

VILLAGE SUBSISTENCE USE AREAS

III. C. 1. Social Factors

1. Social Factors:

The proposed lease area encompasses a variety of communities ranging from the urbanized Kenai-Soldotna areas in Cook Inlet to the small Native villages and smaller unorganized communities of both Cook Inlet and Kodiak Island which prefer to remain relatively isolated from urban influences in order to pursue a predominantly subsistence-fisheries lifestyle.

This social factors section reflects these different orientations of communities by emphasizing the smaller subsistence-oriented villages in the subsistence section (III.C.1.d.), and the larger, more urbanized communities in the discussion of community infrastructure (III.C.1.b.). Section III.C.1.a. summarizes population composition for the whole area and section III.C.1.c., sociocultural systems treats regional- and community-level sociocultural systems, insofar as data are available.

a. Population:

The history of human habitation of the Kodiak Islands and the coasts of Cook Inlet date back at least 2000 years when the area's original inhabitants, the Aleut and Chugach Eskimo, and later the Koniag and Kenaitze Indians established permanent settlements in the area. The original capital of Russian America was established at Three Saints Bay, Kodiak Island in 1784, with trading posts established near Kasilof in 1786, and at the mouth of the Kenai River in 1791. (Davis, N., 1980, and Braun, S. R. and S. R. Behnke, 1980). During the more recent past, military expansion and growth of local fisheries on Kodiak Island, and homesteading, oil, tourism, and fisheries development in Cook Inlet have added to the populations and economies of these areas, creating the present towns of Kodiak and Port Lions on Kodiak Island and Kenai, Soldotna, Seldovia, and Homer along the shores of Cook Inlet. Some of the smaller villages of Kodiak Island and homesteads and villages on Cook Inlet have also grown during the recent past while others have maintained relatively stable populations or declined slightly.

Tables III.C.1.a.-1 and III.C.1.a.-2 indicate recent population trends for Kodiak City and the Kodiak Census Division as a whole, while table III.C.1.a.-3 shows historical and current populations for Kodiak villages. Table III.C.1.a.-4 tabulates racial composition of Kodiak City and Kodiak Island villages.

Population growth between 1950 and 1960 in Kodiak City was substantial, with continued growth of the Kodiak Naval facility and conspicuous growth of the Kodiak crab fishery. While the populations of most of the larger villages on Kodiak Island grew slightly during this period, the overall Census Division population declined slightly between 1970 and 1977. The gradual phaseout of Naval facilities on the Island is largely responsible for these Census-wide declines.

Tables III.C.1.a.-5 and III.C.1.a.-6 show population trends for Kenai-Cook Inlet towns and villages for the 1960-78 period. The most substantial growth during this period is in

the Kenai-Soldotna area, reflecting expansion of these towns in response to oil and gas development primarily. While historic population statistics for the Nikiski-North Kenai industrial area are not available, this unincorporated area had a population of 3,485 (two Nikiski precincts) in 1978, compared with virtually no population in the mid-1950's. Homer's growth has been more moderate, in keeping with growth in fishing and fish-processing, tourism, and recreation in the area. Anchor Point's population has also grown substantially from a recorded 102 in 1970 to 1,447 counted in the 1978 Census.

Tables III.C.1.a.-7 and III.C.1.a.-8 indicate population composition for the Kenai-Cook Inlet Census Division in both 1970 and 1978. In this area, the Native population of Tyonek and Kenai is primarily Indian, while Ninilchik, Seldovia, English Bay, and Port Graham Native people consider themselves Aleut (Alaska's Village Population, ISER, September, 1973).

Detailed discussion of population characteristics and trends can be found in Alaska Consultants, 1979 and 1980; Payne, J., 1980; Davis, N., 1980; University of Alaska, 1980; and Braund, S. R. and S. R. Behnke, 1980.

Table III.C.1.a.-1
Population Trends
Kodiak, Alaska
1950-1978

Year	Population	Percentage Change
1950	1,710	
1960	2,628	53.7
1970	3,798	44.5
1977 a/	4,260	12.2

a/ The 1977 population for the City of Kodiak was estimated by Kramer, Chin & Mayo, Inc. (July 1978) at 4,260. Excluding the Coast Guard base, the same firm estimated the total 1977 population of the Kodiak road-connected area at 6,050. According to the U.S. Coast Guard, approximately 2,500 people (including dependents) live on base. Thus, the total population of the Kodiak road-connected area is approximately 8,550 persons.

Source: Alaska Consultants, Inc. 1979. Table 81.

Table III.C.1.a.-2
Population Trends
Kodiak Census Division a/
1950-1977

Year	Population	Percentage Change
1950	6,264	
1960	7,174	14.5
1970	9,409	31.2
1977	8,893	-5.5

a/ Includes Akhiok, Kaguyak, Karluk, Kodiak, Larsen Bay, Old Harbor, Ouzinkie, Port Lions, and Woody Island.

Source: Alaska Consultants, Inc. 1979. Table 82.

Table III.C.1.a.-3
Kodiak Village Population
1880-1978

	1880	1890	1950	1960	1970	1978
Akhiok	114	*	72	84	115	114
Old Harbor	160	*	121	193	290	330
Karluk	302	1,123	144	129	98	98
Larsen Bay	*	*	53	72	109	137
Ouzinkie	45	*	177	214	143	200
Afognak-Port Lions	339	409	158	190	227	251

* No data available.

Source: University of Alaska, Institute of Social and Economic Research. 1980. Tables 1 and 2.

Infrastructure

Table III.C.1.a.-4
Kodiak City and Village
Population by Race,
1970

	White	Aleut	Other	Total
Akhiok	2	113	0	115
Old Harbor	9	297	2	308
Karluk	3	95	0	98
Larsen Bay	18	91	0	109
Ouzinkie	17	137	6	160
Afognak-				
Port Lions	43	176	8	227
Kodiak City	3,094	497	225	3,798

Source: University of Alaska, Institute of Social and Economic Research. September, 1973. "Age and Race by Sex Characteristics of Alaska's Village Population." Alaska Review of Business and Economic Conditions. Vol. X, No. 2.

Table III.C.1.a.-5
Population Trends
Kenai-Cook Inlet Census Division Towns and Villages
1960-1978

	1960	1970	1978	Percentage Change 1960-1978
Homer	1,247	1,083	2,054	64.7
Kenai	778	3,533	4,374	462.2
Seldovia	460	437	485	4.3
Soldotna	332	1,202	2,368	613.3
Tyonek	187	232	310	1.4
English Bay	78	58	110	.5
Port Graham	139	107	230	1.0
Ninilchik	169	134	470	2.1
Seldovia	460	437	485	2.2

Sources: Alaska Consultants, Inc. 1980. Tables 1 and 2. Braund, S. R. and S. R. Behnki. 1980. Table 7.

Table III.C.1.a.-6
Census of Population
Kenai Peninsula Borough
July 1978

Census Precincts	Population
Election District No. 10	
City of Kenai Precincts	4,374
Nikiski Precinct No. 1	1,481
Nikiski Precinct No. 2	2,004
City of Soldotna Precinct	2,368
Ridgeway Precinct	1,473
Kalifonsky Precinct	1,707
Tustumena Precinct	881
Sterling Precinct	1,384
Ninilchik Precinct	470
Anchor Point Precinct	1,447
Fritz Creek Precinct	876
Diamond Ridge Precinct	433
City of Homer Precinct	2,054
Halibut Cove Precinct	85
Seldovia Precinct	584
English Bay Precinct	110
Port Graham Precinct	230
Tyonek Precinct	310
Total Election District No. 10	22,271
Total Kenai Peninsula Borough	25,335

Source: Alaska Consultants, Inc. 1980. Table 2.

Table III.C.1.a.-7
Composition of Population by Race and Sex
Kenai-Cook Inlet Census Division, Alaska
1970

Race	Sex		Total	Percent of Total
	Male	Female		
White	7,019	6,028	13,047	91.6
Negro	65	40	105	0.7
Indian	259	219	478	3.4
Other	325	295	620	4.3
TOTAL	7,668	6,582	14,250	100.0

Source: University of Alaska, Institute of Social and Economic Research. September, 1973. "Age and Race by Sex Characteristics of Alaska's Village Population." Alaska Review of Business and Economic Conditions. Vol. X, No. 2.

