful and resulted in 8,500 statewide applications, many of them still pending (Case 1978:58). Increased awareness of land rights, additional manpower, better communication, the growing influence of Native political organizations, the potential value of allotment lands, and the impending deadline are some of the factors that explain the drive's success.

Although Section 18 of ANCSA repealed the Native Allotment Act, it also provided that all allotment applications pending before the Department of the Interior on the date of the enactment of the Act (12/18/71) were eligible for approval. This included the 8,500 applications filed within the 19 month period prior to the passage of ANCSA. Because most of the pending applications were filed years after the Statehood Act, many of them conflicted with state land selections, including lands already patented to the state.

A 1979 district court decision (Aguilar v. U.S.) settled this conflict of allotment applications filed on state selected and patented lands. The court forced the government to vacate these previous patents erroneously issued to the state. An application for an allotment could be granted even if it were filed after state selection and patent. For the Native allotment applicant to have preference over state selected and patented lands, he or she had to prove substantial use and occupancy of the land prior to the date of state selection. Thus, the date of the use and occupancy by the Native applicant, not the date of the

application, was all important. As a result of Aguilar v. U.S. the closed (rejected or relinquished) Native Allotment files were reopened to determine if they were summarily turned down because the land had already been selected by the state. If the Native could prove use and occupancy prior to the state selection, he or she had a valid claim to the land.

Although Aguilar v. U.S. did not waive the use and occupancy requirement, the Alaska lands bill (ANILCA) passed on December 2, 1980 apparently gave presumption for a certain class of applications that there was use and occupancy. Congress apparently wanted to expedite the adjudication of the thousands of pending allotment applications. Section 905 of ANILCA provides that, subject to valid existing rights, all allotment applications pending on December 18, 1971 will be automatically approved on June 1, 1981, except where they are excluded by criteria in the statute (i.e., mineral lands; state tentatively approved lands; a Native corporation, the State of Alaska, or an individual files a protest; or the application was voluntarily relinquished in the past). In the case of these exceptions, the applications are not disapproved--they simply are not automatically approved and will be adjudicated pursuant to the requirements of the 1906 Act. In other words, these exceptions will be decided as though ANILCA had never passed, and the applicant will have to prove use and occupancy.

In some ways this legislative approval of Native Allotment applications simplifies the process (use and occupancy is not adjudicated and a deadline is imposed), but it also adds to the recent trend to reopen applications that were erroneously closed. Because of ANILCA, Pence v. Kleppe, and Aguilar v. U.S.,

BLM is currently in the process of reviewing approximately 6,400 Native allotment applications statewide to determine whether they were erroneously closed, are automatically approved, or subject to adjudication pursuant to the 1906 Act. As of March 6, 1981, there were 9,272 Native allotments (active or closed) in Alaska (BLM, Alaska Automated Lands Record System). Of these, 7,757 were active (pending or administratively approved) and 1,515 were closed (rejected, relinquished, or conveyed). The lawsuits and ANILCA affect the pending, rejected, and relinquished applications only. Although a further breakdown of these statewide figures is currently unavailable, comparison with 1977 data reveals that approximately 1,100 previously closed files are now reopened (1,515 less certified allotments), and approximately 5,300 (7,757 less administratively approved allotments) additional cases are pending.

According to Section 905(a)(5) of ANILCA, a Native corporation, the State of Alaska, or any individual may file a protest before June 1, 1981 which would affect the automatic approval of these 6,400 pending allotment applications. At this point, it is impossible to predict how many protests will be filed. Certainly, Native corporations have an interest in some allotment lands. For example, in the Bristol Bay region, over 80 percent of the ANCSA land entitlements have been transferred by interim conveyance (IC) to the Native corporations. Therefore, any reopened Native allotment that falls within the village selections will involve lands that are already conveyed to the appropriate Native corporation. Although BBNC has the right to protest any of the pending allotments, the preliminary policy of the corporation is to only protest those applications which were previously rejected and are now reopened as a result of recent litigation and ANILCA. BBNC already has title to the subsurface of IC

lands, and the village corporations have title to the surface estate. If the reopened Native allotments are approved, it is possible that both the village corporations and BBNC would have to deed over lands to which they already have legal title.

A further factor which may encourage BBNC to protest some Native allotments involves whether gravel is a surface or subsurface material. Under ANCSA, gravel on village selections is considered subsurface and therefore belongs to the regional corporations and is subject to Section 7(i) of ANCSA. On Native allotments, the regional corporations do not own the gravel. It is conceivable that in the Bristol Bay region where most of the ANCSA lands have already been conveyed, the reopened allotment applications may result in BBNC's loss of some existing gravel rights. This adds further incentive for BBNC to protest once rejected but now reopened allotment applications.

In addition, the appropriate village corporations top filed all pending Native Allotments in the Bristol Bay region village withdrawals. Therefore, if the allotment is not approved, the village and regional corporations have a right to the surface and subsurface estates respectively. Because many Native allotments are in desirable locations, the village corporations may have an interest in obtaining this land.

Table 10 represents the number of allotment applications filed by Natives around each of the 29 villages in the Bristol Bay region. Although this table is useful to identify the number of allotments concentrated in townships near the respective villages, it is not a reliable source for the total number of allotment

Table 10. Status of Native Allotments By Village in the
Bristol Bay Region as of 3/6/81¹

	<u>Applications</u>	<u>Closed</u> ²	<u>Active</u> ³
Aleknagik	144	26	118
Chignik	26	1	25
Chignik Lagoon	43	1	42
Chignik Lake	40	0	40
Clark's Point	147	48	99
Dillingham	189	64	125
Egegik	26	10	16
Ekuik	53	6	47
Ekwok	56	11	45
Igiguig	25	3	22
Iliamna	51	7	44
Ivanof Bay	6	1	5
Kokhanok	48	5	43
Koliganek	42	1	41
Levelock	19	7	12
Manokotak	68	19	49
Naknek	72	9	63
Newhalen	51	8	43
New Stuyahok	67	12	55
Nondalton	66	12	54
Pedro Bay	66	16	50
Perryville	22	3	19
Pilot Point	5	0	5
Port Heiden	11	0	11
Portage Creek	27	1	26
South Naknek	82	7	75
Togiak	70	1	69
Twin Hills	70	1	69
Ugashik	26	4	22
TOTALS	1,618	284	1,334

¹ This data listed by village reflects core townships which in many cases overlap because of close proximity of villages. Therefore, the numbers reflect about 25% duplication of allotments (i.e., total applications should be 1,199 not 1,618).

² Closed = rejected, relinquished, or conveyed. In the case of conveyance, a certificate of allotment was issued to the allottee.

³ Active = Applications pending or administratively approved and awaiting survey.

Source: U.S. Department of the Interior, BLM, Alaska Automated Lands Record System, March 6, 1981.

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applications in the region. The village data represented in Table 10 reflects core townships around each village which in many cases overlap because of the close proximity of villages. Consequently, the totals for the Bristol Bay region based on addition of this village data would count many allotment applications more than once. (In fact, the total number of allotment applications in Table 10, 1,618, reflects approximately a 25 percent duplication of allotments).

Table 11 represents the regional total of Native allotments in the Bristol Bay region. A discrepancy exists between BLM total allotment applications (1,199) and BIA totals (1,150). Because rejected or relinquished cases are not available from BIA, the problem appears to be in the pending and administratively approved applications. BIA shows a total of 1,091 applications in this category, while BLM only shows 1,006. Consequently, BIA data reflects that 85 more allotment applications should be active than BLM data show. A possible explanation may be that BIA, because of the recent review process, included some, but not all, of the previously rejected or relinquished applications in its pending category while BLM data represents a larger subtotal of all previously rejected and relinquished applications because that agency has more comprehensive information on all categories. For purposes of analysis, this report will use a total of 1,199 allotment applications (Table 11-BLM data) for the Bristol Bay region. Based on BLM and BIA data, the maximum possible number of allotment applications would appear to be 1,284 (1,150 + 134).

As shown in Table 11 (and explained above), Native residents of 29 Bristol Bay communities (excluding King Salmon) have filed a total of 1,199 Native allotment applications. According to both BIA and BLM data, BLM has issued

Table II. Status of Native Allotments in Bristol Bay by Region

<u>BLM DATA</u> ¹	<u>Allotments</u>	<u>Acres</u>
Active (Pending or Administratively approved)	1,006	129,924
Closed		
Certified	59	3,983
Rejected or Relinquished	<u>134</u>	<u>13,864</u>
Totals	1,199	147,771

BIA DATA²

Native Allotments

Pending	787	
Administratively Approved	<u>304</u>	
Total Active	1,091	1,091
Certified		<u>59</u>
		1,150

Sources: ¹ U.S. Department of the Interior, BLM, Alaska Automated Lands System, March 12, 1981.

² U.S. Department of the Interior, BIA Realty, Anchorage.

only 59 certificates of allotment for 3,983 acres. Based on BIA information, another 304 have been administratively approved and await survey. This means that approximately 836 allotment applications (702 active and 134 reopened) are currently pending in the Bristol Bay region. Although it is not possible to predict how many of these will ultimately be certified, approximately 144,000 acres (Table 11) are represented by these pending applications. As discussed above, these lands have the potential to become fee simple lands in the private sector.

In 1970, the population of the Bristol Bay region was 4,204 (Table 2). The 1,199 applicants who filed for allotments by December 18, 1971 (the deadline for application) represents 29 percent of the total population of the region. This means that nearly three of every ten residents in the region applied for a Native allotment. Because only Natives were eligible to apply for an allotment, a more accurate analysis would compare the number of Natives who applied. Based on 1970 census data (Alaska Department of Community and Regional Affairs 1974), there were 3,195 Natives who lived in the the thirty Bristol Bay communities in 1970. Comparison of this data with the number of allotment applications reveals that 38 percent of the Native residents in the region in 1970 had applied for Native allotments by December 18, 1971. Furthermore, allotment regulations require that the Native applicant be head of a family or 21 years of age. In 1970, only 1,779 Natives in the Bristol Bay region were 15 years of age or older. Consequently, approximately 67 percent of the Bristol Bay region Native residents over 15 years of age in 1970 had applied for allotments by December 18 1971. (These calculations contain a factor of error proportional to the number of non-resident Natives who applied for a Native allotment in the Bristol

Bay region. Additionally, the calculations compare 1970 census data with 1971 allotment applications).

Generally, the allotments are located outside of the villages along roads, streams, lakes, and rivers. Most of them represent areas where the applicant had hunted, fished, berry picked, or engaged in similar subsistence activities. Consequently, easy access by road or water is often a common characteristic. For example, allotments dot the map along both shores of the Togiak River north of Togiak, are located on the shores of Lake Aleknagik and other lakes in the Tikchik system, as well as around Lake Clark and Lake Iliamna. They are also located on the shores of the major rivers such as the Nushagak, Wood, and Mulchatna, as well as the smaller streams like Stuart Creek near Dillingham. Many allotments are situated around New Stuyahok, Dillingham, and other communities. The twenty-five mile road from Dillingham to Lake Aleknagik is nearly solid Native allotment claims along both sides.

The complicated system of Native Allotments does not represent traditional concepts of land tenure or use in the Bristol Bay region. Agencies from outside the region initiated the pre-ANCSA allotment drive as they were aware that the Allotment Act would soon be repealed. The prevailing attitude at the time seemed to be one that encouraged a desire to take advantage of the Act to at least secure traditional campsites from potential outside ownership. Local fears and anxieties of future land ownership patterns added incentive for resident Natives to apply for an allotment. These allotments, if approved, will not only add to the total acreage in Native ownership of the region, they will also give individual Natives an inalienable right to these lands. But, it is important to

note that this pattern of land ownership does not necessarily reflect traditional practices. First, land ownership of a small tract of land is foreign to many Native residents. Second, these tracts, even if 160 acres, do not represent the full range of subsistence use areas. They may represent a traditional campsite or fishing site, but subsistence hunting and trapping generally cover a much larger area. In addition, the very complicated administrative procedures associated with the allotment program are extremely difficult for many local residents to understand. In conclusion, although the allotment system does not represent traditional land concepts, it will be a part of the future land system in the region.

From the local Dillingham perspective, the problems associated with Native Allotments hamstring development in this growing community. The Dillingham village corporation (Choggiung Ltd.) has interim conveyance (IC) to approximately 95 percent of its ANCSA lands, but often BLM gives this title to Choggiung excluding a list of allotment claims. Because these pending allotment claims (90 percent of the total applications in the region) are not surveyed, it is impossible to legally locate them. Consequently, Choggiung (and other village corporations in the region) receives IC to lands for which they cannot purchase title insurance until the Native allotments are surveyed. This survey process may take years. Without title insurance, the village corporation cannot sell the land. This problem is most acute in Dillingham where Choggiung is interested in developing some of its lands to meet the demands of the community. The area is blanketed with allotment claims.

NATIVE TOWNSITES

Like the Native Allotment Act, the 1926 Native Townsite Act provided a mechanism by which individual Natives could obtain title to land. Also like the Allotment Act, the Townsite Act is administered by the Department of Interior (BLM and BIA) and has been affected by various policy changes within the department as well as numerous court decisions. The federal townsite survey enabled people who lived in close proximity to each other a means by which they could acquire title to the land under their homes. Other federal public land laws (allotments, homesteads, homesites, and trade and manufacturing sites) dealt with larger parcels of land and were impractical as a method by which villagers could acquire title to lands within the village. Generally, the houses were located too close together for the other land laws to apply.

In order for the townsite process to commence, a majority of the community residents had to sign a petition and request it. BLM surveyed the exterior boundaries and then surveyed and subdivided all the land under existing improvements as well as additional vacant lots. The townsite surveys usually included additional surveyed, but unsubdivided tracts. (By statute, townsites could be as large as 640 acres depending on the population in the community). Both the vacant subdivided lots and unsubdivided tracts were for future growth of the community. After the survey, the federal government patented the entire townsite to the BLM townsite trustee, who in turn issued deeds to occupant applicants.

The townsite trustee would then offer all of the subdivided lots which remained unoccupied and unclaimed for sale at a public auction. Unsold lots in an unincorporated community could then be offered for sale again if local demand warranted such a sale. The unsubdivided tracts were not offered for sale. Instead, the townsite trustee held them in trust for future occupants until they might petition to have the land subdivided into lots. As long as the community remains unincorporated, title to the vacant lots and tracts remains with the townsite trustee. The local village council has jurisdiction over the vacant lots and, in effect, controls vacant lots within the townsite. After the public sale and upon proof of the incorporation of the community, all unsold lots are deeded to the municipality. Thus, unsold subdivided lots are either deeded to the municipality or, if one did not exist, they remained held in trust indefinitely by the townsite trustee. The townsite regulations are vague regarding the status of the unsubdivided tracts, and whether they were available for village selection under ANCSA or remained open for occupancy after ANCSA is highly contested and will be discussed further below.

In the Bristol Bay region, 23 communities applied for townsite surveys, but only 18 of these were eligible. Five communities (Newhalen, Koliganek, Pedro Bay, Pilot Point, and Kokhanok) applied for the townsite survey after ANCSA (P.L. 92-203) had withdrawn lands around the village in 1971. (Subsequently, FLPMA:L. 94-579 repealed the Townsite Act in 1976.) Consequently, these five communities were denied townsite status. Of the 18 Bristol Bay communities that received townsite surveys, the trustee has received patents to eleven (including patent to only half of Aleknagik because of litigation associated with a reopened Native Allotment claim within the townsite boundaries) while the

remaining seven are pending patent (see Table 12). Of the eleven patented townsites in Bristol Bay, the townsite trustee still holds lots in nine communities (Table 13). (In Dillingham the townsite process is complete, and the trustee has deeded all townsite lands to either individuals or to the municipality. In New Stuyahok, the trustee deeded the remaining 34 vacant lots to the city in 1977, while he still holds title to some unsubdivided tracts). The trustee also holds patent to unsubdivided tracts in nine of the eleven Bristol Bay townsite communities (Table 14). (The trustee holds no land in Dillingham, and the Chignik Lake townsite contained only subdivided lots-no unsubdivided tracts). It is important to remember that the trustee will gain patent to both additional subdivided lots and unsubdivided tracts in the seven surveyed but as yet unpatented townsites (Table 12).

Prior to 1959, both Natives and non-Natives could obtain deeds to lots within the subdivided portion as well as occupy land in the unsubdivided tracts of the same townsite. The only difference was that the Native occupants generally received restricted deeds. From 1959 to 1976, the solicitor's Saxman opinions dictated townsite policy within the Department of the Interior. During this time, the townsite trustee could only convey subdivided townsite lots to Natives. A later opinion precluded the trustee from conveying unoccupied townsite lots to municipalities. Consequently, during these years the only thing the trustee could do with the unoccupied lots was to hold them in trust until Natives occupied them and requested conveyance. This policy helped protect predominantly Native communities from non-Native encroachment. (See Case 1978:59-63 for a full discussion of the Townsite Act in general).

Table 12. Status of Townsites in the Bristol Bay Region (As of 7/21/80)

Villages with Patented Townsites	Villages with Surveys but Unpatented Townsites	Petition Date	Survey Date	Survey Approv.	Patent Applic.	Patent Issued	Lot Award	Acres
Chignik Lagoon		1960	1968	1970	1971	1972	1973	123.07
Chignik Lake		1966	1969	1973	1974	1976	1977	38.07
Dillingham*								
Ekwok*		1961	1967	1970	1971	1972	1972	469.40
Levelock		1961	1967	1972	1972	1975	1976	223.29
Manokotak*		1961	1966	1968	1968	1972	1972	332.32
New Stuyahok*		1961	1966	1969	1969	1972	1972	107.70
Nondalton*		1960	1966	1969	1973	1976	1977	625.89
Togiak*		1961	1969	1973	1974	1975	1975	76.10
Twin Hills		1968	1971	1975	1976	1976	1977	147.04
Aleknagik*(1/2 patented)		1961	1967	1970	1971	1977	1977	124.50
	Chignik	1960	1968	1972	1977			62.14
	Clark's Point*	1966	1970	1975	1977			295.83
	Egegik	1961	1970	1974	1976			238.83
	Meshik (Port Heiden)*	1968	1971	1977	1978			147.59
	Perryville	1966	1969	1975	1976			78.42
	South Naknek	1958	1967	1972	1973			203.21
	Ugashik	1966	1971	1973	1974			145.42

Newhalen, Koliganek, Pedro Bay, Pilot Point and Kokhanok petitioned for a Townsite, but lands within the village cores had already been withdrawn by ANCSA.

* Municipality incorporated under Title 29 of the Alaska Statutes.

Source: U.S. Department of the Interior, BLM Townsite Trustee.

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Table 13. Communities in the Bristol Bay Region where the Townsite Trustee Currently Holds Patent to Subdivided Lots¹

<u>Community</u>	<u>Lots</u>
Chignik Lagoon	43
Chignik Lake	88
Ekwok*	23
Levelock	62
Manokotak*	41
Nondalton*	61
Togiak*	11
Twin Hills*	<u>81</u>
Subtotal	410
Aleknagik	undetermined

* Municipality incorporated under Title 29 of the Alaska Statutes.

Source: U.S. Department of the Interior, BLM Townsite Trustee.

Table 14. Communities in the Bristol Bay Region where the Townsite Trustee Currently Holds Patent to Unsubdivided Tracts¹

<u>Community</u>
Chignik Lagoon
Ekwok
Levelock
Manokotak
New Stuyahok
Nondalton
Togiak
Twin Hills
Aleknagik

Source: U.S. Department of the Interior, BLM Townsite Trustee.

¹ The townsite trustee will also receive patent to additional subdivided lots and unsubdivided tracts in the seven surveyed, but unpatented townsites (see Table 12).

Although the Saxman opinion did not allow non-Natives to enter the subdivided lots of a townsite, they could still occupy the vacant unsubdivided tracts within the exterior townsite boundaries. The Alaskan Indian village of Klawock brought suit against the trustee (Klawock v. Gustafson) to stop him from allowing non-Natives to enter the vacant, unsubdivided townsite lands (Case 1978:60). However, in 1976, the Alaska District Court overruled the Saxman decisions and held that non-Natives could occupy townsite lands. Consequently, the trustee returned to regulations in effect before the Saxman opinions 17 years earlier. Thus, the townsite trustee no longer had to hold the vacant, subdivided lots for Native occupancy only, but he could 1) sell them at a public auction, 2) sell them to a governmental agency, or 3) deed them to the municipality if one exists. Where no municipality exists, the trustee continues to hold these vacant lots.

Although these three options (two in unincorporated communities) for disposal of vacant, subdivided lots appear simple, present circumstances preclude the trustee from doing any of them. First, government agencies have little reason to purchase lots in many of the villages. Second, most communities oppose additional public auctions because they would greatly encourage non-resident land speculation. It is likely that many of the speculators would be non-Natives from urban areas, and this is not desired in predominantly Native communities. Residents in most of the Bristol Bay communities have a generalized apprehension and fear of non-residents (land speculators and sportsmen) who may move into their area and lower the quality of their small-town or village life. Third, because of a second Klawock decision (City of Klawock v. Gustafson) in 1978, the trustee is precluded from deeding these lots to municipalities until they share in payment of Klawock's attorneys' fees related to the first case.

The Ninth Circuit found that the original Klawock decision led to an Interior Department policy change to deed vacant, subdivided townsite lots to the appropriate municipalities. Because this policy change benefitted many communities throughout Alaska, the court ruled that Klawock's attorneys had equitable claim to a reasonable fee, and all of the vacant lots in the townsites throughout the state constituted a common fund, controlled by the trustee, to which the attorneys could look for their fees (\$176,000). Consequently, until each city pays its share of these fees, a lien exists against the lots. (The trustee deeded the remaining 34 vacant lots to the City of New Stuyahok in 1977 between the two Klawock decisions). Therefore, until the second class cities in Bristol Bay pay their share of the Klawock legal fees, these subdivided lots remain in limbo and unavailable for legal occupancy (Table 12). In the unincorporated communities, the only feasible option is to hold additional public auctions, which most villages oppose because they may result in opening up village lands to non-residents. It is very doubtful that the trustee would hold such an auction against the communities' wishes. As discussed above, see Table 13 for townsite communities affected in Bristol Bay.

This situation creates a hardship in many townsite communities because it makes vacant, subdivided lots unavailable to residents for community expansion. Most of the townsite surveys in the Bristol Bay region occurred in the late 1960's and early 1970's (Table 12). Lots occupied at the time of the survey were available to the occupants, but offspring of these families, who are in need of land for their own homes, are currently precluded from obtaining that land in the subdivided townsites.

Although the subdivided lots present problems that are far from resolved, it was the unsubdivided townsite tracts that created even more serious difficulties. After the first Klawock decision on November 11, 1976, it became publicized that these unsubdivided tracts in various patented townsites were available to both Natives and non-Natives. To qualify for a patent, the entrant had to simply stake the site (not to exceed one acre) and build a 12' x 14' structure. The only cost to the entrant was the cost of the survey, normally less than \$500.00. Also, there was no residence requirement--a factor which appealed to many non-locals looking for recreational property. This land rush to the unsubdivided townsite tracts was exacerbated because it occurred at a time when there was very little public land available in Alaska to supply a growing non-Native desire for land. At the time, they were the only public lands in the state available merely for the cost of occupying and improving them (Case 1978:60). Although the nine Bristol Bay communities presented in Table 14 were potentially affected by this phenomenon, Nondalton, Ekwok, and Aleknagik were especially impacted because of their waterfront locations near desirable recreational areas.

This public entrance onto unsubdivided townsite lands occurred for over two years until the Regional Solicitor, Alaska, issued his February 20, 1979 opinion that the BLM Organic Act (FLPMA) of October 21, 1976 (P.L. 94-579) had closed public settlement on townsite lands. Although the BLM Organic Act and the Klawock decision were only 20 days apart, the solicitor did not issue this opinion that the former had closed townsite lands until 28 months after the Act. Consequently, for these 28 months many people entered these lands, made improvements, and expected to receive patent. Litigation will likely resolve this issue. (The Department of the Interior maintains that any occupancy on the

unsubdivided lands initiated after the October 21, 1976 repeal of the townsite laws does not constitute a valid existing right which would survive FLPMA. See U. S. Department of the Interior 1980.)

As discussed above, BLM generally issued restricted deeds to Natives in townsites, which requires BIA's approval before they are sold. A 1948 amendment to the Act enabled Natives to obtain unrestricted deeds if they desired. In order to receive the unrestricted deed, BIA must determine that the applicant is competent to manage his or her own affairs (43 CFR 2564.7). As long as the deed remains restricted, the Native is not subject to real property taxes (see South Naknek v. Bristol Bay Borough). This immunity from real property taxes on land and improvements applies to both restricted Native townsite lots and Native allotments.

Further complications with townsite lands are associated with their status in relation to ANCSA. At issue is whether ANCSA withdrew the unoccupied tracts within townsite boundaries for selection by the ANCSA village corporations and therefore also withdrew these lands from further appropriation under townsite laws. "Subject to valid existing rights," Section 11(a)(1) of ANCSA withdrew all public lands in and around core village townships from all forms of appropriation under public land laws. Then each village corporation had the opportunity to select its lands from these core area withdrawals. However, the Interior Department maintained that both patented and unpatented townsite lands were excepted from the ANCSA Section 11(a)(1) withdrawals because they represented "valid existing rights" at the time Congress passed the Act (i.e., the townsite trustee already had an existing right to all lands segregated in a townsite

application filed prior to ANCSA. Hence, these lands could not be withdrawn under ANCSA and were still available for settlement under the townsite regulations). Thus, the Department of the Interior excluded all lands within the exterior boundaries of townsites from Native selection under ANCSA.