Table III.C.1.a.-8
Composition of Population by Race and Sex
Kenai-Cook Inlet Census Division, Alaska
1978

Race	Sex		Total	Percent of Total
	Male	Female		
White	11,255	9,828	21,083	94.7
Negro	27	17	44	0.2
Other Races	563	581	1,144	5.1
TOTAL	11,845	10,426	22,271	100.0

Source: Kenai Peninsula Borough, Growth Monitoring Program Advisory Committee. March, 1979. Kenai Peninsula Borough: Special Census of the Population. Special Report Number 1.

Introduction: Sources of information for the following discussion are: Alaska Consultants, Inc. (1980), Technical Report No. 46, Vol. 1; Alaska Consultants, Inc. (1979), Technical Report No. 32; Alaska OCS office personnel; and personal communications with Port Lions City Clerk, April through June, 1980.

Local Government: The city of Kodiak is a home rule municipality with a council-manager form of government. Port Lions is a second-class city with an elected council and appointed city clerk who functions as a city manager. Both are within the Kodiak Island Borough, which is a second-class local government unit, and is responsible for the unincorporated areas within its boundaries.

The cities of Kenai, Soldotna, and Homer are all first-class cities within the Kenai Peninsula Borough. They each have a council-manager form of government. The Kenai Peninsula Borough is a second-class local government unit, and is responsible for the unincorporated areas within its boundaries.

Housing: An inventory of housing conducted by Simpson, Usher, Jones, Inc., in the summer of 1976, counted 1,973 housing units in the Kodiak road-connected area, with an additional 557 units on the Coast Guard station. Excluding Coast Guard housing, 1,141 units or 58 percent were single family. While the number of multifamily units is higher than the average Statewide, it is not unlike other Alaska coastal towns with large transient populations associated with the fishing and fish processing industry.

A survey of housing conditions undertaken by Simpson, Usher, Jones, Inc., in conjunction with the housing inventory, determined that Kodiak housing is in generally good condition. By housing type, the larger apartment buildings were found to be in the best condition.

Residential construction activity in Kodiak has increased in recent years. Despite new construction, however, Kodiak can be assumed to have a zero housing vacancy rate. The lack of housing for plant workers was cited as a problem by most seafood processors in Kodiak, and it is apparent that this community has a severe housing shortage, at least seasonally.

Port Lions has a total of 69 housing units. Due to the relocation of the community after the 1964 earthquake, all of the units are relatively new. Housing in Port Lions is, nonetheless, quite scarce with crowded conditions in the existing units and a lack of available homes for either the younger population or for newcomers, such as teachers. To help alleviate this problem, 35 new Housing and Urban Development homes are planned for completion in the winter of 1981. These new homes will receive all city services, such as water and sewer. Despite this new construction, a housing shortage will continue to exist in Port Lions.

Housing stock in Kenai is in generally good condition. A 1976 Urban Observatory study found less than one percent of Kenai's housing to be in poor condition. Housing costs in Kenai are quite high. According to the Urban Observatory, the typical Kenai resident paid an average of \$311 per month in rent or mortgage payments in 1976. This contrasted with an average of \$285 in Soldotna.

Published data on housing characteristics in the North Kenai area are extremely limited. A review of 1974 aerial photographs of the North Kenai area by Human Resources Planning Institute, Inc. determined that a large share of the housing there consisted of mobile homes in trailer courts. Human Resources Planning Institute, Inc. also observed that a large number of once occupied trailer court spaces were empty. It appears that much of the permanent labor force at the petroleum complex lives in Kenai and Soldotna where public facilities and services are more readily available.

According to the Urban Observatory, most housing in Soldotna is in single family units. A survey conducted by Frykholm Appraisal Services in March 1978 and March 1979 determined the rental unit vacancy rate in Soldotna to be 16 percent (1978), and 31 percent (1979). The completion of construction of the Collier Carbon petrochemical plant addition in the nearby Nikiski industrial area, and the subsequent outmigration of a large group of construction workers is believed to be a major factor in high vacancy rates in the Kenai-North Kenai-Soldotna area.

According to the Urban Observatory, Soldotna had a lower proportion of single family and multifamily units and a higher proportion of mobile homes than most other communities in the borough in 1976. The proportion of owner occupancy in Soldotna is higher than all other towns in the borough observed by the Urban Observatory, primarily because of the low proportion of multifamily housing units.

Soldotna's housing stock is in generally good condition. In 1976, the Urban Observatory found slightly over 10 percent to be in poor condition. As reported by the Urban Observatory, the typical Soldotna resident paid an average of \$285 per month in rent or mortgage payments in 1976. While this was lower than the average of \$311 per month paid by Kenai residents, it was substantially higher than was the case in Seward and Seldovia primarily because Soldotna's housing stock is relatively new.

An inventory of housing conducted by the Anchorage Urban Observatory in 1976 counted 432 housing units inside Homer's corporate limits. Two hundred and fifty one units, or 58 percent, were single family units. Compared to other Kenai Peninsula communities surveyed by the Anchorage Urban Observatory in 1976 (Seward, Kenai, Seldovia, and Soldotna), Homer has a high percentage of housing in mobile homes or trailer units and a very low percentage of multifamily units. The absence of multifamily or apartment units has resulted in a high proportion of owner-occupied units in Homer. The ratio of single family to multifamily units remains high; however, new construction since 1976 has substantially increased both the number and proportion of multifamily units.

According to the Kenai Peninsula Borough Planning Department, many of the older housing units in Homer are in poor condition. Because of the age of the housing and because knowledge of construction methods and materials was often limited, much of Homer's older housing falls below accepted standards for larger communities. Much of Homer, both inside and outside the city limits, is sparsely settled, making the provision of sewer and water service difficult and expensive. In 1978, the University of Alaska found that only 66 percent of the community's households received city water, while just over half (54 percent) were on the city sewer system. In general, however, most new housing within the city limits receives both services and is in good condition.

According to borough planning officials, housing remains in short supply in Homer despite the recent construction of a large number of new units. As a result, both purchase prices and rents are higher than in other peninsula communities. In addition, home financing is difficult to obtain, particularly for medium-priced homes. The Farmers Home Administration, a primary source of funding for medium-priced homes in the State, has placed a moratorium on financing in Homer until the city solves its drainage problems. The Federal Housing Administration, another source of home financing for medium income families, has historically been reluctant to insure financing for homes not connected to public sewer and water systems.

Water Service: Kodiak presently derives its water from two surface sources. One reservoir at Monashka Creek and four reservoirs at Pillar Creek. Water services are provided within the city limits and outside the city to Mill Bay Road and the Spruce Cape Loran Station, northeast of town, and as far south of town as Gibson Cover.

Water consumption in Kodiak varies from 11355 kiloliters (3 mil. gal) per day when the major seafood processing plants are not operating to 45420 kiloliters (12 mil. gal) per day in July and August at the height of the fish processing season. During peak consumption, the system operates at design capacity, and when stream flow is low, there are water shortages. This poses a threat to fire protection, and raises the possibility of large fish product losses during peak harvests. It also discourages the construction of new water-dependent industry and residential development. Studies undertaken by the city of Kodiak have determined that expansion of the water system requires construction of a dam at Monashka Creek. Additional improvements could increase storage capacity.

Water service in Port Lions is provided to the entire community. The gravity-fed system utilizes a 15,000-gallon storage facility and a water treatment plant. The system has a pump capable of boosting flow to 500 gallons per minute for firefighting purposes. A new system including a 200,000-gallon holding tank and new lines to all homes is expected to be completed in the fall of 1981.

Water service in Kenai and to Wildwood just north of the city is provided to about half of the community's residences and commercial establishments from two wells at Beaver Creek. Industrial users have developed their own water systems.

North Kenai is without community water service. Most residents obtain water from private wells, while the petrochemical and light industrial plants and residential development along Arness Dutch Road have individual water systems.

Soldotna derives its water from two wells located at the borough building and at Mile 1 on the Kenai Spur Road. A third well is under construction near the new high school. Water service is provided within the city limits, although outlying areas to the north and east, and the municipal airport on the south side of the river are not on the system.