In 1977, the village corporations organized under ANCSA, and the village and municipal councils of Aleknagik, Ekwok, and Nondalton (Aleknagik et al. v. Andrus) filed suit to contest the Secretary of Interior's interpretation of ANCSA which did not allow village corporations to select townsite lands that were unoccupied on the date of ANCSA's enactment and did allow non-Natives to enter these lands after that date. The plaintiffs contend that ANCSA withdrew the unsubdivided and unoccupied lands in their townsites from further appropriation under the townsite laws. Approximately 80 persons staked lots in the townsites of Aleknagik, Ekwok, and Nondalton. Many of these people are non-Natives from other parts of Alaska, and the residents of these, and other, primarily Native communities are not in favor of this trend. It not only adds to a sense of apprehension of outsiders in the village, but also deteriorates inter-ethnic relations. (Most of the people who staked these lands did so after FLPMA repealed the Native Allotment Act on October 21, 1976. Thus, at issue in the case are only the rights of those non-Natives who began their occupancy after ANCSA's enactment in 1971 and before the repeal of the Allotment Act in 1976.) The district court denied the plaintiff's motion for preliminary injunction to enjoin further encroachments upon the townsites and dismissed the action for failure to exhaust administrative remedies. The plaintiffs appealed and the case is pending.

A decision in the plaintiff's favor in Aleknagik et al. v. Andrus could deny patent to all those non-Natives who staked land in townsites from 1971 to 1976. In many cases, this would please residents in the predominantly Native communities. But, this controversy is even more complicated because not all village corporations top filed these townsite lands during the selection period after ANCSA's passage. Even if Aleknagik is decided in the plaintiff's favor, it may take an act of Congress to enable some village corporations access to these townsite lands in the village core areas. Preliminary evidence indicates most of the 29 villages in the Bristol Bay region did top file the townsite lands.

Although lands provided for community expansion under ANCSA will be discussed in the next section, it is noteworthy that the Interior Secretary's decision to exclude townsite lands from village corporation selection ultimately had a deleterious affect upon many communities. Under Section 14(c)(3) of ANCSA, village corporations must convey lands to the local municipality (or to the state in trust if one does not exist) for community expansion. It seems reasonable that the municipality (or state in trust) would like to receive the vacant land within the core area around the community. In townsite communities, this land is generally the vacant, unsubdivided tracts and subdivided lots which the village corporations were not allowed to select. Consequently, these vacant, core lands could not become community expansion lands under 14(c)(3) of ANCSA. As a result, in townsite communities, new schools or housing projects may have to be located outside of the townsites. This problem is currently unresolved.

As discussed above, neither the Allotment Act nor the Townsite Act reflect traditional patterns of local land tenure or use. Furthermore, the complexity of

these laws, as well as the policy changes and court cases associated with them, are generally beyond the understanding or interest of most Bristol Bay residents. To most Native residents, these land laws, as well as the ANCSA land provisions, seem like some sort of concocted non-Native scheme to bewilder and befuddle what to local residents is a very simple desire--to live in a village and to use the nearby lands and associated resources for trapping, hunting, fishing, and travel to nearby communities. Often, the local resident feels that these complex land ownership programs only serve the interests of outsiders who devise and implement them.

ANCSA LANDS

Village Selections

For the Bristol Bay communities, the village entitlements under ANCSA and the status of land conveyances to the village corporations are presented in Table 15. The village corporations receive patent to the surface of the land, while the regional corporation (BBNC) receives title to the subsurface estate of the village lands. (BBNC also has title to 87,000 acres of both surface and subsurface estate under 14(h)(8) of ANCSA). Although BLM has only patented 24,395 acres to the village corporations in Bristol Bay, the agency has transferred by interim conveyance (IC) another 2,463,784 acres (Table 15). (IC is issued when the lands are not surveyed. Once they are surveyed, BLM issues patent. IC represents legal ownership.) The total IC and patent acres conveyed to Bristol Bay village corporations (and hence subsurface conveyance to BBNC) is between 83 percent

Table 15. Status of Land Conveyances to Village Corporations under ANCSA

Community	Entitlement ¹ 12(b)	Entitlement 12(d)	Total Patent as of 1/5/81	Total IC as of 1/5/81	Total IC & Patent as of 1/5/81
Aleknogik	0	115,200	247.24	101,754	102,001.24
Chignik	0	115,200	0	107,244	107,244
Chignik Lagoon	1,920	92,160	43.90	87,591	87,634.9
Chignik Lake	6,388	92,160	.14	83,744	83,744.14
Clark's Point	17,280	92,160	0	105,672	105,672
Dillingham	0	161,280	339.43	153,259.43	153,598.86
Egegik	0	92,160	0	88,649	88,649
Ekuk	7,680	69,120	0	70,344	70,344
Ekwok	0	92,160	88.58	86,853	86,941.58
Iguigiq	0	69,120	.87	64,756	64,756.87
Iliamna	2,439	69,120	0	0	0
Ivanof Bay	12,382	69,120	0	78,994	78,994
Kokhanok	3,415	92,160	0	80,423	80,423
Koliganek	2,130	92,160	0	86,232	86,232
Levelock	3,251	92,160	16.04	86,767	86,783.04
Manokotak	7,349	115,200	0	101,665	101,665
Naknek	9,528	115,200	23,290.95	80,777	104,067.95
Newhalen	2,406	69,120	4.12	64,132	64,136.12
New Stuyahok	640	115,200	0	107,004	107,004
Nondalton	8,358	115,200	0	108,395	108,395
Pedro Bay	3,415	92,160	20.15	75,890	75,910.15
Perryville	0	92,160	2.5	88,064.02	88,066.52
Pilot Point	4,780	92,160	0	87,670	87,670
Portage Creek	61,533	69,120	0	64,515	64,515
Port Heiden	0	69,120	0	65,158	65,158
South Naknek	0	92,160	341.27	87,992	88,333.27
Togidak	12,975	138,240	0	119,007	119,007
Twin Hills	0	69,120	0	65,906	65,906
Ugashik	1,011	69,120	0	65,327	65,327
Olsonville (group)	NA	7,680	0	0	0
Port Alsworth (group)	NA	2,240	0	0	0
Savonski (group)	NA	2,560	0	0	0
TOTALS		2,731,200	24,395.19	2,463,784.45	2,488,179.64

The 12(b) entitlement figures represent only minimum entitlements and are subject to change.

Source: U.S. Department of Interior, BLM, Easement Progress Report 1/5/81.
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and 86 percent of their total 12(b) and 12(a) entitlement (Table 15). This represents one of the highest ratios of conveyance to entitlement under ANCSA for any region. Consequently, the failure to receive land conveyances under ANCSA is not currently a major problem in the Bristol Bay region.

In the Bristol Bay region, the ANCSA lands are generally located around the 29 ANCSA villages. Because most of the people are marine and fresh water oriented, much of the ANCSA land selections are along the shores of Bristol Bay, as well as the many rivers, streams, and lakes in the area. Also, because many of the villages are located in small clusters, the village corporation selections are concentrated in ten or eleven areas. Consequently, a map which shows village corporation selections and conveyances has numerous townships blackened in these village core areas. For example, Togiak and Twin Hills (Figure 1) either own or will own approximately 9 townships (207,369 acres) located immediately around these two communities. These selections include a significant portion of coastline--some 130 miles (which includes some of Manokotak's selection around Kulukak Bay).

The aggregate ANCSA lands of Manokotak, Ekuk, Clark's Point, Dillingham, Aleknagik, and Portage Creek represent approximately 31 townships (715,922 acres) which include virtually both shores of Nushagak Bay, the majority of the north shore of Kvichak Bay, as well as considerable onshore areas. A large portion of the land mass between Nushagak and Kvichak Bays belongs to these village corporations. Dillingham, Clark's Point, and Ekok pooled their selections to maximize land in the Nushagak Peninsula with oil and gas potential.

The Portage Creek, Levelock, Naknek, and South Naknek village corporations have tied up both shores of Kvichak Bay (extending south for approximately 12 miles beyond South Naknek) as well as a significant portion of the shoreline of the Kvichak River. Naknek and South Naknek lands extend up the Naknek River until they meet the west boundary of Katmai National Park. The total land entitlement for these four villages is 442, 952 acres (approximately 19 townships).

Iguigig, Nondalton, Iliamna, Newhalen, Pedro Bay, and Kokhanok village corporations own or will own nearly 23 townships (526,913 acres) which includes over half of the shorefront of Lakes Clark and Iliamna, as well as the shores of numerous rivers and streams in the area (including the Newhalen, Kokhanok, and Copper Rivers, and Upper Talarik and Gibraltar Creeks). Similarly, Koliganek, Ekwok, and New Stuyahok lands (302,290 acres or 13 townships) include well over 100 miles of coastline along both shores of the Nushagak, Mulchatna, and Nuyahok Rivers.

Egegik Village Corporation owns 4 townships (92,160 acres) near the village as well as significant frontage on the Egegik River. Similarly, ANCSA lands belonging to Ugashik and Pilot Point (167,071 acres or over 7 townships) are located around the villages and include waterfront acreage. Port Heiden, the only village in the immediate area, selected lands (69,120 acres or 3 townships) primarily located on the west and southern portion of Port Heiden Bay.

On the southern side of the Alaska Peninsula, there are two clusters of village corporation lands: the 13 townships (307,828 acres) belonging to Chignik,

Chignik Lagoon, and Chignik Lake; and the 7 1/2 townships (174,662 acres) belonging to Ivanof Bay and Perryville. As is the case with most of the Bristol Bay ANCSA selections, these lands represent a large portion of coastline around the respective villages.

It should be noted that the above discussion of land selections and ownership patterns does not necessarily represent which village corporation will, in all cases, own the lands. As discussed under Politics, a number of the village corporations have merged, and therefore the particular village corporations mentioned above may not ultimately be the specific owner of the ANCSA lands. The discussion was meant to portray the general locations and approximate size of Native owned lands in the region.

Use Conflicts on ANCSA Lands

It is apparent that the Bristol Bay village corporations selected considerable waterfront lands around their villages. Consequently, they control substantial areas of marine coastline along the shore of Bristol Bay, as well as hundreds of miles of coastline along the numerous freshwater lakes and streams in the region. Because many of these freshwater lakes, streams, and rivers contain high populations of trophy trout and salmon, they are also favorite areas for non-local sports fishermen. In the Lake Clark - Lake Iliamna area, there are approximately 16 lodges which cater to many non-resident fishermen. Fishing enthusiasts from more urban areas of Alaska concentrate additional pressure in this area, as well as along the Alaska Peninsula. In many cases, local Native

residents see affluent fishermen from Germany, Texas, and Anchorage come onto village owned lands to hunt and fish. Often these sportsmen pay huge sums of money to fish or trophy hunt. Throughout the region, local Natives view this as a threat to their subsistence resources.

Villagers especially view trophy hunters, who leave the meat in the field, with considerable scorn. Although the sports hunters may sometimes retrieve the meat and give it to villagers, according to most local residents interviewed, these trophy sportsmen usually take only the prized rack. The villagers point to the large numbers of trophy racks that leave weekly on the airlines--with no corresponding cartons of meat. These problems affect the Lake Clark and Lake Iliamna areas, the Nushagak and Mulchatna River drainages, as well as the northern drainages throughout the Alaska Peninsula.

In areas where game is still plentiful, many villagers are more tolerant towards non-local Alaskan residents who hunt for meat. Although there is a generalized fear that these hunters do tend to drive game away from the villages, the locals understand the quest for food. There also appears to be little intervillage conflict over hunting areas. For example, residents of one village may hunt caribou near other villages without discord.

Two additional problems related to land use include hook and release fishing and the use of airplanes to hunt large game. Most villagers who had an opinion on sportsmen who hook and release fish said that such fish usually developed sore mouths, failed to eat, and died. Regardless of whether this is true, this practice is not understood by local Natives who catch fish to eat. From their

perspective, a sportsman comes from hundreds, or possible thousands, of miles away, catches a fish solely for enjoyment, and releases it only to have it possibly die from the trauma.

Access to aircraft varies among the Bristol Bay communities, usually in proportion to the availability of cash. Aircraft are commonly used to harvest caribou and moose in the central Alaska Peninsula area. Many people in Naknek, South Naknek, and King Salmon utilize aircraft to harvest wildlife. In addition, residents from other communities, such as Togiak and Dillingham, may fly to this area to hunt caribou. But, villages in the Lakes region (Clark and Iliamna), and along the Nushagak and Kvichak Rivers do not rely on aircraft to harvest natural resources. Many residents in these areas complain that the fly-in hunters, usually from more urban areas of Alaska, drive game away from the villages and also have an unfair advantage over the local residents. These villagers, who cannot afford aircraft hunts, say that they have a much harder time hunting from their boats due to the influx of fly-in hunters. Many of the villagers would like to see zones established around their communities that barred the use of aircraft for hunting.

As more and more non-local sports hunters and fishermen take fish and game in the Bristol Bay region, the village corporations may tend to view their ANCSA lands as private property and consider enforcement of trespass laws. (This would represent a significant change in traditional land concepts from use to ownership oriented.) In most cases, this enforcement is physically impractical, but the conflict over fish and game on village corporation lands will likely erode

interethnic relations in many areas. The urban push for the repeal of the state subsistence priority law (S.L. 151) will tend to exacerbate this conflict and possibly force Natives to work towards stricter control of their lands for local subsistence purposes. Because the Bristol Bay region is an area highly valued by sportsmen, this conflict could lead to a bitter struggle that pits urban and rural users against each other.

Easements

An even more impending struggle will center around public easements along waterways which pass through ANCSA lands. Initially, the Department of Interior reserved a 25 foot continuous streamside easement in all conveyances made pursuant to ANCSA. But, in Calista et. al. v. Andrus et. al., the court held that public easements to be reserved under ANCSA were not intended to provide the public with rights to use Native lands for recreational activities. This decision is reflected in BLM regulations (43 CFR 2650.7) which state:

Scenic easements or easements for recreation on lands conveyed pursuant to the Act shall not be reserved. Nor shall public easements be reserved to hunt or fish from or on lands conveyed pursuant to the Act.

Consequently, BLM conveys ANCSA lands to the mean high tide line, and the village corporations own lands above this line.

Throughout the Bristol Bay region, non-local sportsmen have increasingly used the shores of many of the lakes and streams which are no longer available for recreational purposes. At present, it is unclear which direction the village

corporations will pursue related to enforcement of easement regulations and trespass laws, but as non-local hunters and fishermen apply more and more pressure in this rural area, it seems likely that problems could develop.

Although continuous recreational easements do not exist on Native owned lands, BLM reserves specific site easements at periodic points along major waterways (i.e., to load and unload craft). Furthermore, the beds of all bodies of water determined by the Secretary of the Interior to be navigable (i.e., used for trade, travel, or commerce) are excluded from the total acre entitlements under ANCSA. (The water column and the bed beneath navigable waters belong to the State.) Conversely, non-navigable waters are charged to the total acreage entitlements under the Act. (The water column belongs to the State.)

These easement and navigable water regulations led to interesting alliances among the interested parties. For example, both the state and BBNC have a common interest in having large water bodies deemed navigable. In this way, the water bodies were not charged to the total acreage selected by the village corporations; and the state could push for public easements (although only periodic) along the shorelines. If a water body is considered non-navigable, it not only counts as acreage selected by the village corporations, but BLM also does not reserve any periodic easements. Consequently, the state as well as many non-local sport fishermen have an interest in proving many waters in the Bristol Bay region to be navigable. It is many of the smaller streams and lakes that the Native interests may desire to be non-navigable. In this case, no public easements are reserved. Sports groups, on the contrary, desire these bodies to be ruled navigable so it would be possible to get out of a boat and step on shore.

BLM had essentially conveyed most of the lands in the Bristol Bay region before the State of Alaska questioned the department's navigability policy (see Table 15). BLM only had three villages left to complete land conveyances in the region when an urban sports group realized that the bureau had conveyed the river bed to a "non-navigable" stream where they had planned a fishing trip. If the sportsmen got out of the boat on either a sandbar or the river bank, they would be in trespass of private property. (If the stream were considered navigable, the sportsmen could camp and fish from the sandbar but only camp on periodic river bank easements. The periodic easements on navigable waters are for transportation, not recreational, purposes.)

The state finally appealed BLM's water navigability determination in the Iliamna region, and consequently, BLM has not yet conveyed any lands to that village corporation (see Table 15). There are many small bodies of water in a vast network of streams, rivers, and small lakes in this area. Although this is true for many other village corporation selections, apparently the state only appealed the navigability determination for the Iliamna and Kokhanok village selections. (BLM had already conveyed most of Kokhanok's lands). This appeal is pending before the Alaska Native Claims Appeal Board. The state is waiting a decision on this appeal before possibly reviewing other navigability determinations.

ANCSA Section 14(c)(1)

Section 14(c) of ANCSA provides for the village corporations to reconvey ANCSA land to 1) individuals and nonprofit corporations who occupied and used

the land prior to December 18, 1971, 2) municipalities, or 3) agencies responsible for airports. Of particular interest are sections 14(c)(1) and 14(c)(3). Both of these sections of the land claims act have far reaching affects on the 29 ANCSA communities in the Bristol Bay region (excluding King Salmon) and place difficult tasks upon the village corporations.

Section 14(c)(1) requires ANCSA village corporations, upon receipt of patents to their lands, to convey to any occupant title to the surface estate of tracts used as primary places of residences, businesses, subsistence campsites, or headquarters for reindeer husbandry. In order for this reconveyance to occur, it is necessary for the claimants to file an application with the village corporation for their land. Once the village corporation has located all the occupied lands, it prepares a plan of survey which identifies where property lines should be located. This plan then becomes BLM's direction and guide for the village survey. BLM only surveys the property lines around the occupied lots or tracts that the village corporations will reconvey. Vacant lots, trails, and roads may be a part of the plan, but will not be surveyed by BLM.

As BLM plays a minimal role in the 14(c) process, a greater burden falls on the village corporations. BLM provides maps and aerial photographs as well as a 14(c) handbook. As noted above, the final contribution by BLM is the actual survey. But the task of identifying who is or is not a bonafide occupant as of December 18, 1971 and precisely where they occupied land is the job of the village corporations. As one village corporation manager said, "We have to clean up 30 years of trespass which the federal government allowed to occur without any kind of management."

It appears that the intent of 14(c)(1) is to clean up land titles in communities that were not townsites, but this section also accomodates any parties who may have entered any village lands prior to the passage of ANCSA. As explained in the previous section, federal townsite lands were not subject to ANCSA land selections. Consequently, townsite lands did not transfer to the village corporations, and therefore are not subject to section 14(c) reconveyances. Entrants on these lands must seek title through the townsite process.

Because ANCSA did not specify how to convey 14(c)(1) lands, the village corporations must devise the process by which to adjudicate and transfer these lands. Generally, the 14(c)(1) process includes an application, field examination, decision, and appeal. The village corporations have to determine how much land should be conveyed for what kinds of use and improvements.

To date (May 1981), only a few village corporations in the Bristol Bay region are actively pursuing 14(c)(1) adjudication and reconveyances. Choggiung Ltd. of Dillingham, a merger of Dillingham, Ekok, and Portage Creek (which also contracted to transfer these lands for Clark's Point and Aleknagik); Levelock Natives Ltd.; and the Alaska Peninsula Corporation (which represents a merger of Ugashik, Port Heiden, South Naknek, Newhalen, and Kokhanok village corporations) have all solicited qualified 14(c)(1) entities to submit applications for their lands.

Although both Choggiung Ltd. and the Alaska Peninsula Corporation (which represents five Bristol Bay communities each) have very similar standards which govern land conveyances under Section 14(c)(1) of ANCSA, these two corpora-

tions appear to have substantially different policies related to the amount of time potential applicants have to apply for these lands. Choggiung Ltd. has advertised for 14(c)(1) claims for five years and seems to feel that it may take another five years or more to truly settle all of the claims. Alaska Peninsula Corporation, on the other hand, established a 90 day period which ends on April 15, 1981 as the deadline for the applicants to file under Section 14(c)(1) reconveyances. Apparently, Alaska Peninsula Corporation's strict policy is aimed at sport hunting and fishing guides who were attracted to the Lake Clark, Lake Iliamna, and Alaska Peninsula region because of the abundant fish and wildlife populations. Many of these guides established lodges and hunting sites on what are now village lands. If these people meet the 14(c)(1) standards and occupied the land prior to December 18, 1971, they qualify. If they do not, Alaska Peninsula Corporation would like to settle this issue and move onto other matters. At this time it is difficult to predict the number of claims or amount of conflict that may develop over these lands, but any discord may have a deleterious affect on interethnic relations in the areas.

Potential conflicts between the village corporations and stockholders could emerge related to the size of the 14(c)(1) subsistence campsite reconveyances. Most of the village corporations seem to allow a maximum of one acre for these campsites, whereas the applicant may desire more land based on the subsistence use of a larger area. If BLM denies Native allotment applications which are based on subsistence use and occupancy and which are located on village corporation lands, a conflict could easily arise. The Native allotment applicant may have had an allotment claim for 160 acres which is located on land the

village corporation top filed. If BLM denies this claim, the land would revert to the village corporation, and the applicant could seek title through the 14(c)(1) process. In this case, two problems could develop. First, the village corporation to whom the land now belongs may have already ended its 14(c)(1) application period (i.e., Alaska Peninsula Corporation's April 15, 1981 deadline). Second, instead of 160 acres, the entrant may be restricted to one acre. In a situation such as this, the good of the stockholder is not necessarily in the best interests of the village profit corporation. (Alaska Peninsula Corporation's merger package apparently allows for a 5 acre land distribution to each stockholder.)

As can be seen from the foregoing, the problems associated with 14(c)(1) of ANCSA are numerous. In fact, many village corporation leaders feel that their lands are actually a liability because of the 14(c)(1) problems. A summary of some of these difficulties includes:

- the village corporations have the responsibility of determining who gets how much land and where;
- the village corporations have to develop their own process for adjudicating the 14(c)(1) lands;
- the village corporations are not paid anything for this adjudication process which requires considerable expense and manpower on their part (to the extent that it may prove necessary to hire expensive legal counsel to help solve some of the disputes related to these claims);
- unless the village corporations specify one, there appears to be no statute of limitations on 14(c)(1) claims;

- village corporations and corporation stockholders who file a 14(c)(1) claim may develop conflicts which will serve to undermine the unity of the village corporation;
- conflicts will likely arise between village corporations and sports groups who use village corporation lands; and
- until 14(c)(1) claims are adjudicated, the village corporations, in many cases, will have clouded titles to their lands.

In order for the village corporations to move onto profit oriented ventures, it is necessary for them to finish the 14(c)(1) process as soon as possible. For example, Choggiung Ltd. would like to develop some land in Dillingham and lease some land in Ekok. But, in many cases it is first necessary to settle the 14(c)(1) claims (or potential claims) because they represent distinct reservations in Choggiung's land title. In Dillingham there are sixty 14(c)(1) claims and in Ekok there are approximately 40 such claims. Many of the claims in the cannery town of Ekok are along the beach and represent where cannery workers have squatted on lands which now belong to the village corporation. These types of claims will likely persist in communities throughout the region. Also, coastal lands used by set netters, which are located above the mean high tide line, are in many areas now owned by the village corporations. Although the actual shore fishery lands do not fall under the jurisdiction of the village corporations, the uplands may. Many times, the fishermen located cabins on these uplands, and consequently they may have claims under 14(c)(1).

In 1980, the Alaska legislature funded a new program to provide technical assistance to communities and village corporations related to their 14(c)

responsibilities. Referred to as the 14(c) Planning Program or the Plan of Survey Program, it is administered through the Department of Community and Regional Affairs (DCRA). Like BLM who will survey the 14(c) parcels, the DCRA does not make any decisions related to the land transfers (i.e., neither agency interprets who qualifies for the land, how much land is reconveyed, or the location of the land). Instead, this new program will provide technical assistance jointly to the village corporations and communities to help them come up with the Plan of Survey necessary for BLM to survey the communities. In summary, the 14(c) Planning Program has the following functions:

- Motivation. It serves to induce the parties to begin the 14(c) process;
- Education. It will train people from each village to identify and transfer 14(c) lands;
- Technical Back-up to the Trainee and Community. It provides expertise in the planning process for the communities. For example, the DCRA will be concerned with the protection of future right-of-ways, utility locations, and a good community layout for future growth.

Because this will be the first time many of the communities will be surveyed, the state has an interest in it being done properly. This program, still in its infancy, will undoubtedly assist the communities in fulfilling their 14(c) responsibilities.

ANCSA Section 14(c)(3)

Under Section 14(c)(3) of ANCSA, the village corporations must convey a minimum of 1,280 acres for community expansion to the local municipality or if

none exists, to the state in trust for a future municipal corporation. (As will be discussed below, Section 1405 of P.L. 96-487 ammended ANCSA to provide for an amount less than 1,280 acres if the village corporation and the municipality or the state in trust could agree in writing). The 19 unincorporated communities listed in Table 16 fall under the jurisdiction of the Municipal Lands Trustee Program. As trustee for the unincorporated communities, the state manages these lands for the benefit of a future city. Thus, the state trust officer may sell, grant rights-of-way, or lease these community expansion lands with the approval, and for the benefit, of the residents. The ten incorporated municipalities in the Bristol Bay region (see Table 21 under Politics) as well as the Bristol Bay Borough qualify to receive land under 14(c)(3) of ANCSA.

To date (March 1981), the village corporations in the Bristol Bay region have conveyed very little 14(c)(3) land to either the appropriate municipalities or to the state in trust. Choggiung Ltd. in Dillingham seems to have made the furthest progress towards the conveyance of these community expansion lands. Because Dillingham is a municipality (first class city), Choggiung dealt directly with the city officials. Choggiung's land manager, one of the few in the entire region, negotiated with the city to match lands the village corporation would convey with projects the city desired (i.e., hospital, oil storage, schools, recreational areas, fire station, cemetary, and so forth). The process apparently went smoothly, probably as a result of the time spent by Choggiung's land manager to implement a reasonable transfer of community lands. Also, because it is a regional center with a shortage of developable lands, it is logical that Dillingham is one of the first communities to work for 14(c)(3) lands. The other municipalities in the region have received little of their 14(c)(3) conveyances.

Table 16. Villages in the Bristol Bay Region Associated with the State of Alaska Municipal Lands Trustee Program (Section 14(c)(3) of ANCSA)

Chignik
Chignik Lagoon
Chignik Lake
Egegik
Ekuk
Iguigig
Iliamna
Ivanof Bay
Kokhanok
Koliganek
Levelock
Naknek
Pedro Bay
Perryville
Pilot Point
Portage Creek
South Naknek
Twin Hills
Ugashik

(Choggiung is also land manager for Aleknagik, Clark's Point, Portage Creek, and Ekok, and consequently conveyances may be forthcoming for these communities.

Because both Naknek and south Naknek are unincorporated ANCSA communities in the Bristol Bay Borough, the 14(c)(3) lands could go to either the incorporated borough or to the state in trust for a future local municipality. It is up to the village residents through a recognized village entity or a village meeting resolution or referendum to determine if the village corporation will convey the expansion lands to the borough or to the state in trust. Preliminary evidence indicates that Naknek may convey its 14(c)(3) lands to the borough, but because of the poor relations between South Naknek and the borough (see Politics), it seems likely that this community will choose to convey its lands to the state in trust for a future municipality. (As discussed under Politics, the Local Boundary Commission has jurisdiction over whether South Naknek, located inside an existing borough, may incorporate as a municipality).

The State of Alaska has adopted Municipal Trust Land Regulations (19 AAC 90) and also publishes an annual report related to this program. In the unincorporated villages, the village corporation usually makes a tender offer of the lands it would like to convey pursuant to 14(c)(3). The state trustee then evaluates this offer in accordance with the regulations (19 AAC 90.020) and obtains the view of the residents of the village (usually in a community meeting). If a difference of opinion emerges between the village corporation and the residents, the trustee attempts to reach a compromise. According to the state trustee, he usually tends to take the position of the village residents. A disagreement over which lands should be conveyed under this section of ANCSA could easily result in litigation.

It may seem peculiar that in unincorporated villages recognized by ANCSA Indian legislation a controversy could develop between the villagers and the ANCSA village corporation stockholders. This is because some ANCSA communities may have a large population of non-Natives who are neither members of the village corporation nor represented on the traditional village council. For example, in Naknek and Iliamna the non-Natives outnumber the Natives, and in Egegik they comprise nearly 50 percent of the population (1970 census data). Thus, the village corporation and the traditional village council could agree which lands should transfer without necessarily representing the views of the non-Native residents. The regulations provide for these circumstances by dealing with each community on a case by case basis. If there is an objection that the village council does not represent the entire community, the state trustee will hold public meetings until an "appropriate village entity" which represents the collective views of the village residents is officially recognized.

To date, the Municipal Lands Trustee has been involved in only a very few communities in the Bristol Bay region. In fact, the trustee has only helped secure land in Kokhanok, where the community needed land title for a new school, and Pedro Bay, which needed a new dump. Neither of these transactions represented large 14(c)(3) transfers, but rather small isolated conveyances needed for specific projects. These transfers reflect some of the flexibility in the state trustee program as opposed to the federal townsite program. Whereas the federal townsite trustee is currently bound from transferring either the vacant, subdivided lots or the unsubdivided tracts where no municipality exists, the state trustee can release lands for many purposes related to community expansion. Because the village corporation in Kokhanok did not have patent to the land, the state trustee simply acted on an "agreement to convey."

In many villages throughout Alaska, the 1,280 acre minimum mandated under 14(c)(3) of ANCSA for community expansion often represented more land than many small villages would ever need. In addition, it was often difficult to identify 1,280 acres of appropriate lands for many communities. Therefore, the d-2 amendment (Section 1405 of ANILCA) which provided for an amount less than 1,280 acres if the village corporation and the municipality or the state in trust could agree represents, in most observers opinions, a more rational approach to community expansion lands. In communities where non-Natives are in the majority, the municipality or the "appropriate village entity" may insist on the full 1,280 acres. If the parties are unable to agree, litigation may resolve the conflict. If the community can demonstrate a need for the larger acreage, it will probably get it.

Because the intent of 14(c)(3) of ANCSA was to provide lands for community expansion, it seems logical that the townsite communities (Table 12) would desire to receive the vacant land within the existing townsite surveys. Public uses for community expansion lands would include housing project, schools, sanitary land fills, power easements, future road systems, and so forth. It seems reasonable that community residents would like lands for these purposes in or near the existing village site. In many cases, the vacant townsite lots and tracts would be ideal for community expansion. In fact, they were originally held aside for this very purpose. But, as discussed under Townsites above, the village corporations were not allowed to select within the townsites because the townsite trustee's interest represented a valid existing right. Consequently, they are not eligible to become community expansion lands under ANCSA. If the court rules that the vacant townsite lands should have been available to the village corporations in Aleknagik et al. v. Andrus, this situation would change.

Planning

The 14(c) land transfers related to ANCSA serve to focus on the need for land planning in the region. Currently, there is no regional organization that assumes responsibility for community land planning. The Bristol Bay Native Association, the regional non-profit corporation that provides many services throughout the region, has no land planner. Its policy seems to have been that land is a village and regional corporation matter, and it stays out of corporation business. Once 14(c)(3) lands are transferred to the local governments, BBNA intends to deal with land planning. Unfortunately, the planning process begins long before the actual land transfers. BBNC's land managers, who helped the village corporations get IC to ANCSA lands in order to get their subsurface rights, have withdrawn active participation in village corporation business, including 14(c) transfers. Because most of the village corporations are too small to employ a full time land manager, a void exists in this important area. In 10 years since the passage of ANCSA, only Choggiung Ltd. (Dillingham, Ekok, and Portage Creek), Paug-vik (Naknek), and the Alaska Peninsula Corporation (South Naknek, Port Heiden, Ugashik, Kokhanok, and Newhalen) have full time managers on the payroll. (It is also interesting to note that the City of Dillingham does not have a land planner. Additionally, the Planning and Zoning Commission in The Bristol Bay Borough is at odds with the borough assembly.)

The Alaska Department of Community and Regional Affairs (DCRA), obligated to provide assistance to local governments and unincorporated communities on issues that significantly affect the communities, may supply a partial solution to this problem through implementation of their two 14(c) programs: 1) the Alaska

Municipal Lands Trustee Program for unincorporated communities; and 2) the Plan of Survey Program which provides technical assistance to all communities which request it. Through these two programs, standard procedures will be developed which will aid the village corporations in fulfilling their ANCSA 14(c) responsibilities as well as assist organized land development in the villages. To date, neither of these programs have been very active in the Bristol Bay region.

The beginnings of land planning in the Bristol Bay region represents new concepts towards land. Traditionally, the people of Bristol Bay did not feel a need for individual land ownership or covenants which restrict land use. Related family members who chose to live near each other simply built houses where there was available space, without concern of land ownership concepts. These villagers are expert land users, who know where the berries, moose, caribou, and fish are located. In addition, they shared the land together in a sort of communal land use. But ANCSA, which has forced them to deal with concepts of property rights, significantly changed these traditional concepts. As the villages become more and more aware of impending development and changes which originate from outside of the region, they will slowly adopt western concepts and tools to deal with these forces. Land planning is only one of these tools, and the Bristol Bay region is just now becoming aware of its potential to provide villages with a way to have more control over future changes. In March, 1980, BBNA through the Manpower Services Program (CETA) held its second community and land planning workshop for both city and traditional village councils. BBNA seems to be increasingly interested in planning at the regional level. Fisheries, high energy costs, economic development, and coastal zone management are common concerns throughout the region.

COASTAL ZONE MANAGEMENT (CZM)

Under the Alaska Coastal Management Act, the state is to organize into coastal resource districts, each of which is responsible for the preparation of a district coastal management program. By definition (AS 46.40.210), coastal resource districts include 1) organized boroughs which exercise planning and zoning authority, 2) first class cities of the unorganized borough, 3) second class cities of the unorganized borough which have established a planning commission, and 4) coastal resource service areas established and organized under AS 29.03.020 and Sections 46.40.110-180 of the Alaska Coastal Management Act. Dillingham is the only first class city in the Bristol Bay Region, and except for the very small Bristol Bay Borough, the remainder of the region is in the unorganized borough. Because none of the second class cities in the region have established a planning commission, they do not qualify as potential coastal resource districts.

In 1975, state legislation provided for the creation of special service areas to furnish public education in the unorganized borough. These service areas are called regional educational attendance areas (REAs). Under the Alaska Coastal Management Act, these REAs may be organized as coastal resource service areas because they contain a part of the coastal area of the state. Thus, a coastal resource service area may contain the area defined by one or more of the existing REAs. Consequently, in the Bristol Bay region, the following entities qualify as potential coastal resource districts:

- Dillingham (first class city);
- Bristol Bay Borough;
- Southwest REAA (includes the coastline from near Togiak to the borough); and
- Lake and Peninsula REAA (includes the coastline south of the borough).

In order to organize as a coastal resource district, 25 percent of the communities in the coastal resource service area must first petition to the state to hold an election to determine whether the residents favor such an action. If the residents choose to participate, the coastal resource service area elects a seven member board which represents the population of the service area. The board members are elected at large by the qualified voters of the coastal resource service area. The board assumes the responsibility to develop the district coastal management program in its area. Once a coastal resource service area is organized, it becomes a coastal resource district.

The Bristol Bay Native Association (BBNA), the regional non-profit corporation with headquarters in Dillingham, guided the organization of the Bristol Bay region into a coastal resource service area under Article 2 of the Alaska Coastal Management Program. AS 46.40.190(a) allows a city, for purposes of cooperative administration, to include itself within an adjacent coastal resource service area if it so chooses. Such an action presumably removes a city from its status as a separate coastal resource district. The City of Dillingham passed a resolution to join the region and participate in the Bristol Bay Regional Coastal Management Plan. Additionally, the two REAAs in the region (Southwest and Lake and Peninsula) choose to work together towards a regional plan. On the

other hand, the Bristol Bay Borough, essentially a political island within the larger region, choose to develop its own coastal management program rather than join the regional effort. Thus two separate CZM plans will be developed in Bristol Bay: The regional plan and the borough's plan.

Although it works together with BBNA representatives, the Bristol Bay Borough is much further along than the region in its coastal management plan. The borough has already organized into a coastal resource district, elected its seven member board, and contracted to a private consulting firm to develop its coastal management plan. A "public hearing draft" of the Bristol Bay Borough Coastal Management Plan was produced in October 1982. Thus, the borough is well into the planning stages of their program.

In 1980, The Bristol Bay Regional Coastal Zone Management Program was still in the preliminary stages of educating and informing the village residents about CZM. In February, 1980, BBNA began to print articles in its monthly newsletter, the Chinook Cryer, related to CZM. The articles explained the CZM process, how the region could form a Bristol Bay Coastal Resource District and elect the board, and the region's potential to guide and control coastal development if it implemented its own plan. BBNA supported the Alaska Coastal Zone Management Program and urged the villages to pass the necessary resolutions in favor of an election to create the Bristol Bay Coastal Resource Service Area. BBNA hired a full-time CZM coordinator to travel to the villages and explain the process and encourage village resolutions. By February of 1981, the following communities had passed CZM resolutions: Aleknagik, Chignik Lake, Dillingham, Iliamna, Levelock, and Pedro Bay.

Many of the villagers expressed concern related to how they will be represented on the Coastal District board. Because of the broad diversity and sub-regionalization of the larger Bristol Bay region, a seven member board did not appear adequate to meet village desires for representation. Consequently, BBNA drafted a legislative amendment to the CZM Program to broaden the boards representation to eleven members. If passed by the Alaska legislature, BBNA believed this amendment would better accommodate the cultural, economic, and social diversity of the region.

Impending OCS oil and gas lease sales in the southern Bering Sea one of the main motivations behind CZM organization in the Bristol Bay region. The Executive Committee of BBNA opposed the offshore oil and gas leases in the Bristol Bay area because of the potential danger to the salmon stocks (Chinook Cryer April 1980). BBNA presented CZM as a political and planning tool that the region could use to deal with governmental actions that affect coastal resources (i.e., stop or delay offshore oil and gas lease sales). In this respect, potential OCS lease sales and the CZM process help provide the Bristol Bay residents with a regional perspective towards their coastal resources. It appears that the single issue that could overcome the diversity of the region and start people thinking of political unity is the perceived threat OCS oil development poses towards the Bristol Bay fishery. CZM is an organizational step in this political process.

Because the Bristol Bay region is still in the preliminary stages of the CZM process, it is uncertain whether it can organize in time to have any significant influence on the OCS lease schedule. In May 1981, the region still had to hold two elections (one to decide whether to form a Coastal Resource District and

a second to elect the board) which are separated by a 60 to 90 day waiting period. In addition, it was important that these elections were not held during the fishing season when most people are away from their villages. Consequently, it was not until 1982 that the Bristol Bay region had a regional CZM management board. In addition, the recent (1980) federal cuts on CZM monies may also negatively affect the effectiveness of the Bristol Bay CZM Program.

In the meantime, BBNA formed an OCS Advisory Committee whose purposes were:

- to learn the process of OCS oil and development through early involvement;
- to be informed of the facts, the research and the issues affecting key decisions;
- to provide a vehicle for region-wide and statewide communication and education related to facts, research, and issues surrounding oil and gas lease sales;
- to provide timely input in the state and federal government decision making process (Chinook Cryer, April, 1981).

BBNA hoped to receive funding from the Alaska Department of Community and Regional Affairs, Coastal Management Program, for this committee.

In October, 1981, the residents of Bristol Bay voted to form a Coastal Resource Service Area (CRSA). A seven member board was elected on January 19, 1982, and the first meeting was held shortly thereafter. The Legislature did not act on BBNA's 1981 proposed amendment to allow a greater number of members on the CRSA Board. However, the Alaska Coastal Policy Council approved a

package of amendments to the Alaska Coastal Zone Management Act which would allow a CRSA Board to decrease membership to five or expand to nine or eleven. Such a change would have to be approved by the voters of the CRSA. One of the first actions of the CRSA Board was to accept the Bristol Bay OCS Advisory Committee's recommendation that the Committee be disbanded to save money and because four of the seven CRSA Board members were also on the OCS Advisory Committee.

STATE LANDS

As shown in Table 9, the State of Alaska has patent to approximately 4 million acres and tentative approval (T.A.) to another 2.4 million acres in the Bristol Bay region. The majority of this land is located north of Dillingham in the 1,428,329 acre Wood-Tikchik State Park, north of Koliganek in the Upper Nushagak area, as well as north of Iguigig in the Mulchatna River area. In addition, the state has some patented and T.A. land in the general vicinity of Naknek, Pilot Point, and Ugashik. Generally, the state lands begin where the village corporations' lands end. The state also owns lands along the northern coast of the Alaska Peninsula from Port Heiden south to the end of the study area. Sport and subsistence hunting and fishing is allowed on all state lands in the region. Therefore, unless the state changes its policies, there is little conflict between state ownership and local land use patterns (with the exception of the dissatisfaction of many local subsistence hunters over the large numbers of non-resident trophy hunters who sport hunt in the area).

With the exception of an approximately 11,000 acre tract between Aleknagik and Dillingham, most of the state's lands are undeveloped. In 1979, the state opened this large tract to Open-to-Entry (OTE) staking by state land disposal system lottery winners. Many individuals both from Dillingham and the region, as well as other parts of Alaska staked five acre tracts in the disposal area. Located approximately 11 miles north of Dillingham on the Lake Aleknagik road, the land appealed to local residents as recreational sites as well as future potential residential land for the already land poor Dillingham. The Dillingham village corporation, Choggiung Ltd., which owns surrounding lands, provided advantageous access to the state OTE land and also secured state funds to construct a road to the disposal area. Because the number of entrants did not saturate the area, the state may hold additional public disposals in this tract at a future time.

Initially, Choggiung Ltd. was opposed to this state disposal, but once it became apparent that it would occur, the village corporation pushed for an extensive survey program to guarantee that the entrants would stake in an orderly manner. Consequently, given Choggiung's influence on the access road (the state purchased a right-of-way from the corporation rather than use a section line for this road), the survey of both exterior boundaries as well as an interior corridor, and a 50 foot setback off of all streams to protect salmon spawning, it is apparent that this village corporation's managers had significant input into the state OTE process in its area. As discussed under Politics, this type of local input which protects the values and interest of local residents is more a result of the capability of individual leaders rather than the structure of the political system.

With the exception of approximately 650,000 acres of public domain (Table 9), the state has top filed most of the region that will not be conveyed to private parties (including native corporations) or withheld by the federal government as a part of the National Parks and National Wildlife Refuge Systems. Generally, these lands are located in the lower Nushagak drainage, along the shores of Lake Iliamna and the Kvichak River, and throughout the northern coast of the Alaska Peninsula. Essentially, the state has applied for the vast majority of the region that will not be conveyed to other parties. The state has top filed the entire coast between the Kvichak River and the southern portion of the study area.

WETLANDS

By federal law, almost all wetlands in Alaska are protected by the Environmental Protection Act and the Water Quality Control Act. Consequently, land owners or developers, including the state and municipalities, must obtain a permit from the Corps. of Engineers before they can build on or fill wetlands (which include swamps as well as wet tundra). In the Bristol Bay region, Bristol Bay Housing Authority projects in Dillingham and other communities were significantly delayed because of the federal government's failure to issue timely permits to install gravel pads and roads across wetlands. In much of the region, the only land available for housing and other projects qualifies as wetlands. Often, there is no other choice for residents but to build on these lands. The long permit period required before project construction delayed many of these housing programs. Apparently, the Corps. of Engineers began to strictly enforce this regulation in early 1980, which affected both large and small projects in the

Bristol Bay region. At the local level, Bristol Bay residents view enforcement of this wetlands policy simply as additional outside regulatory interference which causes needless delay and hardship on local people.

If an area has a zoning or local planning process which stipulates the types of construction to be used for buildings and roads in wetland areas, many of the difficulties could be avoided. But, in the Bristol Bay region, only the very small Bristol Bay Borough (Naknek, South Naknek, King Salmon) has any planning and zoning process.

NATIONAL PARK SYSTEM AND NATIONAL WILDLIFE REFUGE SYSTEM LANDS

Nearly 10 years after the passage of ANCSA, Congress, on December 2, 1980, passed the Alaska National Interest Lands Conservation Act (ANILCA) related to d-2 lands. Among other things, this act added considerable lands to the National Park, Forest, Wildlife Refuge, Preservation, and Wild and Scenic Rivers Systems in Alaska. National Parks, Preserves, and Refuges affected in the Bristol Bay region are shown in Table 17 and Figure 2. Prior to ANILCA's passage, the 2.8 million acre Katmai National Monument was the only federal withdrawal within the boundaries of BBNC. As shown in Table 17 ANILCA withdrew approximately 5.3 million additional acres for parks, preserves and refuges within these same regional corporation boundaries. Consequently, as a result of ANILCA, approximately 8.1 million acres are now classified under the National Park and Wildlife Refuge Systems. This represents nearly one-third of the land acres in the region (Table 9; Figure 2).

Table 17. Bristol Bay Region Parks, Preserves, and Refuges established or added to by ANILCA (P. L. 96-487) (in acres).

	Refuge, Park, or Monument Size before ANILCA	Park or Monument established or acres added to by ANILCA (No sport hunting)	Preserve es- tablished or acres added to by ANILCA (Sport hunting)	Refuge estab- lished or acres added to by ANILCA (Open to sport hunting)	Totals	Amount of withdrawal within the BBNC boundaries ⁴
Aniakchak		138,000	376,000		514,000	250,000
Lake Clark		2,439,000	1,214,000		3,653,000	100,000
Katmai	2,797,137 ²	1,037,000	308,000		4,142,137	4,000,000
Alaska Peninsula				3,500,000	3,500,000	750,000
Becharof				1,200,000	1,200,000	1,000,000
Togiak	<u>265,000³</u>	<u>3,614,000</u>	<u>1,898,000</u>	<u>3,840,000</u>	<u>4,105,000</u>	<u>2,000,000</u>
	3,062,137	3,614,000	1,898,000	8,540,000	17,114,137	8,100,000

1 Much of these lands extend beyond the boundaries of the study area.

2 Formerly Katmai National Monument.

3 Formerly Cape Nevenham National Wildlife Refuge.

4 Estimate.

Source: P.L. 96-487; U.S. Fish and Wildlife Service; National Park Service.

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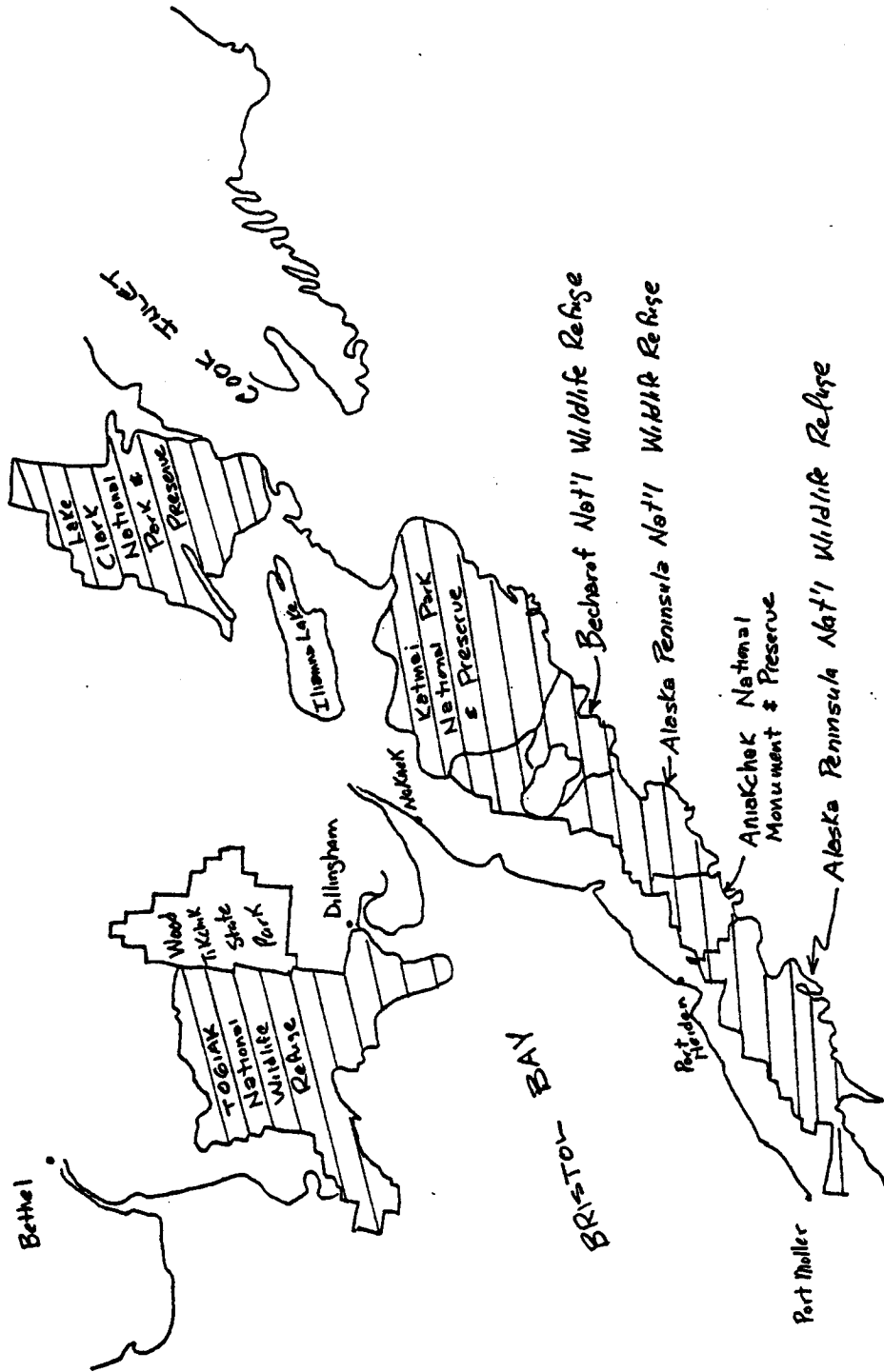


Figure 2. National Parks, Preserves, and Refuges in the Bristol Bay Region.