Fluctuations in ground water levels in the North Kenai-Kenai-Soldotna area have been cause for some concern. Extended and severe fluctuations will necessitate the development of another water source. A recent Kenai Peninsula Borough study has concluded that with substantial growth in the area, some source other than ground water will have to be developed.

Homer presently derives its water from the Bridge Creek Reservoir located 1.6 kilometers (1 mi) north of town. Recent population growth in Homer has placed significant demands on the city's water system. While the Bridge Creek water supply is adequate to accommodate substantial additional growth in both residential and industrial demand, water storage, and treatment facility capacities are restricted. Existing capacity at the treatment plant is sufficient to serve a population of 2,350 if industrial demand remains relatively constant. The Kenai Peninsula Borough Planning Department estimates that an additional 2650 kiloliters (0.7 mil. gal) in water treatment capacity will be required by 1980-81.

Sewer Services: The Kodiak sewer system is confined primarily within Kodiak's corporate boundaries but does not extend east out of town into the Mission Lake and Kodiak subdivision areas. The system also accommodates domestic wastes from the processing plants, but industrial wastes are hauled by truck to the Bio-Dry plant where they are converted to fertilizer and meal.

The capacity of the sewer system is reportedly adequate to meet existing demands from the area it serves. A separate storm sewer system serves the improved road area within the city limits.

Kodiak's sewage is treated at a new facility located just outside town. The design of the new plant is based on a projected service area population of 9,500 for the year 1995.

All of Port Lions is currently provided sewer service through a 16,000 gallon primary septic system. A new 60,000 gallon septic system which is under construction will service the entire community, including the new homes.

The Kenai sewer system is confined primarily within Kenai's corporate boundaries, although it does extend to Wildwood north of the city. Slightly fewer than the water customers are serviced by the sewer system. The system serves about 30 percent of the city's developed land. Not served by the system are industrial users, which have their own independent systems, Beaver Loop Road, and the Kenai Spur Road beyond Candlelight Drive. Although the system is adequate to meet community needs at the present time, portions of the system will require upgrading over the next 20 years to meet anticipated growth.

Sewage is biologically treated through an extended, aeration-activated sludge process. Treated wastewater is dumped into the Kenai River estuary and flushed by tidal action into Cook Inlet. Dewatered sludge is hauled by tank truck to an underground sludge pit. In order to meet Environmental Protection Agency standards, additional treatment processes will be required. The city is currently implementing recommendations for upgrading and expanding its treatment facility.

There is presently no sewer system in North Kenai, nor are there plans to construct one. Domestic wastes are disposed of with individual septic tanks.

The Soldotna sewer system was constructed in 1972 in conjunction with the water system and serves essentially the same area. The existing system is adequately sized to accommodate present and future flows except for the 25.4-centimeter (100-in) line leading to the treatment plant.

The sewage treatment plant is designed to process an average load of 984 kiloliters (0.26 mil. gal) per day and a peak flow of 1514 kiloliters (0.4 mil. gal) per day. In 1977, CH2M-Hill determined the average daily flow through the plant to be approximately 1059 kiloliters (0.28 mil. gal), and the peak flow to be about 1627.6 kiloliters (0.43 mil. gal) a day, well above design standards. Both average and peak flows are highest during the winter months when taps are left running to prevent lines from freezing. Because of excessively high flows and equipment inefficiencies, the plant cannot produce an effluent which will meet Federal standards. After several years of planning, an RBC (Rotating Biological Contact) treatment process plant will begin construction in 1980, with completion scheduled for 1981.

The Homer city-operated sewer system serves the central commercial district and residential areas to the north and east of town. Not served by the system are the Homer Spit and outlying subdivisions within Homer's corporate limits. The city has no storm sewer system.

The Comprehensive Sewer Plan, developed by CH2M-Hill in 1977, and subsequently adopted by the city, forecasted that Homer's sewer system would be adequate for service area needs through 1984. Since 1977, however, population has increased faster than projected and new residential development is of a higher density than anticipated. The Kenai Peninsula Borough Planning Department estimates that if these trends continue, new sewer construction will be necessary by 1982. Sewage treatment on the Homer Spit is presently handled by individual septic tanks with soil absorption systems.

Solid Waste Disposal: The cities of Kodiak and Port Lions each provide solid waste disposal services. The Kodiak landfill is considered inadequate for a number of reasons. The Port Lions landfill has been recently upgraded and has an anticipated useful life of 15 years.

The Kenai Peninsula Borough has assumed areawide solid waste disposal powers. The Kenai-Soldotna area is serviced by a private contractor utilizing two landfills. Both landfill sites are nearly filled to capacity and the borough will have to locate new landfills in the near future. Homer is serviced by a private contractor utilizing a new sanitary landfill which is estimated by the borough to have a useful life of at least 5 years.

Electrical Power: Kodiak and Port Lions are served by the Kodiak Electric Association. Power is currently diesel-generated, and system capacity in Kodiak is to be upgraded to meet demands through the early 1980's. Plans are currently underway to construct a small hydroelectric generating system in Port Lions to replace the current diesel-generated system.

The proposed Terror Lake Hydro-Electric project would be capable of producing enough power to satisfy the entire Kodiak Island Borough's needs for the foreseeable future.

The North Kenai-Kenai-Soldotna and Homer areas are all provided electrical power by the Homer Electric Association. Adequate power is available for any foreseeable future demand, barring prohibitions on the use of natural gas power generation.

Fire Protection: Fire protection is provided by the City in Kenai, Soldotna, Homer, Kodiak, and Port Lions. Additionally, the North Kenai/Nikiski area is a fire protection service area of the Kenai Peninsula Borough.

Port Lions and Homer are serviced by an all volunteer department, while Kenai, Soldotna, North Kenai/Nikiski, and Kodiak fire departments consist of a mix of paid staff and volunteers.

Emergency Medical Services utilizing ambulances are provided by trained personnel in Kodiak, Soldotna, Kenai, North Kenai, Nikiski, and Homer.

Police Protection: Each of the affected communities provide police protection within their own corporate limits. Police protection outside of the cities is provided by the Alaska State Troopers. Police to population ratios in the five communities range from a low of 1 to 300 in Soldotna to a high of 1 to 525 in Kodiak.

Jail facilities exist only in Kenai, Homer, and Kodiak, and each of these service their respective areas. Each is considered adequate for present needs.

Communications: Glacier State Telephone Company provides telephone services to the entire affected area. Long distance service is provided by Alascom's earth installation or by trunk lines. Service in all the communities is considered adequate with some growth potential.

Health Services: Health services in the Kodiak area are provided by a combination of State, borough, city, and private organizations. Health facilities include the 25-bed Kodiak Island Borough hospital, privately operated doctors' offices, the Kodiak Health Center operated by the State of Alaska, Department of Health and Social Services, the Kodiak-Aleutian Mental Health Center, and the Kodiak Council on Alcoholism.

The Kodiak Island Borough Hospital is located within the city limits and is designed to fulfill the hospital needs of the entire borough. In September 1978, the hospital had a total of 25 beds. A new wing of the hospital scheduled for completion in the near future will accommodate 19 nursing home beds, bringing the hospital's total bed capacity to 44. The medical staff associated with the hospital includes five doctors. In recent years, occupancy rates have declined from 54

percent in 1973 to 42 percent in 1977. This would seem to indicate that the Kodiak hospital has adequate room to absorb additional population growth in the community.

In the absence of an outpatient clinic at the Kodiak Island Hospital, outpatient demands are fulfilled by private and public clinics and private practitioners in the downtown Kodiak area. In September 1978, five dentists had offices in downtown Kodiak.

The State of Alaska Department of Health and Social Services operates the Kodiak Health center which is staffed with three registered nurses. The health center offers the full-range of public health nursing services.

Port Lions is served by a two-bed infirmary, in addition to a clinic with two examining rooms, and an X-ray room. Staff includes a doctor, a community health representative, and a health aide assistant (in addition to visiting public health nursing services, and physician and dental services).

Health services in the Kenai, North Kenai, and Soldotna areas are provided by a combination of public, semi-public, and private organizations. Health facilities include the borough-owned 30-bed Central Peninsula General Hospital in Soldotna, the Kenai Health Center operated by the State Department of Health and Social Services, and the Medical Center at Wildwood which is run by the Kenai Native Association. In addition, ten doctors and seven dentists have private offices in Kenai and Soldotna.