Under Section 204(e) of FLPMA (P.L. 94-579), the Secretary of the Interior originally withdrew 10 million acres for possible inclusion into these systems (Table 18). When this acreage is added to the 2.8 million acre Katmai National Monument and a one million acre withdrawal for the Alaska Peninsula Wildlife Refuge, the potential withdrawals in the region would have been much larger. If the Iliamna National Resource Range had been included in the final d-2 legislation, the amount of land withdrawn could have been nearly 13.8 million acres (Table 18).

The 5.7 million acre proposed Iliamna National Resource Range was a massive withdrawal which encompassed the vast area in the center of the Bristol Bay region (see U.S. Department of the Interior, 1974b). Its boundaries stretched from the Wood-Tikchik State Park to the Lake Clark National Park and Preserve to the Katmai National Park and Preserve (Figure 2). Apparently, because of the complex land ownership patterns within this withdrawal, Congress deleted it from the final version of the d-2 legislation. Eleven villages were located within the proposed Iliamna Resource Range, the state had selected much of the land, and many private parties had numerous claims pending. The combination of all of these factors contributed to its deletion from the legislation because it would have been difficult for the federal government to manage.

As shown in Figure 2, large areas, including the entire southern two-thirds of the Alaska Peninsula, are now a part of the National Park and National Wildlife Refuge Systems. Depending on the regulations that accompany these new withdrawals, the potential impacts to the residents and other land owners in the region could be significant. Many Bristol Bay residents consider the large

Table 18. Park, Preserve, and Refuge Lands within the Bristol Bay Region

	<u>Acres</u>
Section 204(e) of FLPMA withdrawal (11/16/78)	9,999,999
Alaska Peninsula Wildlife Refuge not included in 204(e) of FLPMA, but under 22(e) of ANCSA	1,000,000
Existing Katmai National Monument	<u>2,797,137</u>
Subtotal	13,797,136
Less Iliamna National Resource Range	<u>5,700,000</u>
Total acres withdrawn in region	8,097,136

Sources: U.S. Department of the Interior, BLM, Alaska Automated Lands Record System, March 12, 1981; and National Park Service.

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amount of land withdrawal for these parks and refuges to be excessive and unnecessary. Furthermore, the withdrawals add to the view that outside interests, in this case the federal government, manipulate the lives of rural residents. Many people feel that although potential regulations may attempt to incorporate local subsistence lifestyles, once government bureaucracies manage the area, they will implement more restrictive regulations in the future.

On January 19, 1981, both the National Park Service and the U.S. Fish and Wildlife Service published proposed regulations in the Federal Register. Apparently because Congress recognized that there were different conditions in Alaska than in the southern 48 states, the Department of the Interior proposed some special regulations for the management of the new national parks and wildlife refuges established under the d-2 act. Consistent with the intent of the d-2 legislation which emphasized the preservation of the subsistence lifestyle of local rural residents who have traditionally harvested wildlife in the newly created parks, the proposed regulations relax the rules governing firearms, subsistence hunting, and access in parks and refuges. Elsewhere, National Park Service regulations do not allow subsistence hunting or fishing within national parks.

Although both subsistence and sport users can harvest resources in the wildlife refuges and national preserves, only certain local rural residents in Alaska qualify as recognized priority subsistence users in national parks. Consequently, the new regulations have not only distinguished urban from rural hunters and fishermen, but they have also distinguished between rural users. For example, Title VIII of ANILCA defines subsistence uses as the "customary and traditional

uses by rural Alaska residents of wild, renewable resources..." Consequently, by definition, urban residents of Anchorage, Fairbanks, Juneau, and Ketchikan are not subsistence users under federal law. (Under a similar state statute, any user is potentially a subsistence user.) In addition, proposed National Park Service regulations further restrict subsistence access to parks among rural residents. Although Congress did not prescribe the method to be used to distinguish subsistence from sport users, the National Park Service proposed two methods to ensure that only "genuine subsistence users" (also known as "local rural residents") engage in subsistence uses in parks and monuments. First, the Park Service set up a system of "resident zones" and "subsistence permits" to identify local rural residents. Consequently, the Park Service's definition of "local rural residents" are persons who either live in designated "resident zones" or hold a "subsistence permit". Second, the agency established a general prohibition on aircraft use for subsistence hunting, fishing, trapping, and fishing to separate the sport user from the subsistence user. This latter subsistence screening technique seems to be based upon the assumption that a true subsistence user would not use an airplane to assist in wildlife harvest.

In the Bristol Bay region, the proposed National Park Service regulations included the following communities within the resident zone for the respective parks and monuments:

- Aniakchak National Monument and Preserve: Chignik and Chignik Lagoon;
- Katmai National Park and Preserve: Iguigig, Kokhanok, and Levelock (subsistence harvests are not allowed within the old boundaries of Katmai);

- Lake Clark National Park and Preserve: Nondalton and Port Alsworth. Based on available research and information, this list represents to the Park Service the Bristol Bay communities where "preponderant concentrations" of people qualify as local rural residents who, without using aircraft as a means of access for purposes of taking fish and game for subsistence uses, have customarily and traditionally engaged in subsistence uses within the park area (36 CFR 13.43). The Park Service does state that as circumstances change or additional information is developed, communities may be added to or deleted from the resident zones.

In Bristol Bay, many residents of King Salmon, Naknek, and South Naknek feel that they were treated unfairly by the proposed regulations. These communities are not resident zones for Katmai National Park. Local residents of these three communities have used areas that now fall within the boundaries of Katmai National Park for subsistence hunting and fishing. The Park Service recognized that these communities contained some residents who qualify as local rural residents, and these people, who have customarily and traditionally used park area resources without the aid of aircraft for access, can apply for a "subsistence permit". According to Park Service representatives, these communities contained too many non-subsistence characteristics (airplanes, roads, businesses, employment) to be included as subsistence resident zones.

The prohibition of aircraft for subsistence uses in national parks is not favored by all Bristol Bay residents. Although most rural subsistence users do not use

aircraft, those that usually fly to subsistence hunting and fishing areas that are now within national parks are not in favor of this regulation. Many residents of Naknek and King Salmon, as well as a smaller number of hunters in other communities have commonly used aircraft. As one aircraft owner in Kokhanok said,

Because of the expanded park boundaries, we are no longer allowed to use aircraft where we traditionally hunt and fish. But Wien Airlines can fly all the sport fishermen in and out of their sports fishing camps. The parks and regulations are squeezing us out. We are very worried how these new parks and rules will affect our subsistence hunting, fishing, and trapping.

The National Park Service prohibited aircraft because they were commonly used by sport hunters who are now prohibited from hunting in parks and monument areas. Thus, the prohibition of aircraft for subsistence activities reinforces the ban on sport hunting in parks and monuments and assists the National Park Service to distinguish sport from subsistence hunters (U.S. Department of the Interior, National Park Service 1981:5653). Although this may represent a convenient method for the Park Service to distinguish between sport and subsistence users, it does not necessarily represent rural reality. Many villagers who use aircraft to hunt do not consider themselves sport hunters. Assuredly, the regulation will reduce hunting pressure in the parks. In extraordinary cases, where no reasonable alternative to aircraft use exists, the National Park Service may issue a permit for aircraft use to residents of "exempted communities" (36 CFR 13.45). To date, only Anaktuvuk and Yakutat are classified as "exempted communities".

According to the subsistence priority, whenever a park area's wildlife resources are not sufficiently plentiful to satisfy all users, the resources must be allocated

in accordance with the three criteria of the subsistence priority: customary and direct dependence upon the resource as the mainstay of one's livelihood, local residency, and availability of alternative resources. Thus, if wildlife populations are endangered, their harvest would first be restricted to local rural residents engaged in subsistence uses. If further restrictions were necessary, the resources would be allocated among local rural residents based on the three criteria.

The d-2 legislation and resultant regulations will provide a framework to view the constant struggle over the wildlife resources in rural Alaska. Sports users object to the rural subsistence priority. Residents of communities not included in resource zones, who may have harvested subsistence resources in park areas, object to their exclusion from the resident zones. Aircraft users object to the prohibition of aircraft. Furthermore, when wildlife populations are endangered and harvest are restricted, additional priorities among rural neighbors will be established. As shown in Figure 2, a large land area in Bristol Bay is affected by these new parks and regulations.

ANILCA also affected the regional corporation. BBNC is concerned with the access and easement provisions related to the d-2 legislation. Although large scale maps of the ANILCA withdrawals are currently unavailable, Figure 2 does show that the d-2 act did block overland access from Bristol Bay to the Pacific side of the Alaska Peninsula. Overland corridors from the north to the south side of the Alaska Peninsula are important to BBNC for numerous reasons. First, as a profit oriented corporation, BBNC is interested in resource development in the region. Resource development depends on economic

transportation systems. At present, the only route into Bristol Bay is around the Alaska Peninsula into a seasonally ice locked bay. Marine insurance increases when ships take this route. Second, because there are no deep water, ice free ports along the north shore of the Alaska Peninsula (above Port Moller), BBNC would like an overland corridor from the Bristol Bay side to the Pacific side of the peninsula. Good ice free, deep water ports exist on the Pacific side. In addition, potential land development could occur along an overland corridor. Although ANILCA apparently contains language which says the interested parties may be able to work out access, BBNC is well aware that such easements may take years to implement. Again, because BBNC is mandated to work towards a profit for its shareholders, corporation leaders feel government restrictions related to transportation easements may tend to affect the corporation's success.

SHORE FISHERY LEASES - COMMERCIAL SET NET SITES

The good runs of salmon in Bristol Bay in the past few years have attracted many fishermen to the area. Because certain beaches are better fishing than others, set gill netters usually crowd along these good shores in order to increase their potential salmon catches. Contrary to popular opinion, there are no grandfather rights to these set gill net fishing sites that guarantee a fisherman uninterrupted use year after year. Without a state shore fishery lease, the set netters only have rights to their site for one year. The first person to fish a site each year has a right to fish it for that season.

Because their livelihood depends on having a known producing site, many commercial fishermen desired a way to establish a claim on their site year after year. As a result, the State of Alaska established the Shore Fishery Leasing Program (11 AAC 64)¹ which gives the lessee a limited conveyance in the tidelands where he fishes. The fisherman only leases the submerged lands below the mean high tide line. He does not have any rights to the uplands. Additionally, under this program, the lease is only valid during open commercial fishing periods, and the lessee must be present for the lease to be valid. In effect, the lease only allows set netters to put net anchors or stakes on a tract of bottom land for use during open fishing periods. The lease's most important characteristic is that it guarantees fishermen's rights to return to the same site year after year.

Set net fishermen are not required to lease tide and submerged lands to participate in the shore fishery. They only need to have a set net limited entry fishing permit and locate a vacant stretch of beach. In Bristol Bay, many squabbles have developed among commercial set netters over beach sites. Sometimes, the conflicts center around areas where neither party has obtained a lease. In other cases, one of the parties may have leased the tidelands, but another fisherman claims it for himself.

In addition, many of the traditional fishing sites reportedly violate existing Alaska Board of Fisheries regulations which require 300 to 450 feet between nets

¹AAC refers to Alaska Administrative Code.

depending on location. For example, in the Johnson Hill area near South Naknek, many of the sites are spaced at less than the required minimum distances. According to local set netters a ten year site occupant is a newcomer to this stretch of beach. If the set netters were to comply with the regulations, many of them would be squeezed off of the beach. Other areas with this problem are the Ekuk section of Nushagak Bay and Graveyard Point in the Kvichak District. All of these areas are well established fisheries with relatively few changes in "ownership" for many years. The Shore Fishery Leasing Program now requires field surveys of Bristol Bay fishing sites before issuance of a lease. Therefore, as more fishermen apply for a lease, additional beaches may be affected by this problem.

Many fishermen do not lease their site because they feel leases are just another bureaucratic intrusion of their rights. Others do not lease their site because they may periodically relocate in order to fish effectively along a shoreline which changes due to tidal action or river siltation. Still other fishermen may desire a lease to protect their fishing site. As more and more fishermen take advantage of the Shore Fishery Leasing Program, some sites may be relocated in order to comply with minimum distances required by regulation. Consequently, many fishermen could face the threat of being crowded off the beach. Any attempt to remove long-time fishermen from their site could result in a very hostile situation.

Due to lack of manpower and money, the Alaska Department of Public Safety, Division of Fish and Wildlife Protection, has expended little effort to enforce set net regulations. It seems that additional enforcement effort would only exacerbate an already volatile situation.

The future of this problem is uncertain. It is unlikely that the Board of Fisheries will validate the existing sites simply because they have been in violation of regulations for a long time. The board is mandated to make commercial fishing decisions based on biological justification and resource need, not on tradition.



VII. POLITICAL SYSTEMS

Introduction

Although the Aleuts, Eskimos, and Indians of the Bristol Bay region did not traditionally operate under a western concept of government with elected officials and bureaucratic agencies, these groups did have traditional methods of leadership and social control which functioned as governments for the various groups (see Case 1978:119-127). These political systems, which evolved over a long period of time, generally operated through public opinion, recognized leaders, and/or councils. The patterns of social control differed among the various ethnic groups, but family relationships were the most important social relationships. Often the extended family unit acted in its own behalf to settle disputes or offenses against its members. Because of the importance of the subsistence harvest of natural resources, leaders were generally men who excelled at hunting and fishing. These unelected leaders usually had a superior knowledge of the natural environment and were able to use their hunting abilities to harvest an adequate supply of natural resources. In addition, a formal or informal council of elder men or accepted leaders sometimes made decisions that affected the entire community. These councils often had no official authority as their members were unelected, but most people were very reluctant to challenge their decisions.

Western contact affected the various Native governments in different ways and at different rates. During the Russian period, the fur traders often set up a system of chiefs or "toyons" in the Aleut villages. In this manner, the Russians

could hold one man accountable for the entire community of Aleuts. The Russians tried to select the village leaders for this position, and this system was quite efficient from the Russian viewpoint. The Russians very quickly dominated and changed the Aleut society, including the political system.

Under the American administration, schoolteachers and missionaries encouraged a more formal system of village councils throughout rural Alaska. Native cultural institutions began to turn into Western political institutions. Even though the council members and chiefs gradually came to be elected, their authority still tended to depend more on their personality and general respect by other villagers. Although the BIA encouraged many villages to incorporate their councils under the 1934 Indian Reorganization Act (IRA), which extended to Alaska in 1936, only Perryville in the Bristol Bay region has an IRA council. Thus, as time passed, councils of elders who were recognized for their personal abilities were formalized as "village councils" whose members were chosen by popular election (Case 1978:126).

Once this formalization process began in rural Alaska, it seemed to have no end. Federal legislation (IRA, ANCSA), state laws which encouraged villages to incorporate, and Native organizing efforts to achieve the land claims settlement are a few of the forces which encouraged the formalization of governments and quasi-governments in the Bristol Bay region, as well as other rural areas in Alaska. In brief overview, the large number of related and unrelated governments, corporations, and associations in the Bristol Bay region are presented in Table 19.

Table 19. Governmental and Non-Governmental Organizations within the
Bristol Bay Region

Second Class Borough:	1 (Bristol Bay Borough)
First Class City:	1 (Dillingham)
Second Class Cities:	9 (See Table 21)
IRA Council:	1 (Perryville)
Traditional Councils:	28
ANSCA Village Corporations:	29
ANCSA Regional Profit Corporation:	1 (Bristol Bay Native Corporation)
Regional Non-Profit Corporations:	3 (Bristol Bay Native Association; Bristol Bay Housing Authority; Bristol Bay Area Health Corporation)
REAA:	2 (Southwest REAA; Lake and Peninsula REAA)
Independent School Districts:	2 (Bristol Bay Borough School District; Dillingham City School District)
Coastal Resource Boards	2 (Bristol Bay Coastal Resource Service Area Board which encompasses the Southwest and the Lake and Peninsula REAAs; Bristol Bay Borough).

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Regional Governmental or Quasi-Governmental Organizations

Bristol Bay Native Association (BBNA)

The Alaska Native land claims issue greatly enhanced the concept of regionalism in rural Alaska, including the Bristol Bay region. In 1966, local Bristol Bay Natives formed the Bristol Bay Native Association (BBNA) to seek a settlement of the lands claims issue. Informally organized and without secure financial assistance, BBNA worked towards this end.

At approximately the same time, consistent with the goals of the Office of Economic Opportunity, Bristol Bay villagers also incorporated the Bristol Bay Development Corporation (BBDC). Formed in 1969 to seek federal, state, and private funds for the economic, social, and educational betterment of Bristol Bay residents, this corporation worked to alleviate poverty in the area. Because of its funding source, BBDC benefits were open to all Bristol Bay residents, Native and non-Native alike.

In January 1973, BBNA incorporated to serve Alaska Natives exclusively (Case 1978:140). BBNA's association with BBDC is unclear. According to Case (1978:140), the two corporations merged in 1975 because they served the same geographic area for similar purposes. But, according to the first issue of BBNA's newsletter (later the Chinook Cryer), BBNA originated from the parent corporation (BBDC). According to this latter source, BBDC handled both profit and non-profit activities. After the passage of ANCSA, it became necessary to

incorporate the regional profit corporation (BBNC) to administer land and money settlements. Because BBNC could not provide social services (see below), BBNA was incorporated in 1973 to administer these non-profit activities.

After ANCSA passed in 1971, many villagers expected the newly formed regional profit corporations to provide money and services to their communities. Because Section 2(c) of ANCSA called for an examination of federal programs primarily designed to benefit Native peoples, many Natives feared that governmental services to their people would soon be terminated. Consequently, village expectations of services to be provided by the regional profit corporations, such as BBNC, grew. But, BBNC was very busy in the effort to make wise land choices, collect and invest monies, and generally organize into a large profit oriented corporation. Additionally, it was specifically mandated not to deal with social programs.

Under ANCSA, the profit oriented regional corporations were not allowed to concern themselves with health, education, welfare, social services, or political causes (Alaska Native Foundation 1977a). Therefore, the non-profit regional corporations such as BBNA filled this gap and contracted for health, housing, educational and social service programs for the benefit of the local communities. Funded by state, federal, and private grants, these non-profit corporations help to establish local control of services and provide employment for villagers. CETA money is administered through these non-profit corporations, and because they provide money and services to the villagers, they are usually better received than the regional profit corporations which generally do not live up to the villager's expectations. Because the broad scope of the non-profit

corporations was often unwieldy, specialized agencies (housing authorities, health corporations) evolved, which function independently. In Bristol Bay, the Bristol Bay Housing Authority (BBHA) and the Bristol Bay Area Health Corporation (BBAHC) provide services in these fields.

The fears and expectations of Natives that governmental social service programs would be terminated, and that the regional profit corporations would provide money and services to the villages did not materialize. Instead, regional non-profit corporations emerged which became one of the recognized tribal entities eligible to receive governmental funds for village services. Also, funds for social service programs did not dwindle as feared by many Natives, but instead they increased after the passage of ANCSA (see Gorsuch:136-140). Thus, the anticipated village benefits did not come through the profit corporations as envisioned, but through the non-profit arms. The federal money provided the non-profit corporations is not part of the land claims settlement, but in addition to it. The non-profit organizations (including BBNA) provide employment wages and services in the villages. For this reason, BBNA is generally better received in the communities than BBNC. In 1979, the per capita value of federal spending on service programs for Natives statewide was approximately \$4,000 (Gorsuch:148).

As mentioned above, BBNA is the surviving regional non-profit corporation which serves the Natives in the 29 ANCSA communities in the Bristol Bay region. According to its Articles of Incorporation, members of BBNA "shall be stockholders of BBNC and the stockholders of the village corporations of the Bristol Bay Region" (Case 1978:140). BBNA's objectives are:

- 1) To promote the physical, economic, and social well-being of the Natives of our region;
- 2) To preserve the customs, folklore, and art of the Native races;
- 3) To promote pride on the part of the Natives;
- 4) To promote good government by reminding those who govern and those governed of their joint and mutual responsibilities (BBNA Newsletter, Issue 1, No. 1, December 1979).

The services and programs provided by BBNA include:

- administers the BIA funded Johnson-O'Malley Program (JOM) which provides supplemental and educational enrichment programs for Alaska Natives;
- administers the federally funded Comprehensive Employment and Training Act (CETA) which provides job and training opportunities for Bristol Bay residents;
- administers the federally funded Economic Development Administration (EDA) community planning program;
- Local government training;
- state funded Senior Citizens Program;
- BIA funded social services;
- Coastal Zone Management Program; and
- monthly publication - Chinook Cryer

To assist the villages in the Bristol Bay region, BBNA administers the Village Government Management Program. Supported by federal funds, BBNA implemented this program in 1980 to assist both traditional village councils and second class cities apply for and properly administer the following grants:

- State Revenue Sharing-Although only available to incorporated municipalities in the past, the 1980 Alaska legislature expanded this program to include Native village governments in unincorporated communities recognized under ANCSA.
- Federal Revenue Sharing-Available to all communities.
- P.L. 93-638 (Indian Self-Determination and Education Assistance Act)-Discriminatory funds administered by BIA. This money goes directly to the traditional council to provide for the operation of the village government (i.e., to pay village administrators and supply office equipment).
- House Bill 60 Legislative Grants-State funds for city and airport improvements, equipment, etc.

To administer this program, BBNA employs three full-time and two part-time staff members who travel to the Bristol Bay villages and conduct workshops. BBNA staff feel that there is a real need for this training and technical assistance program directed at helping the villages and municipalities apply for grants, meet the reporting requirements, and keep proper records. The Village Government Management Program coincides with an increasing demand by federal and state agencies for more accountability by local governments which receive governmental funds.

BBNA Village Government Management Program personnel also assist Bristol Bay traditional councils, which have not already done so, adopt constitutions and by-laws. BIA requires traditional councils to be formally organized in order to qualify for P.L. 93-638 monies. Many traditional councils in Bristol Bay do not yet have constitutions or by-laws.

BBNA is run by a Board of Directors which sets the priorities and policies of the organization. This board is comprised on one elected representative from each of the 29 villages, and it meets once or twice a year. An Executive Committee, composed of ten members elected by the full board, meets once a month to monitor existing programs, set policies, and act as the region's representative. One Executive Committee member is elected from each of the six subregions and four are elected at large. This organizational structure of BBNA reflects the diversity and complexity of the Bristol Bay region. Simply to get one board member from each of the villages, a 29 member Board of Directors is necessary. It would be very difficult if this full board were required to meet once a month to set policy and monitor existing programs. The simple logistics of getting all 29 members together that often would be extremely difficult. In addition, many of the board members are also village council representatives, or officers in the village corporations and therefore have numerous committments.

Because of the lack of a regional governmental structure in Bristol Bay and the state and federal government's need of some organized regional entity with which to deal, the non-profit regional corporations (BBNA, BBHA, BBAHC) seem to assume these powers and provide health, housing, planning, social, educational, and associated services in the region. It is important to remember that this system is not a part of the local government scheme established by the Alaska Constitution. In addition, by its charter, BBNA is limited to serving only Natives. Although both local residents and BBNA personnel seem to be confused over this issue, according to Case (1978:140), BBNA's Articles of Incorporation restrict its membership exclusively to Natives. Apparently because it is the only regional organization capable of administering region-wide programs, BBNA does

also administer governmental programs designed for all peoples (i.e., CZM). This creates a problem of effective political expression for non-Natives where the dominant service structure is exclusively Native (see Iliamna discussion under Local Community Political Organizations).

From the foregoing discussion, it is apparent that BBNA provides a full range of region-wide services normally provided by governmental entities. Even within the Bristol Bay Borough boundaries, BBNA offers these services to qualified recipients. For example, the traditional village councils in both Naknek and South Naknek administer the JOM programs for local Natives. Although BBNA is specifically chartered to provide only for Natives in the region, it administers both discriminatory and non-discriminatory funds. The state subcontracts with this non-profit corporation because it has the necessary regional structure needed to provide these services (i.e., Adult Basic Education, Senior Citizens Program). The large amount of governmental money available to BBNA and the need for a regional voice or outlet makes BBNA a dynamic force in the region.

BBNA plays a more active role in the villages than BBNC, seems to have better relations with the villagers, and administers several important health and social service programs in the region. Because BBNA is service oriented and has closer ties to the villages, it will play an important role in mitigating the effects of social change in the Bristol Bay communities. BBNA is constrained however, by its dependence upon government grants, so funding levels will largely determine how effective it is in aiding the villages.

One criticism some local observers aim at BBNA is that it is fairly good at conducting studies, writing reports, and suggesting village priorities (see BBNA 1976a and b, n.d. a and b), but that few of the suggested projects are ever reflected in actual funded projects. In other words, BBNA does not provide the institutional follow-through necessary to implement the recommended programs. According to these observers, identification of village priorities or deficiencies is only half of the job. The other half is to secure the funds and technical assistance necessary to make the project a reality.

Bristol Bay Native Corporation (BBNC)

BBNC is one of the thirteen regional corporations established in 1971 by ANCSA. In exchange for the extinguishment of aboriginal land rights, ANCSA provided land and money to Alaska Natives. ANCSA established regional corporations to manage and develop the land and money for the benefit of the Native stockholders. Consequently, BBNC is organized to make a profit for its shareholders.

As shown in Table 20, BBNC has approximately 5,300 stockholders. Of these shareholders, over one-half are twenty-five years of age or younger. Another 30 percent are between the ages of twenty-six and fifty-five (BBNC 1980b). The majority (61.8 percent) of BBNC shareholders live in the Bristol Bay region (Table 20). The balance of the shareholders live in other Alaskan communities (21.6 percent) and outside of Alaska (16.6 percent). Approximately 16 percent of all BBNC stockholders live in Anchorage.

Table 20. Residency Location of BBNC Shareholders, 1980

Bristol Bay Region			
Nushagak Area	1,946		
Iliamna Lake Area	563		
Togiak Area	426		
Peninsula Area	236		
Chignik Area	101		
	<u>3,272</u>	3,272	(61.8%)
Other Alaska			
Anchorage	843		
Kodiak	132		
Southeastern	35		
Fairbanks	28		
Other	108		
	<u>1,146</u>	1,146	(21.6%)
Other States			
Pacific Northwest	457		
Midwest	78		
Southern	54		
Western	35		
East Coast	28		
New England	15		
Hawaii	13		
	<u>680</u>	680	(12.8%)
Out of U.S.		10	(.2%)
Unknown		<u>190</u>	<u>(3.6%)</u>
	TOTAL	5,298	(100.0%)

Source: BBNC Annual Report, 1980.

Stephen R. Braund & Associates (1981)

Both because it is a profit oriented corporation and because some of its largest holdings are potential subsurface oil, gas, and other mineral deposits, BBNC hopes to participate in the economic opportunity development brings to Bristol Bay. BBNC management is not opposed to development in Bristol Bay. On the contrary, many BBNC managers feel that the regional corporation needs development (including oil and gas development) in order to survive. BBNC has agreements with oil and geophysical companies for reconnaissance work in the region related to both oil and hardrock development. Because it owns the subsurface estate of ANCSA lands, BBNC's oil and gas efforts have been primarily related to onshore development. Although an oil company drilled a wildcat well near Ivanof Bay in 1976, to date BBNC has been unable to significantly develop any subsurface resources. For an historical discussion of onshore oil and gas development on the Alaska Peninsula see BBNA (1976a:16-19).

The low land along the northern side of the Alaska Peninsula has petroleum potential. Because the profit oriented BBNC owns much of the subsurface estate in this area, it wanted d-2 legislation to reserve an overland corridor across the Alaska Peninsula to facilitate export of natural resources to the Pacific side of the peninsula. As discussed under Lands, ice free, deep water ports exist on the Pacific coast.

BBNC's interest in oil and gas development sets the regional corporation in conflict with many of its fishermen stockholders who fear the potential degradation of the marine environment caused by an oil spill or blowout. BBNC management feels that much of the opposition in the region against oil and gas

development is emotional rather than factual. BBNC policy appears to be that if, based on scientific fact and not emotion, a study proves that oil and gas development will destroy the Bristol Bay fishery, then BBNC will oppose such development. But, without this scientific evidence, BBNC remains supportive of petroleum development.

The two sides of the oil and gas development issue in Bristol Bay are simply manifestations of a larger conflict between BBNC and many local Bristol Bay shareholders. ANCSA gave the regional corporations a large responsibility to choose, receive, and manage substantial acreages of land, as well as the task to produce a profit for the region's shareholders. Often, the business decisions of a large profit oriented corporation such as BBNC do not reflect the local values of predominantly small community based, rural stockholders who make their living by commercial fishing and harvesting subsistence resources. Because it moved its offices out of Dillingham and because it has no regional presence or investments, many Bristol Bay stockholders claim that BBNC is not interested in the Bristol Bay region. Some examples of this conflict issue between BBNC and local shareholders include:

- Originally BBNC had its headquarters located in Dillingham, which provided a boost for the local economy. The corporation constructed an office building and homes for its higher level managers. However, in the late 1970s, BBNC moved its offices to Anchorage, and consequently greatly reduced its presence in the Bristol Bay region. BBNC moved its office to Anchorage in order to acquire better access to the business community. According to BBNA personnel, travel and communication

between Dillingham and the larger business community was both difficult and expensive. It was not possible for BBNC to effectively manage its outside investments from inside the region. Many Dillingham stockholders would like BBNC to move back to Bristol Bay.

- Although BBNC once owned Peter Pan Seafoods, it sold its interest in 1979. Consequently, many stockholders who are also commercial fishermen are unhappy because they wanted BBNC to retain ownership of Peter Pan. Apparently, many of the BBNC stockholders who fished for Peter Pan live in Dillingham, and this further adds to this community's dissatisfaction with the regional corporation. Although at first it seems that the fish processing business is a logical investment for a regional corporation who has a large number of commercial fishermen as stockholders, further analysis of the situation indicates that BBNC made a good business decision. The corporation purchased Peter Pan in late 1975 for approximately \$9 million dollars. A little more than three years later it sold the company for over \$20 million dollars. Not only did BBNC apparently buy and sell right, it also got out of the seafood business at a time when other major fish processors were going broke. The seafood processing business is capital intensive at the beginning of the season and requires large sums of cash. Some observers say that Peter Pan was larger than BBNC. Since BBNC sold Peter Pan, the company that bought it has lost large sums of money. If Peter Pan lost this money when BBNC was at the helm, it may have been a larger drain than the regional corporation could withstand. In summary, although most Bristol Bay shareholders, who are also

commercial fishermen, do not favor BBNC's sale of Peter Pan, it appears that the regional corporation made a good business decision and sold the company for a good price at the right time. Because it is a profit corporation, BBNC leaders are forced to separate the politics and economics of a decision. Consequently, BBNC's business decisions are based on the profit motive. The popular view that because the Bristol Bay people are fishermen, the regional corporation should be in the fish business seems to make sense. But, when BBNC determined that to be in the fish business meant financial loss, the Board of Directors elected to sell Peter Pan regardless of shareholders' opinions.

- Currently, BBNC's major investments are all located outside of the region and include Pacific Food (Sunny Jim), the Anchorage Westward Hilton Hotel, and an interest in United Bank of Alaska. Although BBNC is out of the fish business, many stockholders would like their regional corporation to invest some money in the region. BBNC policy, on the other hand, seems to encourage local village corporations, rather than BBNC, to take advantage of local ventures. Unfortunately, many of the village corporations have failed in small business ventures--often due to poor management. For BBNC simply to say that it wants the village corporations to grow and prosper and therefore it will let them invest in the region seems like an easy way to avoid the larger issue of their conspicuous absence from the area.
- At the same time it encourages village corporations to invest in local ventures, BBNC is gradually divorcing itself from village corporation

business. In the past, BBNC provided the overall structure and handled the paperwork related to the conveyance of ANCSA lands. The reason for this was probably related to the fact that the only way BBNC could receive the subsurface estate was to get the surface estate conveyed to the village corporations. Now that BLM has given interim conveyance to both the village and regional corporations, BBNC policy is to divorce itself from the village corporations. As BBNC managers say, "We cannot run the village corporation business." Although the effects of this conscious division of village and regional corporations are unknown at this time (it is unclear how much BBNC actually aided the villages), it may lead to more village corporation mergers (see Village Corporations). In the meantime, BBNC still has work sessions to train the village corporations to do the things for which they are responsible (i.e., financial accounting, audits, and land management).

- Many shareholders feel that they are not kept aware of BBNC decisions and business. In other words, they feel that they are not adequately informed about the affairs of their own regional corporation. Generally, stockholders who are involved in the management of BBNC feel that the shareholders elect a Board of Directors whose job is to take care of BBNC business. These managers view BBNC as a profit oriented corporation whose job is to make money and not provide social services to the Bristol Bay communities. They do not freely share corporation business information with shareholders because they are keenly aware of competition in the business world. Often this rankles village stockholders who want to know about their corporation. Board

members respond that they cannot open up corporation business to shareholders when they are in the process of selling Peter Pan and buying Sunny Jim. The stakes are simply too high.

Many of the problems discussed above seem to be the result of poor communication between BBNC management and community shareholders. BBNC does have a stockholder relation's department which, among other things, keeps an up-to-date stockholder record with proper addresses, assists the Board of Directors, explains ANCSA to shareholders, and keeps all stockholders as fully informed as possible on the business of the corporation (BBNC 1976).

Relative to many other regional corporations, BBNC has a fairly successful business investment program (see BBNC 1980a). In both 1979 and 1980 BBNC paid shareholder dividends. In 1979, each stockholder received \$25 per quarter, and by the end of 1980, BBNC raised this figure to \$30 per quarter. Despite these dividends (i.e., \$120 per year per stockholder), most Bristol Bay stockholders feel BBNC does little for them. Generally, they feel BBNC makes money for the people who work for the corporation in Anchorage.

Regional Educational Attendance Areas (REAA's) and Service Delivery in the Unorganized Borough

As discussed earlier in this section, ANCSA greatly contributed to the concept of regionalism in rural Alaska. The profit corporations established under ANCSA helped to enhance regional identification. This regional awareness can be viewed

as a step, albeit a small one, towards the development of regional government in the unorganized borough.

In 1975, four years after ANCSA's passage, the Alaska legislature transferred the operational responsibilities for rural Alaska's schools from the State of Alaska (Alaska Unorganized Borough School District) to regional school districts (Regional Educational Attendance Areas or REAAs). These special service areas, designed to promote local control of public education in the unorganized borough, were organized around the boundaries or sub-boundaries of the regional corporations established under ANCSA. Each REAA was delineated to contain a culturally, linguistically, and socio-economically homogenous area. In addition, REAA boundaries were to consider transportation, communication, geographic, and governmental systems.

In the Bristol Bay region, two REAAs were formed:

- the Southwest REAA which extends from Togiak to the Bristol Bay Borough and has its headquarters in Dillingham; and
- the Lake and Peninsula REAA which extends south of the Bristol Bay Borough and also includes the Lake Iliamna and Lake Clark area. Its main offices are in Naknek.

Except for the relatively small Bristol Bay borough, the remainder of the Bristol Bay region lies within the unorganized borough (i.e., outside any regional government incorporated under state law). Thus, people in this vast area primarily depend on state and federal support for services such as housing, education, health, employment assistance, and public assistance.

REAA's represent a major effect in regionalization, local control, and decentralization of service delivery in the unorganized borough (Alaska State Legislature 1979b:3). Prior to their formation, the regional concept of service delivery was relatively untested. Because they were designed to enhance local control of education, regional school districts met little resistance in rural Alaska. Most Bristol Bay residents seem to prefer the present REAA system over the previously State Operated School System (SOS).

Although REAA's were created to facilitate local control of education in rural Alaska, they also came to be used for other purposes. As discussed under CZM in the Land section of this report, REAA boundaries are also used for coastal zone management purposes. In 1977, the Alaska legislature authorized the creation of Coastal Resource Service Areas (CRSAs) based on REAA boundaries. Two or more REAA's may merge to form a larger CSRA, but no REAA's may be further divided. CRSAs plan for the coastal areas in the unorganized borough.

Apparently because the REAA's represent the only form of state acknowledged political subdivision in the unorganized borough, and because they provide for local level decisions, the REAA concept is often suggested as a good method to provide service delivery in the unorganized borough. However, there are a number of problems associated with the REAA concept as a means of delivering services in the unorganized borough (see Alaska State Legislature 1979a and 1979b; Alaska Dept. of Community and Regional Affairs 1980c). First, while REAA's allow local control, they are entirely state funded and do not rely on local taxes. This situation is favored by most REAA residents in Bristol Bay, certainly offers distinct advantages over municipalities and boroughs which must

collect local taxes, and retards any incentive to move towards regional government. It seems likely that any expansion of the REAA into other forms of service may meet with resistance from municipal or borough residents who have to pay local taxes for services. Second, there are constitutional problems with REAAs if they provide "local government" services. REAAs are not recognized units of local government, and therefore they cannot exercise taxing authority nor can they provide "local government" services. Also, it is questionable how much autonomy an REAA can be given, especially with respect to their ability to independently contract and incur debt (Alaska State Legislature 1979b). Third, REAA type boards are generally single purpose, and if separate boards are created to manage different services, duplication would occur and manpower needs would increase.

Although REAAs represent a step towards regionalization and decentralization of service delivery, from the foregoing discussion, it is apparent that there are many problems associated with regional government and service delivery in the unorganized borough of Bristol Bay. The underlying problem seems to be how to raise revenues to pay for basic municipal services in a relatively property poor area. People live in the villages because of family relationships and proximity to subsistence resources rather than for conventional economic reasons. Generally, the economic base is not adequate to support a borough tax structure.

The State Department of Community and Regional Affairs, which deals with the funding problems of providing services in the unorganized borough, seems slowly headed towards the establishment of boroughs in rural Alaska so it has a regional

governmental structure with which to deal. But, the REAAs in Bristol Bay are relatively property poor with little ability to generate tax revenues to support a borough. In addition, local residents have no reason to form municipal school districts to provide educational services which are currently provided, at state expense, by REAAs. In this respect, the REAA system actually hinders the formation of an organized borough in Bristol Bay. Although most Bristol Bay residents favor regional school districts, they do not favor any form of regional government that has taxing powers.

As discussed above, most of the Bristol Bay region lies outside of any regional government incorporated under state law (i.e., within the unorganized borough). As a result, state and federal agencies often supply governmental services and programs which incorporated cities and boroughs provide elsewhere. Neither the state nor the local residents are entirely satisfied with this arrangement. Local residents are dissatisfied because often the services are inadequate, inefficient, and lack local control and involvement. Growth in the public sector, often unsolicited by the villages, for such things as housing, water and sewer facilities, community buildings, and other services has greatly contributed to recent changes in many rural communities. Although the initial cost of these services is negligible for the village, generally the new facilities are energy intensive and create large financial and manpower burdens on the limited village resources. Many villages have limited technical, administrative, financial, and energy resources to maintain many public projects. The state, on the other hand, because it has no regional governmental structure with which to deal, has problems with duplication of effort, uncertainty concerning authority, representation and jurisdiction, and competition for human and financial resources (Alaska Dept. of Community and Regional Affairs, 1980c:1).

Currently, the Dept. of Community and Regional Affairs (1980c) is aware of the problems related to local and regional government and service delivery in the unorganized borough. In 1979, the Alaska State Legislature (1979a 1979b) sponsored a Local Government Study and a Local Government Symposium which addressed many of these issues and problems, as well as the difficulties associated with the formation of boroughs within the unorganized borough. Although most parties are aware of these problems, most of which plague the Bristol Bay region, no one has yet implemented a workable solution. In the meantime, the regional non-profit corporations such as BBNA generally fill the gap and provide most rural services except education.

In summary, the unorganized borough in Bristol Bay as well as other areas of Alaska lack sufficient financial and human resources to make local and regional service delivery and government entities functional and effective. For example, outside of the larger municipalities in Bristol Bay (Dillingham or the Bristol Bay Borough), the tax base is relatively small. There is little appreciable commercial property or industrial development--both fundamental components in a municipal tax base. In addition, much of the real property is tax exempt (i.e., Native allotments and townsites). Even state revenue sharing funds are hardly adequate to run a very small second class city. A similar situation exists related to human resources. In the Bristol Bay region there is a lack of qualified, trained, experienced staff persons to administer service or governmental programs. Often a large number of governmental or quasi-governmental organizations compete for limited manpower, and the result is that many times the same persons serve on a number of boards and organizations. According to state officials, many of the second class cities in Bristol bay lack trained

personnel to adequately function according to the requirements of Title 29 of the Alaska statutes. BBNA currently administers a Village Government Management Program to assist village and city councils fulfill governmental expectations (see BBNA).

In addition to a general fear of taxes, a shortage of trained administrators, and a fondness of State funded REAAs, the absence of a region-wide political organization such as a borough in the Bristol Bay region is in part due to the cultural, social, and political diversity in the area. As discussed earlier in this report, the region is comprised of Aleuts, Eskimos, and Indians who live primarily in small communities scattered throughout the immense region. Even though the region is divided into two REAAs, one clearly cuts across cultural, linguistic, transportation and communication boundaries. Some villages may move to separate from this REAA. Dillingham is a first class city which is often referred to as the regional center for Bristol Bay. The Bristol Bay Borough, with its seat of power in Naknek, has emerged as a transportation, communication, and service hub for the Alaska Peninsula area. A rivalry between Dillingham and the Bristol Bay Borough-Naknek area has developed. At stake is which area will become the future regional center for Bristol Bay. Although more remote communities may look to these two larger municipalities as transportation centers, they certainly do not desire to fall under their political control. If anything, political disunity seems to be an underlying theme of the Bristol Bay region. This is not surprising. The region is topographically and culturally diverse with fishing as the only real common bond. Each village is generally independent with a desire to run its own affairs and make its own decisions. As discussed in the Planning section, the threat of OCS oil and gas development

seems to be a recent issue that may tend to unify the region and enhance its planning capabilities. Two other issues--subsistence and land status--may also serve to overcome the diversity and disunity in the region.

Bristol Bay Borough

The Bristol Bay Borough, a second class borough incorporated in 1962, was the only borough in Alaska formed voluntarily in response to the 1961 Borough Act. Currently the smallest borough in Alaska in both size and population, local residents formed the Bristol Bay Borough primarily for two reasons: 1) to tax the local canneries and fish industry; and 2) to control the local school system. In addition to the three mandatory borough powers (planning and zoning, education, and taxing), the Bristol Bay Borough provides additional areawide (police, fire, solid waste, library, telephone, cemeteries) and non-areawide (sewer in King Salmon and Naknek and roads in South Naknek) powers.

The boundaries of the tiny Bristol Bay Borough encompass only three small unincorporated communities (Naknek, South Naknek, and King Salmon). Naknek and King Salmon are connected by a paved road, while South Naknek is across the Naknek River. A bridge does not connect these communities, and there is a definite lack of communication between South Naknek and the other communities.

Naknek has a traditional council (Naknek Village Council) and an ANCSA village corporation (Paug-vik Ltd.). South Naknek also has a traditional council, while

its ANCSA village corporation has merged with those of other villages in the region to form the Alaska Peninsula Corporation. Because it is a relatively new non-Native community primarily oriented around an air force base and other governmental agencies, King Salmon has neither a traditional council nor a village corporation.

Because the borough is the recognized municipality in the area, the traditional councils in South Naknek and Nakenk do not have any local governmental powers. Generally, they receive federal funds through BBNA to administer social service programs for local Natives (i.e., JOM, health services, transfer payments). As with most of the village councils, they receive BIA Self-Determination money for overhead and administration (P.L. 93-638). To qualify for this discriminatory money, these organizations can only have Native members.

Although the Bristol Bay Borough is very small and compact, only contains three communities, and operates in the black because of its 3 percent raw fish tax, it is plagued with many problems. In one sense it is too small, and contains no natural economic, social, or political boundaries to emerge as an effective regional government. Borough residents are still served by non-profit corporations, as well as state and federal programs. Often, a duplication of services, confusion, and political conflicts are the result.

In 1975, the Bristol Bay Borough proposed annexation of all those lands lying between Iliamna Lake and Nelson Lagoon on the Alaska Peninsula. Apparently rather than hold public hearings in each of the communities potentially affected

to obtain their comments on the proposal, the borough dropped the move. Most Bristol Bay residents do not favor expansion of the Bristol Bay Borough. They do not want Naknek to run their lives. In addition, most Bristol Bay residents do not want any borough government. The thought of taxes and some non-local government controlling their lives does not appeal to them. Additionally, village corporation's stockholders fear any future property tax on ANCSA lands.

Further problems in the Bristol Bay Borough are related to the disunity and factionalization which exists within the borough itself. For example, many residents of South Naknek would like to simply withdraw from the borough. They feel that they do not receive adequate services from the borough in exchange for the taxes the borough receives from the canneries located in South Naknek. In addition, the future borough tax on ANCSA lands is a potential threat to South Naknek. Depending on the assessed value of the land, this tax could break the village corporations. South Naknek would like to form a second class city and tax the canneries on the south side of the river. Such a move would require the approval of the Local Boundary Commission, which would be very reluctant to create a situation that allows a duplication of services. Although technically possible, it seems highly unlikely that South Naknek will be able to withdraw from the borough and form a second class city.

Many of the problems between South Nakenk and Naknek seem to be related to the lack of communication between the two communities. The lack of a bridge leaves the residents relatively isolated from each other even though they live just across the river. The borough school is located on the Naknek side of the river, and South Naknek school children commute by aircraft daily between home

and the school. Even though this is inconvenient, most residents of both communities are satisfied with the school system. In fact, the one local drawback for South Naknek should it withdraw from the borough is that most people like the borough school.

In addition to the problems between South Naknek and the borough, some residents of Naknek also expressed a general dissatisfaction with the borough. They felt that the borough was run by an elite group of local businessmen who did not represent the wishes of the people, but only served business interests. Although most small town political systems are besieged with similar difficulties as discussed here, some of these problems of the Bristol Bay borough help one to understand the general aversion towards regional government in the Bristol Bay region.

Local Community Political Organizations

Community political organizations at the village level include village councils, city councils, and village corporations mandated by ANCSA. Today, the 30 communities in the Bristol Bay region are comprised of a first class city (Dillingham), nine second class cities, 19 unincorporated villages, and King Salmon (Table 21). Twenty-nine of the 30 communities (all except King Salmon) were recognized by ANCSA and consequently have village corporations. By local choice, all of the ANCSA village corporations are organized as profit corporations.

Table 21. Incorporation Status of Communities in Bristol Bay Region

		<u>Incorporation Date</u>	<u>Sales Tax</u>	<u>1980 Population</u>
First Class City:	Dillingham	1963	3%	1,535
Second Class Cities:	Aleknagik	1973	none	154
	Clark's Point	1971	3%	79
	Ekwok	1974	none	79
	Manokotak	1970	2%	293
	New Stuyahok	1972	none	325
	Newhalen	1971	none	87
	Nondalton	1971	none	170
	Port Heiden	1972	none	90
	Togiak	1969	2%	472
Bristol Bay Borough: 1962	Naknek	(Unincorporated community)		317
	South Naknek ("	") 147
	King Salmon ("	") 536
Unincorporated Communities:	Chignik			179
	Chignik Lagoon			48
	Chignik Lake			138
	Egegik			75
	Ekuik			7
	Igiugig			33
	Iliamna			94
	Ivanof Bay			41
	Kokhanok			83
	Koliganek			116
	Levelock			80
	Pedro Bay			42
	Perryville			108
	Pilot Point			72
	Portage Creek			50
	Twin Hills			70
	Ugashik			13

Source: Alaska Department of Community and Regional Affairs, 1980d

Stephen R. Braund & Associates (1981)

Generally, local governmental organizations are either chartered (or supposed to be chartered) under state or federal law. Those organized under State law are the municipalities incorporated under Title 29 of the Alaska Statutes. In Bristol Bay, these include first and second class cities, and the Bristol Bay Borough. Federally recognized governments include traditional and IRA Councils.

Second Class Cities

As shown in Table 21, the nine second class cities in the Bristol Bay region incorporated between 1969 and 1974. During this period, the State of Alaska encouraged many small, rural villages to incorporate in order to receive state revenue sharing monies and village electricity. Under state law, these benefits were only available to municipalities incorporated under Title 29 of the Alaska Statutes. Many of these villages had neither the tax base, the desire, nor adequate trained personnel to administer a second class city according to state requirements. Also, the state apparently did not have high expectations that the villages would meet the regulations.

Currently, at both the state and federal level, there is a trend for increased accountability of local governments. The state no longer encourages small villages to incorporate as second class cities unless the community wants to assume all of the responsibilities of a municipality. This includes a willingness and capability by residents to tax themselves, produce general revenues, and properly administer the municipality. In an area such as Bristol Bay with a low

tax base, seasonal and low employment, a paucity of local, trained administrators, and a general lack of desire to hold regular municipal elections, develop a code of ordinances, or hold monthly city council meetings, it is not surprising that no new second class cities have been formed since 1974.

A recent change in the state revenue sharing requirements further retards small villages from incorporating as second class cities. Beginning in 1981, a community does not have to be incorporated in order to receive state revenue sharing funds. The village is eligible for these funds if it is recognized by ANCSA. Consequently, beginning in FY 1981, the 29 ANCSA villages in Bristol Bay will receive state revenue sharing monies, instead of only the ten municipalities. Depending on funding levels, this amounts to approximately \$21,000 to \$25,000 per community. This money is to be expended for a public purpose other than general administration of the village government. In order of precedence, one of the following recognized forms is to administer these funds:

- IRA Council;
- traditional village council (ANCSA village);
- a paramount chief (ANCSA village); or
- other governing body (ANCSA village).

In the case of the IRA or traditional councils, if the state revenue sharing funds were used for village government administration, they would be used exclusively for a Native group--an occurrence which would discriminate against non-Natives.

As discussed above, the state encouraged rural villages to incorporate as second class cities since approximately 1963. The incentives for incorporation included the availability of revenue sharing and village electric generators. Although these benefits enticed nine Bristol Bay communities to incorporate, the problems associated with a small rural municipality often outweigh the advantages. Some of these problems include (see Alaska State Legislature 1979b):

- a general lack of trained administrators, managers, and financial officers;
- a small tax base;
- many of the administrators are unaware of their duties, powers, sources of possible funding, and changes in federal as well as state regulations and statutes;
- there is little communication with other second class cities; and
- second class cities in the villages often represent another layer of governmental service organizations on small communities that are ill equipped to properly manage the different entities without constant problems of duplication and confusion.