With a 1977 occupancy rate of 31 percent, the Central Peninsula General Hospital has sufficient beds to accommodate a substantially larger population. However, for outpatient care, both space and equipment are inadequate to meet existing demand and cannot accommodate any additional growth.

Health services in the Homer area are provided by a combination of State, borough, city, and private organizations. Health facilities include the 17-bed South Peninsula Hospital and privately operated doctors' offices. Six doctors and two dentists have private offices in the Homer area. The State of Alaska Department of Health and Social Services operates the Homer Health Center from which a public health nurse offers a full range of public health nursing services. With a 1977 occupancy rate of 39 percent, the Homer hospital appears to have adequate room to absorb additional population growth in the area.

Education: As a second-class borough, the Kodiak Island Borough is responsible for the construction, maintenance, and operation of the public school system throughout the borough. The borough operates a total of 13 schools. This includes 8 village schools, 3 elementary schools, a junior high school, and a senior high school in the city of Kodiak. Although the Kodiak Aleutian High School was originally designed to be the secondary facility for the entire borough, the borough has recently begun to provide secondary education programs in the villages as well. See table III.C.1.b.-1 for a summary of school facilities information.

Elementary students in Kodiak attend one of three public schools; East Elementary School, Peterson Elementary School, and Main Elementary School. All Kodiak 7th and 8th graders attend Kodiak Junior High School. Kodiak Aleutian High School serves students in grades 9 through 12. Although Kodiak's population has increased since 1970, total school enrollment has declined. By far the largest decline has taken place in the elementary school population. The high school decline can be explained in part by the gradual introduction of secondary programs in the villages, thereby reducing the number of boarding students.

According to school district personnel, Kodiak's elementary schools are currently operating at capacity and substantial increases in Kodiak's population could require the construction of new elementary facilities. The Main Elementary Junior High School complex is in marginal condition and deteriorating rapidly. It is obvious that the plant will require substantial investments in the next several years to bring it up to operating standards. Kodiak Aleutian High School is in good physical condition and is large enough, according to school district personnel, to accommodate double its current enrollment without excessive crowding.

Since the recent construction of the addition to the Port Lions school, grades K-12 have been served. With the addition of high school grades in the community, enrollment has increased. The facility itself is large enough to accommodate some growth.

Elementary and secondary educational services in Kenai, North Kenai/Nikiski, Soldotna, and Homer are the responsibility of the Kenai Peninsula Borough School District headquartered in Soldotna. The School District is responsible for all services and the maintenance of the school plants, while the borough is responsible for the construction of new school facilities, as required. See table III.C.1.b.-1 for a summary of school facilities information.

Kenai area school children are served by four separate school complexes. These include: Sears Elementary School, Kenai Elementary, Kenai Junior High, and the Kenai Central High School. At present, Kenai Central High School accommodates students from Kenai, North Kenai, Kalifonsky, Kasilof, Soldotna, Sterling, Cooper Landing, and adjacent areas. With the addition of the new Soldotna High School complex, students in grades 9-12 from Soldotna, Cooper Landing, Sterling, and Kalifonsky will attend that facility. The Kenai Junior High will be organized to accommodate grades 7 and 8, and Kenai Central High School will serve students in grades 9-12.

Barring an influx of population related to unforeseen economic development, it is anticipated that elementary school enrollments will remain relatively constant in the next 5 years, while junior and senior high school enrollments in Kenai will decline in 1980 with the opening of the new Soldotna High School. Since elementary schools are currently operating at far below capacity, no new facilities are expected to be needed in the next 5 years.

Elementary school students in North Kenai and Nikiski use the North Kenai Elementary School. The school district estimates that the North Kenai enrollment will continue to undergo modest increases during the next 5 years.

Although the existing 19-classroom facility is in good condition, present enrollment exceeds North Kenai Elementary School's 400-student capacity. With anticipated growth, the school will be inadequate to meet student needs because the existing site is too small to accommodate a major expansion. The school district has recommended the acquisition of a separate 4-hectare (10-acre) site further to the north in the Nikiski area. The school district has proposed that the borough construct a new building to include a kindergarten and nine classrooms, a multi-purpose room, a library, a kitchen, a clinic, and an office suite. As of June 1979, the borough had not acted upon this proposal.

In the fall of 1979, Soldotna schoolchildren in kindergarten through ninth grade attended three separate schools: Soldotna Elementary School, the new Redoubt Elementary School, and Soldotna Junior High School. Until the fall of 1980, when the new high school is completed, students in grades 10 through 12 will attend Kenai Central High School. Beginning in 1980, the new high school will house grades 9 through 12 and the junior high school, which also serves Kasilof, will be reorganized to accommodate grades 7 and 8 only.

Table III.C.1.b.-1
Summary of School Facility Information - Selected Kenai Peninsula Borough
and Kodiak Island Borough Communities

Facility	Grade	Site Size	No. of Classrooms ^{1/}	No. of Teachers	Enrollment
Kenai					
Sears Elementary	K-3	8.1 hectares	20	20	
Kenai Elementary	4-6	1.4 hectares	21	18	656 ^{2/}
Kenai Junior High	7-8	8.1 hectares	25	28	504*
Kenai Central High	9-12	21.4 hectares	37	52	804*
North Kenai					
North Kenai Elementary	K-6	4.0 hectares	19	20	414*
Soldotna					
Soldotna Elementary	K-6	2.7 hectares	26	30	
Redoubt Elementary	K-6		22	18	694 ^{4/}
Soldotna Junior High	7-9	32.4 hectares ^{3/}	19	25	454*
Homer					
East Homer Elementary	K-5	25.0 hectares	14	18	371*
Homer Jr./Sr. High	8-12	15.3 hectares	19	28	417*
Kodiak					
East Elementary	K-6		19		
Peterson Elementary	K-6		22		
Main Elementary	K-6		20	52 ^{5/}	971 ^{6/}
Kodiak Junior High	7-8		20	18	235**
Kodiak Aleutian High	9-12		20	42	502**
Port Lions					
Port Lions School	K-12		5	6	56***

1/ Classrooms only and does not include shops, gyms, special purpose rooms, etc.

2/ Includes all elementary enrollment in Kenai.

3/ Shared with Redoubt Elementary.

4/ Includes all elementary enrollment in Soldotna.

5/ Total elementary teachers in three Kodiak schools.

6/ Includes all elementary enrollment in Kodiak.

*Enrollment for school year 1978-1979.

**Enrollment for school year 1977-1978.

***Enrollment for school year 1979-1980.

Source: Alaska Consultants, Inc. 1980. Technical Report No. 64, Volume 1. Alaska Consultants, Inc. 1979. Technical Report No. 32. Kodiak Island Borough personal communications (Kodiak schools site sizes only). Kodiak Island Borough School District personal communications (Port Lions enclave only).

Borough enrollment projections for Soldotna schools through 1982-83 anticipate further increases in both elementary and junior high school enrollment. While the high school and junior high school are considered adequate through this period, elementary school capacity will again be reached in 1982-83 if enrollment projections are realized. The school district has recommended the addition of ten classrooms to the new Redoubt Elementary School, and the proposal is under consideration by the borough.

Homer schoolchildren are presently housed in separate elementary and secondary school complexes. East Homer Elementary School serves the Homer road-connected area up to, but not including, Anchor Point. The Homer Junior/ Senior High School serves students from grades 6 through 8 in the Homer area and as far north as, but not including, Anchor Point. Anchor Point students from grades 9 through 12 attend the Homer facility.

Enrollment projections for the Homer schools through 1982-83 anticipate additional increases in both elementary and secondary enrollment. With the recent addition of nine classrooms, borough school district officials feel that classroom capacity at the Homer Junior/Senior High School will be adequate through this period.

The East Homer Elementary School is seriously overcrowded and cannot accommodate anticipated enrollment increases. Two portable classrooms added in 1978/1979 and a third portable to be added in the summer of 1979 will provide temporary space relief. But, according to the borough school district, a long-term solution will require the construction of additional permanent classrooms. Two expansion proposals are currently under consideration by the borough.

c. Sociocultural Systems: The following discussion begins with analysis of Kodiak, then treats Shelikof Strait villages, then discusses the towns and villages of lower Cook Inlet.