In summary, it seems that there is certainly not a trend towards incorporation of second class cities in the Bristol Bay region. A village no longer has to incorporate in order to receive state revenue sharing funds. With this incentive missing, it seems unlikely that many small Bristol Bay villages will incorporate in the future. In addition, incorporation adds increased administrative burdens. In the villages, both money and trained personnel are in short supply. If anything, a trend towards dissolution of many of the existing second class cities may emerge.

Second class cities generally depend on federal revenue sharing, state revenue sharing, and governmental grants for revenues. Smaller amounts of money may be generated by a city sales tax (see Table 21), city operated pool halls and bingo games, or health service contracts. Often, these small municipalities do not have adequate financial resources to operate effectively. In addition, the reduction of CETA funds in 1981 will likely have a deleterious affect on the administration of both second class cities and traditional councils, as well as the general economy, in the Bristol Bay villages. Throughout the region, city administrators are often paid with CETA funds.

Traditional Councils

Village governments are generally a vehicle by which higher levels of government funnel money and services into the communities. As such, higher levels of state and federal government seem to recognize various lower levels of village government for different reasons. The federal government recognizes IRA and traditional councils in ANCSA villages, while the state generally prefers to deal with municipalities incorporated under state statute.

Some of the first councils recognized in rural Alaska were the IRA councils formed under the Indian Reorganization Act (IRA) of 1934, amended in 1936. In the Bristol Bay region, only one community formed an IRA council--Perryville. An IRA council gave credence to the legal existence of a village because the Secretary of the Interior had approved its constitution, and the federal government had an entity which was eligible to receive and administer federal

money. Thus, the federal government could contract with the IRA councils to provide services to the village.

As discussed in the previous section, once Alaska became a state, the state government encouraged many of the rural villages to incorporate as second class cities. Because the state does not recognize IRA councils, their power decreased and their primary role became that of a non-profit Native association to obtain federal funds. Prior to ANCSA's passage, only IRA corporations were eligible to receive federal money. Under the Indian Self-Determination Act of 1975 (P.L. 93-638), IRA councils have the power to decide between receiving BIA services directly from BIA or through the village council, or through the regional non-profit corporation. It is not clear how active the Perryville IRA Council has been in recent years.

As discussed in the introduction to this chapter, informal councils of village elders who were recognized for their personal abilities were gradually formalized as village councils whose members were elected (Case 1978:126). These "traditional" councils have no real legal powers, but get their authority from the villagers. Thus, the "traditional" council governs by the consent of those governed. The power comes freely from the residents, and the village council is often strong, especially as long as the local people recognize it. Although this form of government has no real legal clout in the community, it is based on tradition and is very durable. Typically, the traditional council administers federal social service programs, controls village social behavior, and responds to community issues. In Bristol Bay, even those communities incorporated under state statutes also have traditional councils.

Generally, the small, predominantly Native villages in Bristol Bay are composed of groups of related families which, by mutual consent, live together in relative harmony. The traditional village government is based on leadership and political viability. Often, one family runs the village for a while, and then another takes over control. More and more, the group in control is in a position of handing out the federal money in the community, and sometimes a power struggle between families develops.

Except for Perryville, which has an IRA council, and King Salmon, which does not have any council, the 28 remaining communities in the Bristol Bay region have traditional village councils. Even the first and second class cities (Table 21) as well as Naknek and South Naknek in the Bristol Bay Borough have traditional councils. Most traditional village councils in Bristol Bay are not incorporated under either the IRA or state laws. Although BIA requires that traditional councils have a constitution and by-laws in order to be recognized (U.S. Department of the Interior 1977:1), approximately two-thirds of the Bristol Bay traditional councils are not so organized.

Because the state did not recognize them, traditional councils lack municipal powers and responsibilities. Their level of activity in the village usually depends on whether there is a state sponsored government in the community, the size of the village, and the services performed by the regional profit and non-profit corporations (Alaska State Legislature 1979b). Traditional councils are generally more active in those villages which have not incorporated as second class cities. In the past, only IRA councils could restrict their membership to Natives. Now, because of BIA policy related to the Indian Self-Determination Act (P.L. 93-638),

traditional councils are recognized as only representing Native concerns. To be eligible for discriminatory funds, federal law requires those organizations to be exclusively Native.

Because the federal government recognizes traditional councils as Native governments, they are entitled to various federal monies. Generally, traditional councils in the Bristol Bay region receive federal funds through BBNA to administer social service programs for local Natives (i.e., JOM, health services, transfer payments). Additional BIA funding and special HUD block grants for Indian tribes and Alaska Natives are also available to traditional councils. Additionally, they receive BIA Self-Determination (P.L. 93-638) money for overhead and administration. To qualify for this discriminatory money, these organizations can only have Native members. Thus, without their legal status and municipal responsibilities, traditional village councils generally function much like second class cities in order to provide services for the Native members of the various communities. While both second class cities and traditional village councils use CETA funds to hire village administrators, traditional councils also receive discriminatory P.L. 93-638 monies for this purpose.

The passage of the Indian Self-Determination and Education Assistance Act (P.L. 93-638) in 1975 changed the administration of Federal Indian programs and gave a greater, and often confusing, role to traditional councils. To ensure maximum Indian participation and local control and administration of Indian and Native American programs, the Act decentralized the government's role in these programs. Prior to the Self-Determination Act, the BIA generally dealt with individual Natives when it provided services, and consequently had a larger

administrative role. If the BIA did deal with an organized group or council, it generally recognized IRA councils, relatively few of which exist in Alaska. Therefore, in an effort to promote self-determination among American Indians, Congress passed P.L. 93-638 which expanded the number of Native organizations which were eligible to contract directly with the federal government and administer discriminatory funds.

Specifically, P.L. 93-638 allowed the federal government to contract for Indian services with any "tribal organization" of any "Indian tribe." According to Section 4(b) of the Act, an "Indian tribe" includes

any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act...

Thus, any "tribal organization" which is the recognized governing body of any such "Indian tribe" is eligible to contract with the federal government.

Two of the effects of P.L. 93-638 have been the following:

- It has added to the growth of the regional non-profit corporations (i.e., BBNA). If a contract is to be made to an organization to perform services which will benefit more than one "Indian tribe" (i.e., numerous ANCSA villages), each tribe must approve of such a contract. In the Bristol Bay region, BBNA is generally the "tribal organization" which contracts with the federal government to provide social services to the Natives in the region. In hopes of efficiency and because BBNA is a Native organization, the villages, generally through the traditional councils, usually agree to allow BBNA to oversee the administration of the discriminatory federal funds. But, if any of the smaller "tribes"

(villages) so desire, they can contract with the BIA to provide a similar service at the village level. P.L. 93-638 has added to the strength and growth of the regional non-profit corporations (i.e., BBNA) because it has made more money available at the local level for Indian services.

- It gave formal "Indian tribe" status to ANCSA villages, ANCSA regional corporations, and ANCSA village corporations, and, in the Bristol Bay region, allowed the traditional councils to emerge as the federally recognized governing body of the ANCSA villages. For purposes of federally funded self-determination decisions (i.e., BIA and Indian Health Service programs), the BIA recognizes the following organizations in order of descending priority:
 - active IRA councils;
 - formally organized traditional village councils;
 - the board of directors of village profit corporations; or
 - the board of directors of the regional profit corporations (U.S. Dept. of the Interior, 1977:1).

Because only one village in the Bristol Bay region has an IRA council, the traditional village councils have emerged as the federally recognized governing bodies for each ANCSA village. As discussed above, in order to be formally organized, a traditional council must have a constitution and by-laws. Although most Bristol Bay traditional councils are not so organized, they are still recognized by BIA and other governmental agencies.

Generally, in the predominantly Native communities, recognition of the traditional council as the village governing body presents few problems. But, in certain communities with a large proportion of non-Natives and where no other form of local government exists, the widespread recognition of the Native traditional councils presents problems of political expression for the non-Natives. P.L. 93-638 made traditional village councils (which may have allowed non-Native members) "tribal governing bodies" which, in order to qualify for federal Indian monies, can only represent Natives. In communities with second class cities, the municipality is the local government which represents all the residents. Although neither P.L. 93-638 nor the lack of a municipality in a village necessarily implies that the traditional council is the local village government, it often becomes confused as such by both local residents and outside governmental (state and federal) agencies, as well as the Alaska legislature.

For example, as explained in the preceding section, the 1980 Alaska legislature expanded eligible state revenue sharing recipients to include unincorporated communities which were recognized by ANCSA. In the Bristol Bay region, this state money will be administered by either the IRA or traditional village councils in 17 communities--organizations which because of P.L. 93-638 only represent Native residents. Although these funds are to be expended for a public purpose other than general administration of the village government (i.e., the traditional council), the non-Natives in the communities have no voice in the ultimate spending of this state money. (At the same time, the legislature left out unincorporated, non-native communities which were not recognized by ANCSA, a situation which seems to have little affect in Bristol Bay).

Another example of the confusion associated with the role of a traditional council in a predominantly non-Native, unincorporated community is apparent in Iliamna. ANCSA recognized Iliamna village as a traditional tribal location. P.L. 93-638 reinforced that recognition and further recognized the Iliamna traditional council as the tribal governing body. The Iliamna village council has neither by-laws nor a constitution. In addition, it is not clear whether the traditional council even existed prior to the passage of ANCSA in 1971. Because Iliamna is unincorporated, the traditional council has emerged as the governing body which is eligible for both federal self-determination funds and state revenue sharing funds. In addition, the Iliamna traditional council has concerned itself with larger community issues which would generally fall under the jurisdiction of a local government. In most predominantly Native, rural villages there would be little problem associated with the actions of this traditional council. But, Iliamna is approximately 60 percent non-Native. Therefore, 60 percent of the community residents have no voice in the traditional council, which seems to confuse itself and be confused as the local government. In communities such as Iliamna where Native traditional councils in predominantly non-Native communities continue to serve as local governments, interethnic relations are strained.

The key to this problem is to isolate traditional councils to their own issues. It is important to remember that federal recognition related to P.L. 93-638 is only for specific purposes (i.e., to deal with issues that are purely of Native concern and to deal with Native discriminatory funds). As such, the traditional village council does not exercise any jurisdiction over non-Natives or over general issues that affect all village residents. Another alternative would be for such communities to incorporate.

Although it will not be a local government, another village organization may emerge in unincorporated ANCSA communities which will represent both Native and non-Native residents, and hence, serve to open communication between these groups. As discussed under Lands, section 14(c)(3) of ANCSA requires the village corporations to convey approximately 1,280 acres for community expansion to the local municipality or if none exists, to the state in trust for a future municipal corporation. The 19 unincorporated communities in Bristol Bay (Table 16) fall under the jurisdiction of the Municipal Lands Trustee Program. Because the community expansion lands affect all residents (both Native and non-Native), the Municipal Trust Land Regulations (19 AAC 90) outline specific guidelines how the state trustee will identify the "appropriate village entity" which represents the collective views of all village residents. If no existing entity is recognized as democratically representing the collective views of the community residents, the state trustee will hold a meeting or referendum of village residents as the proper method of ascertaining the views of the residents [19 ACC 90.130(4)(b)]. The trustee will hold these meetings until some organization is officially recognized.

During this process of identification of an "appropriate village entity," some interethnic communities may form some sort of community association which is in fact open to all residents. Although this is by no means a bona fide local government, it at least will provide an equitable outlet for residents' views in the absence of a municipal corporation and may cause strained interethnic relations, often caused by a lack of communication, to be alleviated.

Despite all of the problems, duplication, and confusion associated with the administration of second class cities, traditional councils and other quasi-governmental organizations in the villages, some communities are able to function quite well. Bluntly put, these communities seem to have capable leaders who have figured out the system. For example, in Togiak the traditional Togiak Village Council, although by no means defunct, fulfills a different function than the municipality. While the mayor and city council generally run the business affairs of the community and deal with the state and other outside agencies, the village council handles more sensitive village issues. For example, when residents have complaints related to something within the village, the elders of the traditional council meet and guide the community. Also, when issues emerge which affect the entire community (i.e., subsistence), the Village of Togiak, through the traditional council, act as a people unrelated to city functions. For example, when Togiak was involved in a walrus hunting controversy in 1974, the village, not the city, filed suit against the State of Alaska and the U.S. Department of Interior.

Funding sources are one of the main distinctions between the city and village councils. Generally speaking, the city council receives its monies from the state, while the traditional village council receives discriminatory and other funds from the federal government. (Municipalities must represent all peoples regardless of race, creed, or color, while traditional councils, according to BIA policy, only represent Natives). In one case, the village council obtained federal money to build a community center which ultimately housed the municipal offices. Often such maneuvers are the only affective way villages can successfully respond to state and federal programs. The amount of money from

any one source is often inadequate. Consequently, village leaders may combine state and federal money to realize community goals.

The success of federal and state funded programs in many villages is often related to the cooperation between the city and traditional councils. When the two work well together, the community as a whole generally benefits. For example, the president of the Togiak traditional council is also one of the city councilmen. In this community, which seems to have fairly good control of the political process, the two councils also appear to work well together.

Although Togiak and Port Heiden function well as second class cities, many other communities in Bristol Bay do not. Among the problems, the lack of inadequately trained and interested personnel appears to be one of the more acute. Without capable leaders who are dedicated to making this western structure work, the municipal system of government in many villages does not operate up to state standards. In other communities the villages and city councils conflict. For example, in some villages poor family relations carry over into politics and different factions control the city and village councils.

Village Corporations

Twenty-nine of the villages in the Bristol Bay region have ANCSA village corporations (Table 22). As all 29 of the village corporations are organized for profit, they have a potential influence on the economies of the communities. But, to date, ANCSA has not provided large cash distributions to the villages nor

Table 22. Village Corporation Stockholders

Community	Total Number of Stockholders ¹	Enrolled Residing ²	Enrolled Elsewhere; Residing In Village ²	Residing Subtotal all Enrollees ²	Village Corporation Stockholders not Residing in Village:	
					Number	Percent
Aleknagik	231	169	8	177	62	27%
Chignik	286	64	6	70	222	78%
Chignik Lagoon	102	46	97	143	56	55%
Chignik Lake	104	1	4	5	103	99%
Clark's Point	111	76	5	81	35	32%
Dillingham	931	575	76	651	356	38%
Egegik	170	93	4	97	77	45%
Ekuk	39	29	2	31	10	26%
Ekwok	112	97	10	107	15	13%
Iguigig	37	32	2	34	5	14%
Iliamna	75	20	89	109	55	73%
Ivanof Bay	47	24	0	24	23	49%
Kokhanok	105	73	0	73	32	31%
Koliganek	131	121	6	127	10	8%
Levelock	100	76	3	79	24	24%
Manokatak	226	207	9	216	19	8%
Naknek	293	172	13	185	121	41%
Newhalen	74	2	0	2	72	97%
New Stuyahok	229	211	3	214	18	8%
Nondalton	257	179	1	180	78	30%
Pedro Bay	105	41	0	41	64	61%
Perryville	130	85	10	95	45	35%
Pilot Point	147	55	1	56	92	63%
Portage Creek	77	58	10	68	19	25%
Port Heiden	70	62	4	66	8	11%
South Naknek	180	109	17	126	71	39%
Togiak	339	370	13	383	29	7%
Twin Hills	61	53	12	65	8	13%
Ugashik	31	12	5	17	19	61%

¹Figures based on 2/15/77 information (see Alaska Native Foundation 1977)

²Figures based on 4/19/76 information

Source: U.S. Department of the Interior, BIA, Enrollment Office
Stephen R. Braund & Associates (1981)

has it substantially improved the wage economy in rural Alaska (Gorsuch, 1979:178).

When the land claims act passed in 1971, the expectations of many villagers rose sharply. Land, money, and improved living conditions seemed to be forthcoming. The village corporations appeared to be the main vehicles through which the quality of life at the village level would be enhanced. But, the cash distributions to the villages were not large, and land conveyances were often very slow. In addition, most villagers were not prepared to run a corporation. A lack of managerial and administrative skills, education, and knowledge of the corporate structure hampered most village corporations. The notion of land ownership was a new concept to most Natives, and selection of village lands became a time consuming and expensive process. The minimum estimate of the amount of money needed to run a village corporation for one year was \$70,000 (Alaska Native Foundation, 1977:11), a large sum just to keep the corporation doors open.

Because they are organized as profit corporations, the viability of the Bristol Bay village corporations depends on their business success. Unfortunately, little business opportunity exists at the village level. Additionally, most of the village corporations are neither large enough nor do they have qualified managers to enable them to expand out of the village for larger business ventures. Some of the village corporations which have tried have lost large sums of money. It is very difficult for a small village corporation to manage a business investment located out of the village. Consequently, some of the village corporations are essentially inactive, with no employees.

In the larger communities, such as Dillingham, more business opportunities seem to exist. The village corporation land is in more demand and therefore more valuable. Consequently, the corporation can expand into commercial property development. In this case, it is not necessary for the village corporation to participate in a business venture located far from the community, beyond the effective control of its managers.

Another village corporation which has invested money locally is the Paug-vik Corporation of Naknek. Paug-vik owns the Alaska Commercial Company building in Naknek and leases it back to the store. In addition, Paug-vik is involved in local construction contracting as well as gravel hauling in the vicinity. When possible, Paug-vik hires local stockholders. One problem that plagues this as well as other village corporations in the Bristol Bay region is that in the summer everyone goes fishing, and no one is left to run the business.

In other communities, the village corporations have entered the fish processing business. For example, the Togiak village corporation is building a fish processing facility near the village. This plant will primarily freeze fish. In addition, the village corporations of Egegik and Pilot Point own a large portion of and operate a salmon cannery located at Egegik. Although this venture appeared to be in financial trouble at first, the community residents (who are also stockholders) apparently sold their fish for less (to avoid a large corporation debt) and also worked for less. As a result, the cannery seems to be doing quite well.

Although most of the ANCSA lands are finally conveyed to the Bristol Bay village corporations, in many cases, the business future of many of these corporations is still hampered by land problems. Problems related to both sections 14(c)(1) and 14(c)(3) of ANCSA often place a large financial and manpower burden on the village corporations and may lead to conflicts between the village corporation and village corporation stockholders as well as other residents. For a full discussion of the village corporations' difficulties associated with the management and conveyance of ANCSA lands, see the Land discussion of this report.

In the Bristol Bay region, relations between the village corporations and the village or city councils appear quite good. Often, many of the same people sit on both the village or city council and the village corporation board of directors. Consequently, these village corporations will likely act in concert with the wishes of the village councils and villagers as a whole. In other words, the profit motivated corporations would more than likely not proceed with a development opposed by the villagers.

A few words of caution should be made about the seemingly amiable relations between the village corporations and the village residents. First, in some villages (Table 22), a large proportion of the ANCSA village corporation stockholders do not reside in the village. As profit oriented corporations, the non-resident stockholders could be in favor of business ventures that could conflict with the goals of the villagers. In some cases, the village corporations could see their obligation for profit ventures as precedent over the more conservative social desires of the residents. A second source of potential

conflict between village residents and the village corporations is related to the growing trend towards mergers of Bristol Bay village corporations. As more and more village corporations merge, the chances increase that individual villages will not have any representation on the board of directors. This phenomenon could result in a sense of alienation by the village residents toward their village corporation. Village corporation mergers will be discussed more fully below.

In the Bristol Bay region, two separate village corporation merger movements have emerged: one centered in the Nushagak Bay area and the other along the Alaska Peninsula into the Iliamna Lake region. In the Nushagak Bay area, Choggiung Ltd. represents a merger of the Dillingham, Ekuk, and Portage Creek village corporations. Choggiung, whose office is in Dillingham, has a full time land manager, a conservative investment program which includes development of commercial real estate, and also acts as land manager for Clark's Point and Aleknagik.

In 1978, the ANCSA village corporations for South Naknek and Port Heiden merged to form the Alaska Peninsula Corporations. In 1980, the village corporations of Ugashik and Kokhanok joined this large corporation, and in 1981, the Newhalen village corporation also merged into the Alaska Peninsula Corporation. Consequently, the individual village corporations in these five communities ceased to exist, and Alaska Peninsula Corporation became the owner of their assets (including the rights to the surface estate of village lands and future ANCSA distributions) and liabilities.

Currently (1981), the Alaska Peninsula Corporation represents five villages and has ten members on the board of directors. Five of the directors are originally from South Naknek, two from Port Heiden, two from Kokhanok, and one from Newhalen. Although Newhalen, the last village to join Alaska Peninsula Corporation, was guaranteed a member on the board the first year, in the future the board of directors will be elected at large. Consequently, it is conceivable that some of the villages will not have any representation on the board of directors of their village corporation. Depending on the investment strategy of Alaska Peninsula Corporation, this could cause hard feelings in some villages.

The Alaska Peninsula Corporation merger apparently originated in South Naknek where the village corporation managers realized that although they were dedicated to the production of a profit, they had limited money, land, and manpower to effectively operate on their own. They wanted to build a large fishing vessel which required additional capital. Consequently, South Naknek approached Port Heiden and the two village corporations formed the Alaska Peninsula Corporation. As this corporation expanded, the managers looked for village corporations which had been relatively dormant and therefore were solvent. They had no interest in joining with village corporations with large financial troubles.

In its various merger packages, the Alaska Peninsula Corporation (1979) gave the following reasons for the mergers:

According to the Alaska Native Foundation, village corporations having fewer than 500 shareholders do not receive income from their investment of funds received under the Settlement Act sufficient to allow them to study and undertake any substantial

business ventures. In the judgement of the Board of Directors of the Corporations, administrative expenses may exceed the income from the invested assets of the Corporations and assets anticipated under the Settlement Act in the future. Problems of transportation, communication and location add additional management burdens.

The combined assets and resources of Alaska Peninsula Corporation and (the merging corporation) following the merger will enable Alaska Peninsula to make investments and undertake business ventures on a scale and with resources not now available.

Gorsuch (1979:145) made a similar observation:

Subdividing services or money into smaller and smaller units decreases management efficiencies and increases risks of failure. Village corporations with less than a thousand shareholders are very susceptible to financial failure. They can neither afford the managerial talent nor bear the administrative costs that their larger (but nonetheless struggling) regional corporations can. Smaller villages also have fewer leaders with less experience in the world of business or finance. Obviously, there are exceptions. But village corporation size is inarguably related to both management efficiency and investment risk and is likely to be a reliable predictor of failure.

As one observer said,

By merging, Alaska Peninsula Corporation got rid of four village corporation audits, four tax statements, and four overhead expenses. It also enabled us to pool our assets in order to make more realistic investments.

The merger also relieved many villagers, who are primarily subsistence oriented, from the responsibility of becoming successful businessmen. Alaska Peninsula's office is in Anchorage and the corporation is managed by qualified personnel, many of whom have management experiences in both BBNA and BBNC. A further incentive for the village corporations to make a profit and hence consolidate is the pending taxable status of ANCSA lands 20 years from the date of interim conveyance. Local taxes on ANCSA lands could break some village corporations. South Naknek is in the Bristol Bay Borough and is therefore vulnerable to a future real property tax.

Although the individual village corporations gave surface rights to ANCSA lands to the Alaska Peninsula Corporation, the policy of the corporation's board of directors is to listen to the village representative regarding local development and the best interests of the village. Under the Plan of Merger, the Native residents received the right to prevent subsurface exploration within the lands contained inside the village boundaries. The merger conveyed the villages' right, granted under Section 14(f) of ANCSA, to withhold consent to explore, develop, or remove minerals within the boundaries of its Native village. Such activity is subject to the consent of a separate entity composed of the Native residents of the village. One unanswered question seems to be a definition of "village boundaries." Another concerns the villages' rights regarding land use near the village other than mineral development. Although the current Board of Directors of the Alaska Peninsula Corporation have a policy to avoid development of village lands without the sanction of the village, the corporation is still a profit oriented organization, and therefore may be forced, like BBNC, to eventually make business decisions, regardless of village opinion.

Although they have approached other villages, it is uncertain at this time whether additional village corporations will merge with either Choggiung Ltd. or the Alaska Peninsula Corporation. Some local observers feel that some day there will only be two village corporations in the Bristol Bay region. Certainly, the success of these larger corporations as compared to that of the smaller, village corporations will be a large factor which will influence further mergers. Also, whether the consolidated corporations' business ventures conflict with village residents' goals and desires could affect further mergers.

As discussed above and shown in Table 19, it is not uncommon for a village to have a village corporation board of directors, a traditional council, and a second class city council. Because there are a limited number of people with the basic skills and training necessary to efficiently administer all of these organizations, often the same individuals will serve with all three. In addition, other organizations may compete for the limited human resources in rural Alaska. Regional profit and non-profit corporations, REAA boards, and CRSA boards all require trained personnel to function properly. With so many organizations, it is often difficult to determine who controls what. Also, it is easy for local leaders, who serve on many organizations, to get the functions of each mixed up.

Response Capacity

As noted by Braund and Behnke (1979:26),

Politics is a critical sociocultural category because community values and public objectives are articulated and implemented (or not implemented) through political processes. The major types of community change potentially induced by OCS activity (increased population, employment, and land and service demands) can have a variety of repercussions upon the political subsystems. Include the development of conflict within the community, shifts in political power, and increasing pressure upon the ability of local government to supply services and guide growth.