Kodiak: The following discussion is taken from Payne (1980) and Davis (1980).

The present community of Kodiak has a blending of Native and non-Native fishing and military, Russian, Scandinavian, and Filipino cultures built up over a long and colorful past. The city and neighboring Afognak Island were centers of Russian-American government and trade during the Russian occupation of Alaska following several centuries of continuous occupation by Aleut and Koniag people. Military expansion, first by the Navy and later by the Coast Guard, added to Kodiak's population and economy. The expansion of the crab industry and diversification of fisheries around Kodiak have added to the town a premier fishing fleet and its resident and transient fishermen and their families.

Fishing is Kodiak's most important economic and employment activity today. Kodiak became the largest port in the United States in 1968, in terms of dollar volume. Fishing provided 48 percent of Kodiak's wage/salary payments in 1973 and 46 percent in 1974. There was an annual average of 1,639 persons in manufacturing (fish processing) in Kodiak in 1976. This is estimated to have increased to 2,489 for 1977. Table III.C.1.c.-1 shows the 1969-1976 commercial fishing permit trends for Kodiak residents. See section III.B.2. for more information on the Kodiak fishing industry and III.C.2.b. on Kodiak's economy.

Simply stating the number of employees engaged in fisheries and related activities, or stating the value of fish procured does not provide the complete picture of this area's significance for the community. Because of Kodiak's fishing adaptation to the environment, the rest of the community with rare exception, is tied-in to this adaptation. For example, government is also considered a basic economic activity. Government representation includes the Alaska Department of Fish and Game and other State and Federal agencies which are directly related, in one way or another, to fishing activities. The largest governmental contingent is the Coast Guard. The Coast Guard displaced the Navy as the Navy moved out following World War II, and now has over 30,000 acres of land, the largest base in the Coast Guard system. It has the second largest Coast Guard workforce in the U.S. Without the fishing industry it is doubtful if this large population of Coast Guard employees would be stationed on Kodiak to perform rescue and enforcement activities.

Secondary industry, such as retail stores and restaurants, also exist in Kodiak to service the fishing industry. The fate of these industries is directly related to the fortunes of the fishing fleet. When fishing is good, business is also good.

According to one Kodiak fisherman, "fishermen from other areas and fishing representatives new to Kodiak say there is something different about a Kodiak fisherman. There is a compelling force that drives him, and its like a whirlpool that draws others."

Smith (1977) identifies the following characteristics of a fishing way of life:

- Uncertainty of the resource
- Ambiguity of territory
- Mobility of the marine biomass
- Multiple subsistence potential
- Danger and risk
- Polarization of sex roles

With the growth of Kodiak fisheries, competition between fishermen and between services catering to fishermen became intense. The long days of non-stop fishing were played out onshore with intensity in recreation as well. Alcohol abuse and alcohol-related crimes like assaults became common concerns of Kodiak residents. Families complained of the long separations which came with a more year-round fishery.

Another predominant group of workers in the Kodiak community is cannery workers. The historical pattern of cannery workers in Kodiak is similar to that found in the rest of Alaska. Up to the 1970's, cannery work was seasonal in Kodiak. The famous "China Crew" was composed of Chinese, Japanese, and later Filipinos who were brought to Alaska, under contract, from west coast cities. Since the 1970's a shift to a more year-round fishery has encouraged many cannery workers to take up residence in

Kodiak. One estimate for the Filipino population in Kodiak is that 50 percent of the Filipino labor force is transient now, while the other 50 percent is composed of permanent residents.

Like fishermen, cannery workers are financially dependent upon the catch, often working 12 hours per day, 7 days per week when "fish are in." Transient workers maintain this pace centered around bunkhouse accommodations provided by the canneries. Resident cannery workers often share housing to hold down costs, and can be more independent in working for whichever cannery is operating.

In keeping with its predominantly fishing-oriented economy, the community of Kodiak is tied to Juneau and Seattle primarily. "We are more reliant on Seattle. Everything we eat, do, and drive comes out of Seattle. If you want a skiff built, it is cheaper to fly down to Seattle, pick one out, and have it shipped here than to buy or have one built here." (Payne, 1980.)

Like the fishing fleet and cannery workers, other residents of Kodiak are drawn into the predominant fisheries lifestyle, its danger, intensity, and commitment, its recreational, social, and political imperatives. The isolation of Kodiak and its structure organized around the fishing industry have created a large number of government-related organizations, special interest organizations, and ethnic, recreational, religious, and Native groups. These include the Alaska Shrimp Trawler's Association, the United Fishermen's Marketing Association, and the Kodiak Island Setnetter's Association.

The relatively small size of Kodiak, over-lapping lines of communication, face-to-face contact, and Kodiak's isolation all encourage concern for local political issues on the one hand and rapid organization and mobilization around key concerns on the other. The predominant fishing community and related special interests provide the context within which major decisions for the community are made.

Approximately 15 percent of Kodiak's population is Aleut, Eskimo, or Indian according to 1970 census reports. Davis (1980) reports that a total of 99 Native-owned boats frequent the Kodiak harbor. Koniag and KANA provide employment for Native Kodiak residents, as do local canneries and retail stores. In contrast to white resident ties to Juneau and Seattle, Kodiak Natives are tied to the villages on Kodiak Island, as well as to families along the Alaska Peninsula or elsewhere from which they migrated. As Payne (1980) reports, "When asked if there is prejudice in Kodiak against Natives, one resident said 'A Native would say yes, a white would say no.'" For a complete discussion of Kodiak Island's multi-cultural community, see Davis (1980) and Payne (1980).

Shelikof Strait Villages: There are four primary settlements along the Shelikof Strait side of Kodiak Island: Karluk, Larsen Bay, Ouzinkie, and Port Lions. All are primarily Aleut villages dependent upon the subsistence resources of the local area. All are small systems of extended families who prefer this family intimacy; all are predominantly Russian Orthodox, in keeping with a long history of Aleut-Russian contact. These communities, like the community of Kodiak, live primarily from the sea. They are tied to the sea and its resources both for cash and for food. They work as commercial fishermen and women and cannery workers for cash and they participate in a yearly round of subsistence hunting, fishing, and gathering activities for a major portion of their diet. All villages are concerned with the increasing cost of living, as depicted in table III.C.1.c.-2.

In contrast to Kodiak, these villages are primarily linked to outside institutions and governments through a network of tribal, Native association, and corporation ties. With the exception of Port Lions, borough contact with these villages is minimal, strained, and largely mediated by the Kodiak Area Native Association (KANA), Koniag, Inc., and other village corporations of the Koniag region.

Table III.C.1.c.-1
 Number of Kodiak Residents Holding a Commercial Fisherman's License
 1969 - 1976

Year	Number of Residents	Year	Number of Residents
1969	632	1973	819
1970	787	1974	902
1971	791	1975	846
1972	756	1976	1,120

* A Kodiak resident is anyone who uses a Kodiak address when applying for a license.

Source: Commercial Fisheries Entry Commission, Commercial License File, and Alaska Sea Grant, 1980.

Table III.C.1.c.-2
 Kodiak Village Cost of Living Comparison^{1/}
 1979-80

	Average Food Basket Costs	Average Monthly Utility Costs
City of Kodiak	100	*
Old Harbor	106	\$240.00
Karluk	138	\$240.00
Larsen Bay	123	\$196.00
Port Lions	149	*
Ouzinkie	110	\$252.00

* Unavailable

^{1/} Based on average food basket costs and actual utility costs per household.

Source: KANA OEDP Committee, 1980. 1979 OEDP Report.

Continued on 5 of 5

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT

Graphic 14 continued

Karluk: Karluk is a small village of 98 people, most of whom belong to one of two large extended family networks. The community is located on a major red salmon river from which residents obtain a substantial portion of their diet. The village is becoming more dependent upon subsistence food since its store was destroyed by fire 2 years ago. Two or three hunters in the community hunt for members of their extended families and other residents. Fishing is even more of a community-wide pursuit. Fish are canned, smoked, dried, and salted for winter use according to family traditions. The community presently has no permanent village-wide source of electricity, which prevents freezing of subsistence foods. Rising fuel prices and air freight prices are major concerns in this village, because community cash resources are limited and housing costs and other costs associated with a remote location drain families' limited cash resources. Lack of subsistence technology was also mentioned--there are presently only three skiffs in the community; guns and ammunition for hunting are difficult to obtain and expensive without a local store. Alcohol abuse is a problem here.