Braund and Behnke (1979:26-7) defined response capacity as a community's or region's "capacity, or ability to affect, guide, or control change within the context of its own values." They listed the following four factors as being important to determine a community's response capacity:

- Information - Knowledge of what is likely to happen, and what alternatives are available.
- Consensus - Agreement on community (or regional) priorities, and what should be done to implement or protect common values.
- Organization - Knowledge of how to do what needs to be done, and the existence of a system for doing it. It is important to determine whether the community or region will receive support from higher levels of government. Thus, the current relationships and goals of community organizations (both councils and corporations), regional Native corporations (both profit and non-profit), and the State of Alaska are important.
- Resources - The availability of human, physical, and financial resources to do what needs to be done. In order to benefit the fullest from development, the communities and region must have bargaining power with oil companies. This depends on the ability of the local government to exercise land control either through ownership or planning and zoning tools, the taxing authority, and the quality of community and regional leaders. Also, aid from the state government would enhance the region's bargaining power.

Comparison of these four factors with the village and regional political subsystems seems to indicate that if the communities and region are confronted

by both government and industry pressure for oil development, their response capacity might prove inadequate to control change within the context of local values. The State of Alaska's position, which is currently opposed to oil and gas development in Bristol Bay, will be important in the region's response capacity. Although the response capacity may vary from community to community, for purposes of analysis, a generalized approach is used.

Generally, the Bristol Bay communities do not have adequate information regarding the nature of oil and gas development. But, because of the importance of commercial and subsistence fishing, most villagers have a generalized fear of the adverse impacts of offshore petroleum development in Bristol Bay. Additional information, unless it contains a guarantee that oil development will not affect the salmon fishery, probably will not change this fear. Although there seems to be a consensus of opinion among residents about the potential negative impacts of oil development on salmon stocks, there does not yet appear to be adequate political unity in the region to enable it to produce a consolidated front.

Because its greater presence in the village enables it to reflect community values, and because of its role in the CZM Program, BBNA will probably emerge as the regional organization which opposes offshore oil and gas development in Bristol Bay. As discussed above (CZM), the potential OCS oil and gas lease sales could serve to help organize the Bristol Bay region and lead towards political unity. BBNA presents CZM as a planning tool which the region could use to stop or delay coastal development which may adversely impact existing uses of the marine environment. Because it is still in preliminary stages, it is uncertain

whether the Bristol Bay CZM plan will be implemented in time to have any affect on OCS and gas development.

On the other hand, BBNC's business decisions related to oil and gas development will not necessarily reflect the local values of the villagers who make their living by commercial fishing and harvesting subsistence resources. As discussed above (BBNC), because it is a profit oriented corporation, BBNC favors development in the region. Because BBNC feels that most of the opposition towards offshore oil and gas development is based on emotion rather than fact, it is likely that its policy will conflict with the views held by many of its fishermen shareholders. In terms of response capacity, the result will be a divided region where the non-profit corporation represents a more subsistence oriented position while the profit corporation endorses development. The ability of the region to control change within the context of resident's values will be weakened by this division.

A similar division could develop between the villages and the village corporations. Because they are profit organizations whose survival may depend on whether they can produce revenues from corporation lands, some village corporations may, if asked, choose to lease land to industry. Such a decision may conflict with community goals. In this case, it is likely that the traditional councils, which seem to have good relations with BBNA, will oppose the village corporations. Because of its business orientation and because it represents five villages and controls a large amount of waterfront land on the north shore of the Alaska Peninsula, the policy of the Alaska Peninsula Corporation towards offshore oil development could be important.

In relation to the high number of political organizations in the Bristol Bay region, there does not appear to be an abundance of qualified leaders. Consequently, many of the experienced and skilled leaders in the region serve on the boards of numerous organizations. In the face of a controversial issue such as offshore oil and gas development, which may pit the traditional councils and the profit and non-profit corporations against each other, the individual who serves a number of these organizations will be in a position of conflict.

In a sense, ANCSA created a vacuum of qualified leaders at the village government level. The leaders in the ANCSA village and regional corporations often came from the local political organizations. As a result, many of the would-be followers are now local government leaders, while some of the more capable community leaders work for the corporations. When they left to join the ANCSA corporations, these individuals took many of their political affiliations with them. Consequently, it is often difficult to determine which organization controls village politics--the local government or the ANCSA corporations. As discussed in the beginning of this section on politics, it is often the individual and not the organization that he represents that has the most influence.

Except for the small Bristol Bay Borough, there is no regional political institution with the ability to exercise land control through planning and zoning. Similarly, a region-wide taxing authority does not exist. All three of these authorities (planning, zoning, and taxing) are potential levers by which local residents could bargain with industry should it want to enter the region. As discussed above, the nearest the region will come to planning will be the CZM Program which is not yet implemented.

In summary, although the residents seem to have a consensus of opinion regarding offshore oil and gas development, a number of factors seem to limit the region's ability to effectively control change within the context of residents' values. First, political disunity and factionalization exists between sub-regions, within the tiny Bristol Bay Borough, often within communities between different groups, councils, and corporations, and between regional corporations. Secondly, in relation to the large number of political organizations in the region, there does not appear to be an abundance of qualified leaders. Also, many of the leaders may have to serve conflicting interests. Thirdly, the Bristol Bay region does not have a regional organization with the ability to implement land planning, zoning, and taxing, mechanisms which theoretically enable residents to guide change.



VIII. SOCIAL HEALTH SYSTEMS

Physical Health Care Systems

As noted in the discussions of each subregion, local health care in the villages is provided by a village aide with periodic visits by doctors, registered nurses, dentists, and other specialized health care personnel.

The regional hospital, the Bristol Bay Area Hospital, is located at Kanakanak 6.2 miles outside of Dillingham. The facility was administered by the U.S. Public Health Service until to October 1, 1981, when operations were contracted to the Bristol Bay Area Health Corporation, a Native non-profit corporation. The hospital has 29 beds, a surgery room, a delivery room and emergency room. Administrative offices, medical and dental clinics, social services, an outpatient laboratory, a pharmacy, and x-ray departments are housed in a separate building. The facility had a staff of 54 persons as of October, 1980. Also, health specialists provide clinics throughout the year (Alaska Consultants 1981).

The average daily patient load has declined over the years because of shorter hospital stays and increased outpatient treatment. The current daily patient load rate in fiscal year (FY) 1980 was 5.3 persons staying an average of 3.5 days. More serious prolonged illnesses are treated at the Native Medical Center in Anchorage. Outpatient visits have steadily increased in recent years. The 9,270 visits for FY 1980 represented a 17.1 percent increase over the visits in FY

1978. About 40 percent of all patients come from communities in the region besides Dillingham (Alaska Consultants 1981).

Major health problems in the area include accidents, associated injuries, and alcohol abuse. Other hospitalization problems include childbirth, upper respiratory problems, influenza and pneumonia, acute otitis media, and refractive error (Alaska Consultants 1981).

A private general practicing physician operates a small clinic for part of the year in Dillingham and performs surgery at the Kanakanak facility. Two itinerant Public Health Nurses staff the State Public Health clinic in Dillingham. These nurses provide a wide range of services both to the smaller communities in the region and Dillingham. Emphasis is on preventive health care. The Bristol Bay Area Health Corporation, in addition to operating the hospital, provides a variety of related health services including education, planning, technical assistance, injury control, emergency medical training, human services, and the community health aide program (Alaska Consultants 1981).

Mental Health Care

Regional mental health care services are delivered by the Bristol Bay Area Health Corporation's Human Services department, which has only one staff psychologist. The schools also have a testing psychologist and a social worker on their staff.

The top mental health, physical, and family problem is alcoholism. The affect of alcohol may be tangential to the "presenting problem" in a mental health case. For example, "the wife may come in for anxiety problems, but actually it's the husband's alcoholism that is the problem." In terms of severity, it was stated that, "about 99.9 percent of the court cases are alcohol related." One explanation offered for alcoholism is stress. According to local health care specialists, there is exterior stress which can be handled but interior stress is more complex and is often relieved through alcohol abuse.

Inadequate housing or the lack of housing can be factors creating stress. Adequate housing is a real problem in the Bristol Bay Region, particularly when people "used to just build their own home". Factors causing housing problems include limited available land, increasing materials and transportation costs, and expectations of higher quality homes. The residents of Bristol Bay are well-travelled and are aware of modern housing compared to "village housing", including the interior amenities. This can create an expectation of what quality housing should be in Bristol Bay. However, increased home environment quality is quite expensive compared to costs in the lower 48 or even in Anchorage. A large number of HUD houses have been built in Dillingham and other communities in the Region. For people who are used to building their own homes, 20 to 30 years of payments can be both stressful and culturally conflicting. Another mental health aspect of housing is the transition from small structures to large structures. Repressing feelings is often considered a value when people are living in close quarters. Larger living quarters, coupled with the western cultural mandate to openly express feelings (communicated through television and other media), may also lead to certain behavioral

problems. Long term financial commitments to HUD housing may have also changed the traditional value of sharing in some communities. The traditional value of cooperation appears to be changing to competition for money in order to meet these new commitments. Some residents feel petroleum development (offshore or onshore) may bring similar stress.

In one recent year five people suffered severe psychotic episodes and had to be airlifted to the Alaska Psychiatric Institute in Anchorage. All of these patients were white and the episodes occurred during the fishing season on boats. During the fishing season, between May 1 and August 1, the number of less severe mental health problems decreased, according to the local psychologist. However, the number of cases do not decrease entirely and the psychologist often has to "work between the tides", i.e. during a closed fishing period.

Alcoholism Health Care

The Bristol Bay Area Health Corporation's Human Services department has a professional alcoholism counselor, six alcoholism counseling trainees, and 10 community health representatives who provide alcoholism counseling and referral service. The training program is for one week per month for a year. There is an Alcoholics Anonymous group in Dillingham.

In addition to formal alcoholism counseling, education and referral services are available in the region. Another treatment mechanism used is the "Common Interest Group" approach, which places people in supportive groups with members having similar interests. An alcoholism counselor said treatment

programs in the smaller communities have to be implemented in concert with local sociocultural conditions. A subregional, community approach was implemented because many repeat offenders were from the villages.

There is a detox unit at the Bristol Bay Regional Hospital and a "sleepoff center" has been established. Anchorage residential programs are used, including the Clithro Center and Akeela House (for drugs only).

Several explanations were offered by local residents and professionals for the alcoholism problem. According to these people, some of the Bristol Bay residents have the attitude "we live hard, we work hard, we fight hard, and we drink hard." Also, until recently, "there was no restaurant in the region that served just beer and wine. People didn't realize you could just have a glass of wine over dinner." These statements suggest that alcohol is perceived as a mechanism for indulgence rather than moderation. It was also noted that bars were "where everybody went to dance, to socialize, to shoot pool, to get smashed," implying a lack of acceptable alternative activities.

Illegal drug use consists of marijuana and cocaine only. No heroin is known to be used. Drug use has been only a minor problem (in relation to alcohol) and seems to increase during the summer.

There are several problems in instituting a comprehensive alcohol abuse program for the region, according to the professionals involved in the field, including a

lack of travel money and a lack of trained staff. The staff problem is being eased somewhat through the training program.

Criminal Justice System

The Alaska State Troopers provide either direct services to the smaller communities or back-up services for those with a police force. Crime statistics broken down by categories are not available for the smaller communities. The statistics for the villages covered by the State Troopers were all combined through 1979 (Criminal Justice Planning Agency n.d.). However, as noted by the residents, very little crime occurs in the smaller communities and a review of the State Troopers 1980 preliminary statistics support this contention.

The Dillingham Police Department's 1980 annual report (the first year statistical reporting was conducted) showed 387 bookings at the State Jail in 1980. Of these, 7 percent were felonies, 64 percent misdemeanors, and 29 percent Title 47. Dillingham residents accounted for 33.4 percent of the bookings. As of December 19, 1980, there had been 1,239 requests by citizens for services or assistance from the Police Department for the year 1980.

Dillingham Police Department personnel said 99.7 percent of the arrests during 1980 were alcohol related. Dillingham is the center point for alcohol distribution to the smaller communities. It was also noted that the first and last weeks in August had the highest crime rates. This is associated with pay-offs from fishing, "more fishing money-more problems".

Social Services

The Alaska State Division of Family and Youth Services' representative in Bristol Bay served 71 clients in FY 1980 (Department of Health and Social Service n.d.:23). The social service worker in the Bristol Bay Region is responsible for child and adult protective services, individual and family counseling, information and referral, intake or adoption licensing for foster homes and day care.

The social worker believes alcoholism is the primary cause for most problems brought to the attention of the social services agency in Dillingham. Parents from smaller villages visiting Dillingham sometimes overstay their visit because of recreational activities. The children often are cared for by someone in the village, and social services is called in only for severe situations where there is a possibility of neglect. Parents often quickly change their behavior after the social service worker discusses the situation with them. In Dillingham, however, only relatives will care for children, not any person as in the smaller communities. Among the Native population, most problems associated with children are classified as neglect, with very little abuse. Among the white population, however, abuse is cited as the more common problem.

Children are extremely valuable in the smaller Bristol Bay communities, where they are considered the community's children. One resident said there "shouldn't be any child neglect, as important as they are". In cases involving an unwed mother, for example, the girl's parents are quite anxious to care for the child. This leads to rather large families occupying small village houses. "People here

in Dillingham think more about the costs of raising children than the villagers do," one resident observed. "In the villages the kids are more work but less cost."

Cultural similarity between social worker and client is important in the delivery of social services in the Bristol Bay Region. A Native social worker said, "I couldn't be of help to people unless I could speak their language. People feel more comfortable with me". Besides the ability to speak the language, a social service worker who is from the region, knows the people (or is related to them), and understands how things work will be more effective than someone from the outside. This is particularly true in handling the nuances of case work during direct intervention and in activating preventative measures.

Besides Family and Youth Services, the Bristol Bay Region receives services from the State Division of Public Assistance. There is one representative located in Dillingham and there are "fee Agents" in each village who administer the eligibility forms and provide liaison to the worker in Dillingham. A representative caseload for the BBNA service area (October 1980), according to Division sources is as follows: Old Age Assistance-80; Aid to the Blind-3; Aid to the Permanently Disabled-33; Aid to Families with Dependent Children-102; General Relief Medical-4; and General Relief Assistance-1. Food stamps also are administered by this Division. Food stamp use varies with the seasons. As of February 1981, there were 311 recipients of food stamps for the Bristol Bay Region.

Ethnic Relations

In general, ethnic relations are good in the region, according to those residents who were interviewed, with little friction between whites and Natives. What problems do exist are traced mostly to ANCSA. Some whites perceive ANCSA as a categorical grant in which they are unable to share because of their ethnicity. ANCSA also is used as a "whipping boy" in the sense that some whites believe Native requests for community development aide should be funded by ANCSA profits rather by the general fund. There also are some feelings that the Natives are "acting different" (i.e. superior) since ANCSA was enacted.

There is some interethnic friction in the Iliamna region where whites have been entering the area for recreational purposes, causing some Native resentment regarding this intrusion. Also, whites tend to resent the fact that much of the political power and control of land is in Native hands.

It must be underscored that whites have been entering the area for recreational purposes and there is some resentment regarding this intrusion. Much of the political power and control of land is in Native hands and this is resented by some white residents.

This friction is not, however, widespread. Relations in the smaller communities, for example, appear good, with whites serving on some Village Councils. From the Native's perspective, whatever resentment or ill feelings exist are directed more at white institutions than at individuals. The historic target of this resentment has been the cannery system, which at first excluded Natives and

solely brought them into the system only because of manpower shortages during World War II. Even then there appeared to be partiality in terms of benefits (i.e., good boats, privileges.) in favor of the itinerant white fishermen brought up each year. Also, there was segregation among the fishermen and in some of the canneries. Resentment and suspicion still lingers among some Natives. Currently, the residents of the region, as well as many small communities, see themselves as inundated by white bureaucrats "who want something". A common complaint is that the bureaucrats arrive by plane in the morning, without prior notification, expect a village council meeting to be conducted immediately (so they can get their business done), get on the same plane (which has been waiting for them), and fly back to Anchorage.

In considering ethnic relations, it must be kept in mind that these relations appear to contain little conflict because of structural aspects and mutual respect. Statistically, Natives are in the majority in almost all of the communities. They maintain political control in Native and non-Native governmental and political institutions. Through limited entry and (in a few cases) village corporation involvement in fisheries, the Natives have acquired some degree of control over the main economic activity of the region.

Another structural factor supporting "good" interethnic relations are ethnic boundaries. In general terms, the Indian population lives in the Lake Iliamna area, the Eskimos live in the villages from Togiak to Dillingham (and up the Nushagak and Kvichak Rivers), while the Aleuts are concentrated on the Alaska Peninsula. The white population is concentrated in only a few communities scattered throughout the villages. The Filipino population resides mostly in the

cannery-based communities, usually living in bunkhouses for the fishing season only. This degree of separation helps maintain the "good" relations.

Patterns of current interethnic marriages are hard to document. However, at least on the Alaska Peninsula, intermarriage between whites and Natives occurred historically. Intermarriage is evident in last names, physical aspects, and self-ascription. Some of the residents trace their white ancestry back to fishermen who married local Native women. Interethnic marriages also may have occurred historically in the Iliamna area when a trading post existed there. Eskimo villages appear to have had little interethnic marriages. Some of these villages, however, have maintained kinship ties with the Kuskokwim River villages.

As can be seen, ethnic problems that exist between whites and Natives are minimal, revolve around institutions, land, and political control but do not lead to noticeable overt conflict. What overt ethnic conflict that does occur usually happens during the summer among cannery crews. This mostly involves young males of different ethnic backgrounds in conflict over women or "turf". It must also be noted that there exists some intra Filipino conflict. The Filipinos are not a homogenous group and many problems can be traced to long standing inter-regional feuds existing in the Philippines. However, even these conflicts are not quantitatively significant and are dampened by the long hours, hard work, and discipline of cannery work. Also, cannery workers come to Bristol Bay to make money, not involve themselves in ethnic conflicts.



IX. SUMMARY AND TRENDS

Regional Overview

Russian settlement of the area (though limited in numbers) introduced European technology, religion, and ideas to the area. Even though the communications and transportation systems of the nineteenth century did not allow for rapid or widespread transmission of Russian influence, they made a strong imprint on the region. The first impact was the very existence of an alien culture entering and settling in the Bristol Bay area. This settlement was based on the needs of the Russian-American Company for an expanded fur trade. Van Stone (1967:57) notes that possibly the most significant point to emerge from the history of the trading post at Alexandrovski is how rapidly the Eskimos of southwestern Alaska were exposed to the fur trade and, implicitly, to Russian cultural influences. As he states,

Between 1818 and 1840 the entire region was opened and trading contacts were established throughout the heavily populated Yukon and Kuskokwim river systems as well as along the Nushagak (Van Stone 1967:57).

Russian trade relations with the Eskimos introduced new ideas and items, such as "tobacco, beads, cloth, and other so-called luxury items used by the Eskimos" (Van Stone 1967:53). The Russians attempted to manipulate social organization by singling out and favoring village headmen, or Toyons as the Russians called them, to influence the rest of the villagers into trapping furs for the Russians. However, the "headmen" probably didn't have as much power as the Russians assumed they did (Van Stone 1967:54).

The fur trade also introduced the ideas of wage labor and company indebtedness.

The result of this new economic relationship was that,

The more closely the Eskimos were bound to the Company and the more heavily they relied on the trader for supplies and items of European manufacture, the less likely they were to pursue traditional subsistence activities. Certainly many aboriginal hunting techniques began to be forgotten at this time (Van Stone 1967:56).

The Russians also introduced European diseases into the region causing epidemics that devastated the population. In addition to these often rapid and widespread deaths from one specific disease, there also was a reduction in resistance to other diseases, resulting in even more deaths. With a weakened resistance it would have been impossible for the people to pursue subsistence activities, thus resulting in additional deaths from starvation. The deaths resulted in a large population decline, and were the most important factor in abandonment and relocation of settlements (according to Van Stone) and, undoubtedly, accounted for the loss of much traditional culture.

The Russian Orthodox Church was an early Russian cultural introduction into Bristol Bay and still exists in the area. Such was the influence of the Russian church just before the turn of the century that Porter noted that the Eskimos divided "all mankind into two classes, Russians and non-Russians. Anyone who was unable to speak Russian was looked upon as pitifully ignorant and treated with contempt" (Van Stone 1967:42).

The introduction of the salmon fishing industry was to have profound influences in Bristol Bay that continue today. Van Stone's (1967:63) statement about the effect on the Nushagak area can be applied to the entire Bristol Bay Region:

"Of all the agents of change discussed in this study, none had a greater or more lasting effect on the Eskimos of the Nushagak River region than the commercial fishing industry...." The cannery system brought the residents of the area into contact with a variety of diverse ethnic groups with their own cultures. The canneries introduced the industrial revolution to the region with all the attendant social relationships, including the frantic pace of the fishing season, which continues to this day. When the fishing season occurs it affects almost everyone in the region. The salmon fishing and processing industry has dominated the region since its inception.

This domination affected the resident communities. The canneries were, and still are, located in economically desirable locations, usually where rivers join Bristol Bay. Most of these locations were previously utilized by Native residents. Small communities either previously existed or evolved next to the canneries (Van Stone 1967:161). Prior to their development, the Natives groups were autonomous, conducting their affairs without the influence of external forces. The institution of the canneries changed this as dependency and reliance developed on the canneries for the local villages. Intermarrying and culture contact began to affect what was, up to then, traditional Native culture. The white cannery superintendent was all powerful and the "company store" was a focal point for plentiful and consistent cash goods. The wage-labor system was introduced in a larger, permanent way, to more people than had occurred with the fur trading industry. Though cultural impact was strongest on the coast, it affected the interior villages even to the degree that seasonal migration patterns were directly related to the industry's needs. It appears those Natives living close to or directly associated with the canneries placed a value on acculturation

and looked down on other Natives who had less contact with whites (Van Stone 1967:130).

A current change in this pattern is that the desire for the amenities of white culture is now based on egalitarian expectations. Access to goods, services, and facilities are now perceived as a right. The residents are asserting the right of their communities to become autonomous, independent entities. The major difference between the new autonomy and the earlier, pre-cannery autonomy is that the communities are linked by a complex web of interrelationships with similar and higher levels of business and government. There are several causes for this attitude. ANCSA established local village corporations whereby community residents own local lands. Perhaps more importantly, these corporate entities now own more land than nearby canneries. This represents changing relationships in the communities. No longer are there canneries with "attendant" villages. Rather, through the control of land and other factors, the villages are in a more powerful position in relation to the canneries.

Cash settlements were also made to the community corporations. These awards came with mixed blessings. First, there will be taxes to pay 20 years after conveyance of the land, unless leased or improved earlier, in which case they will be taxed sooner. Under ANILCA, lands placed in a newly created land bank are not taxed. Second, the village corporations are profit making entities. Therefore, village leaders had to invest the money wisely, both to earn profit and protect capital. Expectations of profits placed added burdens on leaders' decisions. Finally, ANCSA brought with it paperwork, legal complications, and

the necessity for consistent organization. These same factors operate at the regional level with the development of BBNA, BBNC, and BBAHC.

Developments in the fishery also assisted in the community change towards autonomy and independence. The village fishermen's transition, from being cannery employees to becoming independent businessmen, assisted in the move away from the dependence on the canneries. This transition is far from complete. The canneries are still powerful and many questions still exist about the relationship between the cannery and the fishermen in terms of cannery privileges once extended as rights to employees. However, the fact remains that independence is being established for the fishermen and the communities.

The price of fish, education, and air transportation has also assisted in changing attitudes in some communities. An increasing number of residents are educated, well traveled and, in recent years, many have received higher prices for their fish. This income has permitted travel, the acquisition of better housing and other material goods. This exposure, combined with the factors mentioned above, has led to expectations of the amenities of white culture being present in their own communities, be these household goods or electrical systems. Also, technical assistance in acquiring these amenities is available through BBNA and the Alaska Department of Community and Regional Affairs. Keep in mind that these are general, overall changes in the region. When viewed from the subregional, village, or individual perspective, there clearly is not equal access to such things as commercial fishing, transportation, health care, housing, education, or communications. Also, these are some areas, individuals, or

families that prefer to live more traditional lifestyles. The discussions of the subregions in this study illuminate many of these variances.

As noted in the sections describing the subregions, it was consistently stated that the communities desire development of local infrastructure. This includes services and facilities such as electricity, water, sewer, residential phones, better housing, community buildings, maintenance and construction vehicles, and bulk fuel storage. Besides the desire to improve the resident's quality of life, they also believe that improving and developing the local communities will induce population growth and stability. This appears to be occurring, at present, with the out-migration of the 1960's reversing during the 1970's.

Though there were recognized leaders or spokesmen in the communities historically, the demands of ANCSA have required more sophisticated, formal leadership. Often these new leaders serve as "culture brokers" in that they are the contact persons between the white world and the Native world. While still maintaining many of the older qualities, these new leaders are more aggressive, quite fluent in English, and familiar with white business, legal, and governmental practices. This appearance may, however, be deceptive. Although these overt leaders may have these qualities, the less obvious, but possibly more powerful, informal leadership in a community may still manifest the more traditional leadership qualities. One resident noted that the qualities of leadership, in the more traditional definition, included the person's ability to be trustworthy, quiet, cautious, successful in hunting and fishing, speak some English, speak in the Native dialect, and have wisdom. Village politics have traditionally been based

on a slow, studied consensus of opinion. The consensus approach is more amenable to the traditional qualities.