See table III.C.1.c.-3 for a tabulation of fishing permits for each village located along Shelikof Strait. According to local residents, other Karluk fishermen fish as crew in the Chignik fishery or lease a Kodiak Island Seafood, Inc. boat in Larsen Bay. Trap lines are maintained by one community resident. Karluk has an active IRA (Indian Reorganization Act) Council, the only one on the island. In other respects, too, Karluk is one of the most traditional villages on Kodiak Island. Its traditions are maintained through isolation and preference and include family-centered food distribution and sharing, and active participation in a yearly cycle of Russian Orthodox holidays and observances.

Table III.C.1.c.-3
Number of Limited Entry Permits or Fishermen in Specified Fisheries
by Community, Shelikof Strait, 1980

Community	Number Fishermen	Salmon		Crab	Shrimp	Halibut	Herring
		Beach & Purse Seine	Drift Gill Net				
Karluk	8	8	---	---	---	---	---
Larsen Bay	23	11	12	3	---	15	4
Ouzinkie	17	16	1	6	---	7	1
Port Lions	15	15	---	10	---	5	5

Source: KANA OEDP Committee and Alaska OCS Office 1980.

Larsen Bay: Larsen Bay is a small village of 137 people, most of whom are related to one of three major extended families. Larsen Bay and Karluk village corporations recently purchased the local Kodiak Island Seafood, Inc. (KISI) Cannery which has encouraged resettlement of some Karluk families in Larsen Bay. This purchase is indicative of the long, close association of these two villages.

The KISI cannery in Larsen Bay dominates the visual landscape of the village and is the center of community activities, particularly during the summer salmon canning season. The productive environment of the area provides a rich and varied diet, and organizes year-round subsistence activities of local residents. Rising fuel prices, air freight prices, and alcohol abuse are concerns of this community.

Larsen Bay has both a city and tribal council which meet when needed at the local community hall. KANA-funded local employees provide medical, recreational, telephone, water, and sewer services to the village. There is no local Russian Orthodox Church, although ground has been consecrated.

Ouzinkie: This village of 160 is located on Spruce Island about one-half hour by skiff from the city of Kodiak. In addition to the village's own Russian Orthodox Church, another sacred site on the island, Monk's Lagoon, is a shrine to the Russian Monk, Father Herman.

This village has more of a blending of village and western cultures than either Karluk or Larsen Bay, stimulated, perhaps, by proximity to Kodiak city. Village life is centered around the Russian Orthodox Church, family fishing and other employment, and subsistence activities. Ouzinkie has an active city council, tribal council, school board, health committee, and planning and zoning committee. Ouzinkie Native Corporation is also active locally. Community opinion, like in Kodiak city, appears to be opposed to OCS exploration and development in the local area. Local control of land on Spruce Island and youth problems are central concerns in this village.

Ouzinkie Native Corporation recently purchased the Columbia Ward Cannery and other holdings at Port Bailey, which employs the majority of local fishermen and cannery workers and provides a well-stocked local store to the village. In addition to fisheries employment, Ouzinkie Native Corporation is also involved in timber extraction activities on Afognak Island employing approximately seven local residents.

Port Lions: Like Ouzinkie, Port Lions is a predominantly Aleut village with more of a blending of western and Aleut cultures. Also one-half hour by skiff from Kodiak, the city of Port Lions was renamed on relocation after the 1964 earthquake, in appreciation for aid provided by the Lions Club International. This modern village of 251 has most of the amenities of a much larger city, yet maintains fishing and family-centered church and community activities in keeping with its Aleut-Russian past. Fish camps in the area and on Afognak Island are centers of family subsistence activities; they co-exist with a modern independent fishing fleet once tied to the Port Wakefield cannery.

Port Lions is a second-class city, with an active administra-

tion and council, a less active tribal council, an active Russian Orthodox Church, another church, and numerous active committees formed by the council, the administration or the school. During local discussions here, it was learned that community opinion about OCS has shifted since destruction of the Wakefield cannery by fire in 1975 and subsequent financial difficulties of a floating processor. Present opinion appears to be skeptically sympathetic to OCS.

According to local residents, most of Port Lions fishermen own their own boats and are diversified in king, tanner, and Dungeness crab, halibut, herring, and salmon fisheries. Boats are larger here than in other villages, averaging between 38 and 52 feet, depending on the fishery. Local seiners fish primarily for the Port Bailey Cannery.

Afognak Native Corporation is a merger of former Afognak and Port Lions Village Corporations and now maintains an office in Kodiak. Primary corporate activity is centered on timber extraction on Afognak Island, with additional interest in a possible sawmill for the area and tourism on Afognak Island, once the local floating processor is sold.

Kenai-Soldotna Area: This discussion is taken from Braun and Behnke (1980).

The settlement of the Kenai-Soldotna area has occurred in several phases which have re-

flected people's changing evaluations of the resources of the area. The population and economy of the area have grown largely in surges or "booms" associated with these changing resource values, each of which has drawn the area into increasingly complex and interdependent networks of economic and political relations.

The first known settlers, Eskimos and Athapaskans, apparently moved into the area and stayed because of the relatively rich land and marine fauna. Russians came to find furs, prospectors arrived in search of gold, and commercial fishermen and canneries came after salmon. More recently, diverse groups have come in response to job and business opportunities created by the discovery of oil and the availability of land and recreation opportunities.

A limited social continuity has been maintained through time in the Kenai area, despite these booms, by the Tanaina Indians, the homesteaders, and the fishermen who arrived at different stages of the settlement process. There have been convergences, too, as members of each group have adapted to the new niches provided by oil-related economic growth. Strong interests in local historic sites and in fishing, hunting, and other outdoor sports help residents maintain continuity with the Kenai area's colorful past.

The village of Kenai is the site of the Russian's Fort St. Nicholas. By 1920 the village had a population estimated at about 330, making it one of the larger communities on Cook Inlet. While the population of the Kenai area was half Indian 30 years ago, the Kenaitze have been overwhelmed by the growing white population, and now comprise less than 2 percent of the total population of Kenai and Soldotna.

Many Kenaitze are commercial fishermen, involved primarily in set and drift net salmon fishing from the Kenai and Kasilof areas. Relationships between the Kenaitze and whites of the Kenai area vary from individual to individual, but seem generally cordial. Involvement in the local business community through Native corporations and significant increases in salmon runs and prices have improved the economic status of many Kenaitze, and have probably helped improve inter-ethnic relations.

In the early 1950's Kenai was still a small fishing village. Construction of the Sterling Highway, and a military communications site (Wildwood) marked the beginning of major shifts in the population and social composition of the Kenai area.

Although homesteading on the Kenai Peninsula never developed a viable agricultural economy (Johnson and Coffman, 1956), many of the long-term residents of the Kenai, Soldotna, and North Kenai areas acquired land in this way. Considerable local tradition and folklore have grown up around the homesteading experience. Some of the leading families of Kenai, North Kenai, and Soldotna were homesteaders; they take pride in their accomplishments, and the hardships they have survived. They also remember the friendships, cooperation, and sense of community which shared hardships fostered, and sometimes resent the impersonality of their growing communities.

With the Swanson River development, land values soared and homesteaders in Kenai, Soldotna, and along the highways subdivided their lands. Many started new businesses. The actual exploration, drilling, and development took place miles away, but people moved into the existing communities, and support services for tourism, oil development, and general population growth developed. Soldotna, with its crossroads location, became a population and service center largely as a result of these early oil discoveries.

The social ramifications of the Kenai oil boom were complex, but at the simplest level they can be related to the rapid growth of population. The population of the Kenai Peninsula more than

doubled from 1960 to 1970, from about 6,000 to more than 14,000 people. In the same period, Soldotna's population more than tripled, while Kenai's quadrupled. By 1970 about 50 percent of the population of the Kenai Peninsula lived in the Kenai area. One result of this rapid growth was a large population of newcomers who had few ties either to each other or to the Kenai area. Most development during the oil booms occurred along the highway system because people wanted good access to jobs and services and it was too expensive to maintain back roads. Trailer courts, businesses, and many homes were built close to the highways. As population increased, it became too large for everyone to know everyone else, and reciprocity and personal contacts began to give way to the increasing importance of more impersonal and market relationships.