In summary, it can be said that the Bristol Bay Region communities are in a new phase of change. Historically they changed from autonomous Native Villages to villages dependent, in varying degrees, on the canneries. This dependency is diminishing and they are again becoming autonomous, independent communities. Factors creating this trend began in the mid-1950s and 1960s with fishermen's independence and expanded federal legislation for the "War on Poverty", and intensified during the 1970s. ANCSA, local school districts as opposed to BIA schools, the Molly Hooch decision, increased travel, and exposure have all played a role in stressing this trend.

Besides the concepts of paperwork, dealing with an ever increasing number of bureaucrats, and decisions on investments on a daily basis, there is another concern about the effect this trend will have on traditional culture. There is a self-conscious awareness that the fruits of this trend may alter forever a more traditional way of life. The range of opinion on change varies from those who want a lot of change very quickly to those who are resisting any change.

Commercial Fishing

There are several concerns and issues in the Bristol Bay fishery that have been discussed in different parts of this report. This section will summarize these issues and discuss the trends.

The issue of abolishing the current 32-foot limit on the length of drift gillnet boats in Bristol Bay is met with conflicting points of view. While some local fishermen argue that larger boats would diversify the fleet and improve the per boat efficiency, a majority of locals realize that repeal of the limit would benefit non-local fishermen most. Local fishermen are faced with limited capital, and larger boats will be more expensive. Non-local fishermen, who are obtaining more and more Bristol Bay permits, also can more easily finance the larger, more efficient boats.

Despite opposition to repeal of the 32-foot limit, reaction against the restriction is evident by an examination of the fleet. Recently authorities found several vessels to be over the prescribed length. Some fishermen's response was to cut off the offending footage, creating snub-nosed boats. Another trend is the purchase of wider and deeper boats. In terms of an overall trend, it appears doubtful that the limit will be repealed for an open-ended length. While an extension of the limit to 36 foot would be more likely, opposition is quite strong.

A review of Bristol Bay fleet characteristics and per vessel catches from recent years show two important trends. First, there is a clear indication that larger boats are more efficient and more profitable and, second, that the 32-foot length limitation has led to the use of wider, more modern, better powered, and better equipped boats (if you can't make the boat longer, just make it wider). Table 23 illustrates changes in the Bristol Bay fleet over a 12 year period.

The first aspect to note is the relative stability of the average registered length in the fleet. This length has fluctuated around 29 feet over the 1969-1980

TABLE 23. BRISTOL BAY SALMON DRIFT GILL NET VESSEL CHARACTERISTICS
YEARS 1969 - 1980

MEAN VALUE AND COUNTS BY YEAR

FLEET YEAR	FLEET SIZE	REG. LENGTH	REG. BREADTH	REG. DEPTH	GROSS TONS	NET TONS	VESSEL AGE	HORSE POWER	DIESEL HULLS	WOOD HULLS	STEEL HULLS	GLASS HULLS	ALUM HULLS	AVE # VESSEL	GROSS INCOME
1969	1216	MEAN SDEV COUNT	29.3 3.3 1039	10.59 1.25 235	4.22 0.49 227	7.84 2.80 467	4.88 1.95 1048	10.12 6.98 997	149.31 78.78 895	.191 1053	.927 1052	.002 1052	.059 1052	.011 1052	25,470 \$ 5,845 16,612 3,903 1216 1216
1970	1298	MEAN SDEV COUNT	29.0 3.4 1099	10.64 1.19 275	4.24 0.51 266	8.01 2.76 512	4.94 2.04 1101	10.42 7.22 1056	150.39 77.40 944	.203 1109	.898 1112	.003 1112	.085 1112	.012 1112	65,908 42,085 15,355 10,095 1298 1298
1971	1383	MEAN SDEV COUNT	29.0 3.5 1178	10.63 1.17 285	4.25 .049 276	7.92 2.84 533	4.89 2.06 1181	10.98 7.57 1126	148.50 78.84 1022	.194 1192	.882 1192	.002 1192	.085 1192	.031 1192	35,834 23,130 8,908 5,807 1383 1383
1972	1357	MEAN SDEV COUNT	29.1 3.3 1164	10.68 1.15 294	4.28 0.57 284	7.96 2.88 538	4.90 2.11 1186	11.69 7.72 1127	151.86 81.03 1023	.210 1178	.872 1178	.001 1178	.096 1178	.030 1178	12,592 9,090 3,164 2,219 1357 1357
1973	1136	MEAN SDEV COUNT	28.9 3.5 980	10.69 1.23 242	4.25 0.53 234	8.00 2.86 447	4.86 2.13 904	12.29 7.58 935	152.13 82.41 861	.208 986	.846 989	.002 989	.110 989	.039 989	11,509 13,653 3,342 3,820 1136 1136
1974	626	MEAN SDEV COUNT	28.3 3.9 535	10.88 1.55 129	4.33 0.51 126	7.81 3.13 267	4.81 3.54 522	11.29 6.71 509	150.14 87.42 482	.240 550	.828 548	.000 548	.142 548	.029 548	20,917 18,810 8,611 7,449 626 626
1975	1203	MEAN SDEV COUNT	29.1 3.4 1095	10.72 1.21 254	4.28 0.53 244	7.96 2.88 509	4.98 2.84 1051	14.06 7.28 1051	154.87 83.92 1006	.212 1101	.859 1103	.002 1103	.107 1103	.031 1103	21,313 13,939 8,368 5,526 1203 1203
1976	1299	MEAN SDEV COUNT	29.2 3.3 1191	10.74 1.18 265	4.27 0.51 256	8.05 2.89 528	4.95 2.80 1129	14.53 7.51 1150	155.61 82.50 1089	.205 1194	.848 1197	.001 1197	.103 1197	.047 1197	32,378 20,862 14,621 9,037 1299 1299
1977	1281	MEAN SDEV COUNT	29.1 3.3 1190	10.72 1.17 271	4.27 0.52 261	7.94 3.00 541	4.95 2.81 1128	15.02 7.95 1142	155.57 83.22 110	.206 1186	.829 1191	.000 1191	.120 1191	.049 1191	32,005 23,574 17,844 12,678 1281 1281
1978	1578	MEAN SDEV COUNT	28.6 3.7 1574	10.90 1.08 397	4.40 0.65 389	7.97 3.51 788	5.22 2.84 1331	13.50 9.35 1499	160.11 96.91 1529	.212 1565	.738 1566	.001 1566	.177 1566	.082 1566	47,737 37,960 29,781 20,607 1578 1578
1979	1821	MEAN SDEV COUNT	28.6 3.8 1814	11.12 1.05 562	4.62 0.79 555	8.84 3.90 987	5.80 3.10 1511	12.30 10.17 1765	175.72 124.19 1732	.279 1804	.633 1811	.001 1811	.250 1811	.116 1811	65,127 47,181 65,222 48,110 1821 1821
1980	1882	MEAN SDEV COUNT	29.1 3.6 1863	11.21 1.04 552	4.68 0.82 547	9.96 4.76 1101	6.98 16.71 1567	10.13 9.97 1822	200.38 149.45 1716	.381 1860	.492 1857	.000 1857	.357 1857	.151 1857	68,012 47,167 37,054 26,070 1882 1882

Source: Alaska Commercial Fisheries Entry Commission 1982:50.
Req.: Registered SDev: Standard Deviations.

period. Legal length is 32 feet and about 30 to 40 percent of the fleet has been composed of vessels of this length (Alaska Commercial Fisheries Entry Commission 1982:49). As can be seen from the data, however, increases in breadth, depth, gross and net tonnage, horsepower (a 34.2 percent increase), and percent diesel powered (which has doubled) have occurred. According to the Alaska Commercial Fisheries Entry Commission (1982:49) this trend began during the 1978 season. The percentage of aluminum and fiberglass hulls has grown tremendously over the period while there has been a corresponding decrease in wood hulls.

There has been a marked increase in the average pounds caught per vessel/per year reflecting an improvement in stocks. The average gross income per vessel/per year has also increased over the years, a 1,015 percent increase in 1979 above the 1969 average (1979 was the exceptional year in this series). However, whether this trend will continue is difficult to predict. Outside events in Washington D.C. and Japan can have a direct and immediate effect on the price of salmon in Bristol Bay.

The vessels in this fleet derive nearly all (91-97 percent) of their gross income from the Bristol Bay salmon drift gillnet fishery. Prior to 1978, 94 to 97 percent of the fleet fished exclusively in the Bristol Bay drift gillnet fishery. Since 1978, around 79 percent have fished exclusively in this fishery. The other available fisheries in Bristol Bay are the roe herring gillnet fishery and, to a lesser extent, the herring seine and herring roe on kelp fisheries (Alaska Commercial Fisheries Entry Commission 1982:49). It can be assumed some of the decrease in exclusive salmon drift gillnet fishing is absorbed by participation

in these latter fisheries. This trend of diversification will continue to occur, but at a slow pace.

Concern was expressed by the Bristol Bay residents about Limited Entry (LE). The major concern was that the high prices prevented people from entering the fishery, especially true for the younger generation. Also, irritation was expressed that many residents who had fished for years (but not during the Limited Entry qualifying years, which were extremely poor seasons) were denied permits. Effects at the community level are noted by Koslow (1979:20), "Insofar as salmon fishing is the economic base for the village way of life, it is essential that adult members of the community have access to the fishery," and, "...without permission for new permits to be issued, there is no means by which young people can obtain economic independence in the village under LE." Koslow (1979:20) goes on to state a warning as to the potential long range effect of a limited number of permits in the communities, "clearly this problem will become more severe with time. If unalleviated, it must lead to the disintegration of village life through increased dependence on a debilitating welfare system and outmigration." This latter point is supported by Petterson (1981:12) who notes "there are...indications that non-permit holders of the community have begun to migrate to Alaska's more urban centers in pursuit of employment." He continues to list several other potential long range effects of Limited Entry, including: 1) selling permits to higher paying outside markets weakens the native community; 2) the social stratification of the communities becomes accentuated; 3) economic success replaces traditional values as the criteria for admiration; 4) some relative incomes have decreased; 5) some contribution to inflation; and 6) created conflict between generations, particu-

larly between father and sons. Therefore, it would seem Limited Entry may have potential effects at odds to the community goals of increasing their size and maintaining their cultural values. Young non-permit holders may seek work elsewhere and egalitarian values will be altered by the "haves" and the "have-nots" based on access to the fishery. For a more extensive review of Limited Entry in Bristol Bay see Koslow (1979 - specifically pages 21-22 for recommendations for improving the system) and Petterson (1981).

Langdon (1980:125-127) provides data on where Bristol Bay Drift Gillnet permits are being transferred geographically. The initial residency status of initial permit holders are 46.3 percent (656) non-residents, 37.5 percent (531) Alaska rural local, 5.3 percent (75) Alaska rural non-local, and 10.9 percent (154) Alaska urban non-local. His net change analysis indicates that non-residents have gained 29 permits, Alaska rural locals have lost 43 permits, Alaska rural non-locals have lost 7 permits, and Alaska urban non-locals have gained 21 permits. The trend indicates a transfer of permits out of Alaska and to urban areas outside of Bristol Bay. As this trend continues, access to the Bristol Bay fishery by residents of the Bristol Bay Region will continue to decrease.

There has also been a change in the average age of the drift gillnet fishermen in Bristol Bay over time. Data from the Alaska Commercial Fisheries Entry Commission (1983:73) notes that the average age in 1975 was 45.6 years of age. In 1981 it had dropped to 42.8 years of age. It is doubtful whether this decreasing age trend will continue. This initial drop in age probably reflects a retirement of older fishermen at the beginning of the Limited Entry program. It is likely the age pattern will stabilize.

During the latter part of June and first part of July 1980, Bristol Bay fishermen entered a price dispute with the processors over the amount they would receive for their fish. The price dispute was quite tense with allegations of gunfire, rammings, and blockades. Extra State Troopers were sent to the area to attend to potential violence (Ranspot_ 1980a:A-1 and A-3; and 1980bA-1 and A-3). However, as Painter (1981:15-16) notes, "Troopers said there were isolated reports of gunfire and harassment of non-striking fishermen, but no one was shot and there were no strike related arrests." The last part of this statement (no arrests) is quite interesting in light of recent recommendations made to Governor Hammond by the Bristol Bay Task Force (March 23, 1981). Three areas of concern were expressed by the Task Force in making their recommendations. First, there was strongly voiced concern about alleged violence and intimidation. Second, there was concern about the extra fish, above escapement levels, that were not caught (possibly 21 million) and went upstream. Third, "...serious question has been raised as to how long other nations which presently are forbidden to take Bristol Bay salmon will remain quiet while millions of fish are wasted during domestic price disputes" (Bristol Bay Task Force 1981:1).

Noting the clear State of Alaska interest in the success of the fishery (the fish belong to the state), the Task Force made the following recommendations: 1) a comprehensive marketing study for Bristol Bay salmon and 2) controlling the climate of the negotiations. The marketing study is to provide the processors, but mostly the fishermen, with up to date information on exactly what market conditions are so bargaining can be based near that level. The second recommendation is to provide more police enforcement for the region to control potential violence.

These recommendations do not appear to be either timely or appropriate for the 1981 season. Painter (1981:22-25) notes that the 1980 settlement and subsequent selling process exacerbated negative relations between fishermen and processors. This included not only the settlement but also restrictions on poundage allowances placed on the fishermen by the processors. It is important to note in this latter point that many fishermen feel that if they sell their extra poundage to another processor (such as a cash buyer), the processor they normally fish for will reject their fish. It is critical to have a market in Bristol Bay because without a guaranteed market the fishermen must dump their fish. This attitude on the part of the processors, according to the fishermen, means the fishermen are restricted from making their best effort. Perhaps the hardest residual feelings left over from the 1980 season were the unfulfilled expectations of the fishermen. They knew there would be a large run and they expected good prices based on trends of the previous years. The long settlement, the low prices, and the restrictions on poundage prevented fulfillment of these expectations.

The first recommendation of the Task Force, for a marketing study, is felt by Painter (Anchorage Daily News, April 10, 1981:C-11) to be too late for any use for the 1981 season. Painter also noted in the same article that increasing law enforcement, the Task Force's second recommendation, "would bring the potential of a strike a little closer. It would inflame the situation, and fishermen would be branded as criminals" (Anchorage Daily News, April 10, 1981:C-11).

It should be noted that the Alaska Independent Fishermen's Marketing Association has hired a new business manager to conduct negotiations. This fact plus an expressed interest on the part of the State of Alaska may help to ameliorate problems during the 1981 season. However, collective action ("tie-ups"), is the major negotiating tool for the fishermen. In other industries, or even other fisheries, what is lost during disputes can partially be returned after the dispute is settled. The Bristol Bay season, however, is short and intense. What goes up the stream cannot be recaptured. This fact places a great deal of strain on investment burdened fishermen. Seeing a non-bargaining fisherman going fishing may be too much and pressures will be placed on non-bargaining fishermen. It would appear a trend of tough settlements will continue in the future.

With the Limited Entry program in operation, an interest in diversifying into other fisheries can be expected. As noted in other areas, the herring fishery is receiving attention. It can be expected that there will be more local participation in this fishery, whether through investment and increasing experience in purse seining or adjustments giving gillnetters more access to markets. Besides herring, there also is interest in clam and bottomfish. These fisheries, however, will require large capital investments and training. In 1977 steps were taken to establish the Imapik Regional Aquaculture Corporation. One of the reasons for its establishment was to take advantage of a \$100,000 planning grant available from the State (BBNA n.d.:3). Salmon enhancement programs, based on a tax of local fishermen, are currently in abeyance. The State had ruled that, if the fishermen voted to tax themselves for salmon enhancement projects, all fishermen would have to submit to this tax. A court case was filed and the decision was that the State did not have the right to

delegate taxing authority. The Imapik Corporation, at present, is involved in marketing studies for Bristol Bay fish.

Finally, Langdon (1981), in his study of Bristol Bay Native fishermen, make three additional findings. First, he found that those communities with the highest dependent-to-fishermen ratios are the ones with the lowest average drift gillnet earnings. Those families and communities that need the money the most (to support their families) are earning the least income from fishing. Besides the immediate problem of relatively low income, there is the problem of accruing enough capital to enable the children (more children per family than other communities) to enter the drift gillnet fishery.

Langdon's second finding is that vessel length is strongly related to success, i.e., the longer the vessel, the greater the success. Vessel characteristics and area fished seem to account for the poorer performance of Bristol Bay residents in comparison with non-residents. Differential access to capital for vessel improvement can make a difference in success which was pointed out by residents throughout the fieldwork for this report.

His third finding illustrates two patterns of crew-membership among Bristol Bay fishermen. The first pattern Langdon terms familistic-localistic, where the permit holder uses family members or other Bristol Bay residents as crewmen.

As Langdon notes,

This pattern reaffirms kinship and community ties and appears to recognize the social responsibility of the permit holder who controls a scarce and crucial resource in the contemporary Bristol Bay economy (Langdon 1981:52).

The second pattern Langdon calls individualistic, where the permit holder uses neither kin nor other Bristol Bay residents as crewmembers. In this approach the permit holder appears to attempt to maximize personal gains at the expense of kin and/or community. It is likely that these permit holders are using lower paid non-resident and non-Alaskan crewmen. Langdon suggests that the familistic-localistic pattern is more pronounced in Western Bristol Bay and the individualistic pattern is more pronounced in the eastern districts. Observations from research for this report would tend to support Langdon's contentions.

Langdon's findings, should they become trends, could have serious implications for Bristol Bay Region residents. A trend toward longer, better equipped boats will likely further limit local resident access to the fishery. Further access limitation could severely impact the communities with high dependencies on fishermen. A trend toward the "individualistic" approach to crew operation can lead to further disintegration of kinship and family ties by eliminating some of the social aspects of commercial fishing.

Subsistence

Special attention was given to the area of subsistence in the research for this report. Specifics on subsistence were provided in the chapter describing the individual subregions. From a review of the information, it appears there are several significant points that need mentioning in reference to subsistence.

- Any quantitative assessment of local subsistence usage must be developed over a number of years, as use will vary dependent on economic conditions as well as fluctuation in species abundance and range. While the use of local resources appears quite high, there has been (and is) use of non-local resources. The non-local items are used during times of good economic conditions, dependent almost exclusively on the salmon fishery. During bad times local subsistence resources are more extensively used. The current trend is in the direction of a higher usage of local resources, which is due to an inadequate 1980 fishing season and higher freight and meat costs. Fuel cost is another significant factor causing more use of local game for subsistence. As fuel costs rise, more local game will be used to lower food costs and free cash to purchase fuel.
- There is greater dependency on meat products than on local vegetation with the exception of berries, which are used extensively. Most fruits and vegetables are purchased. The only people utilizing other vegetation extensively are the elderly.
- While actual subsistence use percentages are estimates acquired during fieldwork, it appears that 75 to 100 percent of the residents participate in subsistence activity to some degree. The estimated proportion percentage of the meat, fowl and fish diet that is locally acquired ranges from 50 to 85 percent, depending on location. People who have access to well supplied stores will purchase more food. People who have access to even larger stores (Dillingham and King Salmon), and

more inexpensive goods, will purchase even more goods. The more traditional communities covered in the study will use more local resources out of preference.

- Coastal peoples use more coastal resources and inland people use inland resources, as would be expected. However, there is a great deal of mobility in the region and inland people move to the coast each year where they have access to marine items either directly or through exchange and sharing. Also, there are common patterns of exchanging and sharing between villages throughout the year.
- Subsistence items are exchanged within the community, a point repeatedly stressed by all the people interviewed. This is tradition, the way things are done. No one goes hungry, and the elderly or those unable to hunt are sure to receive food.
- The range for subsistence items is quite extensive for the communities in the Bristol Bay Region. Though areas close to each community are the most intensively used, utilization extends a great distance, particularly for large game such as caribou or moose, and for berries. People charter planes and travel great distances to acquire some items. Community ranges also overlap and there appears to be no ill feeling between communities about other Bristol Bay people using resources near their community. While there are several geographic features that serve as indicators of where different community ranges exist, residents stressed that these were not considered territorial boundaries.

- There is strong a taste preference for Native foods along with an emotional attachment to acquiring the items. Hunting, fishing and berry picking are not simply acts like selecting an item from a grocery store shelf. These activities involve tradition, self-definition, and social aspects besides just getting the food. In terms of the social aspects, hunting and fishing are usually done in pairs or larger groups. Berry picking is usually done in groups (families or friends). In this sense the subsistence activities have an important a social and recreational aspect.
- The most frequently mentioned threat to the subsistence lifestyle is the "trophy" sportsman or "headhunter". However, it was pointed out that this threat had diminished somewhat because the meat is often given to the local community or utilized by the hunter. There is still, however, a large concern about too much sport hunting and fishing. Other threats mentioned were the Marine Mammal Protection Act, the Migratory Bird Treaty Act, d-2 legislation, and the Park system.
- Perhaps one of the most important values of subsistence to the Bristol Bay residents is the very fact that the resources are there. The Region is a reserve that can always be counted upon to provide resources for cash and food. Even though food preference has changed over the years, the residents know that the less utilized species are there and, if times get hard, they will not starve. They can remain independent of white cash-food if they choose to be or if, for some reason, these goods are denied to them. This is a subtle but very critical point. Just

because community members on the Peninsula aren't currently eating beaver, blackfish, or different types of local vegetation, it does not mean they don't know they can be eaten.

Values and Community Life

Trends in these areas are difficult to address given the limited amount of research time available during this study. However, an attempt was made to gain information in these areas and the findings will be discussed briefly.

Several residents viewed with alarm what was happening to their traditional culture. They said suicides, alcoholism, dropouts from school, and family breakups all indicate that the traditional culture was being lost.

The right to subsist off the land and water is considered an extremely high value in the Region, even though some residents may currently choose not to participate totally in the subsistence lifestyle. Any legislation or action that threatens the subsistence lifestyle strikes directly at a core value of Bristol Bay culture. The subsistence value also relates to community and social values. Sharing and exchange of subsistence items between and within communities is a common and frequent occurrence. When people give, they do not expect something in return. They just know that when someone else acquires something, they will receive a portion. The value of sharing is a delicate glue that integrates and ties people, families, and communities together in terms of

sentiments, ritual, and action. Any legislation, action, or development that threatens this value attacks the basic social fabric of these communities.

Another important value among the Bristol Bay residents is the right to participate in the commercial salmon fishery, an activity with long history in the Region that has become imbedded into the culture. Limited Entry has placed restrictions on who can or cannot participate. The full impact of the limited entry on the value of participating in the fishery has not yet been seen since this legislation is relatively new. Many younger people qualified for and received permits while others can participate without permits as crewmembers. But, as the region's population increases through in-migration and natural growth, this value will be severely tested. This is particularly true where a father has a number of sons and only one permit (see Petterson 1981:12-14). The clash between Limited Entry and the value of participating in the fishery will have long range impacts at the individual, family, and community levels. The study shows there already is considerable concern over some residents not being able to purchase limited entry permits.

The "world view" for many regional residents is village based. "Their world is the village they're from, even though they go to Anchorage or Hawaii," said one resident. "People will go out but return. Only a few are concerned with what happens outside." Kinship ties also play a key role in community ties and world view. Many of the people within the communities are related "in some way" and there are kinship ties between the communities. According to one resident, "the people are all related and that is why there are such strong relationships. These ties are one reason they all return to the villages."

This village based world view does not imply a lack of sophistication, education, or exposure. As one resident said, "in the village they are very village like. But if you meet them in Seattle, they fit in there also." Much of this sophistication is the result of fishing, transportation, and technology. The residents have a long history of traveling. The pre-contact and immediate post contact peoples traveled extensively to pursue subsistence. Canneries brought seasonal travellers to the Bay to participate in commercial fishing. Whether by dog-team, snowmobile, boat, or barge, people travelled to Dillingham, Kodiak, Anchorage, Seattle, and other local communities for religious, social, subsistence, or cash-economy reasons. Many families moved to large towns so their children could receive a high school education. The introduction of air service accelerated this process. Native Affairs (resulting from the enactment of ANCSA) and school business requires representatives to travel to meetings in Dillingham and Anchorage frequently. Fishing has recently increased economic gain in the region enabling far more travel. The introduction of citizen band radios, television, video tape recorders, and radio has resulted in immediate exposure to the outside world. Many programs in the schools have taken the students on tours of other states and occasionally foreign countries.

The fishery also reveals other values of Bristol Bay residents--innovation and independence. A wide range of sophisticated and complex machinery and equipment is involved with fishing boats and canneries. Electronic devices have been installed in houses. Snowmobiles, private planes, three wheelers, and pickup trucks are commonplace. All of this equipment requires maintenance and repair. Yet there are no machine shops, hardware stores, electronic repair shops, or boat works in the immediate vicinities of the smaller communities,

except what is available at the canneries. If a boat motor breaks during fishing it could mean economic disaster. As a result, the residents have proven themselves quite minded and innovative in repairing and maintaining machines, motors, and equipment. To a large extent this proficiency is required by necessity. Fishing is an equipment oriented occupation and repair facilities are not necessarily immediately available.

The second value-independence-derives from both fishing and community existence. Independence has been repeatedly shown to be the top value among fishermen (Poggie and Gersuny 1974 and Payne and Doraz n.d.). The Bristol Bay communities themselves strengthen this value of independence. These communities have existed for many years, to a large degree, isolated from the rest of Alaska and the United States. They have functioned, met their needs, and been quite successful without large scale governmental support or interference. This has developed a tradition of independence and self-reliance.

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