Many of the oil field workers who came to the Kenai-Soldotna area came from Oklahoma, Texas, and California, and they brought their distinctive culture with them. Others, since the 1960's, have been attracted to the Kenai-Soldotna area by the chance to live in a small town or rural environment in the midst of high quality hunting, fishing, and recreational opportunities. This is particularly true of mobile workers who could work elsewhere, but prefer Kenai-Soldotna lifestyles.

The residents of Kenai and Soldotna differ to some extent in attitudes toward the growth of population in their cities. While a majority of the residents of Kenai would prefer to see the city's population remain the same, or smaller, a majority of Soldotna residents would like to see their city grow. The population of the rural and suburban areas outside the municipalities is growing more rapidly than urban population, and this changing balance will be reflected in reapportionment of the Kenai Borough assembly, which has been dominated by city representatives in the past.

Homer Area: The Homer area is located in the southcentral Kenai Peninsula, on the north side of Kachemak Bay. It includes the cities of Homer and Kachemak, and nearby unincorporated residential areas and commercial clusters, including the Fritz Creek, Diamond Ridge, and Anchor Point areas. The Homer area included about 4,800 people in the 1978 special census of the Kenai Peninsula Borough. The city of Homer, with a population of 2,055 in the same census, is the trade and service center for this large area. People from the surrounding unincorporated areas work in Homer, buy groceries and other goods there, and keep their commercial fishing and pleasure boats in the city's small boat harbor.

The sociocultural system of the Homer area differs significantly from those of the Kenai-Soldotna area, despite the fact that the areas are closely linked by transportation, trade, and political systems. The Homer area is more sparsely populated; it is economically dependent upon commercial fishing and tourism rather than the oil and gas industry, and it has not been subject to the major economic fluctuations which have characterized the development of the Kenai-Soldotna area. The beauty and bounty of Kachemak Bay, rather than boom economic conditions, have attracted people to the Homer area.

The earliest known settlement of the Homer area was related to interest in coal and gold in the 1880's and 1890's. The settlement of Homer was established on the tip of the long spit then known as Coal Point in 1896.

The construction of the Sterling Highway, connecting Homer with Kenai and Anchorage, began a new era in Homer during the 1950's. The highway connection ended Homer's winter isolation and made it easier to get supplies.

Fishing, both for subsistence and cash, has been an important part of the economy of the Homer area. Few of the early homesteaders were able to make a living from

their land, and they turned to fishing or cannery work. Fishing provided the major source of income after gold and coal mining subsided in the area in the early 1900's. Table III.C.1.c.-4 shows 1969-1976 commercial fisheries permit trends in Homer and other Kenai Peninsula communities.

By the 1950's salmon runs in Cook Inlet had declined and Kachemak Bay fishermen began to participate in the developing king crab fishery. In the last 3 or 4 years, the commercial fishing fleet, based in Homer, has grown rapidly. Fish prices have been rising and the value of the harvests has increased dramatically. More and more people have been getting into the crab and shrimp fisheries. Where two or three large operators took most of the crab and shrimp 4 or 5 years ago, many smaller operators are now sharing the harvest. Some Homer fishermen have become highly capitalized, operating large boats in the salmon, crab, shrimp, and herring fisheries. Others, particularly younger people just getting started, operate on a very small scale with small boats in the halibut and shrimp fisheries.

The mild climate and beauty of the Homer area, the possibilities for cannery and fishing jobs, the ease of access to the area by highway, and a growing reputation as a "hip" place have attracted diverse people to the Homer area during the 1970's.

Many of these people who have moved to Homer in recent years, old and young alike, share common interests and lifestyles with earlier settlers and homesteaders. All value their independence, and many are seeking to establish self-sufficient, self-reliant ways of life.

Because of the diversity and individualism of the area's residents, the politics of the Homer area reflect a continuous dialectic between individual freedom and community, quality and quantity, and public good and private gain. In a few cases, such as land-use issues centering on the Homer Spit, years of conflict and public dialogue, largely precipitated by the "threat" of oil development, have crystallized into public policy which spells out community goals and methods for achieving them. For the most part however, the future of the community is decided in a piecemeal way.

Seldovia: During the early decades of the 20th century, commercial fishing thrived in Cook Inlet. By the 1920's, the multi-ethnic community of Seldovia had changed from a Native village into a bustling fishing town with four canneries, a school, hotels, a Russian Orthodox Church, and saloons. Local citizens built a boardwalk connecting one end of the town with the other. Waterfront property was developed and the boardwalk became the trademark of Seldovia. In the 1920's, the herring boom fueled Seldovia's economy even more. More Euro-Americans arrived, and Seldovia, already a regular port of call, grew in significance. Inter-marriage between whites and Natives intensified, and Seldovia developed the character of a white frontier town, (Reed, 1978) which it has maintained to the present.

Port Graham and English Bay: Like Seldovia, Port Graham's welfare in the 20th century has been tied to the fishing industry. The cannery, constructed in 1912, apparently played a major role in the origin of Port Graham. Attracting Natives from the surrounding area, including English Bay, the cannery has been a significant agent of change for the Native village of Port Graham. The cannery also solidified, if it did not introduce, cash in the local economy. Both in Port Graham and English Bay, the intense summer activity associated with commercial fishing is replaced by more traditional subsistence hunting, trapping, and fishing during the other months.

English Bay remained a relatively isolated Native village, where the people might commercially fish or work in Port Graham's cannery in the summer, but during the rest of the year they returned to their village and continued their valued traditional

way of life. English Bay also grew to depend on a certain amount of cash, but due to its isolation, lack of a local cannery, and an effort by residents to retain a continuity with past customs, this village has remained more traditional than neighboring Port Graham. In the 1970's, when faced with OCS lease sale CI, English Bay vigorously opposed it (see U.S. Dept. of Interior, BLM, Alaska OCS Office, 1976). The villagers valued their traditional cultural patterns more than any potential benefits from development. Recent English Bay sentiments appear to have moderated, although the village still prefers its traditional isolation and style of life.

Ninilchik: Ninilchik, only accessible by sea for years, remained relatively isolated until the construction of the Sterling Highway in 1951. At that time, the community had a school which taught Russian and a Russian Orthodox Church. After World War II, many newcomers came to the area to homestead 160-acre tracts of land, and the community began to spread out into the surrounding countryside. After the highway was built, more homesteaders arrived, and these newcomers slowly began to dominate the community. In 1978, residents and landowners in the old Ninilchik village townsite formed the Ninilchik Village Council. The Ninilchik village, distinct from the highway community, is populated by both relative newcomers and some old time residents.

The population of Ninilchik village is approximately 23 persons. When these property owners called a meeting and formed the Ninilchik Village Council, they effectively excluded all those who did not own property in the village. The goal of the Ninilchik Village Council is to protect and preserve the culture, heritage, and private property of the townsite of Ninilchik village. Ninilchik is inundated by tourists during the summer, and the property owners apparently had endured enough disrespect for private property in their village. Thus, they formed this non-profit organization (not a local government) to protect the village from tourists.

Regionally, three political organizations exert influence and make decisions which affect the five smaller coastal fishing communities. These are: the Kenai Peninsula Borough (KPB), Chugach Natives, Inc. (CNI), and Cook Inlet Region, Inc. (CIRI). Both CNI and CIRI are profit-making corporations established by ANCSA. The two non-profit corporations in the area, North Pacific Rim and Cook Inlet Native Association (CINA), also provide important services to the communities. All of the smaller coastal communities mentioned above are in the Kenai Peninsula Borough. Port Graham and English Bay are located within the boundaries of Chugach Natives, Inc., while Seldovia and Ninilchik are encompassed within Cook Inlet Region, Inc. For a more complete discussion of these communities, see Braun and Behnke (1980).

d. Subsistence: According to Alaska statutes, "subsistence uses" are those customary and traditional uses in Alaska of wild renewable resources for direct personal or family consumption (AS Sec. 16.05.940). Included in this discussion of subsistence is species utilization in the proposed sale area, seasonality of subsistence, and traditional social organizations associated with subsistence pursuits, to the extent data are available. Kodiak Island towns and villages along the Shelikof Strait are discussed first, followed by villages and towns in the lower Cook Inlet.

Kodiak Island Towns and Villages: Karluk, Larsen Bay, Ouzinkie, and Port Lions are villages or towns along the Shelikof Strait whose subsistence activities and resources could be affected by proposed oil and gas leases in the Strait. Table III.C.1.d.-1 summarizes subsistence resource utilization for these villages and towns, based on a KANA survey conducted in March-April 1980.

Dependence upon subsistence resources is greatest in Karluk, the most remote village, with no local store. Local resource use in Larsen Bay, Ouzinkie, and Port Lions is supplemented by cash purchases in local stores, but still accounts for well over 50 percent of local diet. Higher cash incomes provide residents of Ouzinkie and Port Lions with skiffs, guns, and other subsistence gear necessary to compete successfully in Kodiak area resource use. Karluk and Larsen Bay report less competition, but smaller cash incomes and therefore more limited technology to pursue subsistence resources. A KANA survey in Port Lions in February 1979, estimated that 72 percent of a total of 330 meals reported during a 1-week period included locally obtained foods (KANA, Kodiak Island Subsistence: Some Cash Estimates, Appendix B, 1978-79 KANA OEDP Report).

Subsistence resources in these villages include salmon, halibut, and other fish in summer, and sea mammals, crab, clams, and other marine and beach resources in winter and spring. Hunting for deer, ducks, rabbit, and ptarmigan provide the major protein sources for village residents in winter, while summer fishing and berry picking provide both summer and winter family reserves. Table III.C.1.d.-1 summarizes the major resources on which residents of these four villages depend. These data were obtained through visits to each community and utilization of 1980 subsistence survey information provided by the KANA OEDP Committee. Primary subsistence resources were identified both from qualitative information and quantities used by residents of each village. Cultural preferences and quantities currently used were the predominant criteria applied.

All villages report subsistence fishing within 3 miles of shore, hunting and berry picking in the region directly surrounding the village, or, in the case of Port Lions, on lands formerly occupied by village residents on Afognak Island.

Village family life is organized around the gathering, preserving and distribution of salmon, halibut, ducks, deer, and other resources according to family traditions, local expertise and individual and community need. The first sockeye salmon runs are celebrated in all these villages with sharing throughout the village. In Karluk, two to three hunters provide most of the meat eaten in the village due to the scarcity of skiffs and ammunition. In other villages younger family members often hunt and fish for several households while smoking, canning, or salting tasks are performed by older family members or women with younger children at home.

Traditional plant and marine delicacies gathered locally provide medicinal relief and spiritual sustenance, particularly to the older residents of these villages.

Lower Cook Inlet: The resources used by residents of English Bay and Port Graham, Ninilchik, Homer, Anchor Point, and Seldovia are similar to those utilized by Shelikof Strait villages, yet each village or town has its own unique preferences and locally abundant resources which influence subsistence use.

Two subsistence-oriented villages closest to proposed oil and gas leases in lower Cook Inlet are Port Graham and English Bay. Although Seldovia resources are virtually the same as those found in these nearby villages, the people of Seldovia are now primarily oriented toward a cash economy. Data for the Homer, Anchor Point, Ninilchik, and neighboring communities, except English Bay and Port Graham, are not as comprehensive as that available for these two villages. The number of subsistence permits issued in the lower Cook Inlet area (437 in 1979) indicates considerable subsistence activity outside these two villages all around Kachemak Bay, by both Native and non-Native residents of the area.

Table III.C.1.d.-2 presents a list of primary and secondary resources for the villages of English Bay and Port Graham, based on a 1980 subsistence survey conducted in these villages by North Pacific Rim, Inc., their regional non-profit association. These two villages are closely related by family ties, common hunting and fishing practices and local custom. The presence of a cannery in Port Graham provides more cash in this village's economy and may account for a wider subsistence range (see graphic 14) and greater variety of subsistence foods utilized by Port Graham residents.

Russian Orthodox holidays, name days, birthdays, and the annual stockholders meeting are all occasions for potlucks of locally available foods in these two villages. Salmon, crab, seal, duck, halibut, sea lion, octopus, clams, and sea urchins, berry pies and jams are predominant foods for these feasts, as well as for the daily meals of local families.

Most people in English Bay and Port Graham report that although subsistence technology has improved, lack of game and competition from sport hunters and fishermen makes subsistence hunting and fishing more difficult than it used to be. Yet, the abundance of Kachemak Bay resources and the relative isolation of these two villages have facilitated a relatively benign coexistence with oil and gas development in Cook Inlet for the last 15 years.

Table III.C.1.c.-4
Number of Commercial Fishermen by Community^{1/}
Cook Inlet Communities
1969-1976

Community	1969	1970	1971	1972	1973	1974	1975	1976
Anchor Point	26	80	23	40	67	42	59	100
Clam Gulch	10	9	13	14	15	20	17	29
English Bay	12	5	6	10	6	13	9	9
Halibut Cove	3	10	9	8	11	9	12	14
Homer	113	161	174	220	244	268	297	356
Kasilof	12	25	13	16	24	20	24	38
Kenai	85	153	141	161	167	162	150	184
Ninilchik	12	21	22	22	19	27	37	44
Port Graham	18	14	19	18	13	22	22	27
Seldovia	72	72	64	67	79	74	79	88
Soldotna	55	73	80	93	72	70	73	112

^{1/} The number of commercial fishing license applicants listing each community as a home address.

Table III.C.1.d.-1
Subsistence Resource Summary Shelikof Strait Villages

Resource	Karluk	Larsen Bay	Ouzinkie	Port Lions
Finfish				
Sockeye Salmon	1	1	1	1
Chinook Salmon	2	1	1	2
Coho Salmon	1	2	1	1
Pink Salmon	1	1	1	1
Chum Salmon	2	2	2	0
Herring	2	2	0	2
Halibut	2	1	1	1
Cod	0	1	2	2
Flounder	1	1	2	2
Bass	2	1	0	0
Trout	1	1	2	2
Fish Eggs	2	2	2	2
Shellfish				
Clams	1	1	2	2
Octopus	2	2	2	0
Shrimp	0	2	1	2
Prawns	0	2	1	2
"Beach Food"*	2	2	2	2
King Crab	2	2	1	1
Tanner Crab	2	2	2	0
Dungeness Crab	2	2	1	1
Sea Mammals				
Seal	1	1	1	0
Sea Lion	2	1	2	0
Land Mammals				
Deer-Elk	1	1	1	1
Rabbit	1	1	1	1
Ptarmigan	1	1	1	1
Ducks	1	1	1	1
Geese	0	0	0	0
Bird Eggs	2	2	0	0
Vegetation				
Salmonberries	2	2	2	2
Cranberries	2	2	2	2
Other berries	2	2	2	2
Other vegetation	2	2	2	2

0 = Rarely utilized/occurring
1 = Primary Subsistence Resource
2 = Secondary Subsistence Resource

*Includes sea urchins, chitons, and other small shellfish found at low tide.

Table III.C.1.d.-2
Subsistence Resource Summary: Cook Inlet Villages of
English Bay and Port Graham

Resource	English Bay	Port Graham
Finfish		
Sockeye Salmon	1	1
Chinook Salmon	2	1
Coho Salmon	1	1
Pink Salmon	1	1
Chum Salmon	2	1
Herring	2	1
Halibut	2	1
Cod	1	1
Flounder	1	1
Bass	2	2
Trout	2	2
Fish Eggs	2	2
Dolly Varden	1	1
Shellfish		
Clams	2	1
Octopus	2	1
Shrimp	0	0
Prawns	0	0
"Beach Food"*	2	2
King Crab	2	1
Tanner Crab	2	2
Dungeness Crab	2	1
Sea Mammals		
Seal	1	1
Sea Lion	2	1
Land Mammals		
Deer-Elk	0	0
Rabbit	0	0
Ptarmigan	0	0
Ducks	1	1
Geese	0	0
Bird Eggs	2	0
Vegetation		
Salmonberries	2	2
Cranberries	2	2
Other berries	2	2
Other vegetation	2	2

0 = Rarely utilized/occurring
1 = Primary Subsistence Resource
2 = Secondary Subsistence Resource

*Includes sea urchins, chitons, and other small shellfish found at low tide.